

## **PRIYADARSHINI INSTITUTE OF ARCHITECTURE & DESIGN STUDIES**

Priyadarshini Campus, Digdoh hills, Off Hingna road, Near, CRPF Campus Nagpur-440 019,  
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### **6.5 Internal Quality Assurance System (30)**

<b>Sr No</b>	<b>Criteria No</b>	<b>Documents</b>
1	6.5.1	<b>Practice 1: Teaching Learning Process</b>
2		Co's of all programs
3		Sample Teaching Plan
4		Teaching learning Aids and online learning resources
5		Peer to Peer learning
6		Guest lecture by industry experts
7		Student participation in decision making
8		Sample Question Bank
9		Sample of Academic Calendar

# ACADEMIC CALENDAR 2018-19, (For 2nd, 6th, 8th & 10th Sem.)

Date	Activity	Date	Activity	Date	Activity	Date	Activity	Date	Activity
WEEK 1		WEEK 5		WEEK 9		WEEK 13		WEEK 17	
Mon, 26 Nov 2018	LAST UNIVERSITY PAPER	Mon, 24 Dec 2018	WINTER VACATION	Mon, 21 Jan 2019	Classes as per Time Table	Mon, 18 Feb 2019	Classes as per Time Table	Mon, 18 Mar 2019	Classes as per Time Table
Tue, 27 Nov 2018	COMMENCEMENT OF 4TH & 6TH SEM. CLASSES	Tue, 25 Dec 2018	Holiday - Christmas	Tue, 22 Jan 2019	Classes as per Time Table	Tue, 19 Feb 2019	Classes as per Time Table	Tue, 19 Mar 2019	Classes as per Time Table
Wed, 28 Nov 2018	Classes as per Time Table	Wed, 26 Dec 2018	WINTER VACATION	Wed, 23 Jan 2019	Classes as per Time Table	Wed, 20 Feb 2019	UNIVERSITY EXAMS (RBACK PAPER)	Wed, 20 Mar 2019	Classes as per Time Table
Thu, 29 Nov 2018	Classes as per Time Table	Thu, 27 Dec 2018	WINTER VACATION	Thu, 24 Jan 2019	Classes as per Time Table	Thu, 21 Feb 2019	Classes as per Time Table	Thu, 21 Mar 2019	Holiday - HOLI
Fri, 30 Nov 2018	Classes as per Time Table	Fri, 28 Dec 2018	WINTER VACATION	Fri, 25 Jan 2019	Classes as per Time Table	Fri, 22 Feb 2019	Classes as per Time Table	Fri, 22 Mar 2019	Classes as per Time Table
Sat, 1 Dec 2018		Sat, 29 Dec 2018	WINTER VACATION	Sat, 26 Jan 2019	Holiday - Republic Day	Sat, 23 Feb 2019	Classes as per Time Table	Sat, 23 Mar 2019	Classes as per Time Table
Sun, 2 Dec 2018	PIADS WINTER	Sun, 30 Dec 2018	WINTER VACATION	Sun, 27 Jan 2019		Sun, 24 Feb 2019		Sun, 24 Mar 2019	
WEEK 2		WEEK 6		WEEK 10		WEEK 14		WEEK 18	
Mon, 3 Dec 2018	PIADS WINTER SCHOOL	Mon, 31 Dec 2018	WINTER VACATION	Mon, 28 Jan 2019	Classes as per Time Table	Mon, 25 Feb 2019	Classes as per Time Table	Mon, 25 Mar 2019	
Tue, 4 Dec 2018	PIADS WINTER SCHOOL	Tue, 1 Jan 2019	WINTER VACATION	Tue, 29 Jan 2019	Classes as per Time Table	Tue, 26 Feb 2019	Classes as per Time Table	Tue, 26 Mar 2019	
Wed, 5 Dec 2018	PIADS WINTER SCHOOL	Wed, 2 Jan 2019	Classes as per Time Table	Wed, 30 Jan 2019		Wed, 27 Feb 2019	Classes as per Time Table	Wed, 27 Mar 2019	
Thu, 6 Dec 2018	PIADS WINTER SCHOOL	Thu, 3 Jan 2019	Classes as per Time Table	Thu, 31 Jan 2019	Classes as per Time Table	Thu, 28 Feb 2019	Classes as per Time Table	Thu, 28 Mar 2019	
Fri, 7 Dec 2018	PIADS WINTER SCHOOL	Fri, 4 Jan 2019	Classes as per Time Table	Fri, 1 Feb 2019	Classes as per Time Table	Fri, 1 Mar 2019	Classes as per Time Table	Fri, 29 Mar 2019	
Sat, 8 Dec 2018	PIADS WINTER SCHOOL	Sat, 5 Jan 2019	Classes as per Time Table	Sat, 2 Feb 2019		Sat, 2 Mar 2019		Sat, 30 Mar 2019	
Sun, 9 Dec 2018	PIADS WINTER	Sun, 6 Jan 2019	WINTER VACATION	Sun, 3 Feb 2019		Sun, 3 Mar 2019		Sun, 31 Mar 2019	
WEEK 3		WEEK 7		WEEK 11		WEEK 15		WEEK 19	
Mon, 10 Dec 2018	Classes as per Time Table	Mon, 7 Jan 2019	Classes as per Time Table	Mon, 4 Feb 2019	Classes as per Time Table	Mon, 4 Mar 2019	Holiday - Mahashivratri	Mon, 1 Apr 2019	
Tue, 11 Dec 2018	Classes as per Time Table	Tue, 8 Jan 2019	Classes as per Time Table	Tue, 5 Feb 2019	Classes as per Time Table	Tue, 5 Mar 2019	Classes as per Time Table	Tue, 2 Apr 2019	
Wed, 12 Dec 2018	Classes as per Time Table (2nd Sem)	Wed, 9 Jan 2019	Classes as per Time Table	Wed, 6 Feb 2019	Classes as per Time Table	Wed, 6 Mar 2019	Classes as per Time Table	Wed, 3 Apr 2019	
Thu, 13 Dec 2018	Classes as per Time Table	Thu, 10 Jan 2019	Classes as per Time Table	Thu, 7 Feb 2019	Classes as per Time Table	Thu, 7 Mar 2019	Classes as per Time Table	Thu, 4 Apr 2019	
Fri, 14 Dec 2018	Classes as per Time Table	Fri, 11 Jan 2019	Classes as per Time Table	Fri, 8 Feb 2019	Classes as per Time Table	Fri, 8 Mar 2019	Classes as per Time Table	Fri, 5 Apr 2019	
Sat, 15 Dec 2018		Sat, 12 Jan 2019	Classes as per Time Table	Sat, 9 Feb 2019	Classes as per Time Table	Sat, 9 Mar 2019	Classes as per Time Table	Sat, 6 Apr 2019	
Sun, 16 Dec 2018		Sun, 13 Jan 2019		Sun, 10 Feb 2019		Sun, 10 Mar 2019		Sun, 7 Apr 2019	
WEEK 4		WEEK 8		WEEK 12		WEEK 16		WEEK 20	
Mon, 17 Dec 2018	Classes as per Time Table	Mon, 14 Jan 2019	Classes as per Time Table	Mon, 11 Feb 2019	Classes as per Time Table	Mon, 11 Mar 2019	Classes as per Time Table	Mon, 8 Apr 2019	
Tue, 18 Dec 2018	Classes as per Time Table	Tue, 15 Jan 2019	Classes as per Time Table	Tue, 12 Feb 2019	Classes as per Time Table	Tue, 12 Mar 2019	UNIVERSITY EXAMS (REGULAR)	Tue, 9 Apr 2019	
Wed, 19 Dec 2018	Classes as per Time Table (2nd Sem)	Wed, 16 Jan 2019	Classes as per Time Table	Wed, 13 Feb 2019	Classes as per Time Table	Wed, 13 Mar 2019	Classes as per Time Table	Wed, 10 Apr 2019	
Thu, 20 Dec 2018	Classes as per Time Table	Thu, 17 Jan 2019	Classes as per Time Table	Thu, 14 Feb 2019	Classes as per Time Table	Thu, 14 Mar 2019	Classes as per Time Table	Thu, 11 Apr 2019	
Fri, 21 Dec 2018	Classes as per Time Table	Fri, 18 Jan 2019	Classes as per Time Table	Fri, 15 Feb 2019	Classes as per Time Table	Fri, 15 Mar 2019	Classes as per Time Table	Fri, 12 Apr 2019	
Sat, 22 Dec 2018	Classes as per Time Table	Sat, 19 Jan 2019	Classes as per Time Table	Sat, 16 Feb 2019		Sat, 16 Mar 2019		Sat, 13 Apr 2019	Holiday - Ramnavmi
Sun, 23 Dec 2018		Sun, 20 Jan 2019		Sun, 17 Feb 2019		Sun, 17 Mar 2019		Sun, 14 Apr 2019	

ACADEMIC CALENDER AFTER 7TH OCT 18'SHALL BE CONFIRMED AFTER RTMNU SCHEDULE OF EXAMS



*Yash...*  
Dean Academics

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NAGPUR - 462019

# ACADEMIC CALENDAR 2018-19 (For 1st Sem.)

Date	Activity	Date	Activity	Date	Activity	Date	Activity
WEEK 1		WEEK 5		WEEK 9		WEEK 13	
Mon, 6 Aug 2018	1st year Orientation	Mon, 3 Sep 2018	Classes as per Time Table	Mon, 1 Oct 2018	HOLIDAY	Mon, 29 Oct 2018	Classes as per Time Table
Tue, 7 Aug 2018	1st year Orientation	Tue, 4 Sep 2018	Classes as per Time Table	Tue, 2 Oct 2018	Mahatma Gandhi Jayanti	Tue, 30 Oct 2018	Classes as per Time Table
Wed, 8 Aug 2018	Classes as per Time Table	Wed, 5 Sep 2018	Classes as per Time Table	Wed, 3 Oct 2018	Classes as per Time Table	Wed, 31 Oct 2018	Classes as per Time Table
Thu, 9 Aug 2018	Classes as per Time Table	Thu, 6 Sep 2018	Classes as per Time Table	Thu, 4 Oct 2018	Classes as per Time Table	Thu, 1 Nov 2018	Classes as per Time Table
Fri, 10 Aug 2018	Classes as per Time Table	Fri, 7 Sep 2018	Classes as per Time Table	Fri, 5 Oct 2018	Classes as per Time Table	Fri, 2 Nov 2018	Classes as per Time Table
Sat, 11 Aug 2018	Classes as per Time Table	Sat, 8 Sep 2018	Classes as per Time Table	Sat, 6 Oct 2018	Classes as per Time Table	Sat, 3 Nov 2018	
Sun, 12 Aug 2018		Sun, 9 Sep 2018		Sun, 7 Oct 2018		Sun, 4 Nov 2018	
WEEK 2		WEEK 6		WEEK 10		WEEK 14	
Mon, 13 Aug 2018	Classes as per Time Table	Mon, 10 Sep 2018	Taanha Pola	Mon, 8 Oct 2018	Pitru Moksha Amnavasya	Mon, 5 Nov 2018	Classes as per Time Table
Tue, 14 Aug 2018	Classes as per Time Table	Tue, 11 Sep 2018	Classes as per Time Table	Tue, 9 Oct 2018	Classes as per Time Table	Tue, 6 Nov 2018	Last Teaching Day
Wed, 15 Aug 2018	Independence Day WORKSHOP	Wed, 12 Sep 2018	Classes as per Time Table	Wed, 10 Oct 2018	FOUNDERS DAY	Wed, 7 Nov 2018	Diwali
Thu, 16 Aug 2018	Classes as per Time Table	Thu, 13 Sep 2018	Ganesh Chaturthi	Thu, 11 Oct 2018	Classes as per Time Table	Thu, 8 Nov 2018	Diwali
Fri, 17 Aug 2018	Classes as per Time Table	Fri, 14 Sep 2018	Classes as per Time Table	Fri, 12 Oct 2018	Classes as per Time Table	Fri, 9 Nov 2018	Diwali
Sat, 18 Aug 2018		Sat, 15 Sep 2018	Classes as per Time Table	Sat, 13 Oct 2018	Classes as per Time Table	Sat, 10 Nov 2018	
Sun, 19 Aug 2018		Sun, 16 Sep 2018		Sun, 14 Oct 2018		Sun, 11 Nov 2018	
WEEK 3		WEEK 7		WEEK 11		WEEK 15	
Mon, 20 Aug 2018	Classes as per Time Table	Mon, 17 Sep 2018	Classes as per Time Table	Mon, 15 Oct 2018	Classes as per Time Table	Mon, 12 Nov 2018	PIADS Sessional Exam Week
Tue, 21 Aug 2018	Classes as per Time Table	Tue, 18 Sep 2018	Classes as per Time Table	Tue, 16 Oct 2018	Classes as per Time Table	Tue, 13 Nov 2018	PIADS Sessional Exam Week
Wed, 22 Aug 2018	Bakri Id	Wed, 19 Sep 2018	Classes as per Time Table	Wed, 17 Oct 2018	Classes as per Time Table	Wed, 14 Nov 2018	PIADS Sessional Exam Week
Thu, 23 Aug 2018	Classes as per Time Table	Thu, 20 Sep 2018	Moharram (Optional Holiday)	Thu, 18 Oct 2018	Dussehra	Thu, 15 Nov 2018	PIADS Sessional Exam Week
Fri, 24 Aug 2018	Classes as per Time Table	Fri, 21 Sep 2018	Classes as per Time Table	Fri, 19 Oct 2018		Fri, 16 Nov 2018	PIADS Sessional Exam Week
Sat, 25 Aug 2018	Classes as per Time Table	Sat, 22 Sep 2018		Sat, 20 Oct 2018		Sat, 17 Nov 2018	
Sun, 26 Aug 2018		Sun, 23 Sep 2018		Sun, 21 Oct 2018		Sun, 18 Nov 2018	
WEEK 4		WEEK 8		WEEK 12		WEEK 16	
Mon, 27 Aug 2018	Classes as per Time Table	Mon, 24 Sep 2018	Classes as per Time Table	Mon, 22 Oct 2018	Classes as per Time Table	Mon, 19 Nov 2018	Classes as per Time Table
Tue, 28 Aug 2018	Classes as per Time Table	Tue, 25 Sep 2018	Classes as per Time Table	Tue, 23 Oct 2018	Classes as per Time Table	Tue, 20 Nov 2018	Classes as per Time Table
Wed, 29 Aug 2018	Classes as per Time Table	Wed, 26 Sep 2018	Classes as per Time Table	Wed, 24 Oct 2018	Classes as per Time Table	Wed, 21 Nov 2018	Classes as per Time Table
Thu, 30 Aug 2018	Classes as per Time Table	Thu, 27 Sep 2018	Classes as per Time Table	Thu, 25 Oct 2018	Classes as per Time Table	Thu, 22 Nov 2018	Classes as per Time Table
Fri, 31 Aug 2018	Classes as per Time Table	Fri, 28 Sep 2018	Classes as per Time Table	Fri, 26 Oct 2018	Classes as per Time Table	Fri, 23 Nov 2018	Guru Nanak Jayanti
Sat, 1 Sep 2018		Sat, 29 Sep 2018	Classes as per Time Table	Sat, 27 Oct 2018	Classes as per Time Table	Sat, 24 Nov 2018	Classes as per Time Table
Sun, 2 Sep 2018		Sun, 30 Sep 2018		Sun, 28 Oct 2018		Sun, 25 Nov 2018	
NOTE - Last Day of Teaching has been decided according to the RTMNU exam dates mentioned in the university Academic Calendar and is subjected to change.							

*Deena Academics*



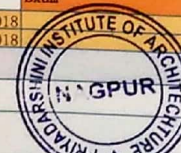
*[Signature]*  
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 ARCHITECTURE & DESIGN STUDIES  
 Priyadarshini Campus Digdoh Hills,  
 Hinga Road, Near CRPF Campus,  
 NAGPUR - 19

# ACADEMIC CALENDAR 2018-19 (For 3rd, 5th, 7th Sem.)

Date	Activity	Date	Activity	Date	Activity	Date	Activity	Date	Activity	Date	Activity
WEEK 1 (Opening Week)		WEEK 5		WEEK 9		WEEK 13		WEEK 17		WEEK 21	
Mon, 11 Jun 2018	Admission Process/ Pedagogy Week	Mon, 9 Jul 2018	Classes as per Time Table	Mon, 6 Aug 2018	Classes as per Time Table	Mon, 3 Sep 2018	Classes as per Time Table	Mon, 1 Oct 2018	Classes as per Time Table	Mon, 29 Oct 2018	Evaluation of Folio.
Tue, 12 Jun 2018	Admission Process/ Pedagogy Week	Tue, 10 Jul 2018	Classes as per Time Table	Tue, 7 Aug 2018	Classes as per Time Table	Tue, 4 Sep 2018	Classes as per Time Table	Tue, 2 Oct 2018	<b>Mahatma Gandhi Jayanti</b>	Tue, 30 Oct 2018	Evaluation of Folio.
Wed, 13 Jun 2018	Admission Process/ Pedagogy Week	Wed, 11 Jul 2018	Classes as per Time Table	Wed, 8 Aug 2018	Classes as per Time Table	Wed, 5 Sep 2018	Classes as per Time Table	Wed, 3 Oct 2018	Classes as per Time Table	Wed, 31 Oct 2018	DISPLAY OF SESSIONAL MARKS (3-3-3)
Thu, 14 Jun 2018	Admission Process/ Pedagogy Week	Thu, 12 Jul 2018	Classes as per Time Table	Thu, 9 Aug 2018	Classes as per Time Table	Thu, 6 Sep 2018	Classes as per Time Table	Thu, 4 Oct 2018	Classes as per Time Table	Thu, 1 Nov 2018	RTMNU VIVA VOCE START
Fri, 15 Jun 2018	PIADS SUMMER SCHOOL	Fri, 13 Jul 2018	Classes as per Time Table	Fri, 10 Aug 2018	Classes as per Time Table	Fri, 7 Sep 2018	Classes as per Time Table	Fri, 5 Oct 2018	Classes as per Time Table	Fri, 2 Nov 2018	Redressal of Grievances
Sat, 16 Jun 2018	<b>Ramzan Eid</b>	Sat, 14 Jul 2018		Sat, 11 Aug 2018	STUDY TOUR	Sat, 8 Sep 2018		Sat, 6 Oct 2018		Sat, 3 Nov 2018	
Sun, 17 Jun 2018	PIADS SUMMER	Sun, 15 Jul 2018		Sun, 12 Aug 2018	STUDY TOUR	Sun, 9 Sep 2018		Sun, 7 Oct 2018		Sun, 4 Nov 2018	
WEEK 2		WEEK 6		WEEK 10		WEEK 14		WEEK 18		WEEK 22	
Mon, 18 Jun 2018	PIADS SUMMER SCHOOL	Mon, 16 Jul 2018	Classes as per Time Table	Mon, 13 Aug 2018	STUDY TOUR	Mon, 10 Sep 2018	Classes as per Time Table	Mon, 8 Oct 2018	Pitru Moksha Ammavasya	Mon, 5 Nov 2018	SUBMISSION OF MARKS TO RTMNU
Tue, 19 Jun 2018	PIADS SUMMER SCHOOL	Tue, 17 Jul 2018	Classes as per Time Table	Tue, 14 Aug 2018	STUDY TOUR	Tue, 11 Sep 2018	Classes as per Time Table	Tue, 9 Oct 2018	Classes as per Time Table	Tue, 6 Nov 2018	
Wed, 20 Jun 2018	PIADS SUMMER SCHOOL	Wed, 18 Jul 2018	Classes as per Time Table	Wed, 15 Aug 2018	<b>Independence Day</b>	Wed, 12 Sep 2018	Classes as per Time Table	Wed, 10 Oct 2018	<b>FOUNDERS DAY &amp; FRESHER'S DAY</b>	Wed, 7 Nov 2018	Diwali
Thu, 21 Jun 2018	PIADS SUMMER SCHOOL	Thu, 19 Jul 2018	Classes as per Time Table	Thu, 16 Aug 2018	STUDY TOUR	Thu, 13 Sep 2018	Classes as per Time Table	Thu, 11 Oct 2018	PIADS DESIGN VIVA	Thu, 8 Nov 2018	Diwali
Fri, 22 Jun 2018	PIADS SUMMER SCHOOL	Fri, 20 Jul 2018	Classes as per Time Table	Fri, 17 Aug 2018	<b>Parsi New Year</b>	Fri, 14 Sep 2018	Classes as per Time Table	Fri, 12 Oct 2018	PIADS DESIGN VIVA	Fri, 9 Nov 2018	Diwali
Sat, 23 Jun 2018	PIADS SUMMER	Sat, 21 Jul 2018		Sat, 18 Aug 2018	STUDY TOUR	Sat, 15 Sep 2018		Sat, 13 Oct 2018		Sat, 10 Nov 2018	
Sun, 24 Jun 2018	PIADS SUMMER	Sun, 22 Jul 2018		Sun, 19 Aug 2018	STUDY TOUR	Sun, 16 Sep 2018		Sun, 14 Oct 2018		Sun, 11 Nov 2018	
WEEK 3		WEEK 7		WEEK 11		WEEK 15		WEEK 19		WEEK 23	
Mon, 25 Jun 2018	THEORY + DESIGN	Mon, 23 Jul 2018	Classes as per Time Table	Mon, 20 Aug 2018	Classes as per Time Table	Mon, 17 Sep 2018	Classes as per Time Table	Mon, 15 Oct 2018	FINAL DESIGN FOLIO SUBMISSION	Mon, 12 Nov 2018	
Tue, 26 Jun 2018	THEORY+ CONSTRUCTION	Tue, 24 Jul 2018	Classes as per Time Table	Tue, 21 Aug 2018	Classes as per Time Table	Tue, 18 Sep 2018	Classes as per Time Table	Tue, 16 Oct 2018	Classes as per Time Table	Tue, 13 Nov 2018	RTMNU EXAM
Wed, 27 Jun 2018	THEORY + CONSTRUCTION	Wed, 25 Jul 2018	Classes as per Time Table	Wed, 22 Aug 2018	Classes as per Time Table	Wed, 19 Sep 2018	Classes as per Time Table	Wed, 17 Oct 2018	Classes as per Time Table	Wed, 14 Nov 2018	RTMNU EXAM
Thu, 28 Jun 2018	THEORY + GRAPHICS	Thu, 26 Jul 2018	Classes as per Time Table	Thu, 23 Aug 2018	Classes as per Time Table	Thu, 20 Sep 2018	<b>Moharram</b>	Thu, 18 Oct 2018	<b>Dussehra</b>	Thu, 15 Nov 2018	RTMNU EXAM
Fri, 29 Jun 2018	THEORY + DESIGN	Fri, 27 Jul 2018	Classes as per Time Table	Fri, 24 Aug 2018	Classes as per Time Table	Fri, 21 Sep 2018	Classes as per Time Table	Fri, 19 Oct 2018	Classes as per Time Table	Fri, 16 Nov 2018	RTMNU EXAM
Sat, 30 Jun 2018		Sat, 28 Jul 2018		Sat, 25 Aug 2018		Sat, 22 Sep 2018		Sat, 20 Oct 2018		Sat, 17 Nov 2018	RTMNU EXAM
Sun, 1 Jul 2018		Sun, 29 Jul 2018		Sun, 26 Aug 2018		Sun, 23 Sep 2018		Sun, 21 Oct 2018		Sun, 18 Nov 2018	RTMNU EXAM
WEEK 4		WEEK 8		WEEK 12		WEEK 16		WEEK 20		WEEK 24	
Mon, 2 Jul 2018	Classes as per Time Table	Mon, 30 Jul 2018	Classes as per Time Table	Mon, 27 Aug 2018	Classes as per Time Table	Mon, 24 Sep 2018	Classes as per Time Table	Mon, 22 Oct 2018	Classes as per Time Table	Mon, 19 Nov 2018	RTMNU EXAM
Tue, 3 Jul 2018	Classes as per Time Table	Tue, 31 Jul 2018	Classes as per Time Table	Tue, 28 Aug 2018	Classes as per Time Table	Tue, 25 Sep 2018	Classes as per Time Table	Tue, 23 Oct 2018	Classes as per Time Table	Tue, 20 Nov 2018	RTMNU EXAM
Wed, 4 Jul 2018	Classes as per Time Table	Wed, 1 Aug 2018	Classes as per Time Table	Wed, 29 Aug 2018	Classes as per Time Table	Wed, 26 Sep 2018	Classes as per Time Table	Wed, 24 Oct 2018	Classes as per Time Table	Wed, 21 Nov 2018	<b>Eid-A-Milad</b>
Thu, 5 Jul 2018	Classes as per Time Table	Thu, 2 Aug 2018	Classes as per Time Table	Thu, 30 Aug 2018	Classes as per Time Table	Thu, 27 Sep 2018	Classes as per Time Table	Thu, 25 Oct 2018	PIADS Sessional Exam	Thu, 22 Nov 2018	
Fri, 6 Jul 2018	Classes as per Time Table	Fri, 3 Aug 2018	Classes as per Time Table	Fri, 31 Aug 2018	Classes as per Time Table	Fri, 28 Sep 2018	Classes as per Time Table	Fri, 26 Oct 2018	PIADS Sessional Exam	Fri, 23 Nov 2018	<b>Guru Nanak Jayanti</b>
Sat, 7 Jul 2018		Sat, 4 Aug 2018		Sat, 1 Sep 2018		Sat, 29 Sep 2018		Sat, 27 Oct 2018		Sat, 24 Nov 2018	
Sun, 8 Jul 2018		Sun, 5 Aug 2018		Sun, 2 Sep 2018		Sun, 30 Sep 2018		Sun, 28 Oct 2018		Sun, 25 Nov 2018	

Last Day of Teaching has been decided according to the RTMNU exam dates mentioned in the university Academic Calendar and is subjected to change.

Dean Academic - *[Signature]*



PRINCIPAL

PRIVARA DARSHINI INSTITUTE OF ARCHITECTURE & DESIGN STUDIES  
Polydarshini Campus, Dighod Hills, Opp. Hingna Road,  
Near CRPF Campus, NAGPUR-19

# DESIGN CALENDAR 2017-18 (For 3rd Sem.)

Date	Activity	Date	Activity	Date	Activity	Date	Activity	Date	Activity	Date	Activity
WEEK 1 (Opening Week)		WEEK 5		No of Hrs		WEEK 13		WEEK 17		WEEK 21	
Mon, 12 Jun 2017		Mon, 10 Jul 2017	Graphics Day	Wed, 6 Jan 1904		Mon, 4 Sep 2017	Graphics Day	Mon, 2 Oct 2017	<b>Mahatma Gandhi Jayanti</b>	Mon, 30 Oct 2017	
Tue, 13 Jun 2017		Tue, 11 Jul 2017	Study of the Architects identified building. Working on model of building selected and site context. Six Groups	Tue, 8 Aug 2017	Construction - L1-Introduction to R.C.C. framed structure L2 - Principles of R.C.C. framed structure	Tue, 5 Sep 2017	Construction - L1 - Presentation on M.S. Trusses L2 - Theory on Tubular trusses & Drafting	Tue, 3 Oct 2017		Tue, 31 Oct 2017	
Wed, 14 Jun 2017		Wed, 12 Jul 2017	Working on model of building selected and site context.	Wed, 9 Aug 2017	Construction - Explanation on R.C.C. Footing L2 - Drafting of R.C.C. footing	Wed, 6 Sep 2017	Construction - Theory on Angle truss with R.C.C. columns and steel stanchion & Drafting	Wed, 4 Oct 2017		Wed, 1 Nov 2017	
Thu, 15 Jun 2017		Thu, 13 Jul 2017	Working on model of building selected and site context.	Thu, 10 Aug 2017	Construction - Explanation on Plinth level plan L2 - Drafting of Plinth level plan	Thu, 7 Sep 2017	Construction- L1 - Drafting of Angle truss	Thu, 5 Oct 2017		Thu, 2 Nov 2017	
Fri, 16 Jun 2017		Fri, 14 Jul 2017	Submission and evaluation of model. REVIEW 1: GROUP REVIEW ON MODEL.	Fri, 11 Aug 2017	Construction L1 - Explanation on Lintel level plan L2 - Drafting of Lintel level plan	Fri, 8 Sep 2017	Construction- L1 - Presentation on North light roof truss and skylight L2 - Drafting of North light roof truss	Fri, 6 Oct 2017	<b>SUBMISSION OF MARKS TO RTMINU</b>	Fri, 3 Nov 2017	
Sat, 17 Jun 2017		Sat, 15 Jul 2017		Sat, 12 Aug 2017		Sat, 9 Sep 2017		Sat, 7 Oct 2017		Sat, 4 Nov 2017	<b>Gandhi Mahatma Jayanti</b>
Sun, 18 Jun 2017		Sun, 16 Jul 2017		Sun, 13 Aug 2017		Sun, 10 Sep 2017		Sun, 8 Oct 2017		Sun, 5 Nov 2017	
WEEK 2		WEEK 6		WEEK 10		WEEK 14		WEEK 18		WEEK 22	
Mon, 19 Jun 2017	Graphics: Perspective Introduction(SP, PP, VP, EI, 1pt, 2pt)-RT	Mon, 17 Jul 2017	Graphics Day	Mon, 14 Aug 2017	Documentation Study Tour	Mon, 11 Sep 2017	Graphics Day	Mon, 9 Oct 2017		Mon, 8 Nov 2017	
Tue, 20 Jun 2017	Construction: Recap & Syllabus- RAD, MPY - Introduction to building materials-RT Tiles-RT	Tue, 18 Jul 2017	Typology based Case Study by Faculties. GUEST HOUSE	Tue, 15 Aug 2017	<b>Independence Day</b>	Tue, 12 Sep 2017	Integration of design and construction. Solving queries/Model Making	Tue, 10 Oct 2017	<b>FOUNDERS DAY</b>	Tue, 7 Nov 2017	
Wed, 21 Jun 2017	Construction: elective Selection - RT Aggregates-RT Steel and Reinforcing Bars - PGB Design-Introduction to Reading Material (RT, MPY,RAD)	Wed, 19 Jul 2017	Formulation of concept based on the philosophy of architects	Wed, 16 Aug 2017	Documentation Study Tour	Wed, 13 Sep 2017	Integration of design and construction. Solving queries/Model Making	Wed, 11 Oct 2017		Wed, 8 Nov 2017	
Thu, 22 Jun 2017	Construction: Steel and Reinforcing Bars - PGB Traditional methods of flooring (timber floors Theory) NMG	Thu, 20 Jul 2017	Working on double line plan	Thu, 17 Aug 2017	<b>Parsi New Year</b>	Thu, 14 Sep 2017	Integration of design and construction. Solving queries/Model Making	Thu, 12 Oct 2017		Thu, 9 Nov 2017	
Fri, 23 Jun 2017	Construction: Traditional methods of flooring (timber floors- Drafting) NMG & NMG Design - Introduction to Reading Material	Fri, 21 Jul 2017	Working on double line plan	Fri, 18 Aug 2017	Documentation Study Tour	Fri, 15 Sep 2017	Model Making	Fri, 13 Oct 2017		Fri, 10 Nov 2017	
Sat, 24 Jun 2017		Sat, 22 Jul 2017		Sat, 19 Aug 2017		Sat, 16 Sep 2017		Sat, 14 Oct 2017		Sat, 11 Nov 2017	
Sun, 25 Jun 2017		Sun, 23 Jul 2017	WORKING SATURDAY	Sun, 20 Aug 2017		Sun, 17 Sep 2017		Sun, 15 Oct 2017		Sun, 12 Nov 2017	

WEEK 3		WEEK 7		WEEK 11		WEEK 15		WEEK 19		WEEK 23	
Mon, 26 Jun 2017	<b>Ramzan Eid</b>	Mon, 24 Jul 2017	Graphics Day	Mon, 21 Aug 2017	Graphics Day	Mon, 18 Sep 2017	Graphics Day	Mon, 16 Oct 2017		Mon, 13 Nov 2017	
Tue, 27 Jun 2017	Design - Presentation on what is philosophy of an architect - 2hrs. List of Master Architects for library reference. Book review: fountain head- 3 hrs	Tue, 25 Jul 2017	<b>REVIEW 2: on double line plan freezing</b>	Tue, 22 Aug 2017	Construction L1 - Explanation on one way Slab L2 - Drafting of one way Slab	Tue, 19 Sep 2017	Model Making	Tue, 17 Oct 2017		Tue, 14 Nov 2017	
Wed, 28 Jun 2017	Group of 5 will prepare presentation in ppt format or chalk and talk.	Wed, 26 Jul 2017	<b>REVIEW 2: on double line plan freezing</b>	Wed, 23 Aug 2017	Construction - L1 - Explanation on two way Slab - L2 - Drafting of two way Slab	Wed, 20 Sep 2017	<b>PIADS EXTERNAL VIVA</b>	Wed, 18 Oct 2017		Wed, 15 Nov 2017	
Thu, 29 Jun 2017	CUSP India + IITD Workshop. Read book If I were an architect	Thu, 27 Jul 2017	Presentation on Vertical Circulation, types of staircases, design Considerations, proportions of risers and treads: 2hrs (RAD) Drafting of final plan in studio	Thu, 24 Aug 2017	L2 - Drafting of two way Slab & Solving difficulties of RCC	Thu, 21 Sep 2017	<b>PIADS EXTERNAL VIVA</b>	Thu, 19 Oct 2017	<b>Diwali</b>	Thu, 16 Nov 2017	
Fri, 30 Jun 2017	Read book If I were an architect	Fri, 28 Jul 2017	Drafting of final plan in studio	Fri, 25 Aug 2017	<b>Ganesh Chaturthi</b>	Fri, 22 Sep 2017	<b>LAST TEACHING DAY / ALL SUBMISSIONS</b>	Fri, 20 Oct 2017	<b>Diwali</b>	Fri, 17 Nov 2017	
Sat, 1 Jul 2017		Sat, 29 Jul 2017		Sat, 26 Aug 2017		Sat, 23 Sep 2017		Sat, 21 Oct 2017	<b>Diwali</b>	Sat, 18 Nov 2017	
Sun, 2 Jul 2017		Sun, 30 Jul 2017		Sun, 27 Aug 2017		Sun, 24 Sep 2017		Sun, 22 Oct 2017		Sun, 19 Nov 2017	
WEEK 4		WEEK 8		WEEK 12		WEEK 16		WEEK 20		WEEK 24	
Mon, 3 Jul 2017	Graphics Day	Mon, 31 Jul 2017	Graphics Day	Mon, 28 Aug 2017	Graphics Day	Mon, 25 Sep 2017		Mon, 23 Oct 2017		Mon, 20 Nov 2017	
Tue, 4 Jul 2017	Submission of Book review: If I were as Architect Presentation on 2 Master Architects by Faculties. And after that Report writing by students. MPY (Laurel bake) & NMG (Charles Correa)	Tue, 1 Aug 2017	Drafting of Elevation & Section	Tue, 29 Aug 2017	- General idea of staircases in timber, stone and steel - General idea of staircases in timber, stone and steel F23	Tue, 26 Sep 2017	<b>Submission of FINAL FOLIO</b>	Tue, 24 Oct 2017	<b>RTMNU EXAM WINTER 2017- ODD SEM START</b>	Tue, 21 Nov 2017	
Wed, 5 Jul 2017	Presentation on 2 Master Architects by Faculties. And after that Report writing by students. RAD (Le Corbusier) & RT (F.L. Wright)	Wed, 2 Aug 2017	Drafting of Elevation & Section	Wed, 30 Aug 2017	- Structural systems in staircases - Structural systems in staircases	Wed, 27 Sep 2017		Wed, 25 Oct 2017		Wed, 22 Nov 2017	
Thu, 6 Jul 2017	Presentation on 2 Master Architects by Faculties. And after that Report writing by students. PGB (Walter Gropius) & NVW (Mies van Der Rohe)	Thu, 3 Aug 2017	<b>REVIEW 3: overall scheme (exchange of studio)</b>	Thu, 31 Aug 2017	- Drafting of timber staircase	Thu, 28 Sep 2017		Thu, 26 Oct 2017		Thu, 23 Nov 2017	
Fri, 7 Jul 2017	Selection / Finalization of Master Architects by Students. Introduction of Design Assignment Guest House by RT. Model making Material declaration	Fri, 4 Aug 2017	<b>REVIEW 3: overall scheme (exchange of studio)</b>	Fri, 1 Sep 2017	Construction - L1 - Theory on R.C.C. Staircase L2 - Drafting of R.C.C. staircase	Fri, 29 Sep 2017		Fri, 27 Oct 2017		Fri, 24 Nov 2017	
Sat, 8 Jul 2017		Sat, 5 Aug 2017		Sat, 2 Sep 2017	<b>Bakri Eid</b>	Sat, 30 Sep 2017	<b>Dussehra</b>	Sat, 28 Oct 2017		Sat, 25 Nov 2017	
Sun, 9 Jul 2017		Sun, 6 Aug 2017		Sun, 3 Sep 2017		Sun, 1 Oct 2017		Sun, 29 Oct 2017		Sun, 26 Nov 2017	
Last Day of Teaching has been decided according to the RTMNU exam dates mentioned in the university Academic Calendar and is subjected to change.											

*Sd/*

## Academic Report

### PRIYADARSHINI INSTITUTE OF ARCHITECTURE & DESIGN STUDIES

Priyadarshini Campus, Digdoh hills, Off Hingna road, Near, CRPF Campus Nagpur-440 019,  
Ph.No. 712-6452399. Email : [piads.ngp@gmail.com](mailto:piads.ngp@gmail.com)



Ref. No. : PIADS/2017-18/

Date: 31/10/2017

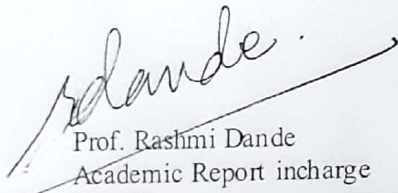
To,  
The Dean Academics  
LTJSS  
Priyadarshini Campus,  
Nagpur


Sub. : "Academic Report"

Dear Sir,

Please find enclosed herewith 2<sup>nd</sup> and 3<sup>rd</sup> Academic report of First year and 7<sup>th</sup> & 8<sup>th</sup> of other semester in the prescribed format for the odd semester of academic session 2017-18.

Submitted please.

  
Prof. Rashmi Dande  
Academic Report incharge  
PIADS

  
31/10/17

Ref. No. : PIADS/2018-19/440

Date: 28/03/2019

To,  
The Dean Academics  
LTJSS  
Priyadarshini Campus,  
Nagpur

Sub. : "Academic Report"

Dear Sir,

Please find enclosed herewith

- 1) 8<sup>th</sup> Academic report from 26/02/2019 to 12/03/2019 of 2<sup>nd</sup> & 10<sup>th</sup> Sem
- 2) 7<sup>th</sup> Academic report from 26/02/2019 to 12/03/2019 of 4<sup>th</sup> & 06<sup>th</sup> Sem

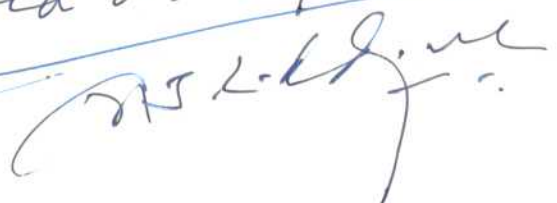
In the prescribed format for the Even semester of academic session 2018-19.

Submitted please.



28/03/19

Prof. Anant Raole  
Academic Report incharge, PIADS

Received on 28/3/2019  


L T J S S  
PRIYADARSHINI INSTITUTE OF ARCHITECTURE AND DESIGN STUDIES  
NAGPUR, INDIA

ACADEMIC REPORT FOR THE ODD SEMESTER - B.Arch -I Sem

**REPORT NO.3- FROM 25th Sept 2017 to 6th October 2017.**

NO.	NAME OF THE SUBJECT	SECTION	NO. OF STUDENTS ON ROLL	NAME OF THE TEACHERS	TOTAL NO. OF LECTURES PLANNED	TOTAL NO. OF LECTURES ENGAGED	TOTAL NO. OF TOPIC CODES COVERED	% OF SYLLABUS COVERED	REASONS FOR LAGGING / EXCEEDING (IF ANY)	AVERAGE STUDENTS ATTENDANCE	SIGNATURE OF THE TEACHERS
1	Basic Design & Visual Art -I	A	39	K P Rewatkar	78	64	64	75%		32.00	
				Shrutee Dhanorkar							
		B	40	R amesh Bhambhani	78	64	64	75%		34.00	
				Neema Gujarkar							
				Neha Chourasia							
		C	39	Mrunal Gaikwad	78	64	64	75%		36.00	
Neha Kolhe											
Snehal Karale											
2	Construction Technology & Materials - I	A	39	K P Rewatkar	52	38	38	73%		36.00	
				Shrutee Dhanorkar							
		B	40	R amesh Bhambhani	52	38	38	73%		35	
				Neema Gujarkar							
				Neha Chourasia							
		C	39	Mrunal Gaikwad	52	38	38	73%		36.00	
Neha Kolhe											
Snehal Karale											
3	Structural Design & Systems-I	A	59	P P Padgilwar	24	6	6	25%		55.00	
		B	59	P P Padgilwar	24	6	6	25%		54.00	
4	History of A & A-I	A	59	Manisha Yelne	39	10	10	25%		51.00	
		B	59	Anuya K Moahril	39	10	10	25%		50.00	

5	Architectural Graphics -I	A	39	Rashmi Dande	60	30	30	50%		36.00	
				Sonali Borate							
		B	40	Manisha Yelne	60	30	30	50%		35.00	
				Devansh Chandak							
		C	39	Neha Chourasia	60	30	30	50%		35.00	
				Snehal Karale							
6	Workshop Practises - I	A	59	Arun Soman	25	4	4	20%		45.00	
		B	59	Jagdish Ambare	25	4	4	20%		42.00	
8	Elective A	Sketching n Reindering	29	Neha Chourasia Anant Raole	26	8	8	30%		80.00	
		Communicatuion Skills	88	Neha Kolhe Anuya K Moharil	26	8	8	30%		78.00	
9	Elective B	Scale n Proportion	97	Neema Gujarkar Ashwini Dwale	26	6	6	23%		87.00	
		Stastical Methods									
		Numerical ability									

31/10/17  
Prof Prateek Barsagade  
Dean Academics









31/10  
Prof R P Padgilwar  
Prioncipal

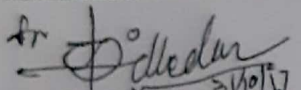
L T J S S  
PRIYADARSHINI INSTITUTE OF ARCHITECTURE AND DESIGN STUDIES  
NAGPUR, INDIA

ACADEMIC REPORT FOR THE ODD SEMESTER - B.Arch - III Sem

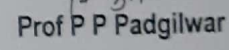
**REPORT NO. 8- FROM 25th Sept 2017 to 6th October 2017.**

REPORT NO. 8- FROM 25th Sept 2017 to 6th October 2017.											
NO.	NAME OF THE SUBJECT	SECTION	NO. OF STUDENTS ON ROLL	NAME OF THE TEACHERS	TOTAL NO. OF LECTURES PLANNED	TOTAL NO. OF LECTURES ENGAGED	TOTAL NO. OF TOPIC CODES COVERED	% OF SYLLABUS COVERED	REASONS FOR LAGGING / EXCEEDING (IF ANY)	AVERAGE STUDENTS ATTENDANCE	SIGNATURE OF THE TEACHERS
1	Architectural Design - II	A	35	Nikhil Wasade	127	132	132	100%		20.00	
				Devansh Chandak							
		B	38	Rashmi Dande	127	132	132	100%		32.00	
				P Barsagade							
				Prachi Sharma							
		C	39	Rashmi Tijare	127	132	132	100%		22.00	
				Manisha Yelne							
				Arun Soman							
		2	construction Technology & material - III	A	35	Nikhil Wasade	87	87	87	100%	
Devansh Chandak											
B	38			Rashmi Dande	87	87	87	100%		28	
				P Barsagade							
				Prachi Sharma							
C	39			Rashmi Tijare	87	87	87	100%		18.00	
				Manisha Yelne							
				Arun Soman							
3	Structural Design & Systems-III			A	55	P P Padgilwar	36	33	33	92%	
		B	56	P P Padgilwar	36	30	30	83%		38.00	
4	History of A & A-III	A	55	Leena Ganvir	39	40	40	98%		42.00	
		B	56	Saurabh Palliwal	39	62	62	100	—	39	

5	Architectural Graphics -III	A	35	Rashmi Tijare	39	36	36	92%		27.00	<del>27.00</del>
				Anant Raole							
		B	38	Aparna Tarar	39	36	36	92%		26.00	<del>26.00</del>
				Mrunal Gaikwad							
6	Surveying & Levelling	A	55	Ashish Palliwal	30	30	30	100%		45.00	<del>45.00</del>
		B	56	Ashish Palliwal	30	30	30	100%		48.00	
7	Climate & Architecture	A	55	Neha Kolhe	26	24	24	90%		35.00	<del>35.00</del>
		B	56	K P Rewatkar	26	26	26	90%		44.00	
8	Elective A	Env. Studies	10	Neema Gujarkar	26	24	24	100%		6.00	<del>6.00</del>
		Vernacular	60	Shrutee Dhanorkar	26	24	24	100%		55.00	
		Env. Impacts	31	Archana Bele	26	24	24	100%		27.00	
9	Elective B	HITAC	76	Neha Chourasia	26	26	26	100%		36.00	<del>36.00</del>
		Critical Appre									
		Architectural Documentation	15	Ramesh Bhambhani, Krutik Rajdekar	26	24	24	90%		14.00	

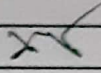
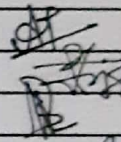
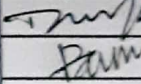
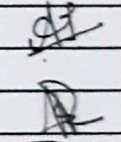
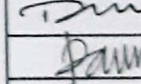
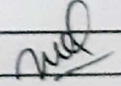

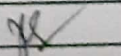
  
 Prof Prateek Barsagade  
 Dean Academics



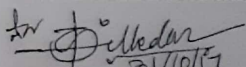
  
 Prof P P Padgilwar  
 Principal

## ACADEMIC REPORT FOR THE ODD SEMESTER - B.Arch - V Sem

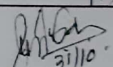
## REPORT NO. 8 - FROM 25th Sept 2017 to 6th October 2017.

NO.	NAME OF THE SUBJECT	SECTION	NO. OF STUDENTS ON ROLL	NAME OF THE TEACHERS	TOTAL NO. OF LECTURES PLANNED	TOTAL NO. OF LECTURES ENGAGED	TOTAL NO. OF TOPIC CODES COVERED	% OF SYLLABUS COVERED	REASONS FOR LAGGING / EXCEEDING (IF ANY)	AVERAGE STUDENTS ATTENDANCE	SIGNATURE OF THE TEACHERS
1	Architectural Design IV	A	41	Archana Bele	91	82	82	90%		24.00	
				Ashwini Dawle							
		B	40	Aparna Tarar	91	82	82	90%		28.00	
				Anant Raole							
				Sanjeev Raoot							
		C	42	V Deoskar	91	82	82	90%		23.00	
				Pratiksha Misal							
				Leena Ganvir							
		2	Construction Technology & Materials - V	A	41	Archana Bele	78	77	77	95%	
Ashwini Dawle											
B	40			Aparna Tarar	78	77	77	95%		25	
				Anant Raole							
				Sanjeev Raoot							
C	42			V Deoskar	78	77	77	95%		23.00	
				Pratiksha Misal							
				Leena Ganvir							
3	Structural Design & Systems-V			A	61	Ashish Palliwal	36	28	28	80%	
		B	62	Ashish Palliwal	36	28	28	80%		44	
4	Building Services - II	A	61	Rashmi Dande	26	31	31	90%		52.00	
		B	62	Mrunal Gaikwad	26	31	31	90%		49.00	
5	Architectural Graphics -V	A	41	Ramesh Bhambani	65	63	63	86%		31.00	
				Shrutee Dhanorkar							
		B	40	Ashwini Dawle	65	63	63	86%		32.00	
				Prachi Sharma							

		C	42	Saurabh Palliwal Krutika Rajderkar	65	63	63	86%		34.00	
6	Theory of Architecture	A	61	P Barsagade	26						
		B	62	K P Rewatkar	26	24	24	100%		42.00	
7	Specification	A	61	Leena Ganvir	26	28	28	100%		38.00	
		B	62	V Deoskar	26	26	26	100%		39.00	
8	Elective A	Adv. Building Material	12	Prachi Sharma	26	23	23	70%			
		Comp. Appl	87	Nikhil Wasade	28	24	24	100%		79.00	
				Shrutee Dhanorkar	28	24	24	100%		79.00	
9	Elective B	Appropriate Technology	13	Nandani Kulkarni	26	22	22	90%		13.00	
		Regional Architecture	15	Shivani Sharma	26	22	22	90%		10.00	
		Sustainable Development	65	Rashmi Dande	26	22	22	85%		45.00	
		Landscape Studio	7	Rashmi Tijare	26	22	22	85%		6.00	

  
 Prof Prateek Barsagade  
 Dean Academics



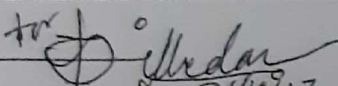
  
 Prof P P Padgilwar  
 Principal

L T J S S  
PRIYADARSHINI INSTITUTE OF ARCHITECTURE AND DESIGN STUDIES  
NAGPUR, INDIA  
ACADEMIC REPORT FOR THE ODD SEMESTER - B.Arch - VII Sem

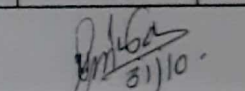
**REPORT NO. 8- FROM 25th Sept 2017 to 6th October 2017.**

NO.	NAME OF THE SUBJECT	SECTION	NO. OF STUDENTS ON ROLL	NAME OF THE TEACHERS	TOTAL NO. OF LECTURES PLANNED	TOTAL NO. OF LECTURES ENGAGED	TOTAL NO. OF TOPIC CODES COVERED	% OF SYLLABUS COVERED	REASONS FOR LAGGING / EXCEEDING (IF ANY)	AVERAGE STUDENTS ATTENDANCE	SIGNATURE OF THE TEACHERS
1	Architectural Design VI	A	43	Sarang Gurjar	156	239	239	100%		36.00	
				Krutika Rajderkar							
		B	42	Anuya K Moharil	156	239	239	100%		37.00	
				Abhishek Bangre							
		C	43	Nandini Kulkarni	156	239	239	100%		34.00	
				Sonali Borate							
				Saurabh Palliwal							
2	Construction Technology & Materials - VII	A	43	Sarang Gurjar	39	62	62	100%		36.00	
				Krutika Rajderkar							
		B	42	Anuya K Moharil	39	62	62	100%		38	
				Abhishek Bangre							
		C	43	Nandini Kulkarni	39	62	62	100%		33.00	
				Sonali Borate							
				Saurabh Palliwal							
3	Structural Design & Systems-VII	A	65	Ashish Palliwal	30	23	23	80%		42.00	
		B	65	Ashish Palliwal	30	23	23	80%		43.00	
4	Building Services - IV	A	65	Ramesh Bhambhani	39	36	36	90%		40.00	
				Ashwini Dawle							
		B	65	Aparna Tarar	39	36	36	90%		42.00	
5	Research Skill & Project Intro.	A	65	Nandini Kulkarni	39	39	39	100%		52.00	
		B	65	Nikhil Wasade	39	39	39	100%		46.00	

6	Accoustics & Illumination	A	65	P G Barsagade	26						
		B	65	Prachi Sharma	26	24	24	70%		36.00	
7	Elective A	Interior Design	32	Ritu Chanekar/ DC	26	18	18	65%		25.00	
		Landscape Design	37	Sarang Gurjar	26	18	18	80%		26	
		Arch Education	41	Aparna Tarar	26	18	18	65%		25.00	
		Adv.Spatial Analysis	6	Krutika Rajderkar	26	18	18	80%		5.00	
8	Elective B	Urban Planning	25	Rashmi Tijare	26	18	18	65%		16.00	
		Conservation	59	Shivani Sharma	26	18	18	65%		49.00	
		Valuation	11	Mrunal Gaikwad	26	18	18	70%		8.00	
		Urban Aesthetics	31	Sonali Borate	26	18	18	70%		24.00	

  
 Prof Prateek Barsagade  
 Dean Academics



  
 Prof P P Padgilwar  
 Principal

Date - 13 Nov. 2017

To: Principal PIADS

Please find enclosed the students' feedback analysis for (Odd Semester, Session 2017-2018) for the teachers of your institute.

You are requested to please communicate to me in case there is any discrepancy regarding the following:

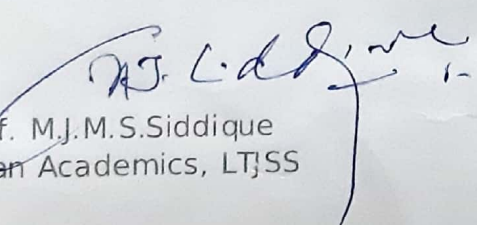
Name of teachers

Subject taught by them


Teachers whose names are missing from the analysis

Any other matter regarding the feedback.

You are further requested to communicate to the teachers about their feedback and initiate appropriate action at your end.

  
Prof. M.J.M.S. Siddique  
Dean Academics, LTJSS

Cc: Abhijit Deshmukh, Director, LTJSS for information please.

PPP  
Phy-call for detail assessment  
Calculation sheet for  
my understanding of  
measures of faculty  
Issue letter to all faculty  
marked red 

ulli.  
2/11/17

To,  
O.S.  
Pl. process feedback for  
communication to the faculty.  
2/11/17

<b>PIADS</b>	
Inward No. 451	Dt. 20-11-17
Invoice No. ....	To.....

<b>Director, PIADS Office</b>	
Inward No. 125	Dt. 20-11-17
Initials No. ....	To.....

# Priyadarshini Institute of Arch. & Design Studies, Nagpur.

## Feedback Result Summary (Odd Semester) Session 2017-18

Sr. No.	Pre	Name of Teachers	Status	Branch	Sem.	Sec.	Studio	Sub.	%	Average
1	Prof.	Wasade Nikhil		B. Arch.	3rd	-	A	AD-II	93.85 93.93	93.89
2	Prof.	Chandak Devansh		B. Arch.	3rd	-	A	AD-II	86.39 85.85	86.12
3	Prof.	Wasade Nikhil		B. Arch.	3rd	-	A	C. T. & M-III	93.70 93.63	93.67
4	Prof.	Chandak Devansh		B. Arch.	3rd	-	A	C. T. & M-III	87.94 87.11	87.53
5	Prof.	Tijare Rashmi		B. Arch.	3rd	-	A	A. G. -III	29.11 29.85	29.48
6	Prof.	Raole Anant		B. Arch.	3rd	-	A	A. G. -III	62.12 62.08	62.10
7	Prof.	Ganvir Leena		B. Arch.	3rd	-	A	H. of A. & A. - III	53.56 52.96	53.26
8	Prof.	Palliwal Ashish		B. Arch.	3rd	-	A	S & L	83.14 82.80	82.97
9	Prof.	Padgilwar Pradeep P.		B. Arch.	3rd	-	A	S. D. & S. - III	80.57 80.37	80.47
10	Prof.	Kolhe Neha		B. Arch.	3rd	-	A	C & A	64.60 65.21	64.91
11	Prof.	Gujarkar Neema		B. Arch.	3rd	-	A	ES (E-A)	100.0 0	100.00
12	Prof.	Dhanorkar Shrutee		B. Arch.	3rd	-	A	VA (E-A)	87.31 87.23	87.27
13	Prof.	Bele Archana		B. Arch.	3rd	-	A	EI (E-A)	91.23 91.69	91.46
14	Prof.	Chourasia Neha		B. Arch.	3rd	-	A	HITAC (E-B)	90.26 89.24	89.75
15	Prof.	Khan Habeeb		B. Arch.	3rd	-	A	CA (E-B)	100.0 0	100.00
16	Prof.	Bhambani Ramesh		B. Arch.	3rd	-	A	AD (E-B)	69.33 70.67	70.00
17	Prof.	Dande Rashimi		B. Arch.	3rd	-	B	AD-II	73.83 72.81	73.32
18	Prof.	Barsagade Pratik		B. Arch.	3rd	-	B	AD-II	84.31 83.56	83.94
19	Prof.	Sharma Prachi		B. Arch.	3rd	-	B	AD-II	63.48 63.88	63.68
20	Prof.	Dande Rashimi		B. Arch.	3rd	-	B	C. T. & M-III	73.66 73.50	73.58
21	Prof.	Barsagade Pratik		B. Arch.	3rd	-	B	C. T. & M-III	88.26 83.55	85.90
22	Prof.	Sharma Prachi		B. Arch.	3rd	-	B	C. T. & M-III	65.11 66.13	65.62
23	Prof.	Tarar Aparna		B. Arch.	3rd	-	B	A. G. -III	85.20 84.25	84.73
24	Prof.	Gaikwad Mrunal		B. Arch.	3rd	-	B	A. G. -III	74.53 74.13	74.33
25	Prof.	Ganvir Leena		B. Arch.	3rd	-	B	H. of A. & A. - III	33.21 32.47	32.84
26	Prof.	Palliwal Saurabh		B. Arch.	3rd	-	B	H. of A. & A. - III	81.04 82.29	81.66
27	Prof.	Palliwal Ashish		B. Arch.	3rd	-	B	S & L	67.28 67.44	67.36
28	Prof.	Palliwal Ashish		B. Arch.	3rd	-	B	S & L	84.96 84.62	84.79
29	Prof.	Padgilwar Pradeep P.		B. Arch.	3rd	-	B	S. D. & S. - III	67.81 67.50	67.66
30	Prof.	Padgilwar Pradeep P.		B. Arch.	3rd	-	B	S. D. & S. - III	58.07 57.57	57.82
31	Prof.	Kolhe Neha		B. Arch.	3rd	-	B	C & A	55.00 54.47	54.74

32	Prof.	Rewatkar Kishor	B. Arch.	3rd	-	B	C & A	67.32 65.14	66.23
33	Prof.	Gujarkar Neema	B. Arch.	3rd	-	B	ES (E-A)	89.00 88.00	88.50
34	Prof.	Dhanorkar Shrutee	B. Arch.	3rd	-	B	VA (E-A)	86.74 86.63	86.68
35	Prof.	Bele Archana	B. Arch.	3rd	-	B	EI (E-A)	73.33 73.50	73.42
36	Prof.	Chaurasia Neha	B. Arch.	3rd	-	B	HITAC (E-B)	78.43 78.70	78.57
37	Prof.	Khan Habeeb	B. Arch.	3rd	-	B	CA (E-B)	94.75 95.00	94.88
38	Prof.	Bhambani Ramesh	B. Arch.	3rd	-	B	AD (E-B)	89.80 88.80	89.30
39	Prof.	Tijare Rashmi	B. Arch.	3rd	-	C	AD-II	41.82 41.00	41.41
40	Prof.	Yelane Manisha P.	B. Arch.	3rd	-	C	AD-II	66.09 65.09	65.59
41	Prof.	Soman Arun	B. Arch.	3rd	-	C	AD-II	65.89 67.27	66.58
42	Prof.	Tijare Rashmi	B. Arch.	3rd	-	C	C. T. & M-III	42.39 41.55	41.97
43	Prof.	Yelane Manisha P.	B. Arch.	3rd	-	C	C. T. & M-III	65.05 64.27	64.66
44	Prof.	Soman Arun	B. Arch.	3rd	-	C	C. T. & M-III	67.70 68.09	67.90
45	Prof.	Gujar Sarang	B. Arch.	3rd	-	C	AG-III	59.43 58.55	58.94
46	Prof.	Soman Arun	B. Arch.	3rd	-	C	AG-III	69.89 69.91	69.90
47	Prof.	Palliwal Saurabh	B. Arch.	3rd	-	C	H. of A. & A. - III	80.55 79.82	80.18
48	Prof.	Palliwal Ashish	B. Arch.	3rd	-	C	H. of A. & A. - III	73.31 73.05	73.18
49	Prof.	Padgilwar Pradeep P.	B. Arch.	3rd	-	C	S. D. & S. - III	77.50 78.00	77.75
50	Prof.	Padgilwar Pradeep P.	B. Arch.	3rd	-	C	S. D. & S. - III	56.71 54.48	55.60
51	Prof.	Rewatkar Kishor	B. Arch.	3rd	-	C	C & A	49.19 48.10	48.64
52	Prof.	Gujarkar Neema	B. Arch.	3rd	-	C	ES (E-A)	84.00 83.00	83.50
53	Prof.	Dhanorkar Shrutee	B. Arch.	3rd	-	C	VA (E-A)	85.31 84.88	85.09
54	Prof.	Bele Archana	B. Arch.	3rd	-	C	EI (E-A)	79.67 76.00	77.83
55	Prof.	Chaurasia Neha	B. Arch.	3rd	-	C	HITAC (E-B)	75.19 73.69	74.44
56	Prof.	Khan Habeeb	B. Arch.	3rd	-	C	CA (E-B)	68.50 69.00	68.75
57	Prof.	Bhambani Ramesh	B. Arch.	3rd	-	C	AD (E-B)	60.00 60.00	60.00
58	Prof.	Bele Archana	B. Arch.	5th	A	A	A. D. - IV	83.08 81.08	82.08
59	Prof.	Dawale Ashwini	B. Arch.	5th	A	A	A. D. - IV	56.20 56.31	56.26
60	Prof.	Bele Archana	B. Arch.	5th	A	A	C. T. & M. -V	83.23 81.42	82.32
61	Prof.	Dawale Ashwini	B. Arch.	5th	A	A	C. T. & M. -V	56.50 57.08	56.79
62	Prof.	Bhambani Ramesh	B. Arch.	5th	A	A	AG-V	90.44 88.50	89.47
63	Prof.	Dande Rashimi	B. Arch.	5th	A	A	B. S. - II	86.41 86.00	86.21
64	Prof.	Barsagade Pratik	B. Arch.	5th	A	A	TA	75.80 75.82	75.81
65	Prof.	Palliwal Ashish	B. Arch.	5th	A	A	S. D. & S. - V	91.83 91.13	91.48
66	Prof.	Ganvir Leena	B. Arch.	5th	A	A	Specfication	66.42 65.75	66.08

67	Prof.	Sharma Prachi		B. Arch.	5th	A	A	ABM (E-A)	72.50 70.00	71.25
68	Prof.	Wasade Nikhil		B. Arch.	5th	A	A	CA-II (E-A)	74.69 73.43	74.06
69	Prof.	Dhanorkar Shrutee		B. Arch.	5th	A	A	CA-II (E-A)	76.29 75.14	75.71
70	Prof.	Dande Rashimi		B. Arch.	5th	A	A	SD (E-B)	85.70 85.33	85.52
71	Prof.	Tijare Rashmi		B. Arch.	5th	A	A	LDS (E-B)	59.00 58.00	58.50
72	Prof.	Kulkarni Nandini		B. Arch.	5th	A	A	APT (E-B)	65.83 66.00	65.92
73	Prof.	Sharma Shivani		B. Arch.	5th	A	A	RA (E-B)	100.0 0	100.00
74	Prof.	Tarar Aparna		B. Arch.	5th	B	B	A. D. - IV	64.22 64.67	64.44
75	Prof.	Raoot Sanjeev		B. Arch.	5th	B	B	A. D. - IV	74.63 74.07	74.35
76	Prof.	Raole Anant		B. Arch.	5th	B	B	A. D. - IV	46.12 46.24	46.18
77	Prof.	Tarar Aparna		B. Arch.	5th	B	B	C. T. & M. -V	65.48 64.96	65.22
78	Prof.	Raoot Sanjeev		B. Arch.	5th	B	B	C. T. & M. -V	70.24 69.56	69.90
79	Prof.	Raole Anant		B. Arch.	5th	B	B	C. T. & M. -V	50.68 50.24	50.46
80	Prof.	Bhambani Ramesh		B. Arch.	5th	B	B	AG-V	89.04 87.85	88.44
81	Prof.	Dande Rashimi		B. Arch.	5th	B	B	BS-II	90.46 90.29	90.38
82	Prof.	Gaikwad Mrunal		B. Arch.	5th	B	B	BS-II	85.88 85.38	85.63
83	Prof.	Barsagade Pratik		B. Arch.	5th	B	B	TA	81.71 81.57	81.64
84	Prof.	Rewatkar Kishor		B. Arch.	5th	B	B	TA	26.46 24.46	25.46
85	Prof.	Palliwal Ashish		B. Arch.	5th	B	B	S. D. & S. - V	91.25 91.14	91.20
86	Prof.	Palliwal Ashish		B. Arch.	5th	B	B	S. D. & S. - V	90.73 90.36	90.55
87	Prof.	Ganvir Leena		B. Arch.	5th	B	B	Specfication	73.93 73.86	73.89
88	Prof.	Deoskar Vijay		B. Arch.	5th	B	B	Specfication	66.46 66.50	66.48
89	Prof.	Sharma Prachi		B. Arch.	5th	B	B	ABM (E-A)	56.75 56.00	56.38
90	Prof.	Wasade Nikhil		B. Arch.	5th	B	B	CA-II (E-A)	79.60 80.25	79.93
91	Prof.	Dhanorkar Shrutee		B. Arch.	5th	B	B	CA-II (E-A)	79.61 80.00	79.80
92	Prof.	Kulkarni Nandini		B. Arch.	5th	B	B	APT (E-B)	85.00 83.50	84.25
93	Prof.	Sharma Shivani		B. Arch.	5th	B	B	RA (E-B)	100.0 0	100.00
94	Prof.	Dande Rashimi		B. Arch.	5th	B	B	SD (E-B)	89.82 89.26	89.54
95	Prof.	Tijare Rashmi		B. Arch.	5th	B	B	LDS (E-B)	100.0 0	100.00
96	Prof.	Deoskar Vijay		B. Arch.	5th	C	C	A. D. - IV	65.26 66.43	65.85
97	Prof.	Ganvir Leena		B. Arch.	5th	C	C	A. D. - IV	52.35 51.39	51.87
98	Prof.	Misal Pratiksha		B. Arch.	5th	C	C	A. D. - IV	34.63 34.61	34.62
99	Prof.	Deoskar Vijay		B. Arch.	5th	C	C	C. T. & M. -V	67.89 69.09	68.49
100	Prof.	Ganvir Leena		B. Arch.	5th	C	C	C. T. & M. -V	54.59 53.74	54.16
101	Prof.	Misal Pratiksha		B. Arch.	5th	C	C	C. T. & M. -V	31.02 31.22	31.12

102	Prof.	Bhambani Ramesh	B. Arch.	5th	C	C	A. G. - V	91.58 91.00	91.29
103	Prof.	Gaikwad Mrunal	B. Arch.	5th	C	C	BS-II	90.52 90.19	90.36
104	Prof.	Rewatkar Kishor	B. Arch.	5th	C	C	TA	22.20 21.13	21.66
105	Prof.	Palliwal Ashish	B. Arch.	5th	C	C	S. D. & S. - V	92.32 91.64	91.98
106	Prof.	Deoskar Vijay	B. Arch.	5th	C	C	Specfication	70.05 70.18	70.11
107	Prof.	Sharma Prachi	B. Arch.	5th	C	C	ABM (E-A)	54.50 53.20	53.85
108	Prof.	Wasade Nikhil	B. Arch.	5th	C	C	CA-II (E-A)	87.12 87.88	87.50
109	Prof.	Dhanorkar Shrutee	B. Arch.	5th	C	C	CA-II (E-A)	85.92 86.33	86.13
110	Prof.	Kulkarni Nandini	B. Arch.	5th	C	C	APT (E-B)	87.33 87.33	87.33
111	Prof.	Sharma Shivani	B. Arch.	5th	C	C	RA (E-B)	96.80 96.00	96.40
112	Prof.	Dande Rashimi	B. Arch.	5th	C	C	SD (E-B)	95.00 95.27	95.14
113	Prof.	Tijare Rashmi	B. Arch.	5th	C	C	LDS (E-B)	89.25 88.00	88.63
114	Prof.	Gujar Sarang	B. Arch.	7th	A	-	A. D. - VI	34.84 34.88	34.86
115	Prof.	Rajderkar Krutika	B. Arch.	7th	A	-	A. D. - VI	38.00 37.92	37.96
116	Prof.	Gujar Sarang	B. Arch.	7th	A	-	C. T. & M.-VII	34.40 34.08	34.24
117	Prof.	Rajderkar Krutika	B. Arch.	7th	A	-	C. T. & M. -VII	37.50 37.36	37.43
118	Prof.	Kulkarni Nandini	B. Arch.	7th	A	-	R. S. & P. I.	41.72 41.20	41.46
119	Prof.	Wasade Nikhil	B. Arch.	7th	A	-	R. S. & P. I.	36.67 36.00	36.33
120	Prof.	Bhambani Ramesh	B. Arch.	7th	A	-	BS-IV	84.50 83.50	84.00
121	Prof.	Barsagade Pratik	B. Arch.	7th	A	-	A & I	82.70 82.08	82.39
122	Prof.	Palliwal Ashish	B. Arch.	7th	A	-	S. D. & S.-VII	78.46 78.35	78.40
123	Prof.	Chanekar Ritu	B. Arch.	7th	A	-	ID (E-A)	23.42 22.67	23.04
124	Prof.	Gujar Sarang	B. Arch.	7th	A	-	LD (E-A)	33.56 32.25	32.91
125	Prof.	Tarar Aparna	B. Arch.	7th	A	-	ARA ( E-A)	77.80 76.80	77.30
126	Prof.	Tijare Rashmi	B. Arch.	7th	A	-	UD (E-B)	71.67 73.33	72.50
127	Prof.	Sharma Shivani	B. Arch.	7th	A	-	CONS (E-B)	75.46 74.92	75.19
128	Prof.	Gaikwad Mrunal	B. Arch.	7th	A	-	Val (E-B)	60.00 60.00	60.00
129	Prof.	Borate Sonali	B. Arch.	7th	A	-	UA (E-B)	67.57 68.00	67.79
130	Prof.	Moharil Anuya	B. Arch.	7th	B	-	A. D. - VI	69.79 69.33	69.56
131	Prof.	Bangre Abhishek	B. Arch.	7th	A	-	A. D. - VI	48.10 48.10	48.10
132	Prof.	Moharil Anuya	B. Arch.	7th	A	-	C. T. & M.-VII	65.64 65.90	65.77
133	Prof.	Bangre Abhishek	B. Arch.	7th	A	-	C. T. & M.-VII	48.00 48.42	48.21
134	Prof.	Bhambani Ramesh	B. Arch.	7th	A	-	C. T. & M.-VII	93.11 92.95	93.03
135	Prof.	Wasade Nikhil	B. Arch.	7th	A	-	R. S. & P. I.	38.89 38.22	38.56
136	Prof.	Wasade Nikhil	B. Arch.	7th	B	-	R. S. & P. I.	51.77 52.18	51.98

137	Prof.	Bhambani Ramesh		B. Arch.	7th	B	-	BS-IV	91.55 90.91	91.23
138	Prof.	Bhambani Ramesh		B. Arch.	7th	B	-	BS-IV	98.60 98.40	98.50
139	Prof.	Barsagade Pratik		B. Arch.	7th	B	-	A & I	85.46 85.08	85.27
140	Prof.	Sharma Prachi		B. Arch.	7th	B	-	A & I	67.31 67.25	67.28
141	Prof.	Palliwal Ashish		B. Arch.	7th	B	-	S. D. & S.-VII	87.12 86.31	86.71
142	Prof.	Palliwal Ashish		B. Arch.	7th	B	-	S. D. & S.-VII	75.06 74.44	74.75
143	Prof.	Chanekar Ritu		B. Arch.	7th	B	-	ID (E-A)	39.36 38.86	39.11
144	Prof.	Gujar Sarang		B. Arch.	7th	B	-	LD (E-A)	32.90 32.00	32.45
145	Prof.	Tarar Aparna		B. Arch.	7th	B	-	ARE (E-A)	64.00 64.50	64.25
146	Prof.	Rajderkar Krutika		B. Arch.	7th	B	-	ASA (E-A)	90.00 87.00	88.50
147	Prof.	Tijare Rashmi		B. Arch.	7th	B	-	UD (E-B)	71.58 71.33	71.46
148	Prof.	Sharma Shivani		B. Arch.	7th	B	-	CONS (E-B)	70.11 71.11	70.61
149	Prof.	Gaikwad Mrunal		B. Arch.	7th	B	-	Val (E-B)	75.50 75.00	75.25
150	Prof.	Borate Sonali		B. Arch.	7th	B	-	UA (E-B)	50.40 48.00	49.20
151	Prof.	Kulkarni Nandini		B. Arch.	7th	C	-	A. D. - VI	27.76 27.33	27.55
152	Prof.	Palliwal Saurabh		B. Arch.	7th	C	-	A. D. - VI	36.87 36.52	36.69
153	Prof.	Borate Sonali		B. Arch.	7th	C	-	A. D. - VI	27.52 27.33	27.43
154	Prof.	Kulkarni Nandini		B. Arch.	7th	C	-	C. T. & M.-VII	31.67 31.31	31.49
155	Prof.	Palliwal Saurabh		B. Arch.	7th	C	-	C. T. & M.-VII	41.46 40.54	41.00
156	Prof.	Borate Sonali		B. Arch.	7th	C	-	C. T. & M.-VII	32.06 31.38	31.72
157	Prof.	Kulkarni Nandini		B. Arch.	7th	C	-	R. S. & P. I.	34.00 33.47	33.73
158	Prof.	Wasade Nikhil		B. Arch.	7th	C	-	R. S. & P. I.	49.46 49.42	49.49
159	Prof.	Bhambani Ramesh		B. Arch.	7th	C	-	BS-IV	77.33 77.33	77.33
160	Prof.	Bhambani Ramesh		B. Arch.	7th	C	-	BS-IV	94.30 93.56	93.93
161	Prof.	Sharma Prachi		B. Arch.	7th	C	-	A & I	59.24 58.88	59.06
162	Prof.	Palliwal Ashish		B. Arch.	7th	C	-	S. D. & S.-VII	100.0 0	100.00
163	Prof.	Palliwal Ashish		B. Arch.	7th	C	-	S. D. & S.-VII	80.74 80.00	80.48
164	Prof.	Chanekar Ritu		B. Arch.	7th	C	-	ID (E-A)	44.19 44.25	44.22
165	Prof.	Gujar Sarang		B. Arch.	7th	C	-	LD (E-A)	43.78 43.78	43.78
166	Prof.	Tarar Aparna		B. Arch.	7th	C	-	ARE (E-A)	81.68 80.24	80.96
167	Prof.	Rajderkar Krutika		B. Arch.	7th	C	-	ASA (E-A)	100.0 0	100.00
168	Prof.	Tijare Rashmi		B. Arch.	7th	C	-	UD (E-B)	57.50 57.50	57.50
169	Prof.	Sharma Shivani		B. Arch.	7th	C	-	CONS (E-B)	74.09 74.50	74.30
170	Prof.	Borate Sonali		B. Arch.	7th	C	-	UA (E-B)	56.00 57.33	56.67

# PRIYADARSHINI INSTITUTE OF ARCHITECTURE & DESIGN STUDIES

## TEACHING PLAN – EVEN 2015-2016

27 November 2018 Onwards

Subject : HISTORY OF ART AND ARCHITECTURE -II			Sem II
No. of Hrs/ week : 3, No. of Classes in Semester - 39		Subject Teachers : 1) Prof. Anuya Killedar-Moharil	
Sr. No.	Week Period	Topics to be covered / Assignment title	Hours
1	Week 1	<b>Greek Architecture</b> introduction, Mycenaean and Minoan architecture: Treasury of Atreus, Lions gate, Cyclopean wall etc.	3
		<b>Greek Architecture continued</b> , Greek orders –Doric Ionic order,Corinthian order,Proportioning system,Greek temple typology	
2	Week 2	<b>Greek Architecture continued</b> Acropolis, Parthenon, Temple of Erychtheion, Optical corrections, Agora , Stoa, Greek house	3
3	Week 3	Introduction to <b>Roman architecture</b> and its Construction techniques and building materials ,Roman temples and the difference between Roman and Greek temples, Circus Maximus, Theatres,	3
4	Week 4	<b>Roman architecture</b> Pantheon, Forum, Baths and Thermae, Theatres,	3
		<b>Roman architecture:</b> Colosseum, Early Christian architecture.	
5	Week 5	<b>Byzantine architecture, Romanesque architecture</b>	3
6	Week 6	<b>Gothic architecture</b> -French, English, Italian	3
		Difference Between English and French Gothic,Renaissance architecture	
7	Week 7	Introduction to <b>Indian architecture-Vedic period:</b> Concept of Vedic village, Vedic house. Introduction to <b>Buddhist architecture</b> , Asoka and the beginnings of Asokan school.	3
		<b>Buddhist architecture</b> - Stupa, sthamba, ajivikas and cave architecture The Shungas , merchants and the Buddhists, Sanchi stupa, Chaitya hall, Stupa of Amravati	
8	Week 8	<b>Buddhist architecture</b> - Cave of Bhaja, Karli. Greeks, Kushans and the large vehicle. Ali Masjid Stupa, Caves of Ajanta and Ellora.	3

9	Week 9	Introduction to <b>Hindu Temple Architecture</b> , Evolution of Hindu Temple. <b>Rock cut temple architecture</b> during Pallavas, -Rathas of Mahabalipuram, Shore temple, Elephanta Caves, Kailas Temple -Ellora	3
10	Week 10	<b>Hindu Temple architecture</b> -Architectural developments in Aihole, Badami, Pattadakal during Chalukyan dynasty Lad khan temple, Durga temple, Virupaksha Temple, Vaikuntha Perumal Temple	3
11	Week 11	<b>Hindu Temple architecture</b> - Architectural developments during Chola Dynasty. Eg: Brahmadeeshwara temple, Gangaikondacholapuram temple Architectural developments during Pandya Dynasty	3
12	Week 12	<b>Hindu Temple architecture</b> - Architectural developments during Vijaynagar dynasty. Architectural developments during Nayak dynasty. Eg. Madhurai temple complex, Rameshwaram, Concept of Gopuram.	3
13	Week 13	<b>Hindu Temple architecture</b> -North Indian temple architecture : Orissa, Khajuraho, Gujarat, Jain temple architecture	3
		<b>Total</b>	<b>39</b>

Prof. Anuya Killedar-Moharil



## TEACHERS' FEEDBACK ON CURRICULUM

Semester : .....

Session : **2017-18**

Grade Scale:

Strongly Agree - 1	Fairly Agree - 2
Agree - 3	Disagree - 4

Sr. No	Parameters	Grade	Remarks / Suggestions
1	Curriculum is based on the needs of the stakeholders	1	
2	Course objectives and outcomes of the course are well defined and clear to faculties and students.	2	
3	Sufficient number of prescribed books is available in the library.	2	
4	The course curriculum has good balance between theory and application.	2	
5	The course curriculum has made me interested in the subject area.	1	
6	The curriculum of this course has increased knowledge potential in its application.	1	
7	Tests and examinations are conducted well in time with proper coverage of all units in the Curriculum.	2	
8	I have the freedom to adopt new techniques of teaching such as seminar presentations, group discussions and students' participation.	2	
9	The environment in the department is conducive to teaching and research.	1	
10	The Management provides adequate and smooth support for projects and research facilities.	1	
11	The Management provides adequate funding and support to faculty members for upgrading their skills and qualifications.	1	
12	Provisions for professional development are fair.	1	

Name of faculty : **Neha Chourasia**  
Designation: **Assistant Professor**

Sign & Date : **Mr.**

## ARCHITECTURAL GRAPHICS IV

### METHODOLOGY :FROM EASY TO DIFFICULT

- Recap
- Introduction to topic and syllabus.
- Explaining fundamentals.
- Easy to Difficult
- Demonstration with models
- Practice
- Solving University Problems for more practice.
- Intermediate tests and sessionals.
- Progressive evaluation
- Personal attention to each and every student.

### PROCESS

- Each and every technique is demonstrated to the students to make them understand the skill in a better way.
- While explaining the topic, basic understanding is developed by connecting them with the earlier knowledge they have. The problem is first explained in detail with the help of models and sketches on the board.
- After the problem is introduced students are asked to solve the problem on the drawing board using proper techniques.
- A personal attention is paid to each and every student while they solve the problem
- Then the problem is discussed in detail with the help of sketches drawn on the board like plan, elevation, sections, etc.
- Plates are to be produced by each student to memorize and practice drafting for better understanding of the problem.
- At the end question answer session helps students solve their problems and doubts if any.
- The plates and tutorials are periodically evaluated and marks are displayed to the students at regular intervals.
- Intermediate test are held after covering 2 to 3 topics, and a full university pattern test is conducted to conclude the session.

### EVALUATION CRITERIA

- On each topic students are evaluated for drawing plates and secondly for answering questions.
- For evaluation of plates our criteria is
  1. Understanding of the topic
  2. Clarity in drawing
  3. Neatness and drafting quality
  4. Innovative and creative details
- Composition of sheets
- Timely submission and completion
- Progressive evaluation is done in every block of classes.
- Late submissions are evaluated on medical grounds.

*dfarar*

(GRAPHICS CO-ORDINATOR)

## OFFICE ORDER

The Management in principle has decided that PIADS must get accredited before the beginning of Academic Session 2019-20 and for getting accreditation from NAAC it is mandatory to form Internal Quality Assurance Cell (IQAC), in view of this, a meeting of Adhoc committee consisting of under-mention staff members is scheduled to be held in Room No 103 of PIADS on Monday 15<sup>th</sup> January 2018 at 12: 15 pm. All undermentioned are required to attend the meeting.

Beside the Principal PIADS the members of Adhoc IQAC of PIADS will consist of the following staff members :-








- 1) Prof. Manisha Yelne
- 2) Prof. Nikhil Wasade
- 3) Prof. Anuya Killedar Moharil (Dean Design)
- 4) Prof. Sanjeev Raooot (HOD M.Des)
- 5) Prof. Neema Gujarkar
- 6) Prof. Archana Bele
- 7) Prof. Rajesh Gupta (Administrative Officer)

The agenda for the meeting shall basically be the formation of Internal Quality Assurance Cell of PIADS.



Principal  
PIADS

Copy received -

- 1) Prof. Manisha Yelne 
- 2) Prof. Nikhil Wasade 
- 3) Prof. Anuya Killedar Moharil (Dean Design) 
- 4) Prof. Sanjeev Raooot (HOD M.Des) 
- 5) Prof. Neema Gujarkar 
- 6) Prof. Archana Bele 
- 7) Prof. Rajesh Gupta (Administrative Officer) 

Copy to Director, PIADS for information only

ATTENDANCE SHEET  
OF

Meeting of Adhoc Committee of IQAC held on Monday 15<sup>th</sup> January 2018 in Room No 103 of  
PIADS, Nagpur.

1) Prof. Pradeep Padgilwar - Principal in the Chair



2) Prof. Manisha Yelne



3) Prof. Anuya Killedar Moharil (Dean Design)



4) Prof. Sanjeev Raoot (HOD M.Des)



5) Prof. Neema Gujarkar



6) Prof. Archana Bele



7) Prof. Rajesh Gupta (Administrative Officer)



8) Prof. Nikhil Wasade



## Internal Quality Assurance Cell (IQAC)

Minutes of the Adhoc Committee of the IQAC convened by the Principal Prof. Pradeep Padgilwar on Monday 15<sup>th</sup> January 2018 held in Room No 103 of Priyadarshini Institute of Architecture and Design Studies, Nagpur.

Principal Prof. Pradeep Padgilwar through an Office Order (Dated 12/01/2018) with a view for formulation of Internal Quality Assurance Cell convened the meeting of the following staff: -

- 1) Prof. Manisha Yelne
- 2) Prof. Nikhil Wasade
- 3) Prof. Anuya Killedar Moharil (Dean Design)
- 4) Prof. Sanjeev Raoot (HOD M.Des)
- 5) Prof. Neema Gujarkar
- 6) Prof. Archana Bele
- 7) Prof. Rajesh Gupta (Administrative Officer)

Principal Prof. Pradeep Padgilwar chaired the meeting and called the meeting to order at 12:15 PM. All above listed staff members were present. At the out set Chairman Prof. Pradeep Padgilwar informed all present that this specific meeting has been convened to discuss and finalise the formation of Internal Quality Assurance Cell (IQAC), since this is a mandatory requirement for getting Accreditation from National Assessment and Accreditation Council. He further informed that since the Management in principle has decided to get our institute - PIADS accredited before the beginning of Academic Session 2019-20 it is but pertinent that PIADS institutes IQAC immediately to start the proceeding of Accreditation and prepare the all mandated report.

Every one percent appreciated, applauded and consented to the idea.

Chairman then went on to inform about the purpose / function of IQAC and also informed about mandated composition of the IQAC.

Based on the information provided by the chair the members present deliberated on the recommended composition and came out with their suggestions and finally as a consensus finalised the IQAC's composition as follows.

- 1) Head of Institute - Director Prof. Habeeb Khan
- 2) Chairperson - Principal Prof. Pradeep Padgilwar
- 3) IQAC Coordinator - Prof. Anuya Killedar Moharil (Dean Design)
- 4) Management Representative - Mr. Abhijeet Deshmukh (Director LTJSS)
- 5) Teacher Member -
  - i) Prof. Manisha Yelne
  - ii) Prof. Nikhil Wasade
  - iii) Prof. Sanjeev Raoot (HOD M.Des)
  - iv) Prof. Neema Gujarkar
  - v) Prof. Archana Bele
- 6) Staff Representative / Nominee - Mr. Rajesh Gupta (Administrative Officer)

- 7) Student Representative / Nominee - i) Mr. Jainam Mehta  
ii) Ms. Ruchi Sharma
- 8) Alumni Nominee - Ar. Ms. Gargi Chati
- 9) Industrial Nominee - Ar. Vasant Ranade
- 10) Parent Nominee - Mrs. Gayatri Gokhale

In this meeting on the direction of Chair; Prof. Anuya and Prof. Nikhil then telephonically called above persons who were not part of the present (adhoc) meeting and obtained their consent. Having got the consent of all above suggested persons it was also decided to call the meeting of all above named persons on 29<sup>th</sup> January 2018 at 10:30 AM at PIADS and constitute the full-fledged IQAC and start the proceedings for obtaining accreditation in right earnest.

After due deliberation the following Agenda was finalised for this proposed meeting scheduled for 29<sup>th</sup> January 2018 at PIADS.

Item No 1 :- Formally finalising and constituting of IQAC.

Item No 2 :- To resolve for applying for Accreditation with National Assessment and Accreditation Council and start with mandatory preparations.

Item No 3 :- To form a N.A.A.C Accreditation Steering Committee

Item No 4 :- Any other Item with the permission of Chair





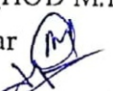


Item No 5 :- Vote of thanks

Prof. Anuya Killedar Moharil (Dean Design) was asked to send the notices to all concerned for the meeting scheduled on 29<sup>th</sup> January 2018.


The meeting was adjourned by the Chair at 1:30 PM.

All present thanked the Chair.

I have read the above recorded minutes and consent to its contents and confirm the same.

- 1) Prof. Manisha Yelne 
- 2) Prof. Nikhil Wasade 
- 3) Prof. Anuya Killedar Moharil (Dean Design) 
- 4) Prof. Sanjeev Raoot (HOD M.Des) 
- 5) Prof. Neema Gujarkar 
- 6) Prof. Archana Bele 
- 7) Prof. Rajesh Gupta (Administrative Officer) 

Approved and signed by

  
Principal Prof. Pradeep Padgilwar  
Chairman  
Adhoc Committee of IQAC - PIADS

**PRIYADARSHINI INSTITUTE OF ARCHITECTURE & DESIGN STUDIES**

Priyadarshini Campus, Digdoh hills, Off Hingna road, Near, CRPF Campus Nagpur-440 019,

Ph.No. 9607812399. Email : [piadsngp@gmail.com](mailto:piadsngp@gmail.com)



**Internal Quality Assurance Cell (IQAC)**

**Priyadarshini Institute of Architecture And Design Studies  
Nagpur**

**Notice of Meeting**

To,

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The first meeting of the Internal Quality Assurance Cell of PIADS will be held on **Monday 29<sup>th</sup> January 2018 at 10:30 am** in Room No 103 of PIADS; where in your presence is solicited. The Agenda to be transacted is given here under.

Yours Sincerely

(Anuya Killedar Moharil)

(Dean Design)

IQAC Coordinator

DATED : - 16/01/2018

**AGENDA**

ITEM NO. 01 :- Formally finalising and constituting of IQAC at PIADS.

ITEM NO. 02 :- To resolve for applying for Accreditation with National Assessment and Accreditation Council and start with mandatory preparations.

ITEM NO. 03 :- To form a N.A.A.C Accreditation Steering Committee.

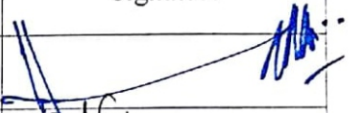
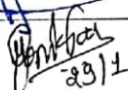
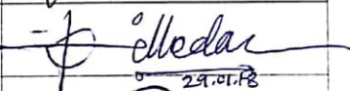

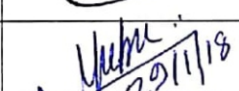
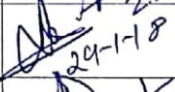
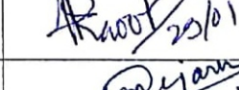

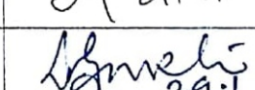
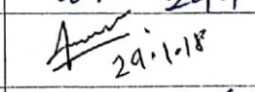
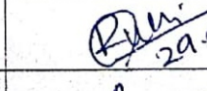

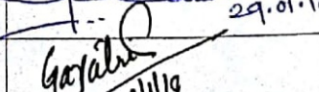
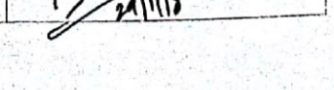

ITEM NO. 04 :- Any other matter with the permission of chair

ITEM NO. 05 :- Vote of thanks.

**PRIYADARSHINI INSTITUTE OF ARCHITECTURE & DESIGN STUDIES**

Priyadarshini Campus, Digdoh hills, Off Hingna road, Near, CRPF Campus Nagpur-440 019,

Ph.No. 9607812399. Email : [piads.ngp@gmail.com](mailto:piads.ngp@gmail.com)**Internal Quality Assurance Cell (IQAC)****ATTENDANCE SHEET OF THE 1<sup>st</sup> MEETING****HELD ON MONDAY 29<sup>th</sup> JANUARY 2018**

Sr. No.	Post Held	Name of the person	Signature
1	Head of the Institute	Prof. Habib Khan (Director)	
2	Chairperson	Prof. Pradeep Padgilwar (Principal)	
3	Coordinator IQAC	Prof. Anuya Killedar-Moharil (Dean Design)	
4	Management Representative	Mr. Abhijeet Deshmukh (Director, LTJSS)	
5	Teacher Members	Prof. Maisha Yelne	
		Prof. Nikhil Wasade	
		Prof. Sanjeev Raoot (HOD, M. Des)	
		Prof. Neema Gujarkar	
		Prof. Archana Bele	
6	Administrative Officer	Mr. Rajesh Gupta	
7	Student Nominee	Mr. Jainam Mehta	
		Ms. Ruchi Sharma	
8	Alumni Nominee	Ar. Gargi Chati	
9	Industrial Nominee	Ar. Vasant Ranade	
10	Parent Nominee	Ms. Gayatri Gokhale	

## Minutes of the First Meeting of IQAC - PIADS held on 29<sup>th</sup> Jan. 2018.

The meeting was convened in Room No. 103 of PIADS.

Chairperson Principal Prof. Pradeep Padgilwar called the meeting to order at 10:45 am.

The member present as per enclosed attendance sheet.

At the outset Chairperson welcomed all present to this First regular meeting of fully-fledge IQAC, and went on to explain the necessity for formation of Internal Quality Assurance Cell. He also explained role / function of IQAC as suggested by N.A.A.C.

Since the Agenda of today's meeting was circulated as part of the Notice of Meeting (Dated 16/01/2018) the same was considered as read, to which every one present consented.

Chairman than proceeded with **Item No. 01** of the Agenda.

Prof. Anuya the Coordinator IQAC read out the list of members as was consented and finalised. All members present reconfirmed / reiterated their consent to their respective post. Thus the IQAC at PIADS was formalised and finalised as : - 1) Head of Institute Prof. Habeeb Khan (Director) 2) Chairperson Prof. Pradeep Padgilwar (Principal) 3) Coordinator IQAC Prof. Anuya Killedar Moharil 4) Management Representative Mr. Abhijeet Deshmukh (Director, LTJSS) 5) Teacher Members Prof. Manisha Yelne, Prof. Nikhil Wasade, Prof. Sanjeev Raooot (HOD M.Des), Prof. Neema Gujarkar, Prof. Archana Bele 6) Staff Representative / Nominee Administrative Officer Mr. Rajesh Gupta 7) Student Nominee Mr. Jainam Mehta and Ms. Ruchi Sharma 8) Alumni Nominee Ar. Gargi Chati 9) Industrial Nominee Ar. Vasant Ranade 10) Parent Nominee Ms. Gayatri Gokhle.

Chairman thanked all present for their kind consent and for cooperation extended.

**ITEM NO 02 :** - Chairman briefly explained the necessity for accreditation and its resulting benefits, usefulness to PIADS and went on to brief about the procedure(s), formalities of N.A.A.C.

After brief discussion all present unanimously resolved that PIADS must apply for the Accreditation with National Assessment and Accreditation Council during the ensuing academic year that is 2018-19 and every one suggested to start the mandatory preperation.

**ITEM NO 03 :** - In view of the brief explanation presented by Chairman - Principal Prof. Pradeep Padgilwar all present suggested to form a Steering Committee for the purpose of Accreditation with N.A.A.C and authorised the Chairman for formation of such a committee at suitable time.

**ITEM NO 04 :** - (Any other matter with the permission of Chair)

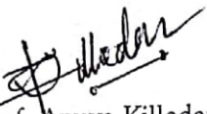
There was nothing under this Item.


**ITEM NO 05 :** - IQAC Coordinator Prof. Anuya thanked all present for their valuable time, guidance, suggestions, cooperation and for active participation and deleberations. She extended special thanks to Ar. Vasant Ranade (Industrial Nominee) Mrs. Gayatri Gokhale (Parent Nominee) Mr. Abhijeet Deshmukh (Director, LTJSS and Management Representative) Ar. Gargi Chati Alumni Nominee for giving their consent and for their presence in todays meeting.

She also thanked the Chair.

The meeting was adjourned at 11: 50 am.

Minutes approved in IQAC meeting held on 12<sup>th</sup> March 2018 on being proposed by Ar. Vasant Ranade (Industrial Nominee) and seconded by Ar. Gargi Chati (Alumni Nominee)

  
(Prof. Anuya Killedar Moharil)  
Coordinator IQAC  
Date : - 12/March/2018

  
(Prof. Pradeep Padgilwar)  
Principal and  
Chairperson IQAC  
Date : - 12/March/2018

## Internal Quality Assurance Cell (IQAC) Action Taken Report On First Meeting of IQAC - PIADS

**ITEM NO 01 :** - During the first meeting held on 29<sup>th</sup> January 2018 an IQAC - at PIADS was formed and constituted consisting of 15 members based on composition as recommended by NAAC.

**ITEM NO 02 :** - The IQAC - in its very first meeting after its formal formation unanimously resolved that PIADS should apply for Accreditation with National Assessment and Accreditation Council (NAAC) during the academic year 2018-19 and the formation / constituting the IQAC at PIADS in itself was the first and important step and reflects the earnestness of PIADS as a bold and necessary preparatory step and resolve to apply for Accreditation with NAAC and formation / constituting steering committee for this purpose.

**ITEM NO 03 :** - On Thursday the 15<sup>th</sup> February 2018 A Steering Committee was constituted by the chairman of IQAC to work for preparation of Self Study Report (S.S.R). This Steering Committee was constituted of under mentioned faculty members namely :-

- 1) Prof. Pradeep Padgilwar Principal - Chairperson
- 2) Prof. Anuya Killedar Moharil (Dean Design)
- 3) Prof. Ramesh Bhambhani as Coordinator of this committee
- 4) Prof. Archana Bele
- 5) Prof. Prateek Barsagade

This above said list was forwarded to Director PIADS Prof. Habib Khan for necessary approval / confirmation.

The necessary and formal approval to this above mentioned committee was granted by Director PIADS vide its Office Order dated 21/02/2018.

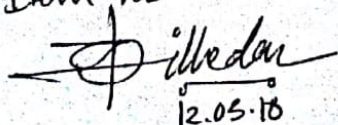
Report prepared and submitted by

DATED: - 23/02/2018

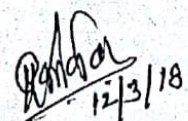


Prof. Anuya Killedar Moharil  
Coordinator IQAC - PIADS

ATR. adopted during the 2<sup>nd</sup> meeting of IQAC-PIADS held on 12<sup>th</sup> March 2018 in room no 103 at PIADS as per Item no 02.



(Prof. Anuya Killedar Moharil)



Prof. P. P. Padgilwar

## Internal Quality Assurance Cell (IQAC)

### Priyadarshini Institute of Architecture And Design Studies Nagpur

#### Notice of Meeting

To,

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The Second meeting of the Internal Quality Assurance Cell of PIADS will be held on **Monday 12<sup>th</sup> March 2018** at **11:00 am** in Room No 103 of PIADS; where in your presence is solicited. The Agenda to be transacted is given here under.

Yours Sincerely



(Anuya Killedar Moharil)

(Dean Design)

Coordinator IQAC

DATED : - 23/02/2018

#### AGENDA

ITEM NO. 01 :- To read, approve and sign the minutes of the first IQAC - PIADS meeting held on 29/01/2018

ITEM NO. 02 :- To read, discuss and adopt the Action Taken Report

ITEM NO. 03 :- To discuss and finalise Teachers Training Programme

ITEM NO. 04 :- To formulate Internal Examination Committee (IEC) and assessment criteria

ITEM NO. 05 :- Holding Summer School 2018

ITEM NO. 06 :- Conducting R T M Nagpur University Viva-Voce

ITEM NO. 07 :- Any other matter with the permission of chair

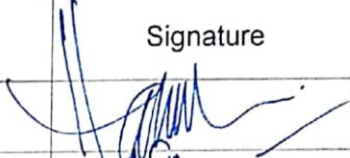


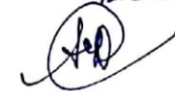
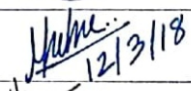
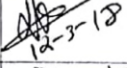

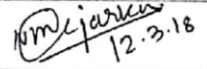
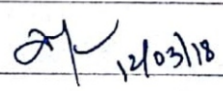
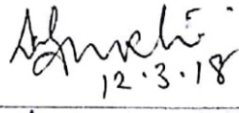
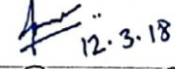
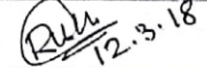
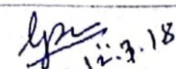
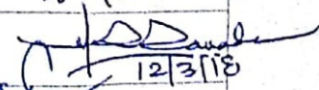

ITEM NO. 08 :- Vote of Thanks.



## Internal Quality Assurance Cell (IQAC)

### ATTENDANCE SHEET OF THE 2<sup>nd</sup> MEETING

HELD ON MONDAY 12<sup>th</sup> MARCH 2018

Sr. No.	Post Held	Name of the person	Signature
1	Head of the Institute	Prof. Habeeb Khan (Director)	
2	Chairperson	Prof. Pradeep Padgilwar (Principal)	
3	Coordinator IQAC	Prof. Anuya Killedar-Moharil (Dean Design)	
4	Management Representative	Mr. Abhijeet Deshmukh (Director, LTJSS)	
5	Teacher Members	Prof. Maisha Yelne	
		Prof. Nikhil Wasade	
		Prof. Sanjeev Raoot (HOD, M.Des)	
		Prof. Neema Gujarkar	
		Prof. Archana Bele	
6	Administrative Officer	Mr. Rajesh Gupta	
7	Student Nominee	Mr. Jainam Mehta	
		Ms. Ruchi Sharma	
8	Alumni Nominee	Ar. Gargi Chati	
9	Industrial Nominee	Ar. Vasant Ranade	
10	Parent Nominee	Ms. Gayatri Gokhale	

## Minutes of the Second Meeting of IQAC - PIADS held on 12<sup>th</sup> March 2018.

The meeting was convened in Room No. 103 of PIADS.

Chairperson Principal Prof. Pradeep Padgilwar called the meeting to order at 11:10 am.

The members present as per enclosed attendance sheet.

At the outset Chairperson welcomed and greeted all present to this Second meeting of IQAC - PIADS. As the Agenda for today's meeting was circulated as part of the Notice of Meeting (dated 23/02/2018) the same was taken as read and to which every one present consented.

Chairman then proceeded with **Item No. 01** of the Agenda.

Prof. Anuya Killedar Moharil, Coordinator IQAC read the minutes of the First P.C. meeting held on 29<sup>th</sup> January 2018 in Room No. 103 of PIADS.

Chairman invited comments on the minutes presented by Prof. Anuya. There were no comments. Ar. Vasant Ranade (Industrial Nominee) proposed that the minutes as presented be adopted and approved Ar. Gargi Chati Seconded the proposal. Since there were no comments and or objections by all present the same were approved by the Chairperson and he and Coordinator IQAC then signed the minutes.

**ITEM NO 02 :** - Prof. Anuya Killedar Moharil the Coordinator IQAC - PIADS presented the Action Taken Report Dated 23/02/2018 and after brief discussion the same was unanimously adopted.

**ITEM NO 03 :** - Prof. Manisha Yelne informed the house the intention of PIADS to conduct one day Teachers Training programme at department level some time by the end of this month of March 2018. She also presented the list of identified resource persons.

After a brief discuss all present appreciated the objective of organising such an event and all present unanimously authorised Chairman to Chalk out the detail programme, the date, venue and resource person and to go ahead with the programme.

Prof. Manisha Yelne thanked all present and assured that the programme will be organised and conducted in a manner befitting the ideology of PIADS.

**ITEM NO 04 :** - Prof. Manisha Yelne explained the intend and purpose of forming an Internal Examination Committee (IEC). Based on the reasonings presented by Prof. Manisha all present agreed to her proposal and authorised Principal Prof. Pradeep Padgilwar to formulate and constitute such IEC well in advance before the commencement of internal exams and proceed with the necessary preperation. Principal Prof. Padgilwar thanked the members for consenting to the proposal and assured that action on this matter will be taken up in right earnest in few days time only.

Prof. Manisha Yelne also explained the criteria for evaluation / assessment for the purpose of internal marking where-in major thrust will be on qualitative contents as has always been the practice at PIADS.

All present appreciated the objective / idea and agreed to the same and also recommended that PIADS as a policy and part of best practices adhere and stick to this ideology.

ITEM NO 05 : - This time again Prof. Manisha briefly summarised all present about the concept / ideology of Summer School and said PIADS has envisaged to conduct this programme in the very first week at the beginning of next academic year 2018-19 and informed that the suggested dates are Saturday 16 June 2018 to Friday 22<sup>nd</sup> June 2018. On further enquiries by Ar. Vasant Ranade (Industrial Nominee) and Mrs. Gayatri Gokhle (Parent Nominee) Prof. Manisha Yelne informed that the primary objective of holding such a school is with the intention of enhancing the overall academic and co-curricular development of both students and teaching faculty.

After few deliberations all present agreed to the proposal as was presented by Prof. Manisha Yelne.

ITEM NO 06 : - Once again Prof. Manisha explained to the members of IQAC - PIADS that as a policy decision we at PIADS have well evolved system for conducting Viva-Voce of all those subjects for which Viva-voce has been stipulated by R T M Nagpur University. She specially placed thrust on the practice of calling Pan -India jury members drawn both from profession and academia to provide and subject the students to maximum exposure as well as with their learned comments, guidance and inputs by invited renowned personas as jury members.

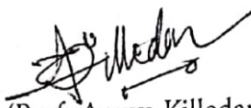
In this matter also all present appreciated the practice followed and promoted by PIADS as well as unanimously agreed to the same.


ITEM NO 07 : - There was nothing under this Item.

ITEM NO 08 : - Prof. Anuya Killedar Moharil (Dean Design) the Coordinator IQAC; profusely thanked all present for sharing their valuable time and suggestions and expected the same kind of valuable guidance, cooperation in the future as well. She also thanked the chair.

The meeting was adjourned by the Chair at 12:40 pm.

Minutes approved in IQAC meeting held on 11<sup>th</sup> June 2018 on being Proposed by Ar. Gargi Chati and Seconded by Prof. Neema Gujarkar.

  
(Prof. Anuya Killedar Moharil)  
Coordinator IQAC  
Date : - 11/June/2018

  
(Prof. Pradeep Padgilwar)  
Principal and  
Chairperson IQAC  
Date : - 11/June/2018

**Internal Quality Assurance Cell (IQAC)**  
**Action Taken Report On Second Meeting of IQAC - PIADS**

**ITEM NO 03 :** - Prof. Anuya Killedar Moharil the Coordinator IQAC convened a meeting consisting of Prof. Manisha Yelne, Prof. Nikhil Wasade and Neema Gujarkar on Thursday 15<sup>th</sup> March in her chamber and Decided to conduct the Teachers Training Program on Friday 30 March 2018 in Room No 103 of PIADS. The focus area was unanimously decided on Sustainable Urban Settlements and the Resource person identified was Prof. Prateek Barsagade.

As decided above on Friday the 30<sup>th</sup> March 2018 Prof. Prateek Barsagade conducted the above said Teachers Training Program which was held in Room No 103 of PIADS. The timing for this programme was from 10:00 am to 2:00 pm and this was attended by Seventeen teachers. List of attendees as per Annexure 'A'.

**ITEM NO 04 :** - As per recommendations of IQAC - an Internal Examination Committee (IEC), was formed by Principal Prof. Pradeep Padgilwar on Wednesday 14<sup>th</sup> March 2018 by an office order and constituted IEC where in Prof. Nikhil Wasade was appointed as Officer Incharge. Other faculty members appointed on this IEC are Prof : - Saurabh Paliwal, Prof. Krutika Rajderkar and Prof. Radhika Pathak.

**ITEM NO 05 :** - Prof. Krutika Rajderkar was appointed as Faculty Incharge for the proposed Summer School scheduled to be conducted at PIADS with revised dates from Friday 15<sup>th</sup> June 2018 to Sunday 24<sup>th</sup> June 2018. She was entrusted with the job to formulate the guidelines, policies for this programme as well as work out, plan and implement the same.

The report of Faculty Incharge Prof. Krutika Rajderkar is appended herewith as part of Action Taken Report.

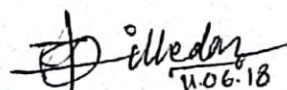
**ITEM NO 06 :** - Formulation and updatation of a Pool of Jury Members for conducting Viva-voce of various subjects of R T M Nagpur University was prepared on Tuesday 20<sup>th</sup> March 2018; As per appended list and report.

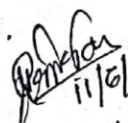
Report prepared and submitted by

DATED: - 19/04/2018

  
Prof. Anuya Killedar Moharil  
Coordinator IQAC - PIADS

ATR adopted during 2<sup>nd</sup> meeting of IQAC-PIADS held on 11<sup>th</sup> June '18  
in Room no 103 of PIADS as per Item no 02.

  
19/06/18  
(Prof. Anuya Killedar Moharil)

  
11/6/18  
Prof. P. P. padgilwar

## Internal Quality Assurance Cell (IQAC)

### Priyadarshini Institute of Architecture And Design Studies Nagpur

#### Notice of Meeting

To,

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The Third meeting of the Internal Quality Assurance Cell of PIADS is scheduled to be held on **Monday 11<sup>th</sup> June 2018 at 11:00 am** in Room No 103 of PIADS; where in your presence is solicited. The Agenda to be transacted is given here under.

Yours Sincerely



(Anuya Killedar Moharil)  
(Dean Design)  
Coordinator IQAC

DATED : - 03/05/2018

#### AGENDA

ITEM NO. 01 :- To read, approve and sign the minutes of the Second IQAC - PIADS meeting held on 12<sup>th</sup> March 2018.

ITEM NO. 02 :- To read, discuss and adopt the Action Taken Report

ITEM NO. 03 :- Academic Review of previous Semester

ITEM NO. 04 :- To discuss and adopt Design Pedagogy

ITEM NO. 05 :- To discuss about the extension of the Mentor - Mantee System

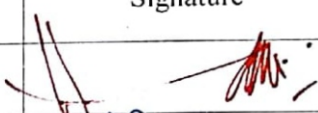
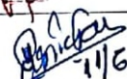
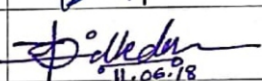


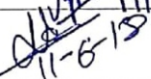
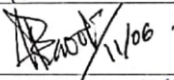
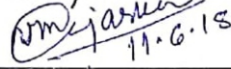

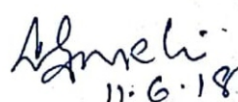
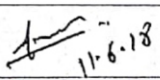
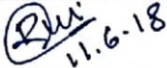
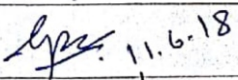
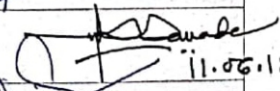
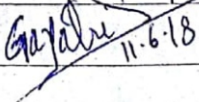
ITEM NO. 06 :- Any other matter with the permission of chair

ITEM NO. 07 :- Vote of Thanks.

## Internal Quality Assurance Cell (IQAC)

### ATTENDANCE SHEET OF THE 3<sup>rd</sup> MEETING

HELD ON MONDAY 11<sup>th</sup> JUNE 2018

Sr. No.	Post Held	Name of the person	Signature
1	Head of the Institute	Prof. Habeeb Khan (Director)	
2	Chairperson	Prof. Pradeep Padgilwar (Principal)	
3	Coordinator IQAC	Prof. Anuya Killedar-Moharil (Dean Design)	
4	Management Representative	Mr. Abhijeet Deshmukh (Director, LTJSS)	
5	Teacher Members	Prof. Maisha Yelne (Dean Academics)	
		Prof. Nikhil Wasade (Dean Administration)	
		Prof. Sanjeev Raoot (HOD, M.Des)	
		Prof. Neema Gujarkar	
		Prof. Archana Bele	
6	Administrative Officer	Mr. Rajesh Gupta	
7	Student Nominee	Mr. Jainam Mehta	
		Ms. Ruchi Sharma	
8	Alumni Nominee	Ar. Gargi Chati	
9	Industrial Nominee	Ar. Vasant Ranade	
10	Parent Nominee	Ms. Gayatri Gokhale	

# Minutes of the Third Meeting of IQAC - PIADS held on 11<sup>th</sup> June 2018.

The meeting was convened in Room No. 103 of PIADS.

Chairperson Principal Prof. Pradeep Padgilwar called the meeting to order at 11:10 am.

The members present as per enclosed attendance sheet.

Chairperson Prof. Pradeep Padgilwar extended warm welcome and greetings to all present for this Third Meeting of IQAC - PIADS.

Since the agenda for today's meeting was circulated as part of the Notice of meeting (dated 03/05/2018) the same was taken as read and to which every one present consented.

Chairman then proceeded with **Item No. 01** of the Agenda.

Prof. Anuya Killedar Moharil, Coordinator IQAC read the minutes of Second IQAC - PIADS meeting held on 12<sup>th</sup> March 2018 in Room No. 103 of PIADS.

Having read the minutes Chairman invited comments on the minutes as presented by Coordinator IQAC - Prof. Anuya. All present expressed that the contents seems to be in order, Ar. Gargi Chati proposed that the minutes as presented be adopted and approved, Prof. Neema Gujarkar seconded the proposal. Since there were no further comments and or objections by all present the same were approved by the Chair and then he and Coordinator IQAC signed the minutes.

**ITEM NO 02 :** - Coordinator of IQAC - Prof. Anuya Killedar Moharil presented the Action Taken Report. All present expressed their satisfaction to the presented report and the Action Taken Report was adopted unanimously.

**ITEM NO 03 :** - Dean Academics Prof. Manisha Yelne; briefly explained to all present the teaching methodology / procedures practiced at PIADS and expressed a need to further improve, amend for the further upliftment of academics. In this direction she went on to make few suggestions as well; All present deliberated on this and after a fruit-full discussion and suggestions especially from Ar. Vasant Ranade, Ar. Gargi Chati and Director Prof. Habeeb Khan it was decided that for the current academic session, the Dean Academics along with senior faculty members need to develop a system to inculcate a better sense of responsibilities in the students so that they get more focused towards their curriculum. This suggestion was accepted by the IQAC and Chairman assured the members that attempt in right earnest would be initiated in this direction from the current academic year.

**ITEM NO 04 :** - Prof. Anuya Killedar Moharil, Coordinator IQAC and also Dean Design explained that from current academic year it is envisaged to continue with the past practices of assigning 10 - 13 students to each faculty assigned to teach design but with a slight amend that this group of 10 -13 may be totally dedicated to a specific teacher who will be solely responsible for in terms of Design Prof. Anuya went to say that more thrust will also be to make models to be integral to design teaching / solutions and equal importance be placed on stage-wise models of the design produced. She also lay thrust on continuing with the week - long design schedule but with a change to split the hours over to 2 days per week.

Ar. Vasant Ranade and Ar. Gargi Chati sought more clarity on this matter, the same was done by Prof. Anuya after which all present accepted / agreed to the suggested Pedagogy and asked the institute to implement the same from current academic year.

ITEM NO 05 : - Dean Design Prof. Anuya Killedar Moharil, also the coordinator of IQAC - PIADS explained this concept and practice of Mentor - Mentee system especially to Industrial, Parent and Alumni nominee and went on to describe the encouraging results being observed from such a practice. After deliberations all agreed and accepted the system and recommended its continuation / extension with an enhanced thrust to assist students in the development of IQ as well EQ (Emotional Quotient) and be equivalent to Teacher - Guardian concept.

ITEM NO 06 : - under this all three nominee namely Ar. Vasant Ranade, Ar. Gargi Chati and Ms Gayatri Gokhale suggested that from next meeting onward it would be better if probable date could be decided for next meeting so as to enable them to plan their future programmes accordingly.

Chairman welcomed this suggestion and assured to take care of this from next meeting onward.

ITEM NO 07 : - Coordinator IQAC - PIADS Prof. Anuya Killedar Moharil (Dean Design) extended her gratitude and thanked all present for their timely cooperation, presence and for fruitful discussions and expected the same in future as well and she concluded by thanking the chair.

The meeting was adjourned by the chair at 12: 50 pm.

## **Internal Quality Assurance Cell (IQAC)**

### **Action Taken Report On Third Meeting of IQAC - PIADS**

**ITEM NO 03 :** - A meeting of group of teaching faculty was convened by Prof. Manisha Yelne - Dean Academics on Thursday 14<sup>th</sup> June 2018 in her chamber and after discussions / deleberations on this matter a policy frame work was worked out and after due approval from Principal the same was communicated to every teaching faculty. The above said policy frame work is appended here with as Annexure - 'A'.

**ITEM NO 04 :** - Prof. Anuya Killedar Moharil, Dean Design (also Coordinator IQAC) along with Design Coordinators have worked out a Semester - wise list of Dedicated Mentor and Mantees where in each mentor was assigned with a maximum of 13 students. This Mentor - Mantee list was communicated to the concerned teachers and students on Monday 25 June 2018 with a directive to faculty members to implement the relevant policy with immediate effect.

**ITEM NO 05 :** - As the IQAC during its Third Meeting held on 11<sup>th</sup> June 2018 had already agreed to proposal under this Item of Agenda the same was implemented vide an office order dated 25<sup>th</sup> June 2018 by which it was informed to all faculty members about the extension of the Mentor - Mentee system practiced at PIADS; and the same to be implemented with immediate effect.

**ITEM NO 06 :** - The suggested action is set to be practiced from next meeting on ward.

## Internal Quality Assurance Cell (IQAC)

### Priyadarshini Institute of Architecture And Design Studies Nagpur

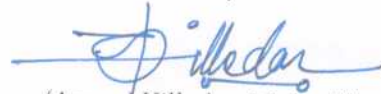
#### Notice of Meeting

To,

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The Fourth meeting of the Internal Quality Assurance Cell of PIADS will be held on **Monday 04<sup>th</sup> March 2019 at 04:30 pm** in Room No 103 of PIADS; where in your presence is solicited. The Agenda to be transacted is given here under.

Yours Sincerely



(Anuya Killedar Mohari)

(Dean Design)

Coordinator IQAC

DATED :- 16/02/2019

#### AGENDA

ITEM NO. 01 :- To read, approve and sign the minutes of the Third IQAC - PIADS meeting held on 11/06/2018

ITEM NO. 02 :- To read, discuss and adopt the Action Taken Report

ITEM NO. 03 :- To discuss and finalise the details of the CEPT Thesis exhibition to be held under 25 year celebration of PIADS.

ITEM NO. 04 :- To discuss, finalize the proposals for lectures / workshops and teacher training programs as submitted by faculty members.

ITEM NO. 05 :- Holding Summer School 2019

ITEM NO. 06 :- Conducting RT M Nagpur University Viva-Voce

ITEM NO. 07 :- Design Progress Evaluation

ITEM NO. 08 :- Feedback and suggestions from nominated members

ITEM NO. 09 :- Any other matter with the permission of chair

ITEM NO. 10 :- Vote of Thanks.

**PRIYADARSHINI INSTITUTE OF ARCHITECTURE & DESIGN STUDIES**

Priyadarshini Campus, Digdoh hills, Off Hingna road, Near, CRPF Campus Nagpur-440 019,  
Ph.No. 9607812399. Email : [piads.ngp@gmail.com](mailto:piads.ngp@gmail.com)



**Internal Quality Assurance Cell (IQAC)**

**ATTENDANCE SHEET OF THE 4<sup>TH</sup> MEETING**

**HELD ON MONDAY 4<sup>TH</sup> MARCH, 2019**

Sr. No.	Post Held	Name of the person	Signature
1	Head of the Institute	Prof. Habeeb Khan (Director)	
2	Chairperson	Prof. Pradeep Padgilwar (Principal)	
3	Coordinator IQAC	Prof. Anuya Killedar-Moharil (Dean Design)	
4	Management Representative	Mr. Abhijeet Deshmukh (Director, LTJSS)	
5	Teacher Members	Prof. Maisha Yelne	
		Prof. Nikhil Wasade	
		Prof. Sanjeev Rao (HOD, M. Des)	
		Prof. Neema Gujarkar	
		Prof. Archana Bele	
6	Administrative Officer	Mr. Rajesh Gupta	
7	Student Nominee	Mr. Jainam Mehta	
		Ms. Ruchi Sharma	
8	Alumni Nominee	Ar. Gargi Chati	
9	Industrial Nominee	Ar. Vasant Ranade	
10	Parent Nominee	Ms. Gayatri Gokhale	

## **Minutes of the Fourth Meeting of IQAC - PIADS held on 04<sup>th</sup> March 2019.**

Minutes of the Fourth meeting of the Internal Quality Assurance Cell (IQAC) held on Monday 04<sup>th</sup> March 2019.

**Venue:** Room 103 at Priyadarshini Institute of Architecture and Design Studies.

Meeting called to order by IQAC Chairperson at 5:30 pm

**Members Present:** The members present as per enclosed attendance sheet.

### **Grant of leave of absence :**

Mr Abhijit Deshmukh and Prof. Manisha Yelne has expressed their inability to attend the IQAC Meeting and requested for leave of absence. Chairman has granted Leave of absence for not attending the IQAC Meeting.

At the outset Chairperson welcomed and greeted all present to this Fourth meeting of IQAC - PIADS. As the Agenda for today's meeting was circulated as part of the Notice of Meeting (dated 16/02/2019) the same was taken as read and to which every one present consented.

Chairman then proceeded with **Item No. 01** of the Agenda.

Prof. Anuya Killedar Moharil, Coordinator IQAC read the minutes of the Third IQAC meeting held on 11<sup>th</sup> June 2018 in Room No. 103 of PIADS. Chairman invited comments on the minutes presented by Prof. Anuya. There were no comments.

Ar. Vasant Ranade (Industrial Nominee) proposed that the minutes as presented be adopted and approved. Ar. Gargi Chati Seconded the proposal.

Since there were no comments and or objections by all present the same were approved by the Chairperson and he and Coordinator IQAC then signed the minutes.

**ITEM NO 02 :** - Prof. Anuya Killedar Moharil the Coordinator IQAC - PIADS presented the Action Taken Report and after brief discussion the same was unanimously adopted.

**ITEM NO 03 :** - The CEPT Exhibition will be held from 14<sup>th</sup> March to 19<sup>th</sup> March 2019 in PIADS Campus. It is suggested to give wide publicity for this exhibition and invitation to be send to the other institution from Vidharbha, Andhra Pradesh, Chhatisgarh and Madhya Pradesh.

The exhibition will then shifted to LTIADS, Mumbai. Prof. R.G. Bhambhani suggested that faculties from CEPT, Ahamedabad to be invited to teach the faculties and students of PIADS how to approach, what is the method to achieve the results and about details of documentation.

This exhibition is the part of 25<sup>th</sup> Silver Jubilee Celebration of PIADS. It is also suggested to give wide publicity in local news paper as well.

Ar. Vasant Ranade (Industrial Nominee) suggested that the faculties from CEPT to be called to teach about time management and financial management for the 10<sup>th</sup> sem students for their thesis work.

**ITEM NO 04 :** - It was suggested to finalise the dates for the workshop by the Psychologist for the teachers as well as students.

**ITEM NO 05 :** - It was suggested that the objective of the Summer School should be related to crafts and allied fields, teaching students through co curricular activities.

**ITEM NO 06 :** - The RTM Nagpur University Viva is scheduled from 03/04/19 to 05/04/2019 for odd sem and from 22/04/2019 to 26/04/2019 for even sem. Thesis viva for 10<sup>th</sup> sem is scheduled on 23<sup>rd</sup> and 24<sup>th</sup> May 2019.

**ITEM NO 07:** - The present Design evaluation system was explained in detail and it was resolved unanimously that the same shall be continued for the coming semester, except raising the qualifying percentage for PIADS VIVA from 50% to 60%. The same is to conveyed to the students at the start of the next academic session on 17 June 2019.

**ITEM NO 08 :** - Feedback taken from the student need to be tailor-made for architecture students. The same is to be conveyed to Prof. M.J.M.S. Siddiqui, who is incharge of student feedback for whole of LTJSS.

Ms. Gayatri Gokhle (Parent Nominee) pointed there is less communication between faculty and students. Faculty should talk more to the students. Students are very much reluctant to talk to the faculty to clear their doubts.

It was resolved that a copy of Administration and Academics policy framed should be circulated among the IQAC members for ready reference.

It was also resolved that IQAC meeting is to be conducted quarterly and Dean Academics will prepare and submit Pedagogy for the coming academic session in the next IQAC meeting.

**ITEM NO 09 :** - Any other matter with the permission of chair.


Ar. Vasant Ranade (Industrial Nominee) to be suggested that students are more exposed to industries the gap between academic and industries increase day by day. Director Prof. Habeeb Khan said that the gap can only truly be bridged when PIADS attains autonomy.

Prof. Neema Gujarkar suggest that the subject change in every two year affects the quality of teaching. Teacher should get more time to teach the same subject.

Jainam Mehta (Student Nominee) said that during last NASA visit some senior faculties told that their education is outdated. Same thing is teaching since last 40 years.

Ruchi Sharma (Student Nominee) suggest that the new judging criteria in design, it should be qualitative then quantitative. Prof. Habeeb Khan suggest do honest work in NASA. Sheet presentation of others institutions are better than our institute in NASA.

The meeting was adjourned by the chair at 6:45 pm.



(Prof. Anuya Killedar Moharil)

Coordinator IQAC

Date :- 04/03/2019



(Prof. Pradeep Padgilwar)

Principal and

Chairperson IQAC

Date :- 04/03/2019

**Internal Quality Assurance Cell (IQAC)**  
**Action taken Report of Fourth Meeting of IQAC-PIADS**

**ITEM NO 03: CEPT EXHIBITION:** Prof. Nikhil Wasade and Prof. Anuya Killedar Moharil were assigned the task of coordinating the exhibition. Both coordinators sorted and printed the exhibition content from CtrlP Den at PIADS and the same was carefully stored awaiting installation. Quotations for exhibit panels was called for from two different vendors .

**ITEM NO 04 :** No date could be finalised.

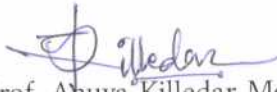
**ITEM NO 05:** The PIADS Summer School dates (29.06.2019 to 07.07.2019) were announced on 20<sup>th</sup> June 2019. The format for the Summer School was explained to the students on the same day. The students selected their summer school module on 24<sup>th</sup> June 2019.

**ITEM NO 07:** The students were informed about the changes in the Design Evaluation as discussed and resolved in the Fourth IQAC meeting by Director Architecture LTJSS, Prof. Habeeb Khan on 04<sup>th</sup> July 2019 in a common assembly.

**ITEM NO 08:** A copy of academic and administrative policies was sent to all IQAC members on 04<sup>th</sup> July 2019.

Report prepared and submitted by

DATED: - 08/07/2019

  
Prof. Anuya Killedar Moharil  
Coordinator IQAC - PIADS



**Summer School 2019**

All Faculty members to please note that **Summer School 2019** will be held from **Saturday 29th June 2019 to Sunday 7th July 2019**.

This year, the summer school will focus on output-oriented work to be produced by each semester through linked elective subjects. Within this the primary data will be collected in Elective A and corresponding output has to be produced in Elective B. The course outline and output will be decided by the respective Linked Elective teams who are collectively responsible for the same. The brief has to be submitted to the Co-ordinator by Tuesday 18th June 2019.

Marks to be given out of 100 to Elective A and B each and displayed by Saturday 13th July 2019

	3rd Semester		
Linked Electives	ELECTIVE A1 Architectural Documentation	ELECTIVE B1 Rural Architecture	Studio A & B
Faculty Team	SG, TD, NMG, LG, MG, RGB		
Linked Electives	ELECTIVE A2 Hi-TEC	ELECTIVE B2 Vernacular Architecture	Studio C
Faculty Team	MM, AT, AKM, AS		
	5th Semester		
Linked Electives	ELECTIVE A1 APT	ELECTIVE B1 Computer Application	Studio A
Faculty Team	AB, NVW, MDG		
Linked Electives	ELECTIVE A2 Regional Architecture	ELECTIVE B2 Computer Application	Studio B
Faculty Team	RAD, PGB, AD		
Linked Electives	ELECTIVE A3 Sustainable Architecture	ELECTIVE B3 Computer Application	Studio C
Faculty Team	RSP, KR, VC, SDY		
	7th Semester		
Linked Electives	ELECTIVE A1 Urban Aesthetics	ELECTIVE B1 Landscape Design	Section A
Faculty Team	SK, SB, SSG, SBC, JT.		
Linked Electives	ELECTIVE A2 Urban Planning	ELECTIVE B2 GIS	Section B
Faculty Team	AAP, SP, AG, AMB, RT		

Prof. Manisha Yelne  
Dean Academics

Prof. P.P. Padgilwar  
Principal, PIADS

Prof. Sameer Gujar  
Summer School 2019 Incharge, PIADS

Prof. Habeeb Khan  
Director, PIADS

	informed		informed		informed
KPR		AKM		SK	<i>SL</i>
RGB		NW	<i>Q</i>	MM	<i>Madhu</i>
SSG		SP		VC	<i>no</i>
VGD		NC		SS	
NMG		SB	<i>SB</i>	SG	<i>7</i>
RAD		NK		TD	
SWR		AT	<i>AT</i>		
AB	<i>AB</i>	KR			
PGB		AP			
MDG		AS	<i>AS</i>		
MPY		SD	<i>SD</i>		
AMB		AR			
RP		LG	<i>LG</i>		

## PRIYADARSHINI INSTITUTE OF ARCHITECTURE &amp; DESIGN STUDIES

Priyadarshini Campus, Digdoh hills, Off Hingna road, Near. CRPF Campus Nagpur-440 019.

Ph.No. 9607812399, Email : [piadsngp@gmail.com](mailto:piadsngp@gmail.com)

PIADS

Date : 01.07.2019

## NOTICE

## Distribution of Teacher Guardian Faculty

Following faculties are allotted the student under teacher guardian scheme for 3<sup>rd</sup> semester for academic session 2019-20

SN	Name of TG faculty	Roll no	Signature
1	Prof.Radhika Pathak	01 to 13	
2	Prof.Trupti Dabe	14 to 26	
3	Prof.Vijay Deoskar	27 to 40	
4	Prof.Neema Gujarkar	41 to 53	
5	Prof.Arun Soman	54 to 66	
6	Ar. Arpita Das	67 to 80	
7	Prof.Sanjeev Raoot	81 to 94	
8	Prof.Vijaya Choudhari	95 to 107	
9	Prof.Krutika Rajderkar	108 to 121	

Dean ( Design)  
PIADS

Dean ( Academics)  
PIADS

Principal  
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**PRIYADARSHINI INSTITUTE OF ARCHITECTURE & DESIGN STUDIES**

Priyadarshini Campus, Digdoh hills, Off Hingna road, Near, CRPF Campus Nagpur-440 019.

Ph.No. 9607812399. Email : [piadsngp@gmail.com](mailto:piadsngp@gmail.com)



**PIADS**

Date : 01.07.2019

**NOTICE**

**Distribution of Teacher Guardian Faculty**

Following faculties are allotted the student under teacher guardian scheme for 5<sup>th</sup> semester for academic session 2019-20

SN	Name of TG faculty	Roll no	Signature
1	Prof.Sarang Gurjar	1 to 12	
2	Ar.Amit Pimpale	13 to 24	
3	Prof.Saurabh Paliwal	25 to 35	
4	Prof.Nikhil Wasade	36 to 47	
5	Prof.Archana Bele	48 to 59	
6	Ar. Shivani Choudhary	60 to 71	
7	Prof. Mrunal Gaikwad	72 to 83	
8	Prof.Ararna Tarar	84 to 95	
9	Ar. Mohini Gajbhiye	96 to 107	

Dean ( Design)  
PIADS

Dean ( Academics)  
PIADS

Principal  
PIADS





Date : 01.07.2019

NOTICE

Distribution of Teacher Guardian Faculty

Following faculties are allotted the student under teacher guardian scheme for 7<sup>th</sup> semester for academic session 2019-20

SN	Name of TG faculty	Roll no	Signature
1	Prof. Pratik Barsagade	1 to 10	
2	Ar. Madura Mainde	11 to 19	
3	Prof. Jayant Tikkas	20 to 28	
4	Prof. Anuya Killedar Moharil	29 to 38	
5	Ar. Anmol Gaikwad	39 to 47	
6	Prof. Jaikishan Pillai	48 to 56	
7	Prof. Kishor Rewatkar	57 to 66	
8	Prof. Rashmi Dande	67 to 75	
9	Prof. Snehal Karale	76 to 84	

Dean ( Design)  
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Priyadarshini Institute of Architecture and design Studies  
Teacher Gurdian List AY 2019-20

**3rd semester**

SN	Name	Teacher Gaurdian
1	ABHISHEK SANDIP JANGID	Prof.Radhika Pathak
2	ABHISHEK SONI	
3	ACHAL VIJAYRAO POTODE	
4	ADITI BONDIA	
5	ADITYA BHAGWAN BAJAJ	
6	AKANKSHA MANISH KALE	
7	AKHILA GHAROTE	
8	ALISHA MICHEAL REGANI	
9	AMAAN BAHARMIYA KHAN	
10	AMAN WATHORE	
11	AMEETOZE SING KAPOOR	
12	AMITA SILHI	
13	ANAGHA KHUNE	
14	ANISHA SANGAMNERKAR	Prof.Trupiti Dabe
15	ANJALI SONTAKKE	
16	ANJALI TOTANI	
17	ANKITA BALPANDE	
18	ANUSHREE AJAY DONODE	
19	ANUSHREE GIRISH KULKARNI	
20	ARCHIT DHUMAL	
21	ARYAN GURDEEP DHIMAN	
22	ATHARVA PRAKASH GIRI	
23	AUSAF AZIZ KHAN	
24	BHAKTI PRATAPWAR	
25	BHUMI KHOBRAGADE	
26	BHUMIKA BAHALANI	
27	BHUSHAN DHIRAN	
28	BRIJESH TIWARI	Prof.Vijay Deoskar
29	BURHANUDDIN HILAL	
30	CHAITANYA MUNGILWAR	
31	GHARVI SAHU	
32	CHETNA KATRE	
33	CHINMAY JAWARKAR	
34	DARSHAN HARIKISHAN DAD	
35	DEEKSHITHA KOCHER	
36	DEVANG DILIP CHAWHAN	
37	DEVANGI MULANI	
38	DHANANJAY RUKMANGAD MUNGLE	
39	DHIRUV THACKAR	
40	DIMPLE HEMANT KHILNANI	
41	DIVYA SANJAY SHROTRIYA	
42	EKTA VIVEK SAMARTH	Prof.Neema Gujarkar
43	FARZAN SHAHID KHAN	
44	GOURI KASANGOTTUWAR	
45	HARSH CHOKHANI	
46	HIMANSHU SAHU	
47	INSIYA MUSTAFA RATLAMWALA	
48	JANHVI MANOJ CHOURIA	
49	JANVI RATNAKAR KHERGADE	
50	JAYATI SHANKER SHIVHARE	
51	JYOTIRMOY BISWAS	
52	KANCHAN SELUKAR	
53	KASHYAP SANJAY NAGDEVE	
54	KAUSTUBH KADGALE	
55	KOSHIKA RAJENDRA BHIVGADE	
56	KRATIKA SANDEEP NAMDEV	
57	KRUPALI RASHMIKANT UNNARKAR	
58	KRUTIKA DAKHORE	
59	LAKSHIYA SAHU	



SN	Name	Teacher Gaurdian
60	LULUA YUSUF MASTER	Prof.Arun Soman
61	MADHURA BHOYAR	
62	MANSI RAJENDRA JAIN	
63	MEERA FADNIS	
64	MINAL AGRAWAL	
65	MOHAMMAD AMAAN MANSOORI	
66	MOHAMMAD WAQUAR AHMED	Ar. Arpita Das
67	MOHD AMAN SHEIKH	
68	MRUNMAYEE PANDE	
69	NAKUL KORDE	
70	NANDINI MANOJ KUMBHARE	
71	NEHA CHHOTELAL RINAYAT	
72	NEHA PALANURKAR	
73	NIHAR NAVANIT CHANDAK	
74	NIHARIKA PUNDLIK	
75	NIKITA BISEN	
76	NIKUNJ SANJAY SARDA	
77	PALAK PRADHAN	
78	PAYAL CHANDANKHEDE	
79	PRASAD PRABHAKAR SHENDE	
80	PRATEEK KHATRI	Prof.Sanjeev Raoot
81	PUNAM NARESH GHONGE	
82	PURVASHA SHAMBHUWANI	
83	PURVI SHEKHAR SHARMA	
84	RAGHIVENDRA THAKUR	
85	RAJ HURKAT	
86	RIDAM SUNIL GOBRE	
87	RINAL TAPLE	
88	RIYA DEEPAK WADHWANI	
89	ROHIT ASATI	
90	ROHIT SOHAN RATHI	
91	ROUNAK SAWAL	
92	RUDRA LAKHERA	
93	SAIYOGEEETA RAMTEKKAR	Prof.Vijaya Choudhary
94	SAKSHI ADWANI	
95	SAKSHI GOEL	
96	SAKSHI RAJU PAZARE	
97	SAKSHI SINGH	
98	SANSKAR RAJESH SAHU	
99	SARVESH DIPTE	
100	SATYAJEET NIRANJAN HEDAO	
101	SHARAYU RATNAKAR KULKARNI	
102	SHARVARI JOSHI	
103	SHARWARI GONNADEY	
104	SHEETAL NARESH DEKATEY	
105	SHEETAL SINGH	
106	SHIVANI ROHIT GUPTA	Prof.Krutika Rajderkar
107	SHUBHAM KULTHE	
108	SHUBHANGI MEHTA	
109	SMRUTI THERGAONKAR	
110	SONAL GANDHI	
111	SUFYAN MOHD	
112	SURESH SUTHAR	
113	SWAPNIL GANJURDE	
114	SWARAJ MAHAJAN	
115	SYED MUSSAIN FAISAL	
116	TANVI KHARE	
117	TEJAL PETARE	
118	TUSHAR ROY	
119	YASH VARMA	
120	YATI SANJAY ARORA	
121	YATIN SHARMA	








Priyadarshini Institute of Architecture and design Studies  
Teacher Gurdian List AY 2019-20

**5th semester**

SN	Name	Teacher Gaurdian
1	ABHISHEK KAPSE	Prof.Sarang Gurjar
2	Adarsh R. Tarwani	
3	ADITI HARISH SHARMA	
4	ADITYA GAHARWAR	
5	AKANKSHA KHARE	
6	AKSHAD THANTHRETEY	
7	ANIRUDH DOSHI	
8	ANISHI ANIL LUNAWAT	
9	ANJALI DUDHE	
10	ANJALI PRAKASH PAMNANI	
11	ANJALI VASVANI	
12	ANKIT MISHRA	Ar.Amit Pimpale
13	ANKIT SHAILESH GABRIEL	
14	ANUJ AJAY BAJAJ	
15	APEKSHA VIKAS DUBEWAR	
16	ATHARV GUPTA	
17	ATHARVA SHIRALKAR	
18	ATUL H. HANCHNALE	
19	AYUSHI JOSHI	
20	CHANCHAL SHIRKE	
21	CHINMAY CHAWARE	
22	DANISH FATIMA	Prof.Saurabh Paliwal
23	DEVANSHI KOTECHEA	
24	DHANSHREE J. ADAGULWAR	
25	DHAVAL KHUDKHUDIA	
26	GAURAV KEJDIWAL	
27	GAURAV MAHENDRA AGRE	
28	GAURI MANOJ DHURDE	
29	GAYATRI DEEPAK THAKUR	
30	HARSH SANJAY NILE	
31	ISHAN HATWAR	
32	JHANVI BHOPE	Prof.Nikhil Wasade
33	KAMOD LALIT ADEWAR	
34	KARAN KUSRE	
35	KHUSHBU SUNIL NAGPAL	
36	KHUSHI HEMRAJANI	
37	KIRAN THER	
38	KOMAL PRAVIN MOURYA	
39	KRISHNA BHAVESH SHAI	
40	MAITREYEE KULKARNI	
41	MANALI ASHOK DHAKATE	
42	MANDAR AVINASH BHALEKAR	Prof.Archana Bele
43	MANSI DILIP LAKHAMAPURE	
44	MANSI VIJAY SHARMA	
45	NAMRATA NIMJE	
46	NATASHA MANAPURE	
47	NIRALI BELSARE	
48	OMAR SIDDIQUI AHMED	
49	PALLAV THAPA	
50	PARUL AGRAWAL	
51	PRACHI AGRAWAL	
52	PRANAY KALE	
53	PRANIL GAJANAN TUNDALWAR	
54	PRATUSH RAMESH GEDAM	
55	PRIYANSHU JHANVAR	



SN	Name	Teacher Gaurdian
56	PURVA ANIL SINGH TOMAR	
57	RAHUL PRAKASH TRIVEDI	
58	RAJ MAHESHWARI	
59	RENUKA KULKARNI	
60	RESHMA C. BARDE	Ar. Shivani Choudhary 
61	RUCHA ANIL DESHMUKH	
62	RUTUJA ABHAY GIRDHAR	
63	RUTUJA PRABHAKAR MANE	
64	SAEE RAHUL FADNAVIS	
65	SAKSHI DESHPANDE	
66	SAKSHI KASHELANI	
67	SAKSHI VIJENDRA NEMA	
68	SAMPADA SUDHIR MAHULKAR	
69	SANKITA MANOJ LODHI	
70	SAYALI BURDE	Prof. Mrunal Gaikwad 
71	SAYALI NANDKISHOR GEDAM	
72	SHALAKA MOHAN DESHPANDE	
73	SHARVARIC. GULKARI	
74	SHEETAL BHARIL	
75	SHIPRA GADGE	
76	SHITAL GIRDHARILAL PALIWAL	
77	SHIVANEE SUNIL KHOTELE	
78	SHIVANI PANSE	
79	SHIVANI PRAMOD BARI	
80	SHREYA JAIN	Prof. Ararna Tarar 
81	SHREYA PASARI	
82	SHREYASH JAKATI	
83	SHRIHARI MUKUND DAOO	
84	SHRIRANG SHIVAJI BHAGAT	
85	SHRIYA SHRIVASTAV	
86	SNEHAL GAHAUKHEDKAR	
87	SONAL SHRIRAM BANDRE	
88	SUJAY PRAFUL NILAWAR	
89	SUMAIYA BAIG	
90	SURAJ WANKHEDE	Ar. Mohini Gajbhiye 
91	SURMAI DUBEY	
92	SWATI AJAY JOSHI	
93	TANVI MOHAN GHARPURE	
94	TEJAS GANGULY	
95	TEJASHREE SHETE	
96	TINA SHEKHAR BOKADE	
97	UJJAWAL RAI	
98	URVI RAJESH DANI	
99	VAIDEHI ARUN AGRAWAL	
100	VAISHNAVI KHODASKAR	
101	VAISHNAVI KISHOR RODAGE	
102	VAISHNAVI P. SANJAYAN	
103	VEDANT C. NANDEDKAR	
104	VIRAJ JUTHANI	
105	VIRAJ RAJIV DUDHALKAR	
106	YASH AGARWAL	
107	YOGESH BAGRI	



Priyadarshini Institute of Architecture and design Studies  
Teacher Gurdian List AY 2019-20

7th semester		
SN	Name	Teacher Gaurdian
1	AAKANKSHA GOENKA	Prof. Pratik Barsagade
2	ABHIJEET BALRAJ CHAVHAN	
3	ABHIJEET JANGID	
4	ABHINAY SHIRKE	
5	ABHISHEK H. DESHMUKH	
6	AISHWARYA PRAKASH JODH	
7	AISHWARYA SUNIL SHETE	
8	AMRUTA SANJAYKUMAR BADAVE	
9	ANIL PANDEY	
10	ANKITA HARKESH YADAV	
11	ANMOL ATULBHAI PARVADIYA	Ar. Madura Mainde
12	APURVA RAMESH BISEN	
13	ARPITH ROY	
14	AVANTI DILIP SHELKE	
15	BILVA PRASANNA PRAPTE	
16	DEVIKA SHANKAR BHONGLE	
17	DIKEET PARATE	
18	DIKSHA SAXENA	
19	DISHA AGRAWAL	
20	HEMANI SEJPAL	Prof..Jayant Tikkas
21	HIMANSHU DINESH TEMBHARE	
22	HRISHIKESH SADAFAL	
23	INDRANEE KHALATKAR	
24	JAINAM MEHTA	
25	JASPREET KAUR	
26	JIYA ASHOK TEMBHURNE	
27	KARAN K KALRA	
28	KARANSING RAJPUROHIT	
29	KHAN MUDASSIR YUSUF IQBAL	Prof.Anuya Killedar Moharil
30	KHUSBOO KESARI	
31	KRUTIKA ANIL PAMPATTIWAR	
32	KRUTIKA SAVALIYA	
33	KUSHAGRA TAMRAKAR	
34	MANISHA MUKESH VYAS	
35	MILAP POPAT	
36	MOHIT MARWAH	
37	MUSKAN SUNIL KEJDIWAL	
38	NIKITA SANJAY TAWARI	
39	NIKUNJ PRADIP AGRAWAL	Ar.Anmol Gaikwad
40	PARAG SHANKAR VYAS	
41	PAVAN SURAJ AGRAWAL	
42	PIYUSH CHOURASIA	
43	POOJA MANARAM JANGID	
44	PRAFUL RAMTEKE	
45	PRAGYA AGRAWAL	
46	PRATIK DHAKULKAR	
47	PRATIK KAMBLE	

*Barsagade*

*Madura*

*Jayant Tikkas*

*Killedar*

*Anmol*



SN	Name	Teacher Gaurdian
48	PRATIK SANJAY ZADE	Prof.Jaikishan Pillai
49	PRATIKSHA PATHRABE	
50	PRIYANKA RATHI	
51	RADHIKA GANDHI	
52	RAGINI CHARI	
53	RASHWI SANDIP PATEL	
54	ROHIT AGRAWAL	
55	ROHIT PURUSHOTTAM LOYA	
56	RUCHI SHARMA	
57	SAKSHI MEHADIA	
58	SALONI RAJESH DUBEY	Prof.Kishor Rewatkar
59	SAMIKSHA DESHMUKH	
60	SANIDHI KOTHARI	
61	SANYUKTA SANJAY WAGH	
62	SAYLI KISHOR PATEL	
63	SHAILENDRA SINGH	
64	SHIVALI BHOYAR	
65	SHIVIN VYAS	
66	SHRADDHA MANOJ RATHI	
67	SHRIYA KATYARMAL	Prof.Rashmi Dande
68	SHROTI SALONI DILIP	
69	SHRUTI TRIPATHI	
70	SHRUTI VIKAS MORE	
71	SHUBHADA RAMDAS TEKAM	
72	SIMRAN HANDA	
73	SNEHA SUSHIL CHINNAWAR	
74	SRISHTY AWARE	
75	SRUSHTI NAIK	
76	SUNIDHI SUDHIR NAYAK	Prof.Snehal Karale
77	SUYASH NINAD SHEREKAR	
78	SWARNIT NIMSARKAR	
79	TEENA SAHARE	
80	TUNISHA ADIL BHAMGARA	
81	VAIBHAV BHARTIYA	
82	VEDANT SHRIPAD VYAS	
83	YASH AGRAWAL	
84	YUSUF ADNAN TASKEEN	

Im 11/7

10/8/19

Dande  
10/8/19

Karale  
11/8/19



PRIYADARSHINI INSTITUTE OF ARCHITECTURE & DESIGN STUDIES

Priyadarshini Campus, Digdoh hills, Off Hingna Road, Near CRPF Campus, Nagpur- 440 019

Mob.No. 9607812399 Email : [piadsngp@gmail.com](mailto:piadsngp@gmail.com)



NOTICE

DATE: 22/06/2019

This is to inform all the students and faculty members that Personal Counselling Cell have Counsellor (Mr. Ujjwal Sangawar) who is present in PIADS campus on every Friday from 10.00 AM to 1.00 PM. Those who need to visit the Counselor should report to Prof. Radhika Pathak to fix your appointment.



It is suggested that all should take the advantage of facility provided at our campus.

  
Principal, PIADS



  
Personal Counselling Cell

Coordinator, PIADS.

	informed		informed		informed
KPR		AKM		SK	
RGB		NW		MM	
SSG		SP		VC	
VGD		NC		SS	
NMG		SB		SG	
RAD		NK		TD	
SWR		AT		AP	
AB		KR		AG	
PGB		AP		ST	
MDG		AS		MG	
MPY		SD		AD	
AMB		AR		RT	
RP		LG		SC	

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Ph.No. 9607812399. Email : [piadsngp@gmail.com](mailto:piadsngp@gmail.com)



**PIADS**

Date : 19.08.2019

**NOTICE**

**Distribution of Teacher Guardian Faculty**

Following faculties are allotted the student under teacher guardian scheme for 1<sup>st</sup> semester for academic session 2019-20

SN	Name of TG faculty	Roll no	Signature
1	Prof. Abhishek Bangare	01 to 11	
2	Prof. Shrutee Dhanorkar	12 to 22	
3	Prof. Shekhar Sing Thakur	23 to 33	
4	Prof. Sonali Borate	34 to 44	
5	Prof. Rupali Thokal	45 to 55	
6	Prof. Anant Raole	56 to 66	
7	Prof. Manisha Yelne	67 to 77	
8	Prof. Leena Ganvir	78 to 88	
9	Prof. Kaustubh Deoghare	89 to 98	

19.08.19  
Dean ( Design )  
PIADS

19/08/19  
Dean ( Academics )  
PIADS

Principal  
PIADS

# Priyadarshini Institute of Architecture and Design Studies

## List of Teacher Guardian 1St Semester 2019-20

SN	Name of the student	Teacher Guardian
1	ABHISHEK PRASAD	Prof. Abhishek Bangare
2	ADITI SAHARE	
3	AKASH ADANIYA	
4	AKASH RAI	
5	AKSHAD BAJORIA	
6	AKSHAYA DUGGISHETTY	
7	ANISHA KARNEWAR	
8	ANSHUL ASRANI	
9	ARCHI MISHRA	
10	ARSH KHAN	
11	ASHLESHA GURNULE	Prof. Shrutee Dhanorkar
12	ATHARVA AKOTKAR	
13	BHAVESH BHISE	
14	BHAVIKA UCHITKAR	
15	BUBUL MISHRA	
16	CHARUSHILA UBHALE	
17	CHINMAY TIRTHAKAR	
18	CHIRAG ATUL MATE	
19	DEEPAK DEBATA	
20	DEEVI CHAWDA	
21	DIVYANSH SAHU	Prof. Shekhar Sing Thakur
22	GARGI HORE	
23	GAURAV CHACHARKAR	
24	GAURAV WATH	
25	GOYAL CHAWLA	
26	HIMANSHU PATLE	
27	HRITHVIKA KHARE	
28	ISHA RAHATE	
29	ISHIKA MOUNDEKAR	
30	KETAN SHAHANE	
31	KETKI HURMADE	Prof. Sonali Borate
32	KHWAISH FOTANI	
33	KRANTI BOLLAMPALLI	
34	KUNAL OBEROI	
35	LAKSHMI PATURKAR	
36	MANALI RATHI	
37	MANSI MISHRA	
38	MAYURI GUMGAONKAR	
39	MEENAL PAITHANE	
40	MOHAMMAD RAZA	
41	MOIZ MASOOD JAMALI	Prof. Rupali Thokal
42	MONIKA TALE	
43	MRUNAL PATRE	
44	NIHAL AHUJA	
45	NISHANT DHAWLE	
46	NISHITA VIDHANI	
47	NITIKA WACHASUNDER	
48	OMKAR TIFANE	
49	OMPRAKASH SUTHAR	
50	POOJA HANWANTE	
51	PRANITA KARNEWAR	
52	RAHUL PATEL	
53	RAJAT BANODE	
54	RAJUL JAIN	
55	RISHI SAHU	

SN	Name of the student	Teacher Guardian
56	RITIK GADEWAL	Prof. Anant Raole
57	RIYA SAHARAN	
58	RUCHIKA MAHAJAN	
59	RUNEET DHENG	
60	RUTUJ RAUT	
61	RUTUJA MALVE	
62	SAHIL VISHWAKARMA	
63	SAKSHI PURI	
64	SAKSHI SARATKAR	
65	SAMRUDDHI TOTTEWAR	
66	SANJANA INGLE	Prof. Manisha Yelne
67	SANMITA DEOGADE	
68	SEJAL CHHABRIYA	
69	SEJAL GUJAR	
70	SHARVARI BORKAR	
71	SHASHANK PATIL	
72	SHRADDHA MALAS	
73	SHRAVANI BRAHMANKAR	
74	SHREYA GALKATE	
75	SHREYA KALE	
76	SHREYA GARG	Prof. Leena Ganvir
77	SHREYASH MOON	
78	SHREYASH MANDAWGANE	
79	SHRUSTI TIWARI	
80	SHRUTI MUDEWAR	
81	SHWETA ASUTKAR	
82	SIDDHANT KARANJKAR	
83	SIDDHESH DHARMALE	
84	SIMRAN KHURANA	
85	SOURABH PRAJAPATI	
86	SWAPNIL TEMBHURNIKAR	Prof. Kaustubh Deoghare
87	SWAYAM GOYAL	
88	TANMAY BHOYAR	
89	TANUSHREE SAMUDRE	
90	TEJSWINI LANJEWAR	
91	UNNATI NISHANE	
92	VAIBHAV PATIDAR	
93	VAIDEHI VEERWANI	
94	VEDANT THAKRE	
95	VIRAL KAMBLE	
96	YADHNESHRAJE BURADE	
97	YASH BHAGWANI	
98	YASHASWI KESHARWANI	






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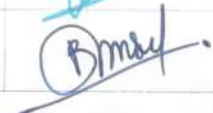
PIADS

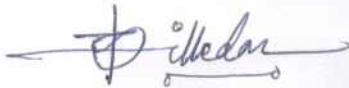
Date : 22.08.2019

NOTICE

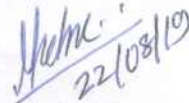
Distribution of Teacher Guardian Faculty

Following faculties are allotted the student under teacher guardian scheme for M.Des 1<sup>st</sup> Year and M.Des. 2<sup>nd</sup> Year for academic session 2019-20

SN	Name of TG faculty	Roll no	Year	Signature
1	Prof. Tushar Bokhad	01 to 14	1 <sup>st</sup> Year	
2	Prof. Rupesh Surwade	01 to 10	2 <sup>nd</sup> Year	



Dean ( Design)  
PIADS




Dean ( Academics)  
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Priyadarshini Institute of Architecture and design Studies  
Teacher Gurdian List AY 2019-20

**1st Year M.Des.**

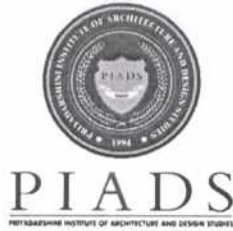
Sr. no	Name of Student	Teacher Gaurdian
1	BABA MESHAM	 Prof.Tushar Bokhad
2	KAUTUBH C. UMEKAR	
3	KISHORI KULKARNI	
4	KOMAL JUMADE	
5	KUHELI P. ROY	
6	MADIHA PATEL	
7	NEHA SARDA	
8	NILAKSHI SHEREKAR	
9	PRERNA GAIKWAD	
10	SACHIN YADAV	
11	SAKSHI SUREKHA	
12	SAMIKSHA WANKHEDE	
13	SNEHAL VIDHALE	
14	SNEHA WALKE	

**3 rd Year M.Des.**

Sr. no	Name of Student	Teacher Gaurdian
1	ANIKET BAPAT	Prof.Rupesh Surwade 
2	ARPITA DAS	
3	ESHVARYA JUNGHARE	
4	HEMANT D. SHINDE	
5	KAUSTUBH DEOGHARE	
6	KUNTAL URKUDE	
7	MOHINI P. GAJBBHIYE	
8	RUCHIKA KARADE	
9	SARANG HOLEY	
10	SEKHARSINGH THAKUR	

# Priyadarshini Institute of Architecture and Design Studies

Priyadarshini Campus, Digdoh hills, Near CRP Campus, off Hingna Road, Nagpur-19



## DOCUMENTATION OF TEACHING

Even Semester 2018-19

4<sup>th</sup> Semester – Construction Technology and Materials- IV

6<sup>th</sup> Semester – Elective B – Product Design

Submitted By: Ar. Archana Bele



DOCUMENTATION OF TEACHING

Even Semester 2018-19

4<sup>th</sup> Semester – Construction Technology and Materials - IV



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Documentation of Good Works of the Students



**PRIYADARSHINI INSTITUTE OF ARCHITECTURE & DESIGN STUDIES**  
Electronic Zone Building, Hingna Road, Nagpur, Ph.No:(07104) 237404

**CONSTRUCTION TEAM:**

COORDINATOR: Prof. Archana Bele

STUDIO A: Prof. Rashmi Dande  
Prof. Aparna Tarar

STUDIO B: Prof. Mrunal Gaikwad  
Prof. Prachi Sharma

STUDIO C: Prof. Archana Bele  
Prof. Madhura Mainde

**TEACHING PLAN – CONSTRUCTION TECHNOLOGY AND MATERIALS – IV: 4<sup>TH</sup> SEM**  
**EVEN SEMESTER 2018-19**

Sub : CONSTRUCTION TECHNOLOGYAND MATERIALS - IV			Semester : IV		
Year : 2 <sup>nd</sup> Year			Batch :		
No. of hrs/week: 5		Subject Teacher:			
Theory hrs. : 2					
Studio hrs. : 3					
Sr. No.	Week Period	Topics to be covered / Assignment title	Lecture hrs.	Studio hrs.	Submission dates & title
1.	Week 1	Presentation on aluminum, copper Presentation on steel, titanium	3 2	-	
2.	Week 2	Presentation on steel doors/windows Theory on sliding and folding doors	2 3		
3.	Week 3	Theory on revolving door Theory on rolling shutter	2 3		
4.	Week 4	Theory on collapsible gate	2 3		
5.	Week 5	Theory on aluminum window Drafting of aluminum window	2	3	
6.	Week 6	Theory on aluminum partition Drafting of aluminum partition	2	3	
7.	Week 7	Theory of timber stud partition Drafting of timber stud partition	2	3	
8.	Week 8	Theory on trussed partition Drafting of trussed partition	2	3	
9.	Week 9	Theory on partly panelled/partly glazed partition Drafting of partly panelled/partly glazed partition	2	3	



## DOCUMENTATION OF TEACHING

Even Semester 2018 - 19

10.	Week 10	Theory on temporary structures and temporary supports Drafting of temporary structures and temporary supports	2	3	
11.	Week 11	Drafting of temporary structures and temporary supports Theory on timbering to trenches	2	3	
12.	Week 12	Theory on formwork/centering	2 3		
13.	Week 13	Theory on shoring/underpinning Theory on shoring/underpinning	2 3		



**OBJECTIVES OF TEACHING:**

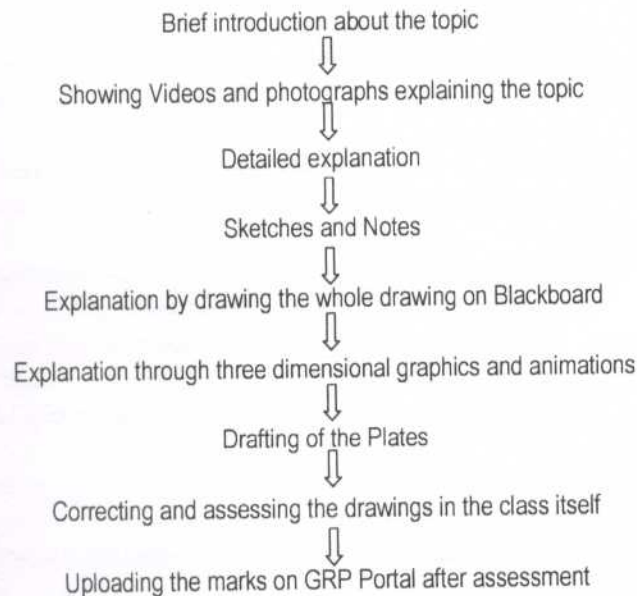
To give the students clear understanding about the topic and ensure correctness of the drawings.

**THRUST AREA:**

Detailed explanation of the topic at various levels and meticulous corrections and assessment of the drawings.

**METHODOLOGY OF TEACHING:**

A) Following methodology was adopted for covering each topic while teaching:



1) **Brief introduction about the topic:**

- While covering any topic, firstly a brief introduction about the topic was given explaining various terminologies, definitions and general idea about the topic.

2) **Site visits**

Whenever possible, students were taken to site visits to explain a particular topic.

3) **Videos and photographs:**

- Part of syllabus was explained to the students through video clippings, photographs of execution of on-site work and 3-D animation.

4) **Detailed Explanation:**

- After this, the students were given various presentations and lectures for explaining the topic in depth.

5) **Sketches and Notes:**

- While giving the presentations and lectures, the students were given notes as well as sketches through power point presentations, dictations and on blackboard as well.

6) **Explanation by drawing the whole drawing on blackboard:**



- Before drafting actual sheet, the whole drawing was drawn on the blackboard and students used to draft simultaneously.

#### 7) Drafting of the plates:

- While drafting the drawings, discussions were carried out with individual students on the drawing board explaining the details and pointing out the mistakes.

#### 8) Correcting and assessing the drawings in the class itself

- After the drafting was completed the students submitted the drawings.
- The submitted drawings were corrected and assessed on the same day of submission.
- Mistakes were pointed out and comments and remarks were written on each and every drawing submitted.

#### 9) Uploading the marks on GRP Portal after assessment

- After assessment, marks were uploaded on GRP portal on the same day.

#### 8) Modes of presentation:

- Power point presentations
- Blackboard teaching
- Videos
- 3-Dimensional graphics and animation

#### 9) Teaching Material:

- Presentations, lectures, notes and sketches were given on individual topic referring various books available in the library, material supplied by senior faculty as well as from data available on internet.

### PROCESS OF TEACHING:

#### A) Major topics to be covered:

- Building materials – Aluminium, copper, stainless steel and titanium
- Special doors – Collapsible, Rolling, revolving, sliding
- Aluminium windows
- Steel windows
- Partitions – aluminium and timber
- Temporary Structures
- Centering and formwork

#### B) Levels of Explanation:

The whole process of explaining the topic was divided into five levels:

- |                       |   |   |
|-----------------------|---|---|
| 1 <sup>st</sup> level | : | General explanation about the topic before site visit.  |
| 2 <sup>nd</sup> level | : | Detailed explanation through power point presentations.   |
| 3 <sup>rd</sup> level | : | Explanation and clarification on blackboard in the studios to all the students.                                 |
| 4 <sup>th</sup> level | : | Explanation through 3 dimensional graphics and animations   |
| 5 <sup>th</sup> level | : | Explanation and clarification in group of students on sketch book also elaborating on how to draft the drawing. |
| 6 <sup>th</sup> level | : | Explanation and clarification to individual student on drawing board.   |



**C) Teaching Process for Individual Class:****i) Theory Class:**

- 1) While introducing any topic, major thrust was given on making the classes more interactive by involving the students in discussions so that they should not get bored up with the theory and be attentive in the class at the same time.
- 2) Initially the students were asked about their own ideas, knowledge or information about that particular topic which was in the form of short question and answer session.
- 3) Sometimes students were also called to draw some sketches related to the topic studied in the previous semesters on blackboard.
- 4) This helped in understanding the student's own knowledge about that topic in general.
- 5) This also facilitated in knowing the depth required for explaining that particular topic and details required while clearing up.
- 6) Then the whole topic was explained in depth with the help of power point presentations as well as drawing sketches on blackboard.
- 7) While giving the presentations, the students were simultaneously asked to take down the notes and sketches.
- 8) After the explanation, the students were asked whether they had any doubts and if any they were cleared up.
- 9) Finally the students were asked to move to the studios for drafting the drawing.

**ii) Drafting Class:**

- 1) Before starting the drafting of drawings, the whole drawing was drawn on the blackboard along with the schedule of reinforcement, sections, details, etc.
- 2) Sketched drawing on blackboard was explained to all the students.
- 3) Then the drawing was also explained to the students in groups on sketchbook giving guidelines on how to draft the drawing.
- 4) Then the students were asked to actually draft the drawing.
- 5) Instructions and suggestions were also given to individual student on drawing board while drafting the drawing.
- 6) While drafting, much emphasis was given on method of dimensioning, specifying materials, types and sizes of various elements.
- 7) After drafting the students submitted the drawings which were then corrected on the same day and returned to the students.

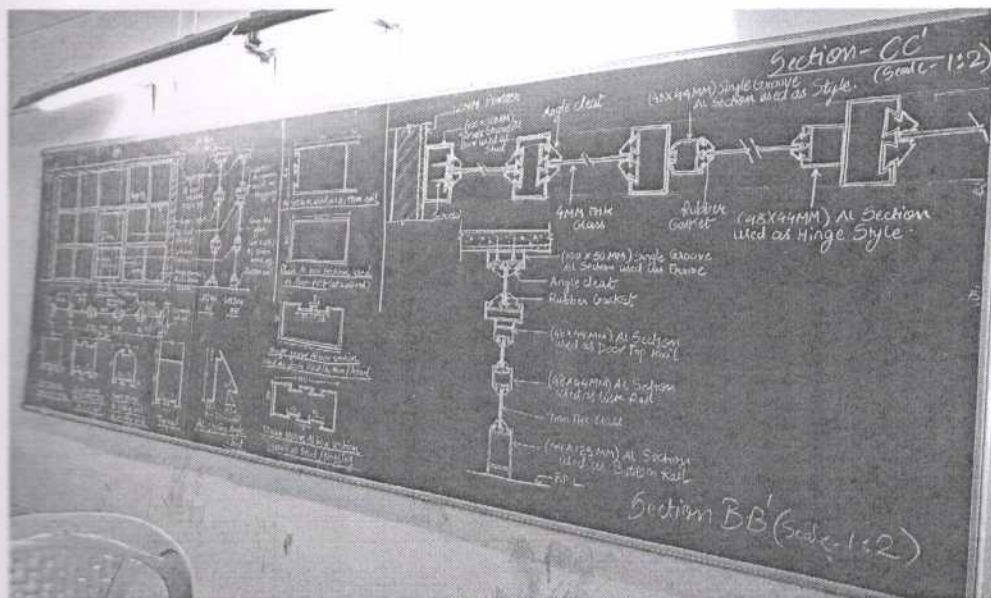
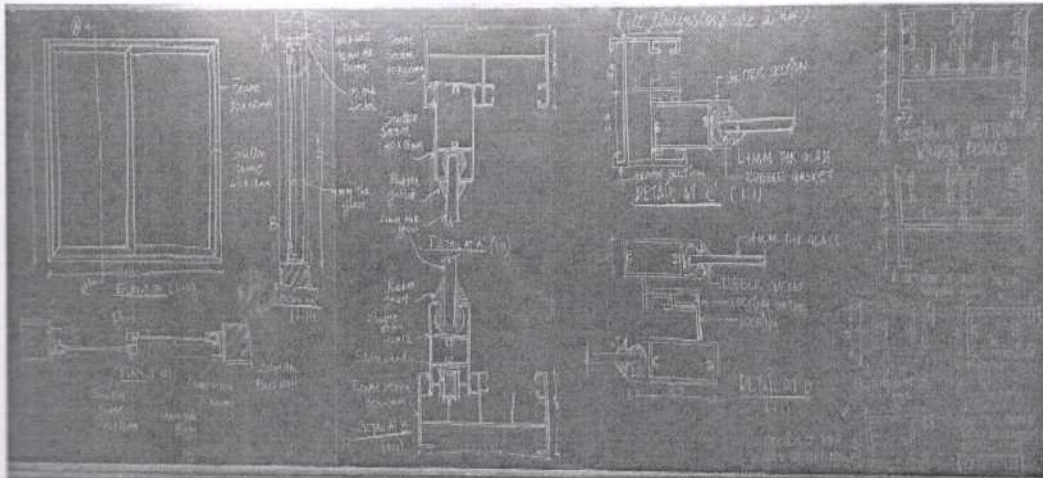
**D) Drafting comments:**

- While drafting much thrust was given on method of dimensioning, specifying materials, types and sizes of various elements.

**E) Notes:**

- The students were also asked to prepare a separate sketch book exclusively for construction for taking down the notes and sketches which helped them in drafting the drawing as well as in their studies while preparing for University exams.





BLACKBOARD IMAGES



**LIST OF ALL THE PLATES AND REPORTS ASSIGNED TO THE STUDENTS:****PLATES**

Plate 1: Two track aluminium window

Plate 2: Sliding timber door

Plate 3: Aluminium partition

Plate 4: Timber stud/flush partition

Plate 5: Timber partly paneled and partly glazed partition

**REPORTS**

- 1) Metals : Aluminium, copper, stainless steel and titanium
- 2) Special doors – Collapsible, Rolling, revolving

**EVALUATION CRITERIA:**

Evaluation of sheets, sessional exam and notes/sketches were taken into consideration in the final evaluation system.

Following evaluation criteria were followed for evaluation:

S.N.	CRITERIA	DISCRIPTION	WEIGHTAGE
1	Evaluation of Sheets	The final sheets submitted were assessed.	70%
2	Surprise Test	Weightage was also given to surprise test conducted.	30%
	TOTAL		100%



## SUGGESTIONS AND OPINIONS

### Material Lab:

#### Observations:

- The things shown are much better understood than the things which are told.
- But every time it is not possible to visit the site.
- Display of materials and models can provide a way out.
- Our material lab lacks most of the models and materials which are very important for the students.

#### Suggestions:

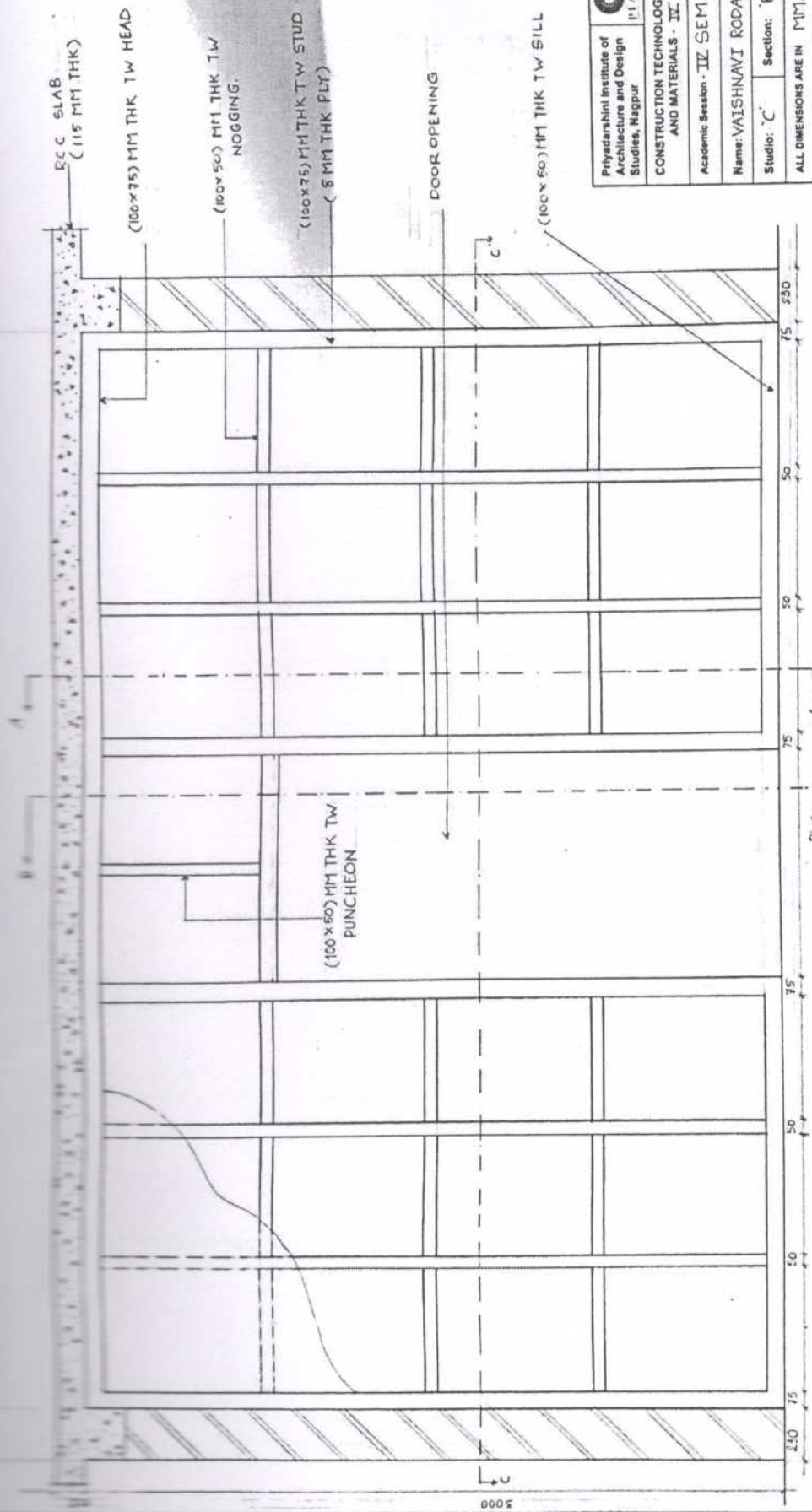
- The material lab should be filled with much more models and materials which help students understand and imagine various aspects in a better way than just the theory.



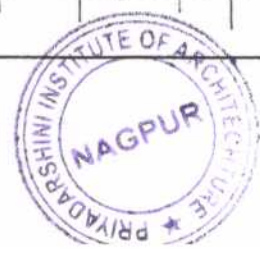
DOCUMENTATION OF GOOD DRAWINGS OF THE STUDENTS. ....



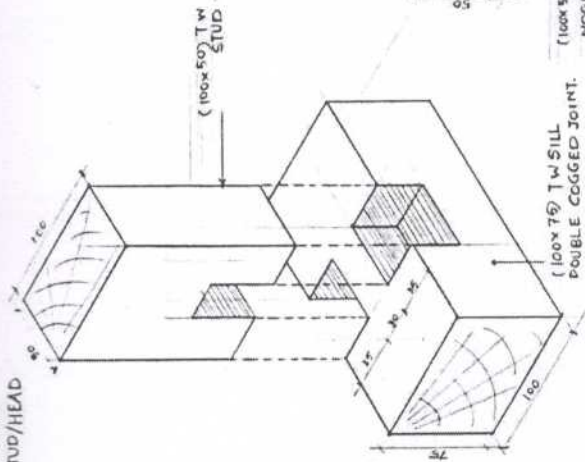
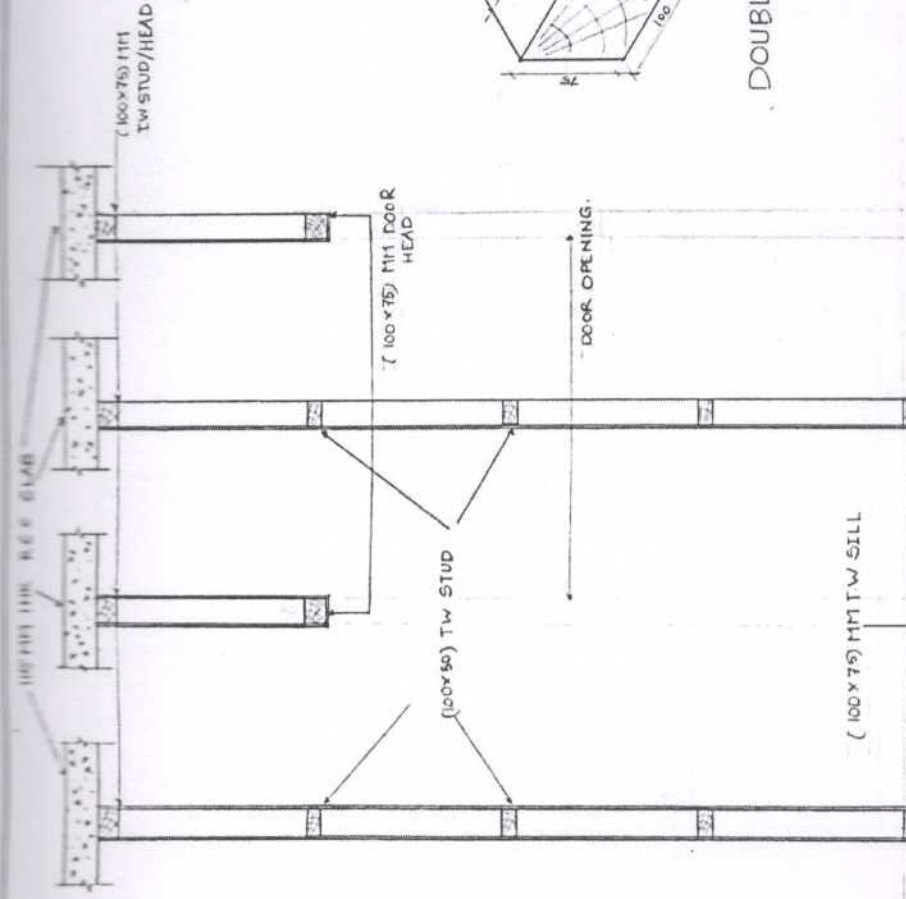
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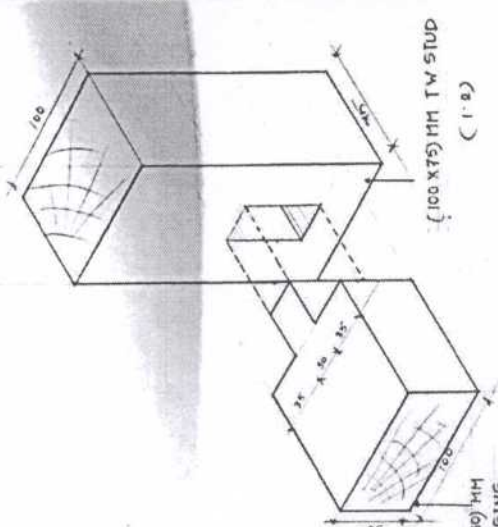
Priyadarshini Institute of Architecture and Design Studies, Nagpur		PLAIN
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Academic Session - IV SEM		
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Studio: 'C'	ALL DIMENSIONS ARE IN MM	
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Sub Title:		
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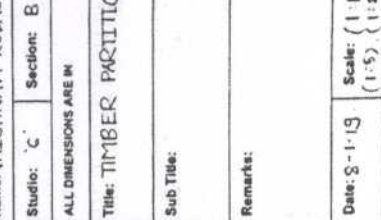
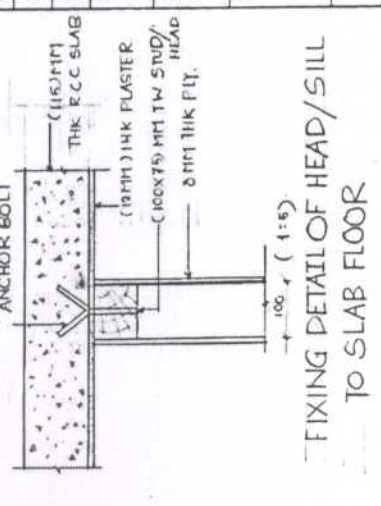
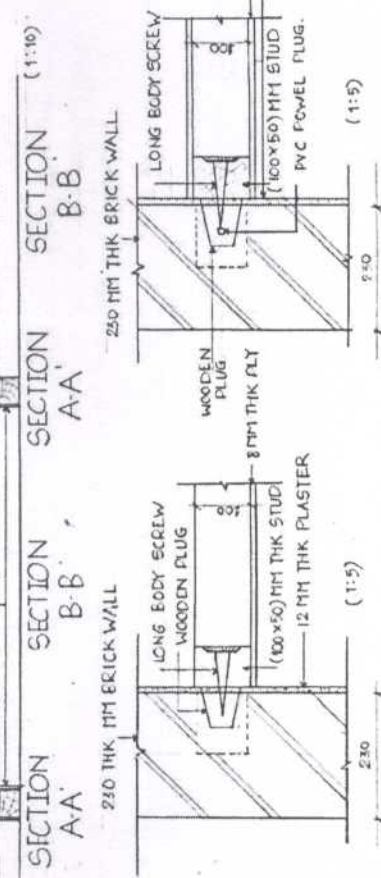
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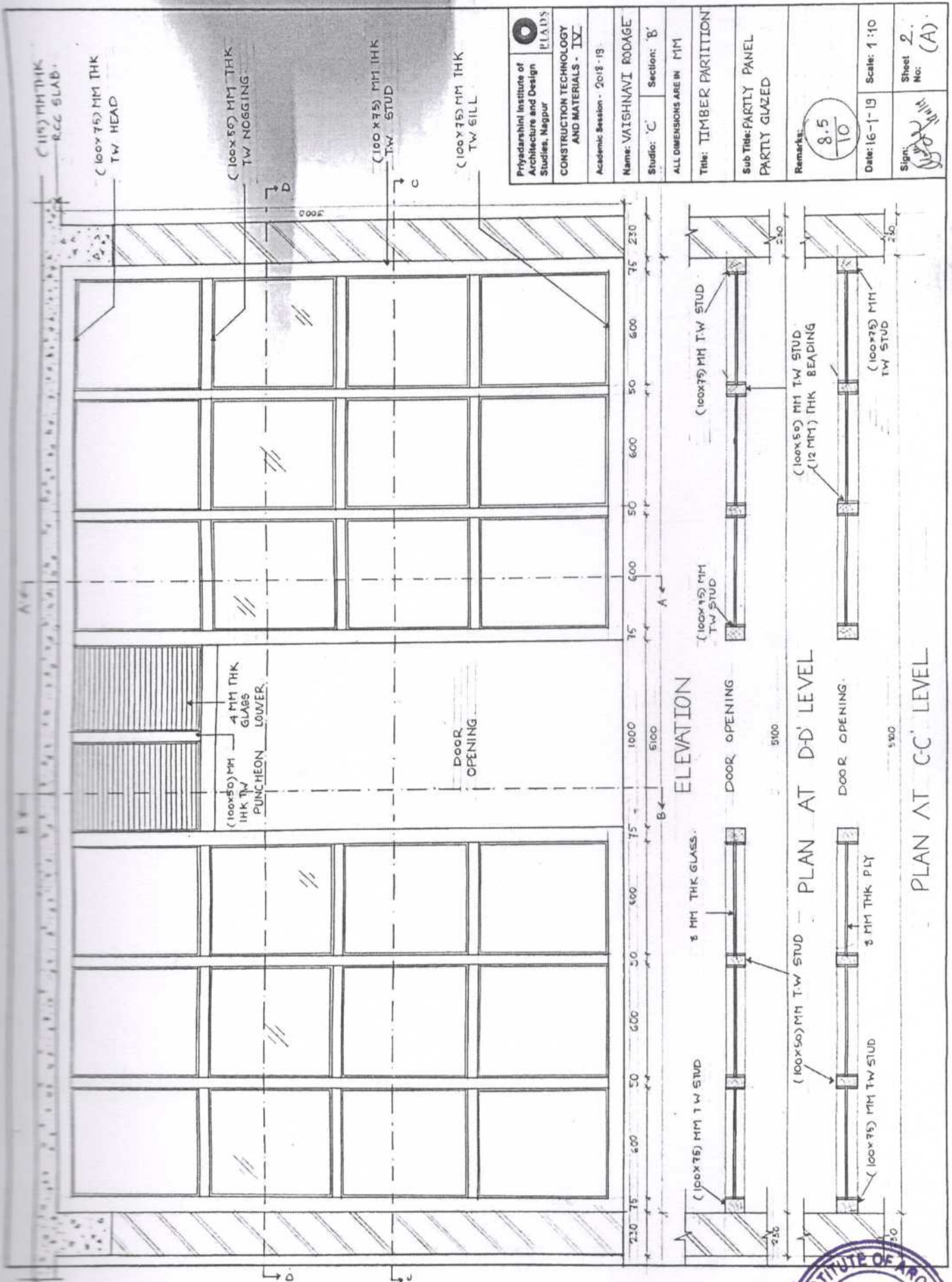
TENON & MORTISE JOINT  
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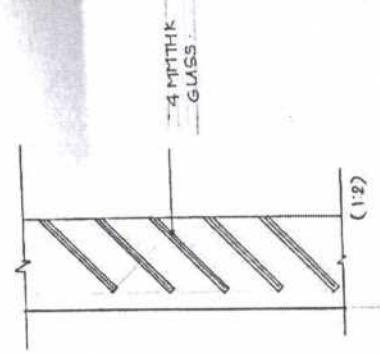
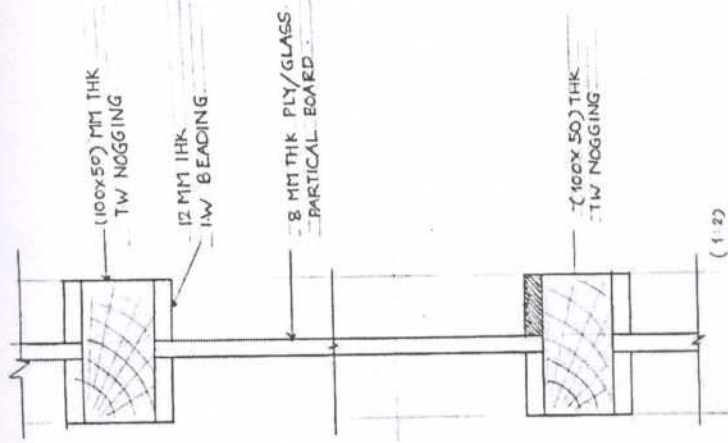
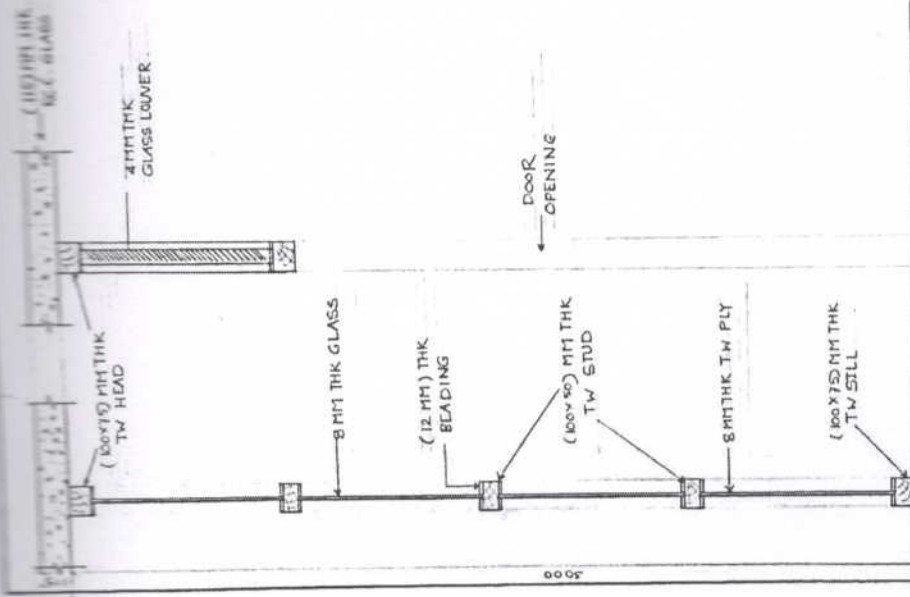


FIXING DETAIL OF VERTICAL MEMBER TO JAMB WALL

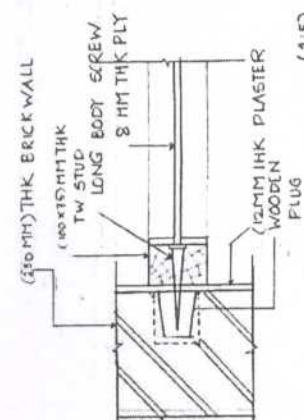
FIXING DETAIL OF HEAD/SILL TO SLAB FLOOR

Praydarsini Institute of Architecture and Design Studies, Nagpur	Page No. 11
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Academic Session - II SEM	
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Studio: C	Section: B
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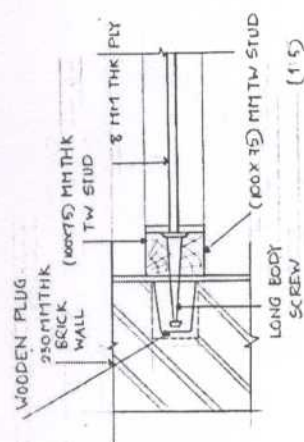




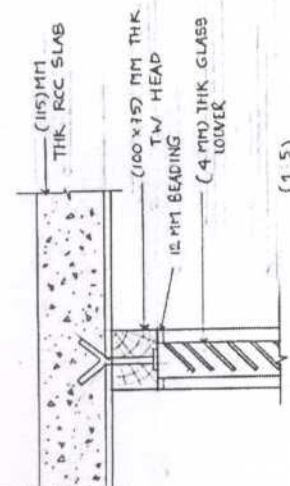
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DETAIL AT STUD (1:5)



DETAIL AT STUD (1:5)



DETAIL AT HEAD (1:5)

	Priyadarshini Institute of Architecture and Design Studies, Nagpur	
	CONSTRUCTION TECHNOLOGY AND MATERIALS - IV	
	Academic Session - 2013-14	
	Name: VAISHNAVI ROMAGE	
Studio: 'C'	Section: 'B'	
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Title: TIMBER PARTITION		
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Remarks:		
Date: 16-1-19	Scale: 1:10, 1:5, 1:2	
Sign:	Sheet No: 2	(B)

100MM THK RCC SLAB  
SINGLE GROOVE AL SECTION

(100x50) MM THK STUD

NOGGING (100x50)

ANGLE CLEAT

(44x44) MM TOP RAIL

250MM THK BRICK WALL

(48x44) MM LOCK RAIL

SINGLE GROOVE AL SECTION  
(100x50)

Priyadarshini Institute of  
Architecture and Design  
Studies, Nagpur

PLADS  
CONSTRUCTION TECHNOLOGY  
AND MATERIALS - IV

Academic Session - 2018-19

Name: VAISHNAVI RODAGE

Studio: 'C' Section: 'B'


ALL DIMENSIONS ARE IN MM

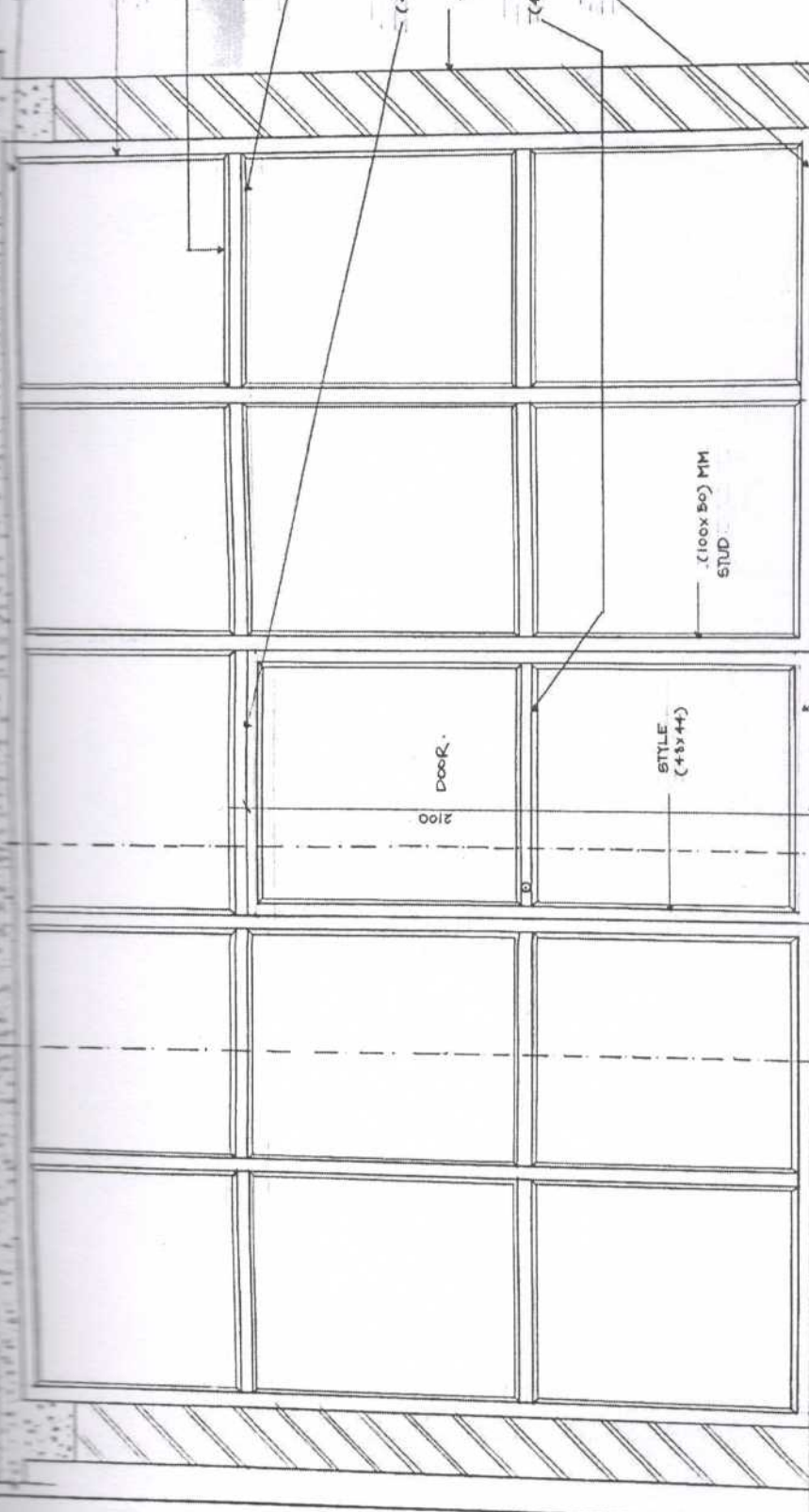
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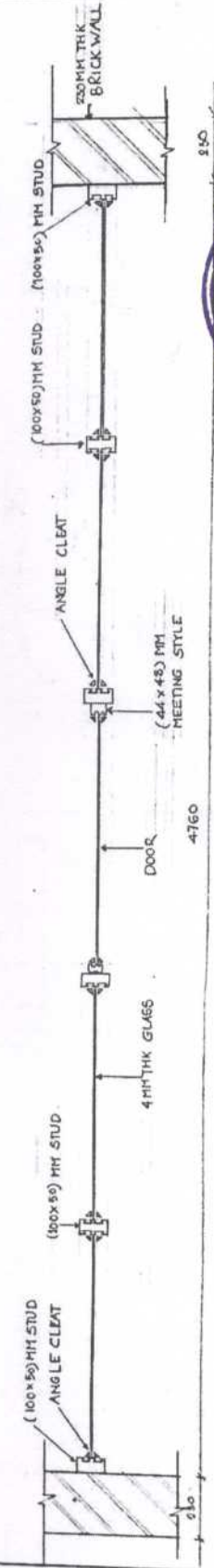
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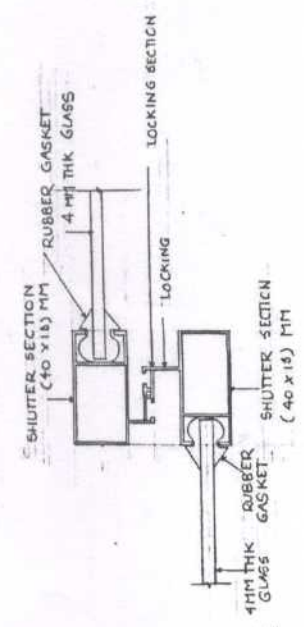
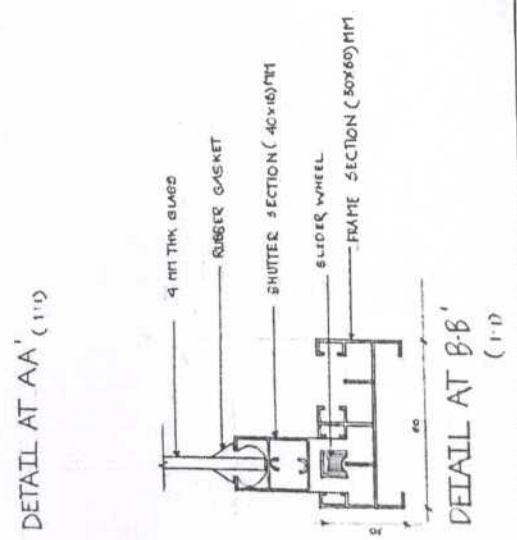
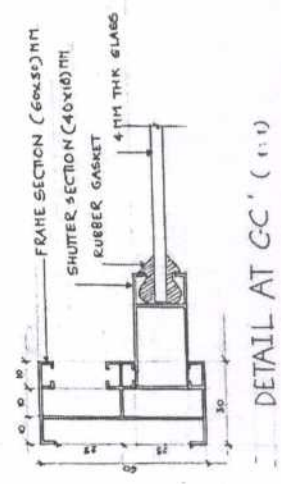
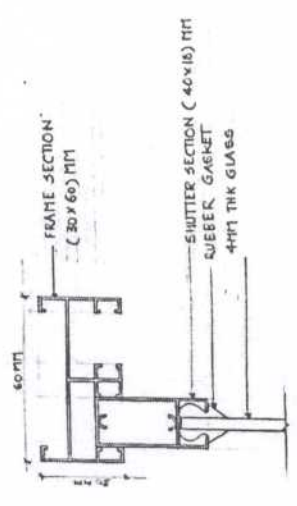
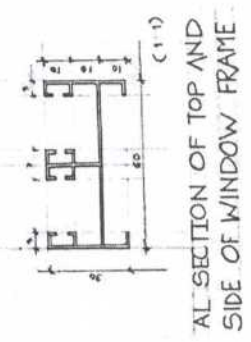
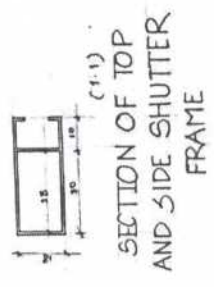
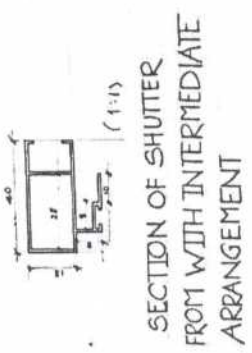
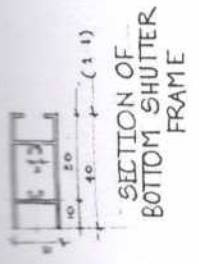
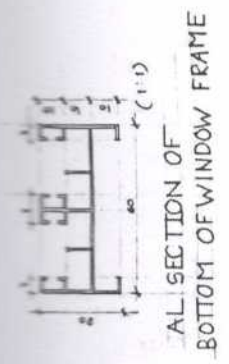
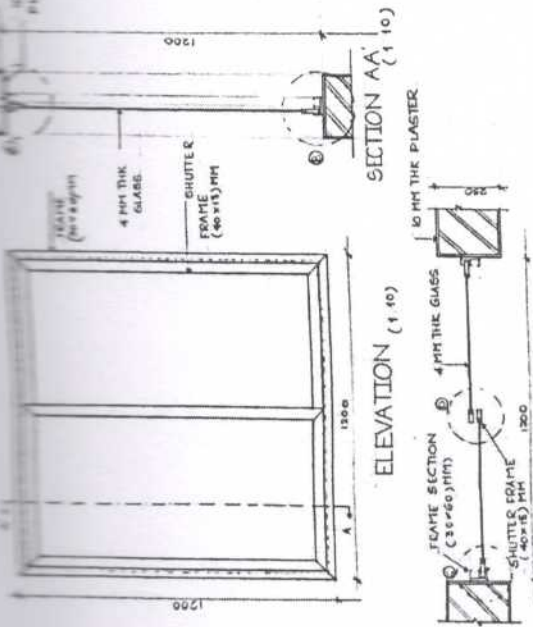
ELEVATION



PLAN







CONSTRUCTION TECHNOLOGY AND MATERIALS IX SEM.
ACADEMIC SESSION 2018-19.
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SUB TITLE - ALUMINIUM SLIDING WINDOW
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DATE -
SCALE - 1:10.
SIGN -
SHEET NO - 4



DOCUMENTATION OF TEACHING

Even Semester 2018 - 19

4<sup>th</sup> Semester – Elective B – Product Design



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## PRIYADARSHINI INSTITUTE OF ARCHITECTURE &amp; DESIGN STUDIES

Electronic Zone Building, Hingna Road, Nagpur, Ph.No: (07104) 237404

## EVEN SEMESTER 2018-19

TEACHING PLAN – 4<sup>TH</sup> SEMESTER - ELECTIVE – B: PRODUCT DESIGN

Sub : ELECTIVE – B: PRODUCT DESIGN			Semester : IV		
Year : 2 <sup>nd</sup> Year			Batch :		
No. of hrs/week: 3 Theory hrs. : 3 Studio hrs. : 0		Subject Teacher: Prof. Archana Bele			
Sr. No.	Week Period	Topics to be covered / Assignment title	Lecture hrs.	Studio hrs.	Submission dates & title
1.	Week 1	Introduction to product design, process of product design	3	-	
2.	Week 2	Design principles and technology used in product design	3		
3.	Week 3	Understanding client's needs for tapping opportunities for innovation, imagination and visualizing ideal solutions	3		
4.	Week 4	Understanding visual, creative, technical and analytical skills and exploring them through assignment.	3		
5.	Week 5	Assignment 1: Logo design of architectural firm.	3		
6.	Week 6	Work on Assignment 1 - Logo design of architectural firm.	3		
7.	Week 7	Understanding product development and marketing skills involved and exploring it through assignment.	3		
8.	Week 8	Assignment 2: Packaging Design	3		
9.	Week 9	Work on Assignment 2 - Packaging Design	3		
10.	Week 10	Understanding materials and processes involved, manufacturing processes, trends, costing and sustainability.	3		
11.	Week 11	Assignment 3: Chair design for a Celebrity	3		
12.	Week 12	Work on Chair design for a Celebrity	3		
13.	Week 13	Model making of the designed Chair	3		



**OBJECTIVES OF TEACHING:**

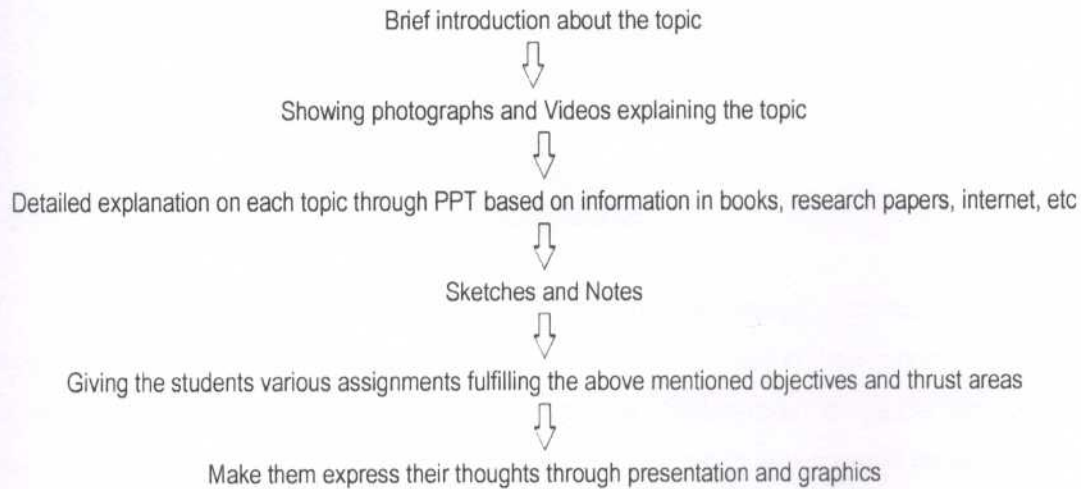
- 1) To gain knowledge about contextual study in product design helpful in the initiation of the process of product design.
- 2) To initiate the process of creative thinking through use of various techniques.
- 3) To make the students aware about the significance of brand identity and corporate image for a product design company and incorporating the same in the products designed by them.

**THRUST AREA:**

- 1) Understanding of various factors which have impact on product design
- 2) Knowledge about various techniques to study user behavior and reactions
- 3) Knowledge about the importance of creative thinking
- 4) Understanding product properties
- 5) Understanding aspirations of users
- 6) Knowledge about stages involved in design process
- 7) Knowledge about the importance of brand identity and corporate image



*Yume.*

**METHODOLOGY OF TEACHING:****PROCESS OF TEACHING:**

- Major thrust on making classes more interactive.
- Involving students in discussions so that they should not get bored up with the theory and be attentive in the class.
- Initiation of topic with short question and answer session to know the student's own ideas or knowledge about the topic.
- This also facilitates in knowing the depth required for explaining that particular topic.
- Then detailed discussion about the topic through power point presentation.
- After explanation, introducing the assignments to the students.
- Emphasizing more on the sketching techniques.
- Guiding them while working on the assignments.



**ASSIGNMENTS GIVEN TO THE STUDENTS:**

- 1) Logo Design
- 2) Packaging Design
- 3) Cardboard Chair Design

**DESIGN BRIEF OF ASSIGNMENTS:**

**ASSIGNMENT- I**  
**LOGO DESIGN**

Everybody knows about the "golden arches." Just the mere thought of the McDonald's logo is enough to transport us back to our childhoods. Which bears the question, how important is an eye-catching logo to a business's success? According to the BBC, "instant recognition is the holy grail for a business." Being recognizable means being successful. Therefore logo design should be perfect for the company or the business.

Hence the assignment is about designing a logo for a company or a business.

**01. Aspects required to be taken into considerations while designing a logo:**

- Give information about the company you selected, target customers or the industry and market.
- You should present an overview of the company you selected.
- Specify the category of the business and industry you selected, and tell also about the products or services they produce.
- Give a clear picture of what the company does.
- Make sure that you describe the target audience
- Say something vital about your target market and industry as well.
- You must know about the customers who are buyers of your products or services.
- Keep your market and the customers in mind during the selection of design elements such as colors, fonts, etc. to please and represent your audience.
- Tell about your brand values. These values are often represented in design elements.
- Tell anything that is unique about the business. This is important to create a brand through your design.
- Provides necessary information about your competitors. This is crucial information since you need a unique logo that stands out.
- If required, consider the company slogan if it is to be incorporated in the logo design.



**02. Be Specific About Your Logotype and Style**

Which type of logo do you want for the business/company? Do you want an abstract mark logo or an emblem? Or, is a word mark good to represent the business/company? There are many logotypes. You should specify one logo style for your design. A logo style can be vintage, minimal, flat or skeuomorphic.

*Recommended Reading:*

20+ Security Logo Design Examples For Inspiration

Top 5 Tips To Take Your Logo Design To The Next Level

Top 10 Logo Design Inspiration For Architectural Business

The Value Of Logo Design For Your Business

**03. Give Your Choice of Colors**

Colors are used to make a logo look a great visual that attracts viewers at first glance. In fact, a perfect use of colors can make a logo stand out in the crowd. Always lay emphasis on choosing only the relevant colors for a business/company logo design.

**04. Specify Your Choice of Typeface**

One of the qualities of typefaces is that they add some personality to the design. You can create a logo just using a particular typeface. For example, the company name can be the basis of your logo design. In that case, all the brand messaging and uniqueness of logo will depend on the creative use of typeface. Logos of Coca-Cola and other global brands are an example of how strategic use of typeface makes a logo stand out and memorable.

*Recommended Reading:*

Logo Design Tips For Effective Communication

How To Present Your Logo Design Concepts To The Clients

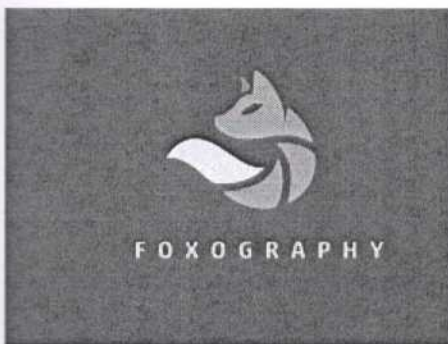
17 Logo Designs You Will Actually Remember

**05. Custom Logo Design For Creating Unique Brand Identity**

If your logo design is not solely based on a symbol like that of Apple logo, then specify your choice of typeface. If you cannot figure out a suitable typeface, describe your brand personality and give some example of the typefaces you want for your logo.



## 06. Examples:



## ASSIGNMENT- II

### PACKAGING DESIGN: THE BOX

For this assignment, you are asked to design boxed packaging for a line of products. Before you start, have a good look at existing design while around the house or out shopping. What looks good? What doesn't quite work? Packaging and product identity are designed to grab consumer attention in a crowded market place.

**Objective:**

To design a package that is appealing to the customer and maintains manufacturing specifications for a food. Must be a BOX, not a loose-fitting package (has hard sides).

**Goal:**

To use design applications to create full color renditions of specific packaging dimensions.

**Research:**

You have the opportunity to explore some ideas using the Internet. Look at other designs and search a few of the companies that make food packaging.

**Following is the list of suggested food products:**

- Soap (Floral, Spicy, Unscented)
- Juice (Orange, Carrot, Vegetable)
- Tea (Peppermint, Green Sencha, Earl Grey)
- Candy (Liquorice, Mints, Gummy Bears)
- Aspirin (Regular-Strength Caplets, Tablets, or Maximum Strength GelCaps)
- Ice Cream (Rocky Road, Strawberry, Vanilla)
- Perfume, Cologne, or Essential Oil (Vetiver, Bergamot, Lavender)
- Or any other product of your choice.

**Instructions:**

- Create a box design for a food company that already exists. Essentially, you are creating your own packaging design on an existing food brand.
- You will have to create the box template from scratch. Use the template as your guide. Place no image or text outside any of the lines.
- In order to create a template that fits the box, it is highly recommended that you purchase the food box you would like to redesign or find a box that size fits the dimensions you wish to work with for this project or even construct your own packaging box. You might refer the book The Packaging Designers Book of Pattern for the same.



- Be sure to name your product and determine its niche in the marketplace. What size or shape would this product's box be? Aim for a sophisticated design that will look good in your portfolio. Go through the usual design process: sketch thumbnails, refine, and revise. Pay
- attention to color schemes. Once you've established your project, disc.

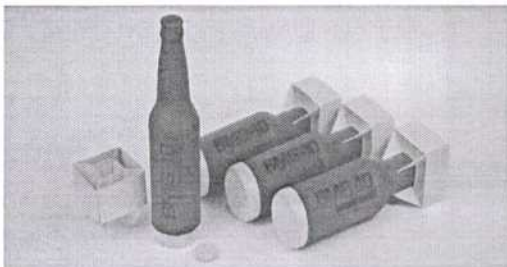
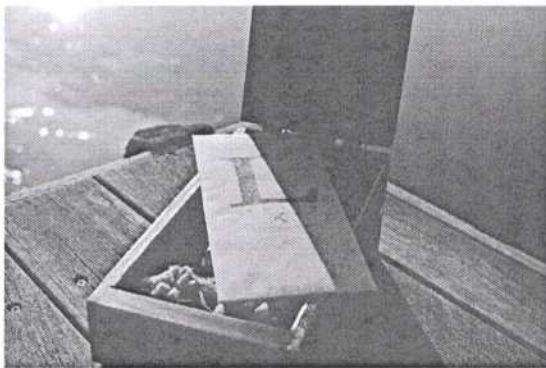
The box will contain the following information, at the minimum:

1. Name of Food/Brand
2. Subhead(s) — compliment your food/brand name and package theme
3. Made in "fill in the blank" — put the country where your food originates from
4. Description — this is a description of the food
5. Net Wt. — This represents the actual weight of the food
6. The UPC symbol — make your own or get one from the Internet or the actual package
7. The Ingredients — get from the Internet or the actual package
8. The Manufacturers' Name — use their logo (find on the Internet)
9. Background — Do not simply place this design on a plain white background. Create a simple gradient or use stock photos and place on all 6 panels — be creative!
10. Contact information for the parent company — place their website, social media presence, mailing address, etc.

Final presentation format should consist of a complete professional-grade product mockup —actual 3-dimensional box with 3D Rendering of your package design on all six sides.

#### Examples:





**ASSIGNMENT- III****Cardboard Chair Design**

Corrugated cardboard, made from a natural renewable resource, has one of the best environmental records. Tons of corrugated cardboard are recovered and recycled in all over the world. Cardboard has the best recycling rate of any packaging material used today. A hard look at every scrap of cardboard can lead the creative mind to see it as a valuable raw material. This is your opportunity to discover the potential of corrugated cardboard.

**Design a chair!**

The students are required to design and build a chair from corrugated cardboard to a suitable scale for your own or for a celebrity of your choice. The person seated should be in a "comfortable" position with his/her back leaning against the back of the chair. Students will get an opportunity to learn about paper and cardboard as a building material and the statics and dynamics of structures. The design should integrate function (does the chair work); aesthetics (is it pleasing to the eye); ergonomics (is it comfortable for the average person); and fun.

**Process:**

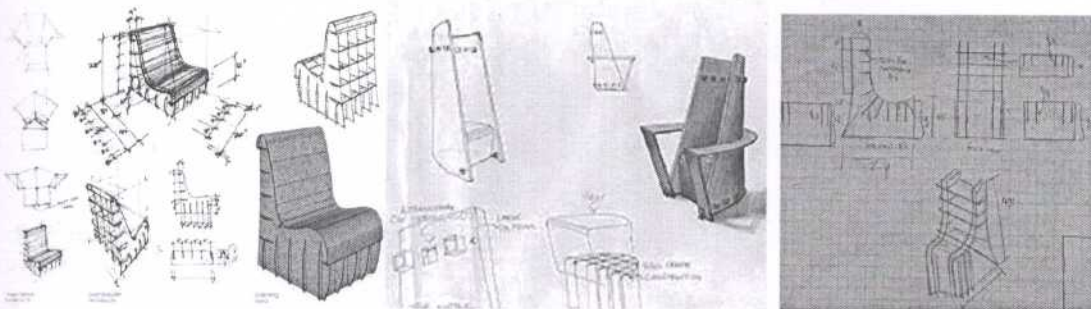
Design sketches – Prepare sketches of some possible design ideas of a chair of your own design.

Dimensions – Study the ergonomics and standard dimensions for the chair.

Model – Prepare a prototype model made completely out of cardboard.

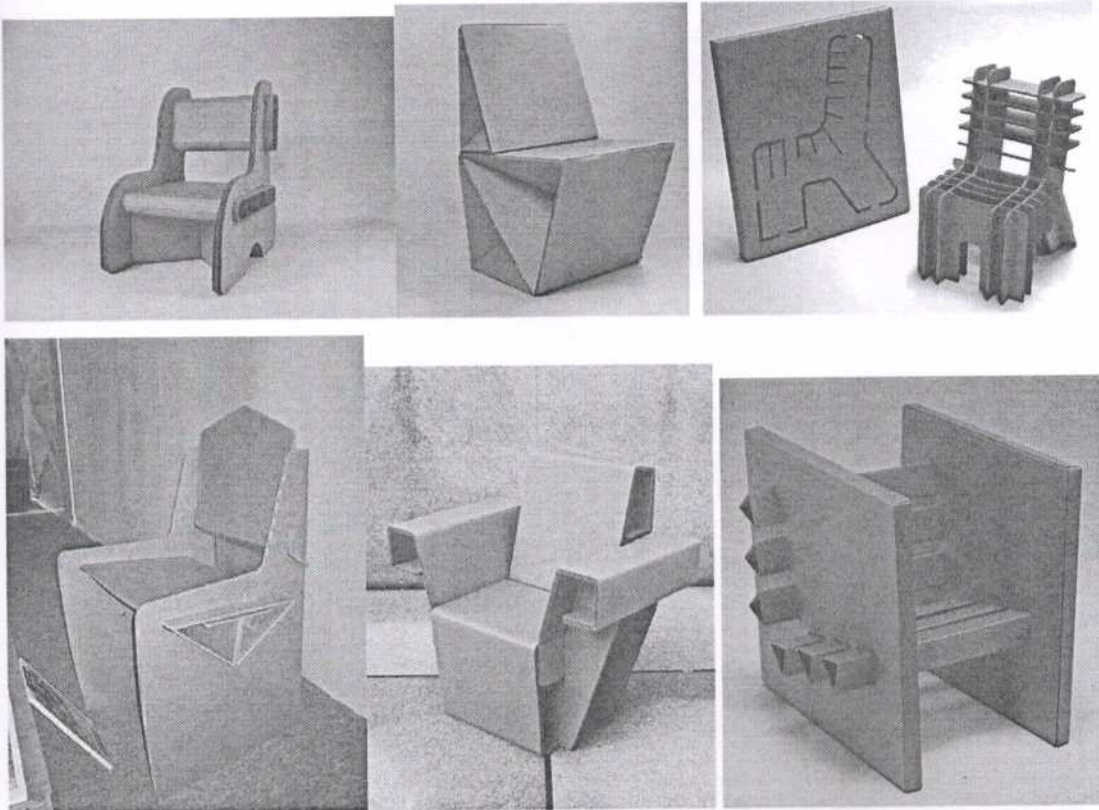
**Submission:**

Sketch design and scaled model (No technical drawings required).



**Preliminary Sketches**





Chair Prototypes

**EVALUATION CRITERIA:**

Following criteria were followed for evaluation:

S.N.	CRITERIA	DISCRIPTION	WEIGHTAGE
1	Assignments	Assignments comprising of sheets and models were given 100 % weightage	100%
	TOTAL		100%



*Handwritten signature/initials in blue ink.*

DOCUMENTATION OF GOOD WORK OF STUDENTS.....



# PARLE CHEESESELINGS

## ABOUT:-

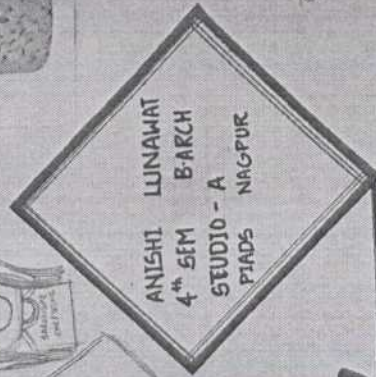
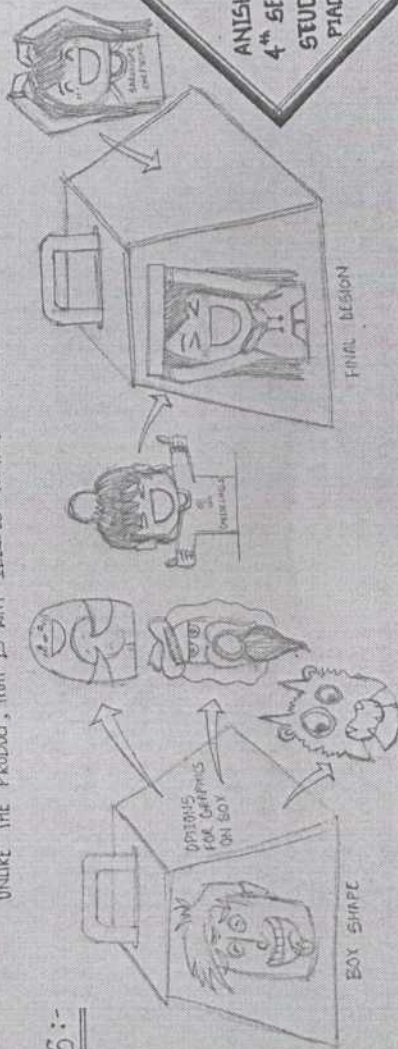
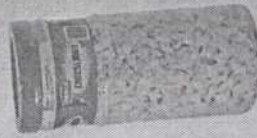
PARLE PRODUCTS PRIVATE LIMITED, IS AN INDIAN FOOD PRODUCTS COMPANY. IT WAS FOUNDED IN 1929 IN BRITISH INDIA BY THE CHAUHAN FAMILY OF VILE PARLE, MUMBAI. PARLE BEGAN MANUFACTURING BISCUITS IN 1939. IN 1947, WHEN INDIA BECAME INDEPENDENT, THE COMPANY LAUNCHED AN AD. CAMPAIGN, SHOWCASING ITS GULCO BISCUITS AS AN INDIAN ALTERNATIVE TO THE BRITISH BISCUITS. THE PARLE BRAND BECAME WELL KNOWN IN INDIA FOLLOWING THE SUCCESS OF PRODUCTS SUCH AS THE PARLE-G BISCUITS AND THE FROOTI SOFT DRINK. AFTER SUCCESS OF MANY SNACKS PARLE LAUNCHED CHEESESELINGS WHICH IS AN INTERNATIONAL SNACK, WHICH ATTAINED A GREAT SUCCESS.

## WHY PARLE CHEESESELINGS:-

CHEESESELINGS IS A SNACK WHICH IS LOVED BY AGE GROUP OF 5Yrs TO ALMOST 40 & ABOVE. IT COMBINES AN AMAZING TASTE OF CHEESE AND CONTAIN A FUNNY DIAMOND SHAPE, BUT THE PACKAGING IS TOTALLY OPPOSITE THAN THE PRODUCT. PACKAGING OF THE PRODUCT IS VERY BORING AND SIMPLE. UNLIKE THE PRODUCT, THAT IS WHY I DECIDED TO TAKE THIS PRODUCT FOR DESIGNING ITS PACKAGING.

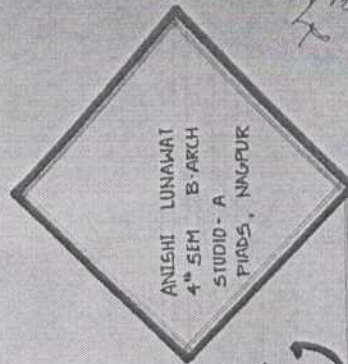
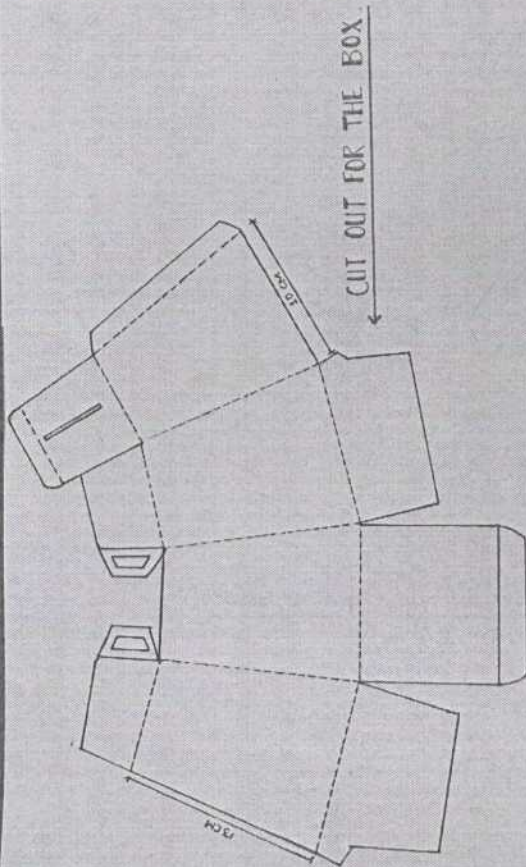
## PROCESS:-

### ORIGINAL PACKAGING:-



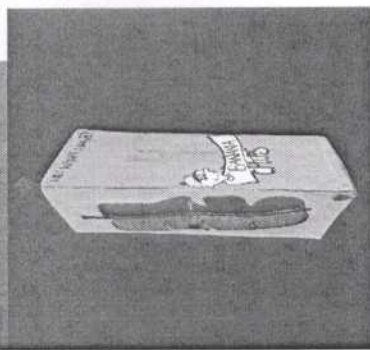
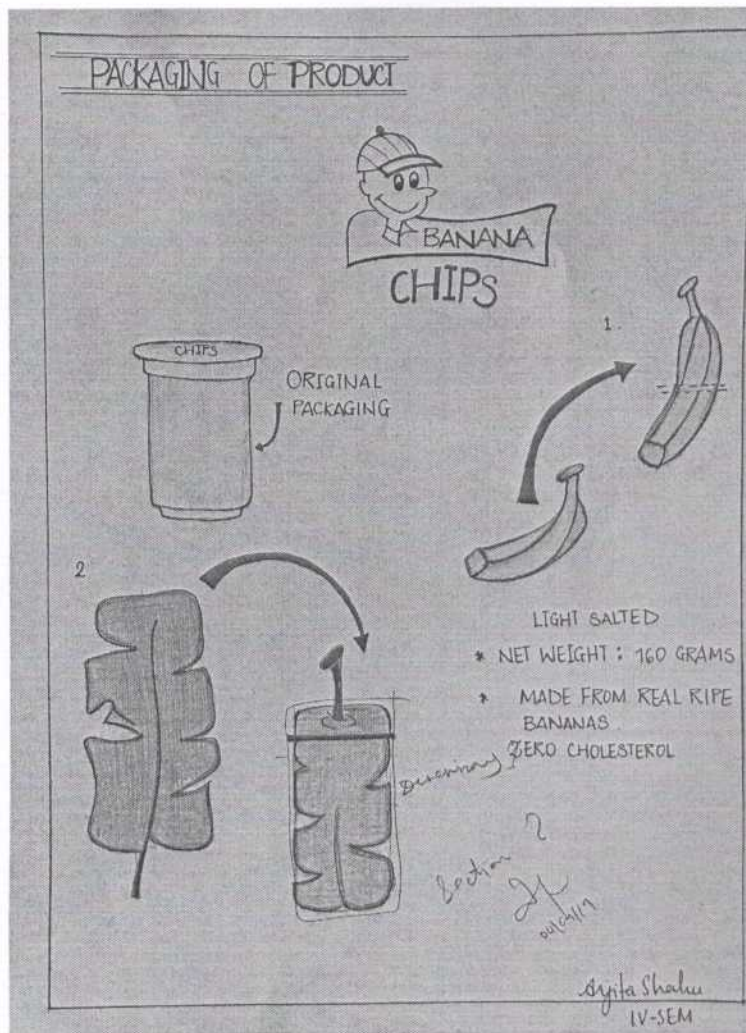
## PRODUCT DESIGNING

# FARLE CHEESE LINGS



## PRODUCT DESIGNING





# CARDBOARD CHAIR DESIGN

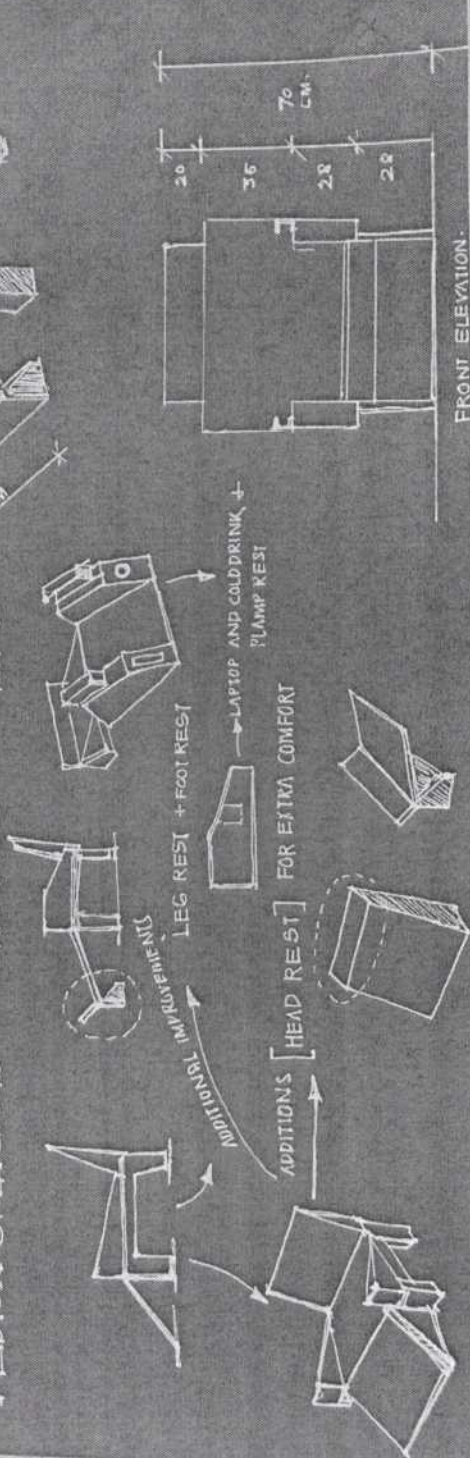
NAME - ANKIT GABRIEL  
IV<sup>TH</sup> SEM  
PRODUCT DESIGN

CONCEPT → CHAIR FOR WATCHING MOVIES AT HOME

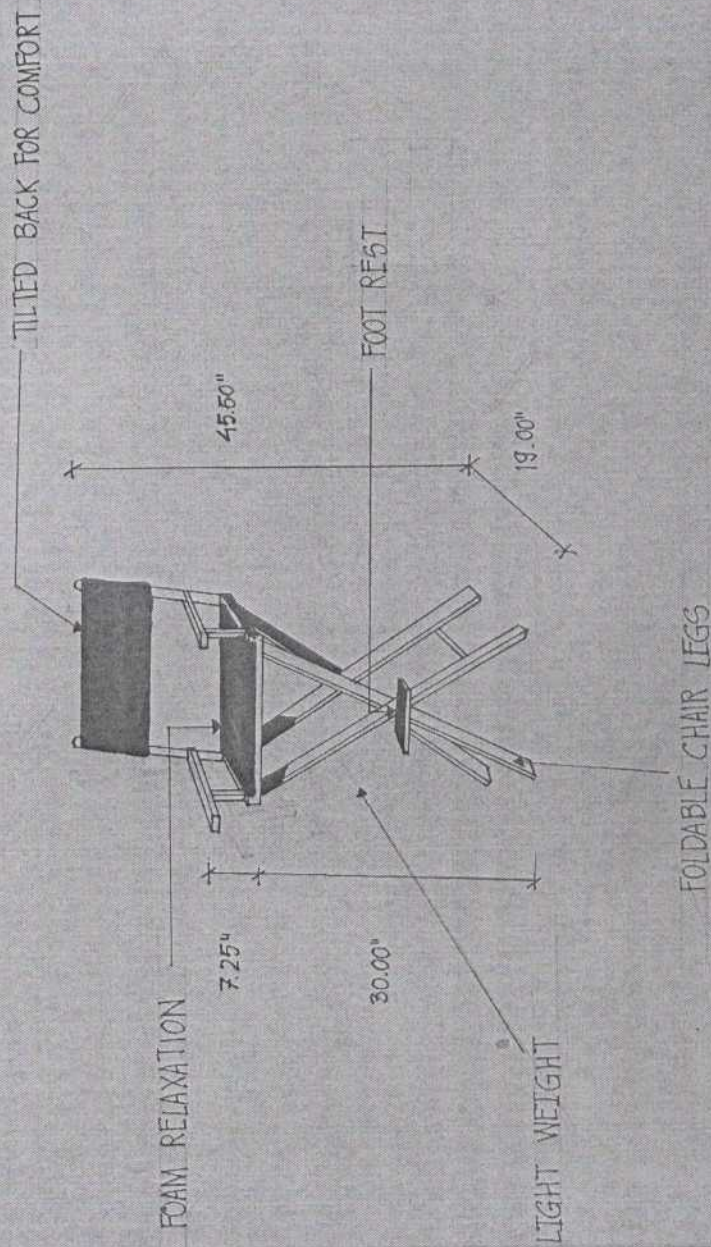
- CORRUGATED CARDBOARD, MADE FROM A NATURAL RENEWABLE RESOURCE, HAS ONE OF THE BEST ENVIRONMENTAL RECORDS.
- TONS OF CORRUGATED CARDBOARD ARE RECOVERED AND RECYCLED IN ALL OVER THE WORLD.
- CARDBOARD HAS THE BEST RECYCLING RATE OF ANY PACKAGING MATERIAL USED TODAY.

## — PROCESS —

DESIGN SKETCHES → DIMENSIONS → MODEL

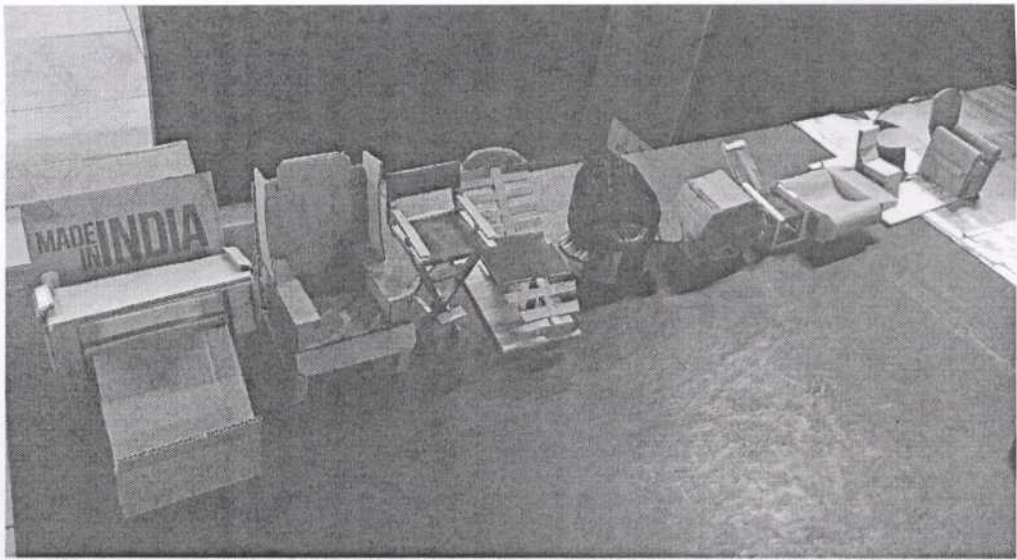
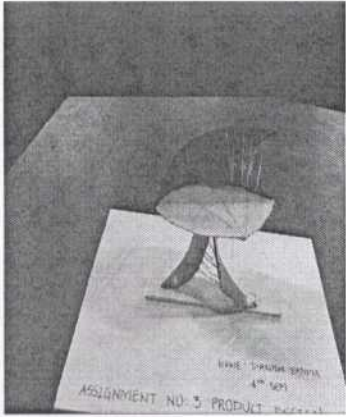
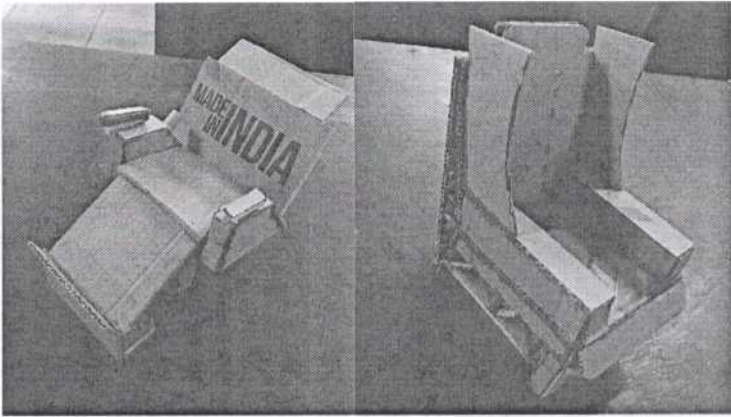


# DIRECTOR'S CHAIR



NAME:- VIRAJ R. DUDHALKAR  
SEM:- IV SEM  
PRODUCT DESIGN





*Handwritten signature*



## **RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY, NAGPUR**

(Established by Government of Central Provinces Education Department by Notification No. 513, dated 1<sup>st</sup> of August, 1923 & presently a State University governed by Maharashtra Public Universities Act, 2016 (Maharashtra Act No. VI of 2017))

(Academic Section)

Shri Chatrapati Shivaji Maharaj Administrative Premises, Maharajbagh Chowk, Civil Lines, Nagpur -01

Tel No.: 0712- 2532063

Fax No. 0712- 2532841, 2561347

No. Acad. /Acad. Cale. /2018/ **571**

Date: 26 April, 2018

### **NOTIFICATION**

It is notified for general information of all the University conducted/ constituent/ affiliated colleges and Post-Graduate Teaching Departments of the University that the Academic Calendar **for the session 2018-19 will be as under:**

**A] ACADEMIC CALENDAR FOR THE COURSES CONDUCTED AS PER SEMESTER PATTERN FOR SESSION 2018-19.**

**1. Terms & Vacation**

First Term (Odd semesters)	:	15.06.2018 to 17.10.2018
Diwali Holidays / Winter Vacation	:	18.10.2018 to 17.11.2018
Second Term (Even semesters)	:	19.11.2018 to 30.04.2019
Summer Vacation	:	01.05.2019 to <b>14.06.2019</b>

**2. Admissions\***

a) Last date of Admission (First term odd sem)	:	<b>6<sup>th</sup> August, 2018</b>
b) Last date for Admission with prior permission of the Vice-Chancellor	:	<b>6<sup>th</sup> September, 2018</b>

<b>3. Last date of submission of Enrolment forms to the university</b>	:	Within fifteen days from the last notified date of Admission
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**4. Examination**

**1. Winter Examinations.**

Commencement of Exam.

a) Regular students in odd semesters	:	18.10.2018
b) Failure Student in even semesters	:	03.10.2018

**2. Last date for receipt of exams. forms**

a) Regular students	:	31.8.2018
		<b>(for admissions other than Ist year)</b>
b) Old Ex-Students & External Students	:	15.5.2018
c) Ex-Students of immediately previous examination	:	Within 15 days from the date of declaration of the result of summer Exams.

**1. Summer Exams.**

Commencement of Exams.

a) Regular Even semester	:	12.03.2019
b) Failure of odd semester	:	20.02.2019

**2. Last date for receipt of exams. Forms**

a) Regular Students	:	15.01.2019
b) Old Ex-Students & External Students	:	15.10.2018
c) Ex-Students of immediately previous exam	:	Within 15 days from the date of declaration of the result of winter Exams.

<b>5. Declaration of Results</b>	:	As per governing provisions of the Act.
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**B) ACADEMIC CALENDAR FOR THE COURSES CONDUCTED AS PER ANNUAL PATTERN FOR SESSION 2018-19.**

**1. Terms & Vacation**

First Term :	:	15.06.2018 to 17.10.2018
Winter Vacation	:	18.10.2018 to 17.11.2018
Second Term	:	19.11.2018 to 30.04.2019
Summer Vacation	:	01.05.2019 to <b>14.06.2019</b>

**2. Admissions\***

a) Last date of Admission	:	<b>6<sup>th</sup> August, 2018</b>
b) Last date for Admission with prior permission of the Vice-Chancellor	:	<b>6<sup>th</sup> September, 2018</b>

**3. Last date of submission of Enrolment forms to the university** : Within fifteen days from the last notified date of Admission.

**4. Examination**

**Winter Examinations.**

- |  |   |  |
|--|---|--|
| 1. Commencement of Exam.                           | : | 03 .10.2018  |
| 2. Last date for receipt of exams. forms           | : |  |
| a) Regular Students                                | : | 16.07.2018   |
| b) External Students                               | : | 15.05.2018   |
| c) Old Ex-Students                                 | : | 15.05.2018   |
| d) Ex-Students of immediately previous examination | : | Within 15 days from the date of declaration of the result of summer exam |

**Summer Exams.**

- |  |   |  |
|--|---|--|
| 1. Commencement of Exams.                    | : | 20.02.2019   |
| 2. Last date for receipt of exams. forms     | : |  |
| a) Regular Students                          | : | 01.12.2018   |
| b) Old Ex-Students                           | : | 15.10.2018   |
| c) External Students                         | : | 15.10.2018   |
| d) Ex-Students of immediately previous exam. | : | Within 15 days from the date of declaration of the result of winter exam |

**5. Declaration of Results** : As per governing provisions of the Act.

**Special Instructions :**

- 1) The Principals/Heads of the institutions should communicate the list of students admitted in their colleges/ institutions to the university within 15 days from the last date of admission as notified by the university.
- 2) Students admitted after the last date as specified above shall not be considered for enrolment in the University and therefore, shall not be permitted to appear at the university examinations.
- 3) All government & other holidays are calculated on the basis of last year's statistics. It is likely to be same except small variations after the declaration by the Government/authorities. The schedule of such holidays will be separately notified by the university at the beginning of Calendar Year.
- 4) Theory and Practical examinations may be held on Sunday with prior permission and intimation.
- 5) M. Card (Machine Card) must be sent by the Principal/University Heads of the Department, within 30 days from the last date of admission as notified by the university, strictly in MS Excel software.
- 6) It is necessary by the Principals/Head of the Department to certify the number of actual teaching days conducted during the academic session.
- 7) All efforts should be made to achieve more than 180 teaching days in Annual Pattern and 90 days per Semester in Semester Pattern.
- \* This schedule is applicable only for the entry level admissions to various courses excluding the courses where admissions are governed by centralized admission process. Therefore, the last date for admissions in higher level semesters shall be 10 days after results of the qualifying examinations
- 8) The Last Date of examination forms for CAP round admission will be 15 days from the last date of admissions.
- 9) Admission governed by **Conditional Eligibility** the last date for submission of examinations form shall be within fifteen days after declaration of its qualifying examinations provided such students should have been admitted provisionally for its next higher academic session as per Direction No. 27 of 2008 and 6 of 2010

By Order of the Hon'ble Vice- Chancellor

  
(Dr. Puranchandra Meshram)  
Registrar



## **RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY, NAGPUR**

(Established by Government of Central Provinces Education Department by Notification No. 513, dated 1<sup>st</sup> of August, 1923 & presently a State University governed by Maharashtra Public Universities Act, 2016 (Maharashtra Act No. VI of 2017))

**(Academic Section)**

Shri Chatrapati Shivaji Maharaj Administrative Premises, Maharajbagh Chowk, Civil Lines, Nagpur -01

Tel No.: 0712- 2532063

Fax No. 0712- 2532841, 2561347

No. Acad. / Acad. Cale. /2017/18

Date: 15 April, 2017

### **NOTIFICATION**

It is notified for general information of all the University conducted/ constituent/ affiliated colleges and Post-Graduate Teaching Departments of the University that the Academic Calendar for the session 2017-18 will be as under:

#### **A) ACADEMIC CALENDAR FOR THE COURSES CONDUCTED AS PER ANNUAL PATTERN FOR SESSION 2017-18.**

##### **1. Terms & Vacation**

First Term :	:	15.06.2017 to 15.10.2017
Winter Vacation	:	16.10.2017 to 14.11.2017
Second Term	:	15.11.2017 to 30.04.2018
Summer Vacation	:	01.05.2018 to 14.06.2018

##### **2. Admissions**

a) Last date of Admission	:	7 <sup>th</sup> August, 2017
b) Last date for Admission with prior permission of the Vice-Chancellor	:	7 <sup>th</sup> September, 2017

3. Last date of submission of Enrolment forms to the university	:	Within fifteen days from the last notified date of Admission.
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##### **4. Examination**

###### **Winter Examinations.**

1. Commencement of Exam.	:	03.10.2017
2. Last date for receipt of exams. forms	:	
a) Regular Students *	:	15.07.2017
b) External Students	:	15.05.2017
c) Old Ex-Students	:	15.05.2017
d) Ex-Students of immediately previous examination	:	Within 15 days from the date of declaration of the result of summer exam

###### **Summer Exams.**

1. Commencement of Exams.	:	20.02.2018
2. Last date for receipt of exams. forms	:	
a) Regular Students *	:	01.12.2017
b) Old Ex-Students	:	15.10.2017
c) External Students	:	15.10.2017
d) Ex-Students of immediately previous exam.	:	Within 15 days from the date of declaration of the result of winter exam

5. Declaration of Results	:	As per governing provisions of the Act.
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#### **B) ACADEMIC CALENDAR FOR THE COURSES CONDUCTED AS PER SEMESTER PATTERN FOR SESSION 2017-18.**

##### **1. Terms & Vacation**

First Term (Odd semesters)	:	15.06.2017 to 15.10.2017
Diwali Holidays / Winter Vacation	:	16.10.2017 to 14.11.2017
Second Term (Even semesters)	:	15.11.2017 to 30.04.2018
Summer Vacation	:	01.05.2018 to 14.06.2018

##### **2. Admissions**

a) Last date of Admission (First term odd sem)	:	7 <sup>th</sup> August, 2017
b) Last date for Admission with prior permission of the Vice-Chancellor	:	7 <sup>th</sup> September, 2017



## **RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY, NAGPUR**

(Established by Government of Central Provinces Education Department by Notification No. 513, dated 1<sup>st</sup> of August, 1923 & presently a State University governed by Maharashtra Universities Act, 1994)

(Academic Section)

Sri Chhatrapati Shivaji Maharaj Administrative Premises, Mantra Bhag Chowk, Civil Lines, Nagpur - 461

Tel No. 9712-2532265

Fax No. 0712-2532541, 2501347

No. Acad./Acad. Cal. /2016/ 880

Date: 11<sup>th</sup> May, 2016

### **NOTIFICATION**

It is notified for general information of all the University conducted/ constituent/ affiliated colleges and Post-Graduate Teaching Departments of the University that the Academic Calendar for the session 2016-17 will be as under:

#### **A) ACADEMIC CALENDAR FOR THE COURSES CONDUCTED AS PER ANNUAL PATTERN FOR SESSION 2016-17.**

- 1 **Terms & Vacation**

First Term	:	16.06.2016 to 27.10.2016
Winter Vacation	:	28.10.2016 to 27.11.2016
Second Term	:	28.11.2016 to 30.04.2017
Summer Vacation	:	01.05.2017 to 15.06.2017
- 2 **Admissions**

a) Last date of Admission	:	1 <sup>st</sup> August, 2016
b) Last date for Admission with prior permission of the Hon'ble Vice-Chancellor	:	1 <sup>st</sup> September, 2016
- 3 **Last date of submission of Enrolment forms to the university** : Within fifteen days from the last notified date of Admission.
- 4 **Examination**

**Winter Examinations.:**

1. Commencement of Exam.	:	19.10.2016
2. Last date for receipt of exams. forms	:	
a) Regular Students *	:	15.07.2016
b) External Students	:	15.05.2016
c) Old Ex-Students	:	15.05.2016
d) Ex-Students of immediately previous examination	:	Within 15 days from the date of declaration of the result of summer exam

**Summer Exams.**

1. Commencement of Exams.	:	5.03.2017
2. Last date for receipt of exams. forms	:	
a) Regular Students *	:	01.12.2016
b) Old Ex-Students	:	15.10.2016
c) External Students	:	15.10.2016
d) Ex-Students of immediately previous examination	:	Within 15 days from the date of declaration of the result of Winter exam
- 5 **Declaration of Results** : As per governing provisions of the Act

#### **B) ACADEMIC CALENDAR FOR THE COURSES CONDUCTED AS PER SEMESTER PATTERN FOR SESSION 2016-17.**

- 1 **Terms & Vacation**

First Term	:	16.06.2016 to 27.10.2016
Diwali Holidays/ Winter Vacation	:	28.10.2016 to 27.11.2016
Second Term	:	28.11.2016 to 30.04.2017
Summer Vacation	:	01.05.2017 to 15.06.2017
- 2 **Admissions**

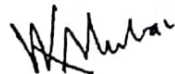
a) Last date of Admission (First term odd sem)	:	1 <sup>st</sup> August, 2016
b) Last date for Admission with prior permission of the Hon'ble Vice-Chancellor	:	1 <sup>st</sup> September, 2016

3. Last date of submission of Enrolment forms to the university : Within fifteen days from the last notified date of Admission
4. Examination
1. Winter Examinations.
- Commencement of Exam.
- a) Regular students in odd semesters : 24.10.2017
- b) Failure Student in even semesters : 03.10.2017
2. Last date for receipt of exams. Forms
- a) Regular students : 31.8.2017  
(for admissions other than 1st year)
- b) Old Ex-Students & External Students : 15.5.2017
- c) Ex-Students of immediately previous examination : Within 15 days from the date of declaration of the result of summer Exams.
1. Summer Exams.
- Commencement of Exams.
- a) Regular Even semester : 13.03.2018
- b) Failure of odd semester : 20.02.2018
2. Last date for receipt of exams. Forms
- a) Regular Students : 15.1.2018
- b) Old Ex-Students & External Students : 15.10.2017
- c) Ex-Students of immediately previous exam : Within 15 days from the date of declaration of the result of winter Exams.
5. Declaration of Results : As per governing provisions of the Act.

#### Special Instructions :

- 1) The Principals/Heads of the institutions should communicate the list of students admitted in their colleges/ institutions to the university within 15 days from the last date of admission as notified by the university.
- 2) Students admitted after the last date as specified above shall not be considered for enrolment in the University and therefore, shall not be permitted to appear at the university examinations.
- 3) All government & other holidays are calculated on the basis of last year's statistics. It is likely to be same except small variations after the declaration by the Government/authorities. The schedule of such holidays will be separately notified by the university at the beginning of Calendar Year.
- 4) Theory and Practical examinations may be held on Sunday with prior permission and intimation.
- 5) M. Card (Machine Card) must be sent by the Principal/University Heads of the Department, within 30 days from the last date of admission as notified by the university, strictly in MS Excel software.
- 6) It is necessary by the Principals/Head of the Department to certify the number of actual teaching days conducted during the academic session.
- 7) All efforts should be made to achieve more than 180 teaching days in Annual Pattern and 90 days per Semester in Semester Pattern.
- \* Applicable where the academic terms is of 1 ½ Year as Per the Guidelines of apical body & notified by University
- 8) The Last Date of examination forms for CAP round admission will be 15 days from the last date of admissions.
- 9) Admission governed by **Conditional Eligibility** the last date of submitted of examinations form will be within fifteen days of declaration of its qualifying examinations provided such students should have been admitted provisionally for its next higher academic session in second term (even semester) & their admissions are getting confirmed on the declaration of such qualifying exams.

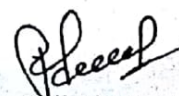
By Order of the Hon'ble Vice- Chancellor



(Puranchandra Meshram)  
Registrar

#### Copy forwarded for information and necessary action to :-

1. P.A. to Hon'ble Vice-Chancellor, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur
2. P.A. to Hon'ble Pro-Vice-Chancellor, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur
3. P.A. to Registrar, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur
4. The Principals of all Colleges / Head of the Post- Graduate Teaching Departments of the Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.
5. All Officers of the Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur
6. The Registrar of All Universities in the Maharashtra State.
7. Smt. Veena Prakash, Information Scientist, University Campus Library, RTMNU, Nagpur
8. The Editor, All local News Papers. They are requested to kindly publish the above Notification in their esteemed News Paper as a News Item.



(Dr. Anil Hirekhan)  
Deputy Registrar

- 3 Last date of submission of Enrolment forms to the university :2: Within fifteen days from the last notified date of Admission.
- 4 **Examination**
- Winter Examinations.:**
- 1 Commencement of Exam.
- a) Regular students in odd semesters : 21.10.2016
- b) Failure Student in even semesters : 05.10.2016
- 2 Last date for receipt of exams. forms
- a) Regular Students : 31.8.2016  
(for admissions other than 1st year)
- b) Old Ex-Students & External Students : 15.05.2016
- c) Ex-Students of immediately previous Examination : Within 15 days from the date of declaration of the result of summer exam
- Summer Exams.**
1. Commencement of Exams :
- a) Regular Even semester : 02.05.2017
- b) Failure of odd semester : 02.05.2017
2. Last date for receipt of exams. forms :
- a) Regular Students : 15.1.2017
- b) Old Ex-Students & External Students : 15.10.2016
- c) Ex-Students of immediately previous examination : Within 15 days from the date of declaration of the result of Winter exam
- 5 Declaration of Results : As per governing provisions of the Act

**Special Instructions :**

- 1) The Principals/Heads of the institutions should communicate the list of students admitted in their colleges/ institutions to the university within 15 days from the last date of admission as notified by the university.
- 2) Students admitted after the last date as specified above shall not be considered for enrolment in the University and therefore, shall not be permitted to appear at the university examinations.
- 3) All government & other holidays are calculated on the basis of last year's statistics. It is likely to be same except small variations after the declaration by the Government/authorities. The schedule of such holidays will be separately notified by the university at the beginning of Calendar Year.
- 4) Theory and Practical examinations may be held on Sunday with prior permission and intimation.
- 5) M. Card (Machine Card) must be sent by the Principal/University Heads of the Department, within 30 days from the last date of admission as notified by the university, strictly in MS Excel software.
- 6) It is necessary by the Principals/Head of the Department to certify the number of actual teaching days conducted during the academic session.
- 7) All efforts should be made to achieve more than 180 teaching days in Annual Pattern and 90 days per Semester in Semester Pattern.  
\* Applicable where the academic terms is of 1 ½ Year as Per the Guidelines of apical body & notified by University
- 8) The Last Date of examination forms for CAP round admission will be 15 days from the last date of admissions.
- 9) Admission governed by Conditional Eligibility the last date of submitted of examinations form will be within fifteen days of declaration of its qualifying examinations provided such students should have been admitted provisionally for its next higher academic session in second term (even semester) & their admissions are getting confirmed on the declaration of such qualifying exams.

By Order of the Hon'ble Vice- Chancellor

(Dr. Puranchandra Meshram)  
Registrar

**Copy forwarded for information and necessary action to :-**

1. P.A. to Hon'ble Vice-Chancellor, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur
2. P.A. to Hon'ble Pro-Vice-Chancellor, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur
3. P.A. to Registrar, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur
4. The Principals of all Colleges / Head of the Post- Graduate Teaching Departments and conducted Colleges of the Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.
5. All Officers of the Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur
6. The Registrar of All Universities in the Maharashtra State.
7. Smt. Veena Prakash, Information Scientist, University Campus Library, RTMNU, Nagpur
8. The Editor, All local News Papers. They are requested to kindly publish the above Notification in Their esteemed News Paper as a News Item.

(Manish Zodpey)  
Deputy Registrar (Acad.)

## Course Objectives

Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur

Faculty of Engineering & Technology

Board of Studies, Architecture

Syllabus of Bachelor of Architecture

Credit Base System (CBS )

### **First Semester B.Arch.**

#### **Basic Design & Visual Arts**

**1S-A-1**

**Objective-** Developing skills in manual presentation techniques, use of various media of presentation, Principles of 2-D & 3-D compositions, Principles of Design.

**Theory of Basic Design-** The study of this subject is aimed to understand the Visual & aesthetic qualities of Art and relating these to Architectural Design situation. This subject form the direct input to Design as 'Basic Design' is the foundation of all Professional courses which deals directly or indirectly with Aesthetic.

**Visual Art-** Visual Art is aimed at providing knowledge and understanding of various visual arts and its importance. It further aims at developing the freehand drawing and rendering skills in different medium and using it as tool of expressing ideas visually.

#### **Syllabus**

Unit-I: Brief historical review of development of fine arts (visual and performing arts.) and Interdependency of visual arts, architecture, painting and sculpture

Unit-II: Introduction to basic elements of design—point, line, plane, form

Unit-III: Principles of Design and its role in expression (architectural expression)  
Introduction to principles of organization/composition Repetition, Variety, Radiation, Rhythm, Gradation, Emphasis & Subordination, Proportion, Harmony, Balance

Unit-IV: Study of Visual Properties of 2-Dimensional forms both geometrical and non-geometrical surfaces and visual textures, optical illusion etc.

Unit-V: Free hand line sketching and drawing of natural and manmade. Study of shades and shadows, Sketching of Historic or new built up structures of Architectural importance using different mediums.

Unit-VI: Study of classification of colours with different hues, values, and shades. Colour wheel composition, properties of colour.

**Sessional Work-** Plates, Sketches and models to understand basic design principles, elements and their expressive qualities

Creative Exercises of 2d to 3d composition

Exercise related to positive and negative spaces

Product Design.

**Course Outcome :**

On completion of the course, the students will be able to achieve, develop the competency, confidence and capability to –

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge, understanding, skills during this 1<sup>st</sup> semester by sensibly applying the acquired fundamentals and techniques of Developing skills such as of manual presentation techniques, use of various media of presentation, Principles of 2-D & 3-D compositions, Principles of Design, the Visual and aesthetic qualities of Art and relating these to Architectural Design solutions.

With special thrust and emphasis to develop freehand drawings and rendering skills using different mediums as tool of expressing ideas visually based on following : -

1. Development of fine arts (visual and performing arts.) and Inter-dependency of visual arts, architecture, painting and sculpture
2. Learning Principles of basic Design, visual art and its role in expression (architectural expression)
3. Study of Visual Properties of 2-Dimensional forms both geometrical and non-geometrical surfaces and visual textures, optical illusion
4. Study of Free hand line sketching and drawings of natural and man- made objects.
5. Study of theory of color and its sensible application for built form.

And to effectively adopt, apply, integrate, implement and practice this acquired knowledge and skills in all their future studies / works especially in designing of various types of buildings and making presentations through 2<sup>nd</sup> to 7<sup>th</sup> semester, as well during their Internship in an Architect's Office and for their Project (Thesis) of 10<sup>th</sup> semester.

Thus finally leading the students to fully equip themselves with Professional Competency and Capabilities to incorporate and implement the gained knowledge and skills in all their future works be of design, presentation etc as Professional Architects.

## **Construction Technology & Materials – I**

**1S-A-2**

**Objective:** To develop understanding about construction principles. The subjects should also focus on developing design abilities by applying basic principles of construction and choosing appropriate materials and techniques. Construction technology and appropriate materials for structural systems, roofing, enveloping and interior finishes shall be considered under this subject from simple examples to complex.

### **Syllabus**

Unit I: General Idea / Introduction to various elements of building from foundation to roof.

General idea about basic building materials such as stone, wood, concrete, steel etc.

Unit II: Introduction to “Construction” as a subject and its relevance to architectural design.

1. Construction and the logic of stability as its basis.
2. Concept of load bearing: Support and Supported building elements
3. Concept of Span

Unit III: Understanding the basic construction principles with respect to structural stability and its applications/ extensions /manifestations in terms structural systems and then building elements

Construction Principles- construction systems-building elements- building materials

Unit IV: General conditions at site level such as site topography, climatic conditions and soil conditions and its implications on construction techniques, building materials, building elements, construction systems to be adopted.

Unit V: Basic Structural systems such as load bearing and frame structure.

**Sessional Work:** Site visit reports, tutorials, notes, sketches and market surveys.

### **Course Outcome :**

On Completion of Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate ,adopt, implement the knowledge, understanding acquired during this first semester by sensibly applying all principles, fundamentals, systems and techniques of construction, basics of drawing, and detailing related to the subjects / topics of

- i. Various elements of building from foundation to roof - their functions/purpose materials, shapes.
- ii. Concept of the logic of structural stability, span, and load, support and supported elements.

- iii. Site context-topography, climate and soil conditions
- iv. Structural systems-load bearing and framed structure

AND

As well /additionally to effectively incorporate, adopt and implement the acquired know-how of this semester of :-

a) Characteristics and use of basic materials such as Bricks, Stone, Timber, Cement, Steel, Sand, Water, Aggregate etc.

And to effectively adopt, apply, implement and practice this learning in all their future studies, especially related to design, planning and construction of various studio assignments of subjects of Architectural design, through 2<sup>nd</sup> to 7<sup>th</sup> semester, as well during their internship in an Architect's office and there- after in their project (Thesis) work in 10<sup>th</sup> semester

Thus finally leading the students to fully equip themselves with professional competency and capability to incorporate, detail out, execute the acquired knowledge and experience in all their future works as professional Architects.

## **Structural Design & Systems – I**

**1S-A-3**

### **Objectives:**

Emphasis will be more on structural concepts vis-à-vis stability of forms rather than intricate numerical calculations. While dealing with different structural concepts, their importance shall be related to architectural requirements by giving examples from history of architecture / contemporary architecture. Wherever application is mentioned examples from architecture typologies shall be referred to.

### **Syllabus :**

Unit I: Basic Structural forces : Study of types of Coplanar & non- coplanar forces.

Unit II: Co-Planer forces – resolution and resultants – Lami's Theorem – Application

Unit III: Equilibrium of 2 D elements: Basic Principles, condition of equilibrium, free body diagram.

Unit IV: Equilibrium of 3 – D elements – understanding of basic principles of resolution and equilibrium of 3 D force system no mathematical calculation.

Unit V: Types of Structural Supports and support reactions – Theoretical and practical – Study of reactions of simple support, hinge support, roller support and fixed support, study of types of beams and types of loads.

Unit VI: Static Friction: Basic Principles: Application for elements on horizontal plane, inclined planes and ladders.

Unit VII: Properties of plane sections.

- a) Centre of gravity
- b) Moment of inertia (second moment of area) – section modulus, radius of gyration, polar moment of inertia.

Unit VIII: Application for

- c) Perfect frames (Method of joints, Method of Sections and graphical methods.)
- d) Simply supported beams – Analytical and graphical
- e) Weight less cables / strings

**Sessional work:** Sketches, notes, tutorials, tests and presentations.

**Course Outcome :**

On completion of the course the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge/understanding acquired during this 1<sup>st</sup> semester by professionally applying and integrating principles/fundamentals and acquired know-how based on such as : -

- i. Forces and their resolutions relation to equilibrium and stability of the structure.
- ii. Their understanding and application which helps them to understand the equilibrium or stability of the structure. With this knowledge imparting an idea about the various forces acting on the structures.

And employing this learning into all their future studies, more specifically to effectively detail/work out Building Design solutions by integrating/incorporating these learning's in the various building design solutions through 2<sup>nd</sup> to 7<sup>th</sup> Semester as well during their Internship in an Architect's Office and so also in their Project (Thesis) work of 10<sup>th</sup> Semester.

Finally leading the students to be fully equipped and capable to incorporate /use this learning for all their works / projects as Professional Architects.

## **History of Art & Architecture –I**

**1S-A-4**

**Objective:** Study of evolution of various styles of art and architecture as a response to climate, culture and socio-political conditions by taking examples from river valley civilizations.

The emphasis will be on the development of the understanding of fundamental design principles (visual art principles) and resulting architectural expression; appropriate to place and people.

Aim: To understand architecture as an outcome of Physical factors like geography, climatology, location, Building Materials and available Technology and also the influence of Art, Culture and Society.

### **Syllabus**

Unit I: Introduction to Art, Culture, Society, Civilization and Architecture.

Unit II: Earlier attempts of man for shelter during the prehistoric period.

Unit III: Indian Art and Architecture.

Unit IV: Western Art and Architecture.

Unit V: Elements of Art & Principles of Design studied from historic examples.

**Sessional work:** Sketches, notes, tutorials, tests and presentations.

### **Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge / understanding during this 1<sup>st</sup> Semester by sensibly applying all principles / fundamentals acquired know-how such as of : -

- Gaining knowledge of Architectural perspective related to heritage and antiquity, of the Architectural Styles their chronological advancement and various natural and man- made reasons affecting the styles.
- Visualizing and recognizing Architectural Illustrations Interpreting plans, elevations, architectural vocabulary.
- Critically analyzing structures and settlements - from Pre - historic era in relation to aesthetics and planning

And use this basic learning as a solid base for all their future studies of this subject in next two semesters as well through 4<sup>th</sup> to 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office.

There- by finally leading the students to equip themselves, with Professional Competency and Capabilities to use this acquired knowledge / know-how in all their future works as Professional Architects.

## **Architectural Graphics I**

**1S-A-5**

### **Objective:**

Ability to present in graphic form all elements of building design- study of shades and shadows, textures, tones, colours , geometrical form, perspectives and projections, free hand drawing and rendering in different media.

The understanding about representation of 3D objects in 2D by graphical way should first be

developed from real world experiences and then technical aspects of solid geometry can be taught.

### **Syllabus:**

Unit - I : Free hand drawings:- Simple exercise in object drawing, light and shade of simple, natural and geometric forms. Out- door sketches of simple building forms.

Unit – II :Architectural symbols :- Architectural representations of trees, hedges, foliage, human figure in different postures, vehicles, furniture etc. their integration to presentation drawings. Representation of elements, openings, materials, accessories etc. Terminology and abbreviation used in architectural presentation.

Unit – III :Scale Drawing :- Study of scales, their use in practice and construction of Plain and Diagonal scale. Architectural and stencil lettering in varying heights and thickness and dimensioning.

Applications of scales to enlarge or to reduce the objects in drawing.

**Sessional work:** Sketches, notes, tutorials, tests and presentations

### **Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding skills and techniques acquired during this 1<sup>st</sup> Semester by professionally applying all principles / fundamentals, skills, techniques, acquired know-how, tools and skill of drawing with respect to : -

Learning free hand drawings, various graphical symbols to represent building materials, trees, human figures, vehicles.

Understanding various scales, their ratios and application and techniques in drafting / drawing various objects.

Understanding use and application techniques of various drafting / drawing tools, equipments and learning to draft / draw.

Learning and drawing the formatting of drawing sheet; Architectural lettering, dimensioning techniques, methodologies

And use this learning / know-how to represent their designs and construction drawings by adopting and practicing the art, skills and techniques in all their higher / future studies through 2<sup>nd</sup> to 7<sup>th</sup> Semesters, as well as Internship in an Architect's office.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ this acquired knowledge / know-how in all their future works / designs, construction work of various Buildings as Professional Architects.

### **Workshop Practice- I**

**1S-A-6**

**Objective:-** Developing skills to understanding various tools, processes and material.

### **Syllabus:-**

Unit i :-Understanding various basic tools used for carpentry joinery and fabrication.

Unit II :-Understanding workshop rules, safety norms and care in handling various manually operated and motorized tools.

Unit III :-Basic understanding of wooden joints, evolution of joints, needs of joints, making simple wooden joinery parts.

Unit IV :-Understanding various building materials and their tools used for cutting, joining and extension. Handling materials like wood, marble, steel, MS, plywood, POP, Aluminum etc.

Unit V :-Understanding nailing, screwing, riveting and their various conditions and types of applications.

Expression of forms - By handling various materials.

**Sessional work:** Model Making

**Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge / understanding skills and techniques during this 1<sup>st</sup> Semester by sensibly applying all fundamentals, techniques, acquired know-how, tools and skill with respect to : -

About various tools and implements used in various trades associated with building construction - their scopes and limitation in use/application, their handling, safeties and precaution to be followed/practiced.

Learning basics of model making of smaller dimensions, basic timber joineries.

And employ this learning in all their future studies through 2<sup>nd</sup> to 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office particularly with respect to model making work and on site working.

There-by finally leading the students to equip themselves, with Competency and Capabilities to employ this acquired knowledge / know-how in all their future works / designs, construction work as Professional Architects.

## **Computer Application (NG)**

**1S-A-7**

**Objective:** Developing skills in non-graphic applications of computer as required for architectural profession and office management.

**Syllabus :**

Unit I :- Introduction to Microsoft office word and learning the basic commands of MS office word.

Unit II :- Introduction to Microsoft office Excel and learning the basic commands of MS office Excel.

Unit III :- Introduction to Microsoft office PPT and learning the basic commands of MS office PPT.

**Sessional work:** Assignments

**Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding skills and techniques acquired during this 1<sup>st</sup> Semester by sensibly applying all principles / fundamentals and skills, techniques, acquired know-how, tools such as of : -

Non Graphical computer application of Microsoft Office application such as of MS Word, MS Excel, MS Power Point Presentation and related applications and techniques.

And employ this learning in all their future studies through 2<sup>nd</sup> to 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

There-by finally leading the students to equip themselves, with Professional Competency and Capabilities to employ this acquired knowledge / know-how in all their future works / designs, construction work as Professional Architects.

## **Elective A**

### **Communication Skill**

**1S-AA-1**

#### **Objective :**

To impart, develop and instil understanding / knowledge with respect to essential communication skills of speaking, listening, reading, writing and learn-to-learn skills with a view to enable the students to effectively comprehend various instructional activities during the course of their study, become lifelong learners and prove effective in their professional career to effectively communicate their concepts, designs and instruction for planning/designing and executions of various schemes.

#### **Syllabus :**

Unit I :- Importance of Communication; Importance of Communicating effectively in English; Communication Process, test for English proficiency.

Unit II :-Uses of Communication Skill, Types of Communication Skill, technique and skills such as Listening, Speaking, Reading, Writing , Body Language , Barriers in communication

Unit III :-Reading Process; Reading Skills – Vocabulary Skills, Characteristics of Technical Writing –introduction, characteristics, techniques; Choice of right words, phrases and sentences; Principles of paragraph writing.

Unit IV :- Effective Presentation Skills, Group Discussion , Diction.

#### **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the knowledge/ understanding, skills and techniques acquired during this first semester, by sensibly applying all principles/ fundamentals, systems and techniques, acquired know how such as of:-

Communication skills and techniques through various mediums such as, of speaking, writing, body language/ expressions with the emphasis on architectural vocabulary, enabling and equipping the students to effectively communicate their concepts, reasonings to all with whom they have to interact now or in future times.

And use/ employ this learning in all their future studies through 2<sup>nd</sup> to 7<sup>th</sup> semesters as well during their Internship in an Architect's office and in their Project (thesis) work of 10<sup>th</sup> semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ/ use the acquired knowledge/ know how in all their future works/ designs, construction works of various buildings as Professional Architects.

## **Sketching and Rendering**

**1S-AA-1**

### **Objective :**

To impart, develop and instil a broader understanding / knowledge skills of Sketching and Rendering by using and exploring various arts forms, tools/implements to accurately and skilfully represent, illustrate various objects, elements, components of building, landscape features etc related / relevant to Architecture with the aim to assist students to perfect this art to skilfully and meaningfully present their various architectural projects/works.

### **Syllabus :**

UNIT I : Freehand sketching of shapes & forms with different mediums and grades of pencils.

UNIT II : Studying different types and mediums of Sketching with the help of tools, textures etc.

UNIT III : Sketching techniques used to explore nature, human figure and learn abstraction of the same.

UNIT IV : Freehand perspective lines, sketching of perspective views of buildings, spaces, trees etc.

UNIT V : Architectural building sketches in a professional requirement.

### **REFERENCE BOOKS :**

- Sketching and Rendering in Pencil: Arthur Leighton Guphill

- Rendering in Pen and Ink – The Classic Book On Pen and Ink

### **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the knowledge/ understanding, skills and techniques acquired during this first semester, by professionally applying all principles/ fundamentals, techniques acquired know how, tools and skill of sketching and rendering such as of: –

Exploring various art and presentation forms and mediums by applying fundamentals, skills, techniques of sketching, rendering for presenting, representing, illustrating various elements of buildings and associated objects, accessories.

And use this learning/ know how to represent their designs and construction drawings by adopting and practicing the art, skills and techniques in all their future studies through 2<sup>nd</sup> to 7<sup>th</sup> semesters, as well during their Internship in an Architect's office and in their Project (thesis) work of 10<sup>th</sup> semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ/ use the acquired knowledge/ know how in all their future works/ designs, construction works of various buildings as Professional Architects.

### **Elective B**

### **Scale and Proportion**

**1S-AA-2**

### **Objective :**

To impart, develop and instil understanding / knowledge of : -

- Concepts, principles, role, importance, utility of human scale and proportions as well of different Architectural Scales, such as Modular, Anthropometric and similar others
- Scales and proportion their attributes and its application in design and preparation of various drawings.
- Proportions, its concept, systems, its importance and contribution in design of buildings and its various elements/components, and its contribution to achieve good architecture
- Scale and Proportions their application in ancient and contemporary Architecture.
- Proportion its relation to ratio in nature.

### **Syllabus :**

Unit I : Scale and Proportion as one of the principal design elements, definition , scope and importance. Introduction to various types of scales and their peculiarities, human scale and ratio relevance and application in to day to day activities.

Unit II : Introduction to importance of proportion in architecture and its contribution in terms of form and function of an element.

Unit III : Introduction to type of scale and proportion such as Human scale, Golden section, Classical order, Renaissance theory, Modular theory, Cane theory and Fibonacci Series.

Unit IV : Application of scale and proportion in Vernacular, Historical and Modern Buildings.

**Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the knowledge/ understanding, skills and techniques acquired during this first semester, such as the knowhow of:-

1. Scales- its attributes, its application in drawings and designs.
2. Proportions- its concepts, its importance and contribution in designing ancient and contemporary structures and its relations to ratio in nature.

And sensibly and effectively applying, adopting, integrating, implementing and practicing these knowhow, techniques and skills in all the future works related to designing of buildings and its components through 2<sup>nd</sup> to 7<sup>th</sup> semesters, as well during their Internship in an Architect's office. Thus; finally leading the students to fully equip themselves with Professional Competency and Capabilities to incorporate the acquired knowledge and skills in all their future designs of various buildings as Professional Architects.

**Second Semester B. Arch.**

**Architectural Design I**

**2S-A-1**

**Objectives:**

Development of space visualization.

Application of materials to simple architectural forms.

Application of the knowledge gained in other subjects and basic design to design of buildings of single/ simple activity .

**Syllabus**

- **Anthropometry** :Study of Human dimensions, concept of percentile in Indian standards, space required for various simple activities, circulation spaces.
- **Form and Space** :Volumes, elements of volumes, enclosure of space, semi – enclosed spaces, defining space by elements, light as a factor of shape, Color, texture & form, view, visual relationship. Properties of forms and their impact on spatial experience.
- **Elements of built form** :a) Basic Elements: Walls, Floors, windows, doors, staircase, facade, etc.  
b) Support Elements: Courtyards, balconies, canopy, patio, Sitouts, water bodies, pergola, etc.  
c) Relevance of all such elements on architectural expression and spatial quality.
- **Principles of Design** :Basic principles or spatial organization , symbiosis of form and function concept generation convergent & divergent thinking in design.

- Furniture & Facilitation :Need of furniture as an aid to enhance activities, study of various furniture in isolation & combination.
- Climate & design :Orientation, climatic coordination and architectural elements, like chajjas, fins, fenestration etc,

**Sessional work:** Assignments on each head with presentation, lecture and site visits.

Design of simple single activity spaces like residence, school, canteen etc.

Small modules of short design projects based on the understanding developed about above mentioned topics.

### **Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge, understandings, skills and techniques acquired during this 2<sup>nd</sup> Semester by sensibly applying the acquired principles, fundamentals, techniques and skills of designing, of drawing and detailing, of presentations related to designs of buildings of small built up area based on considerations and inputs such as : -

- Forms, space and design of various building elements in relation to Anthropometry
- Principles / theories of Design and Climate
- Visualisation and development of form and of furniture and facilitation

And to effectively adopt, apply, integrate, implement and practice this acquired learning and experiences in all their future studies and especially in designing of various types of building through 3<sup>rd</sup> to 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office and thereafter in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to fully equip themselves, with Professional Competency and Capabilities to incorporate, to detail out, to plan, design and execute by using the acquired knowledge and experiences in all their future Designs of various Buildings as Professional Architects.

## **Construction Technology & Materials –II**

**2S-A-2**

### **Objective :**

In furtherance to the objectives as stated under 1<sup>st</sup> Semester of this course heading -

- To impart, develop and instil understanding/knowledge about properties, attributes and utility of various building materials such as Bricks, Stones, Cement, Lime, Concrete, Glass
- To impart, develop and instil understanding / knowledge with respect to design principles, construction and structural systems, techniques, methodologies, various types/classifications detailing and drawing work of

- i. Brick and Stone Masonry
- ii. Lintels and Arches
- iii. Timber joinery - Timber Doors and Windows

### **Syllabus**

Unit I: Study of basic building materials, such as brick, stone, cement, lime, concrete, Glass w.r.t classification, composition and general idea about their chemical, physical properties leading to structural strength and aesthetic qualities.

Emphasis should be on developing understanding about making choice of appropriate building materials in a given situation.

Unit II: Masonry: Basic principles/rules of masonry for its load bearing capacity and stability

1. Various types of Building materials used in masonry such as stone, brick, mud blocks, concrete blocks – size, shape, strength and aesthetic quality of each of them

2. Types of Stone masonry with dressed and undressed stones, Composite masonry

3. Types of Brick masonry used in load bearing walls such as Flemish, English bonds, cavity walls and use of piers in load bearing walls

4. Types of masonry used in partition walls

Unit III: Concept of span and its application in creating openings in masonry walls with lintels and arches. Structural difference in the behavior of lintel , arch and relieving arch.

Basic terminology and types of lintels and arches and materials used for them such as stone, brick ,wood, steel.

Unit IV: Principles of wooden/ timber Joinery. Types of timber and wood used in structural wood work. Basic types of joints and its applications in various building elements such as timber doors, windows and timber roofs.

Timber paneled, partly paneled and partly glazed and fully glazed doors and windows with its fixtures and fastenings.

**Sessional Work:** Site visit reports, tutorials, notes, sketches and market surveys.

Plates of Small modules of design based on the construction principles of masonry, joinery etc.

### **Course Outcome :**

On completion of the course, the students will be able to: -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt, implement the acquired knowledge / understanding, during this Second semester by sensibly applying all principles, fundamentals, systems and techniques of construction, basics of drawing, and detailing related to the subject topics of : -

- i. Masonry work employing different materials - Principles / rules
- ii. Lintels and Arches - Principles, Structural behaviour, types
- iii. Timber joinery - Principles, Types, uses

iv. Doors and windows out of timber - Design Principles, types, joinery

And - as well / additionally to effectively incorporate, adopt and implement acquired know-how of this Semester of : -

a) Characteristics and use of materials such as Bricks, Stones Cement, Lime, Concrete, Glass - their structural strength, aesthetic qualities.

b) Criteria for making choice of appropriate material for various use / situations.

And to effectively, adopt, apply, implement and practice this learning in all their future studies, especially related to design, planning and construction of various studio assignments of subjects of Architectural design, through 3<sup>rd</sup> to 7<sup>th</sup> semester, as well during their internship in an Architect's office and there- after in their Project (Thesis) work in 10<sup>th</sup> semester

Thus finally leading the students to fully equip themselves with professional competency and capability to incorporate, detail out, execute the acquired knowledge and experience in all their future works as professional Architects.

## **Structural Design & Systems- II**

**2S-A-3**

### **Objective :**

To impart and equip the student with the concept of stresses and strain due to loads, change of temperature and effects of change in cross section area and also to impart the concept of the composite section as well as to the simple stresses, other stresses like Bending, Shear and Torsional stresses. To make students understand and become aware about the effect of stresses based on various properties of materials like elastic property and thermal coefficient of materials.

### **Syllabus :**

Unit I: Stability of Masonry Structural elements

Unit II :Simple stresses and strains : Concept and application – Definition of stress, strain, study of stresses & strains, Hook's law. Principle of superimposition & stresses in composite sections.

Unit III :Thermal stresses and strains : Simple and composite section, concept and application.

Unit VI :Elastic Constants: definitions , Poisson's ratio, Bulk Modulus, Modulus of elasticity, Modulus of rigidity.

Unit V: Shear Stresses: Shear stresses and its distribution in Rectangular, Circular, I & T section only. Concept and application

Unit VI :Bending stresses – circular bending: Concept and application ( study of concept of Flitched beams no mathematical calculation.)

Unit VII :Torsional stresses: Torsion of solid and hollow circular shafts of same material. Concept and application

**Sessional works:** Sketches, notes, tutorials, tests and presentations

**Course Outcome :**

On Completion of the Course, the students will be able to : -

Achieve, develop-Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge/understanding during this 2<sup>nd</sup> semester by professionally applying and integrating principles/fundamentals and acquired know-how based on such as : -

- i. The effects of forces on structure in the form of simple stresses shear stresses bending stresses and torsion stresses on the monolithic sections and composite sections.
- ii. Elastic and thermal properties of material. Also the problems of stresses coming on to the various sections and imparting a fair knowledge of stress and strain developed on various materials.

And employing this learning into all their future studies, more specifically to effectively detail/work out Building Design solutions by integrating/incorporating these learning's in the various building design solutions through 3<sup>rd</sup> to 7<sup>th</sup> Semester as well during their Internship in an Architect's Office and so also in their Project (Thesis) work of 10<sup>th</sup> Semester.

Finally leading the students to be fully equipped and capable to incorporate /use this learning for all their works / projects as Professional Architects.

**History of Art & Architecture –II****2S-A-4****Objective :**

Study of evolution of various styles of art and architecture as a response to climate, culture and socio-political conditions then by taking examples from Western architecture and architecture of the Indian sub continent.

**Syllabus:**

Unit I: Progression of art and architecture of the River valley Civilizations.

Unit II: Study of visual art principles, scale and proportions, technological development emphasizing on architectural expression and its relevance on the society quoting examples from:

I . Greek period

II. Roman period

III. Christian architecture up to Renaissance Period.

Unit III: Role of culture and art on architecture in Indian context Study of visual art principle, monumental and human scale. Study of Impact of religious philosophy on the physical form.

I. Buddhist architecture

I I. Jain architecture

III. Hindu Temple Architecture

IV. Islamic architecture

**Sessional works:** Sketches, notes, tutorials, tests and presentations

**Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge / understanding during this 2<sup>nd</sup> Semester by sensibly applying all principles / fundamentals and acquired know-how such as of : -

- Identifying and recognizing through Architectural Illustrations such as plans, elevations, sections to understand main characteristics of various classical Architectural Periods and styles.
- Understanding major concepts, other influences that shaped architecture during classical and medieval era in the west.
- Recognizing, distinguishing various religion architecture in India - their role and importance in shaping cultural heritage of India and their response to local regional contexts.

And use this learning in all their future studies of this subject in next semester as well through 4<sup>th</sup> to 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ this acquired knowledge / know-how in all their future works / designs, as Professional Architects.

## **Architectural Graphics II**

**2S-A-5**

### **Objective :**

To impart, develop and instil understanding / knowledge, skills and abilities and make students abreast / aware with principles, techniques, methodologies to present in Graphic forms various elements of building design with the emphasis and thrust on : -

- i. Orthographic Projections, Angular Projections
- ii. Complex Projections
- iii. Standard symbolic graphical representation of materials, trees, cars, human figures etc.
- iv. Architectural Drawings.

### **Syllabus:**

Unit – I Orthographic Projections :-

Study of reference planes, projectors, orthographic projections of object/objects in different positions and method of drawing the same.

Angular Projections :- Isometric and Axanometric projection.

Unit – II Complex Projections :-

Section planes in different angles, drawing of true section and introduction of slicing method.

Development of solids/ solids with voids and drawing the same to scale.

Interpenetration of solids, solids and voids , development of surface and section at a junction.

Unit III: Architectural Drawing

Development of Drafting skills for architectural drawings.

**Sessional work** :- Plates, sketches, & tests.

### **Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge / understanding skills and techniques acquired during this 2<sup>nd</sup> Semester by professionally applying using principles / fundamentals and skills, techniques, acquired know-how, tools and skill of Graphics, basics of drawing and detailing related to subject / topics such as of : -

- a) Drawing-Principles and techniques of Orthographic Projections of object/objects in different positions.
- b) Techniques of drawing complex projections such as section plane in different angles, drawing of true section by slicing method. Surface development and interpenetration of solids.
- c) Development of Drafting skills for architectural drawings.
- d) And use this learning to represent their designs by adopting and practicing the art and techniques in all their future designs solution, construction drawings through 3<sup>rd</sup> to 7<sup>th</sup> Semesters; as well during their Internship in an Architect's office.

Thus finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works / designs, construction work of various Buildings as Professional Architects.

## **Workshop Practice – II**

**2S-A-6**

**Objective:-** Developing understanding of various material and efficiency in technique.

### **Syllabus:-**

Unit I :-Finishing Surfaces: Understanding various surface finishing techniques and processes received by different material like wood, steel, aluminum, stone etc.

Unit II :-Paints and Polish: Surface preparation, use of sand paper, application of putty, application of base coat, middle coat and final coat, understanding oil paints, decopaints, acrylic paints etc.

Unit III :-Study of various application techniques like brush, pads, scalpel, spray paints, working on highlights for painting.

Unit IV :-Design and executing prototype of simple objects like pen stand, projector stand, lamp shades, paper tray, CD stand, knife holder, kitchen accessories and finishing of selected material.

Evaluation shall be done on following heads:

Simplicity, honesty of material, originality, workmanship, junction, structure.

**Sessional work:** Model Making of identified architectural projects

### **Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding skills and techniques acquired during this 2<sup>nd</sup> Semester by sensibly applying all fundamentals, techniques, acquired know-how, tools and skill with respect to : -

Learning about various tools and implements with emphasis on those tools, implements used for finishings such as for painting, polishing and similar finishes, the methodologies/handling of such tools their use/applications, precautions to be practiced.

Use of P.O.P/Clay/similar products to cast and create new shapes, forms, compositions.

Model making for larger dimensioned structures/objects their finishes.

And use / employ this learning in all their future studies through 3<sup>rd</sup> to 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office.

Thereby finally leading the students to equip themselves, with Competency and Capabilities to employ this acquired knowledge / know-how in all their future works / designs, construction work as Professional Architects.

## **Climatology**

**2S-A-7**

### **Objective :**

To impart ,develop and instil understanding/knowledge about:-

- a) Earth - Sun relationship and resultant phenomenon of climate and weather .
- b) Process of heat exchange /transfer in relation to mankind and its surrounding built and un-built environment /spaces.
- c) Thermal comfort in different conditions of built/un-built environment/spaces and various means to achieve it.

### **Syllabus :**

Unit-I : Introduction to climate , environment and its elements.

Unit-II : Study of global climatic zones as result of Earth- Sun relationship.

Unit-III : Elements of climate such as temperature, humidity, precipitation, wind, solar radiation and various instruments used to record the climatic data. Characteristics of major climate types in tropical zone.

Unit-IV: Brief study of solar radiation budget , global insolation, macro and micro climate : site climate.

Unit-V : Brief Study of

- a) Horizon system and celestial co-ordinates.
- b) Sun-Path Diagrams
- c) Sun control and shading devices.
- d) Heliodon and its use in laboratory services.

Study under each unit to be related to man in correlation to built, un-built environment/ spaces.

### **Course outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge / understanding skills and techniques acquired during this 2<sup>ND</sup> Semester by professionally applying and integrating principles / fundamentals and acquired know-how such as of : -

- i. Understanding Climate and factors responsible for its variations in different regions.
- ii. Thermal comfort fundamentals and its significance, human needs in relation to built environment.
- iii. Heat exchange its principles/fundamental relationship of man and built environment into all their future studies more specially to effectively integrate and detail/work out in designs of various types of built spaces through 3<sup>rd</sup> to 7<sup>th</sup> semester as well during their Internship in an Architect's office, project (Thesis) work of 10<sup>th</sup> Semester as well.

Thus finally leading the students to fully equip themselves with Professional Competency and Capabilities to integrate, plan/design, detail out and execute employing the acquired knowledge in all their future Designs of various Buildings as Professional Architects.

## **Elective A**

### **Sketching and Rendering**

**2S-AA-1**

#### **Objective :**

In this semester the basic aim remains the same as stated for this subject of Semester I with greater emphasis to further enhance the skills and knowledge by incorporating, exploring and practicing sketching and rendering to a) Inspiration from Nature and from Masters b) formal building elements in relation to scale, shape, proportion, colours, materials etc c) to enrich students perception of Architect's design process and free hand techniques to record sequential experiences of moving through architectural spaces as well enable the students employ these skills and techniques for presentation of plans, elevations, sections etc in Architectural drawing.

#### **Syllabus :**

Unit I : The importance of sketching in Architectural profession. Sketching with pencils, pens or any suitable tool. Importance and focus on line weight and the force in the strokes enabling to decide, what line weight make differences in appearance of the object being drawn. Importance of skill and techniques of sharpening a pencil and its use to create various effects.

Unit II : The focus and importance of the human scale & proportion in sketching . Exercises of drawing lines, curves, planes, three dimensional objects resembling building structure. Drawing human figures in various postures to be corrected in an Architectural drawing.

Unit III : Sketching natural figures such as animals, trees, shrubs with different techniques along with the object seen in day's life such as vehicles, lamp posts, benches etc.

Unit IV : The sketches thus produced would help them in creating sheets/plates of other subjects in the following years of curriculum. Provide guideline about these principles to improve their work during ensuing years.

Unit V :Sketching added with rendering using various mediums such as water colours, oil pastels etc.

### **Sessional work**

To maintain sketchbook to retain all the sketches from day one. To prepare sheets and plates of the assignments categorized as per the units detailed above.

### **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the knowledge/ understanding, skills and techniques acquired during this second semester, by professionally applying all principles/ fundamentals, techniques acquired know how, tools and skill of sketching and rendering with respect to:-

Exploring knowhow and practice of this subject gained from previous semester and its adoption with additional input, learning through inspiration from nature and masters-emphasizing on scales, shapes, proportions, colours, textures, materials. Design process and free hand skills, techniques to express/ represent architectural spaces, objects and integrate this knowhow in presenting/ drafting architectural drawing for design and construction.

And use this learning/ know how to represent their designs and construction drawings by adopting and practicing the art, skills and techniques in all their future studies through 3<sup>rd</sup> to 7<sup>th</sup> semesters, as well during their Internship in an Architect's office and in their Project (thesis) work of 10<sup>th</sup> semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ/ use the acquired knowledge/ know how in all their future works/ designs, construction works of various buildings as Professional Architects.

### **Presentation Skill**

**2S-AA-1**

#### **Objective :**

To impart, develop and instil understanding / knowledge, skills, tools techniques with the view to make students abreast, aware of relevance, significance, usefulness of preparing effective presentations taking care of both the structural as well as aesthetic aspects. Of use of innovations, ways of using various effects, options and facilities offered by packages like Power Point and their alternatives both online and offline. Providing the students unique insights of creative deployment of the features of presentations which they can leverage to their advantage for furthering their prospects in both during their studio/class presentations and later on in Professional Practice.

#### **Syllabus :**

UNIT I :-Introduction and over view. Package Tour, Slide making basics, slide show options.

UNIT II :-Basic commands, creating new slide, opening and saving options. Text and para formatting options, bullets and tabs

UNIT III :-Backgrounds and graphics, printing options. Various animations and controls.

UNIT IV :-Transition options and timings. Inserting audio and video and its editions basics.

UNIT V:-Innovative ways of using Presentations Public Speaking tips. Case Studies.

### **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the knowledge/ understanding, skills and techniques acquired during this second semester, by professionally applying all principles/ fundamentals, skills, techniques acquired know how, tools with respect to:-

Effective presentation by use of innovative ways of various effects, options and facilities offered by packages like power point and their online and offline alternatives.

Innovative ways of using presentations and of public speaking.

And use this learning/ know how to represent their designs and drawings by adopting and practicing the art, skills and techniques in all their future studies through 3<sup>rd</sup> to 7<sup>th</sup> semesters, as well during their Internship in an Architect's office and in their Project (thesis) work of 10<sup>th</sup> semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ/ use the acquired knowledge/ know how in all their future works/ designs, construction works of various buildings as Professional Architects.

## **Public Speaking - II**

**2S-AA-1**

### **Objective:-**

To impart and develop the understanding/knowledge, skills and confidence to speak in public, as well as develop skills and techniques of non-verbal communication, with the thrust/emphasis on : -

- Reduce students' anxiety in public presentations, emphasize speech preparation, enhance public speaking skills.
- Impart and develop better abilities to evaluate performance of self and of other.
- Develop speech preparation and presentation tools and techniques, self and audience awareness.

### **Syllabus :**

Unit I :Introduction to Public Speaking, Dealing with your feelings and nerves, why we get anxious, Overcoming the fear, Construction and important parts of a speech,

organizing the speech, Plan and prepare speeches that inform, persuade, or fulfill the needs of a special occasion; outline your speeches in a logical and thorough fashion, Prioritization and sequencing to display logical thinking, Goals of public speaking.

Unit II: Non-verbal communication, Presentation Skills – Body Language, Body Posture, Gesture, Expressions, Practical hints and tips, Rehearse, Various ways to Rehearse, Practicing in front of the mirror, Practice with distractions, ability to connect, Not to get emotional with the topic, Panel Discussions and debate.

Unit III :Listening skills and understanding your audience, Active listening Versus Hearing, Public speaking assessment sheets, managing stage fear and building confidence, techniques to practice, make eye contact, take long pauses, Use humor & emotion, ask for feedback, Presentation in pairs and groups.

Unit IV :Extempore – ability to think off the feet, Group Discussions, Art of Conversation, Conversational Skills, Preparing for an impromptu speech, Idea Generation, Style that works with you, Assessment, sharing and summing up, Coffee with a guest –students invite the guest and get platform to apply their public speaking and oratory skills.

Sessional Work – Assessment on parameters – Oral Introduction, Body Speech, Summary, Attire, Participant's Knowledge, Audience attention, Creativity, Topic Focus, Overall Impression

**Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the knowledge/ understanding, skills and techniques acquired during this second semester, by professionally applying all principles/ fundamentals, techniques acquired know how, tools and skill with respect to:-

Ability to speak, communicate, present their views, reasoning, concepts, drawings, etc., without fear or anxiety to their teachers, jury members.

And use this learning/ know how to represent their designs and construction drawings by adopting and practicing the art, skills and techniques in all their future studies through 3<sup>rd</sup> to 7<sup>th</sup> semesters, as well during their Internship in an Architect's office and in their Project (thesis) work of 10<sup>th</sup> semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ/ use the acquired knowledge/ know how in all their future works/ designs as Professional Architects.

## **Communication Skill - II**

**2S-AA-1**

### **Objective :**

To impart and develop understanding / knowledge and skills with aim to : -

- Enhance communication know-how and skills, abilities, and competency to enable students to present and explain their concepts/ideas, thoughts, reasons to their teachers, jury members and finally as professional Architect
- To acquire better / improved understanding of English Language and its use in various forums, situations, setting.
- To provide enough exposure, encouragements and platform to enhance their speaking and presentation skills, abilities.

### **Syllabus :**

#### **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the knowledge/ understanding, skills and techniques acquired during this second semester, by sensibly applying all fundamentals, skills, techniques, acquired know how, tools such as of:-

Enhance knowhow, skills and abilities for communication with teachers, jury members and improved understanding of English language to enable effective communication in various situations, platforms.

And use this learning/ know how to represent their designs and construction drawings by adopting and practicing the art, skills and techniques in all their future studies through 3<sup>rd</sup> to 7<sup>th</sup> semesters, as well during their Internship in an Architect's office and in their Project (thesis) work of 10<sup>th</sup> semester as well.

Thereby finally leading the students to equip themselves, with Competency and Capabilities to employ/ use the acquired knowledge/ know how in all their future works as Professional Architects.

## **Elective B**

### **Fundamentals of Drawing Technique**

**2S-AA-2**

## **Objective :**

To impart and develop understanding/knowledge with an aim to equip students with expertise in principles, systems, methodologies, techniques and skills preparation of drawings with emphasis to make abreast, aware of correct and proper script, grammar and language of drawings to help achieve, gain excellence and perfection in techniques, skills, methods, presentation to prepare flow less drawings through in its contents; to meet the purpose.

## **Syllabus :**

UNIT I: Understanding – sketch, diagram, Drawing. Function of Drawings- Purpose for which Architects prepare drawings.

UNIT II :Objectives and Principles of drawings. Plan, Elevation, Section its meaning and purpose / function , Usefulness.

UNIT III: Language and script of Drawings - Technique and Grammar.

i) Graphics ii) Dimensions iii) Description

UNIT IV: i) Graphics : Fundamentals, purpose and function and technique.

The line, its attributes, The dots. The shapes, forms, scale its purpose , function, utility application ,symbols their purpose ,function.- utility and application

ii) Dimension : Fundamentals, purpose , function and technique.

The systems, methods, modes and means of Dimensions for various elements of design and construction and materials - utility and application

iii) Description : Fundamentals, purpose , function and technique. The systems methods, modes and means of Description for various elements of design and construction and materials - utility and application

iv) Role and purpose of schedules / tables / index , Notes and colour codes - utility and application

v ) Statements for Areas, F.S.I., Volume etc.

UNIT V: Drawings and its formats. Contents of drawings with respect to its purpose. Site plan its purpose, function and contents, utility and application.

UNIT VI: Studio assignments to enable students to draw Plans, Elevations, Sections etc. By adopting and practicing above stated fundamentals and techniques.

## **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the knowledge/ understanding, skills and techniques acquired during this second semester, by professionally applying all principles/ fundamentals, techniques, acquired know how, tools and skill of drawing such as of:-

- Language, grammar/ script of perfect architectural drawings.

- Principles, techniques, practices of Graphics, Description and Dimension as well as of Schedules, Tables, Notes.

To prepare flawless drawings, Color codes, formatting of drawings, area statement.

And use this learning/ know how to represent their designs and construction drawings by adopting and practicing the art, skills and techniques in all their future studies through 3rd to 7th semesters, as well during their Internship in an Architect's office and in their Project (thesis) work of 10th semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ/ use the acquired knowledge/ know how in all their future works/ designs, construction works of various buildings as Professional Architects.

## **Fundamentals of Smithy**

**2S-AA-2**

### **Objective :**

To impart and develop an overall understanding / knowledge, techniques, skills, know-how of tools with the view to make abreast, aware the students the fundamentals, process and working and design principles of Steel Fabrication, workshop practices by providing the students insight of this trade, with emphasis on on site / practice exposure to employ this know-how for designing and construction detailing of various building elements to be fabricated out of steel.

### **Syllabus :**

Fundamentals of Smithy.

Unit - I : Introduction of various steel section commonly used in fabrications such as flats, angles, tube/pipe, bars, Boxes channel web etc.

Unit - II : Introduction to basics / fundamentals of fabrication process such as cutting, bending, drilling, grinding, welding and finishing. Requirement of raw material such as welding rod and other consumables.

Unit - III : Introduction to working process, machine their utility and use in practice.

Unit - IV : Introduction to different type of smithy / fabrication such as grill / gates / windows, metal furniture artefacts light fixtures, beaten metal forging and sheet metal embossing. Fusion of metal with glass, wood, stone etc - practical working - sample making

### **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the knowledge/ understanding, skills and techniques acquired during this second semester, by sensibly

applying all principles/ fundamentals, skills, techniques, acquired know how, tools such as of:-

Steel fabrication work, workshop and on site practices, design and construction parameters and their detailing for various elements of buildings fabricated out of steel.

And use this learning/ know how to represent their designs and construction drawings by adopting and practicing the art, skills and techniques in all their future studies through 3rd to 7th semesters, as well during their Internship in an Architect's office.

Thereby finally leading the students to equip themselves, with Competency and Capabilities to employ/ use the acquired knowledge/ know how in all their future works/ designs, construction works of various buildings as Professional Architects.

## **Fundamentals of Photography**

**2S-AA-2**

### **Objective :**

The course aims to develop skills as well as impart understanding/knowledge through learning of fundamentals of Photography its theory and practice. Camera operations, measuring exposure, selecting frames, creative exposure techniques and the post processing techniques and tools to develop and enhance the skills for the craft.

During the initial semester it is intended to convey the theory related to photography and understanding of the tools and techniques with minor exercises related to photography and printing.

During subsequent semester it is intended to include revision of the theory and its application and practice through field work.

### **Syllabus :**

UNIT - I :Understanding cameras their basic features such as SLR, DSLR, TLR and also about Lenses, the aperture and depth of field types of Lenses

UNIT - II :Learning about camera triangle - aperture, shutter speed - ISO and also Image formats and their use and application.

UNIT - III :Terminologies associated with photography. Camera -its parts and functions(s)

UNIT- IV :Learning Basic Photo Shoots - portraits, Landscapes building elements. Taking good pictures - by learning composition, light conditions, subject

UNIT - V :Learning Printing - Process, mediums of printing photographs and enlarge printing of images.

### **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the knowledge/ understanding, skills and techniques acquired during this second semester, by sensibly applying all principles/ fundamentals, skills, techniques, acquired know how, tools and skills such as of:-

Camera operations, measuring exposure, selection of frames, post processing techniques and tools.

And use this learning in all their future studies through 3rd to 7th semesters, as well during their Internship in an Architect's office and in their Project (thesis) work of 10th semester as well.

Thereby finally leading the students to equip themselves, with Competency and Capabilities to employ/ use the acquired knowledge/ know how in all their future works as Professional Architects.

### **Third Semester B.Arch.**

#### **Architectural Design-II**

**3S-A-1**

##### **Objective**

The study of this subject will continue further to already acquired knowledge/understanding of 2<sup>nd</sup> Semester with emphasis / thrust to understand and integrate the complexity of horizontal as well as vertical circulation pattern in design; as so also about integration of plan form, volume, facilitation and space organisation to produce functional designs.

##### **Syllabus**

- a) Complexity in circulation- and pattern of horizontals as well as vertical movement.
- b) Integration in terms of facilitation, planform , volume, concept and space organization.
- c) Application of basic building materials to evolve a design with their aesthetic appeal, functional quality and elementary structural concepts to evolve specific form.
- d) Climatic consideration for the design, orientation of building on site, simple concepts of sun shading devices, their application in elevations as functional / aesthetic solutions.

**Sessional work :** Exercise on one or few aspects at a time followed by at least two design problems arranged in sequence leading to more and more complexity.

Type of Design Problems:

- a) Small Residence, Guesthouse, Block of Flats.
- b) Primary School, Dispensary, Club.
- c) Post office, Bank, Office etc.

##### **Course Outcome**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge, understandings skills and techniques acquired during this 3<sup>rd</sup> Semester by sensibly applying the acquired principles, fundamentals, techniques and skills of designing, of drawing and

detailing, of presentations related to design in this semester with special thrust/emphasis on Building Design solutions, planned on the basis of : -

- i. Horizontal and Vertical Circulation/Movement pattern and its complexity
- ii. Concepts of plan form, Volume, Space organisation and integration in terms of facilitation
- iii. Application of building materials to evolve a design incorporating their aesthetic appeal function qualities and elementary structural concepts to evolve specific forms.
- iv. Climatic considerations for the design, orientation of building(s) on site etc.
- v. And to effectively adopt, apply, integrate, implement and practice this acquired learning and experiences in all their future studies and especially in designing of various types of building through 4<sup>th</sup> to 7<sup>th</sup> Semester, as well during their Internship in an Architects Office and thereafter in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thus finally leading the students to fully equip themselves, with Professional Competency and Capabilities to incorporate, to detail out, to plan, design and execute by using the acquired knowledge and experiences in all their future Designs of various Buildings as Professional Architects.

### **Construction Technology & Materials –III:**

**3S-A-2**

#### **Objective**

In furtherance to the objectives as stated under 1<sup>st</sup> Semester of this course heading -

- To impart, develop and instil understanding/knowledge about properties, attributes and utility of various building materials such as Tiles, Structural Steel, Aggregates and Steel Reinforcing Bars.
- To impart and develop understanding / knowledge with respect to design principles, construction and structural systems, techniques, methodologies, various types / classifications detailing and drawing work of
  - i. Stairs
  - ii. Traditional flooring's such as timber floors, jack arch floors, mud floors
  - iii. Roofs out of timber - its various types
  - iv. Roofs out of Mild Steel
  - v. R.R.C. and steel framed structures

#### **Syllabus**

Unit I: Tiles, Steel, Aggregate, Reinforcement Bars.

Unit II: Concept of vertical connector – Study of staircases – Types on the basis of geometry, materials and structural systems used for it.

Unit III: Concept of spanning and its extension in formation of roofs and floors. Traditional methods of flooring such as timber floors, mud floors, jack arch floors. Types of timber roofs, trussed roofs in timber and steel, north light roofs, sky lighting.

Unit IV: Principle of framed structure: R.C.C. as a building material and all R.C.C. elements, steel framed structures.

**Sessional Work:** Site visit reports, tutorials, notes, sketches and market surveys.

### **Course Outcome**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding acquired during this 3<sup>rd</sup> Semester by sensibly applying all principles, fundamentals, systems and techniques of construction, basics of drawings and detailing related to subjects/topics of :-

- a) Staircases of different Geometrical forms and materials
- b) Types of floors and of various materials
- c) Roofs of various Geometrical forms and materials
- d) R.C.C framed structures covering all components such as footings, columns, beams, lintels, chajjas, canopies, slabs, stairs etc.

And to effectively adopt, apply, implement and practice this learning in all their future studies especially related to design / planning and construction of various studio assignments of subjects of Architectural design, of Construction through 4<sup>th</sup> to 7<sup>th</sup> semester, as well during their internship in an Architect's office and there- after in their Project Work of 10<sup>th</sup> semester.

Thus finally leading the students to fully equip themselves with Professional Competency and capability to incorporate, detail out, execute the acquired knowledge and experience in all their future works as Professional Architects.

## **Structural Design & Systems – III**

**3S-A-3**

### **Objective :**

To impart student with the understanding /knowledge about the effect of slenderness ratio on the load carrying capacity of the column and types of stresses developed in cylindrical shells also about effects of various stresses on the retaining wall, the brief concept of shear force and bending moment its understanding related to design and construction aspects. The principle stresses and strains are also important concepts to study the effects of stresses and strains in a crossed section.

### **Syllabus:**

Unit I: Principal stresses and strain : Application of Mohr's Circle method and study of concepts by analytical method.

Unit II: Direct and bending stresses: Concept and application

Unit III: Stability of Retaining walls : Stresses at base and minimum base width (without surcharge).

Unit IV: Stress strain curves for concrete and steel ( MS and TS)

Unit V: Column and struts: Eulers and Rankins theory – concept and application

Unit VI: Hoop stress / longitudinal stress in cylinders and pipes.

Unit VII: Simply supported beams – BM and SF Diagrams, Cantilever beams

**Sessional work:** Sketches, notes, tutorials, tests and presentations

### **Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop-Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge/understanding acquired during this 3<sup>rd</sup> semester by professionally applying and integrating principles/fundamentals and acquired know-how based on such as : -

- i. Understand and calculate stresses developed due to Fluid pressure, Earth Pressure as well as on oblique sections.
- ii. Learning the effect of various types of loads on a beam in terms of shear force and bending moment at any section to get a basic idea of design parameters.

And employing this learning into all their future studies, more specifically to effectively detail/work out Building Design solutions by integrating/incorporating these learning's in the various building design solutions through 4<sup>th</sup> to 7<sup>th</sup> Semester as well during their Internship in an Architect's Office and so also in their Project (Thesis) work of 10<sup>th</sup> Semester.

Finally leading the students to be fully equipped and capable to incorporate /use this learning for all their works / projects as Professional Architects.

## **History of Art & Architecture –III**

**3S-A-4**

**Objective:** Study of social changes on architecture.

### **Syllabus;**

Unit I: Islamic Architecture: 11 th Century AD. Architectural forms conceived by Qutub Dynasties at Delhi.

Unit II: Development of regional styles noticed in various provinces such as Bengal, Jaunpur, Gujrat and Central India.

Unit III: Architecture under Mughals - Humayun, Akbar, and Shahjahan.

Unit IV: Contemporary Architecture (in West)

Unit V: Architecture in Post Independence era, city planning of Chandigarh, Delhi and study of its important administrative buildings.

Unit VI: Study of various schools of thoughts and philosophies of modern architects and its impact on contemporary architecture.

Unit VII: Industrial revolution in Europe and emergence of the Modern movement and its impact on contemporary Indian Architecture.

Contemporary Architecture in India. Study of works of Indian Architects, new developments like Navi Mumbai.

**Sessional work:** Sketches, notes, tutorials, tests and presentations.

**Course Outcome :** On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge / understanding during this 3<sup>rd</sup> Semester by sensibly applying all principles / fundamentals and acquired know-how such as of : -

- Distinguishing various development in design, construction techniques with respect to concepts and personal philosophies of architects, prevailing movements and styles that shaped today's architecture.
- Interpreting motivation, socio-cultural forces affecting the design and the process of creating newer relevant forms.
- Applying critical thinking to theories in the History of Architecture.
- Learning to manage research dealing with architectural precedent practices with enhanced skills.

And use / employ this learning in all their future studies through 4<sup>th</sup> to 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ this acquired knowledge / know-how in all their future works / Designs, as Professional Architects.

### **Architectural Graphics-III**

**3S-A-5**

#### **Objective :**

In furtherance to the objectives as stated under 1<sup>st</sup> semester of this course heading, the objective of Architectural Graphics - III is to impart, develop and instil understanding / knowledge to further improve and perfect the techniques and abilities to represent in graphic form various elements of building and the whole building itself with emphasis in this semester on : -

- Learning - Principles, techniques, skills of Sciography and three dimensional representation of objects and buildings through techniques and skills of perspectives.

- Learning and practicing Principles, techniques, methodologies of preparing Measured Drawings.

### **Syllabus:**

Unit-I: Perception and registration of an object when viewed.

Unit-II: Introduction to picture planes, standpoint, eye level etc.

Unit-III: Types perspective views such as one point, two point, three point, worm's eye view, Bird's eye view, normal view, etc.

Unit-IV: Methods of drawing perspective views such as conventional method, measuring point method, shortcut and approximation in perspective drawing, simple problems based on geometrical solids

Unit-V: Measured Drawing: Measurement techniques of existing object (such as building, plot, etc.) and preparing measured drawing to suitable scale.

Unit-VI: Sciography: Introduction to Sciography, principle of conventional angle of light and its rays acting as a projectors to cast shadow of simple plane lamina e.g. square, circle, hexagon etc.

**Sessional work:** Sketches, notes, tutorials, tests and presentations.

### **Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge / understanding during this 3<sup>rd</sup> Semester by professionally applying, using principles / fundamentals and techniques, acquired know-how, tools and skills of drawings and detailing related to topics such as of : -

Sciography its study with solid blocks and building elements One, Two and Three point perspectives of building elements and building AND use this learning to represent their designs and construction drawings by adopting and practicing the art and techniques in all their higher / future design solutions and construction drawings through 4<sup>th</sup> to 10<sup>th</sup> Semesters, as well during their Internship in an Architect's office.

Thereby finally leading the students to equip them with Professional Competency and Capabilities to employ / use this acquired knowledge in all their future designs, construction work of various Buildings as Professional Architects

### **Surveying & Leveling**

**3S-A-6**

#### **Objective :**

The objective is to impart a general/broad idea about the survey which is to be conduct on site for design and planning of various building structure or by using various on site surveys such as Chain Surveying, compass surveying, methods and instruments used, plotting and adjustment of closing error. Plane table survey, method and instruments used. Levelling, methods of levelling-dumpy level and its uses. Contours, use of theodolite, contour survey and the use of Planimeter.

### **Syllabus:**

Unit I: Introduction to surveying and leveling, types of surveying methods and application,

Unit II: Chain and compass survey, methods and instruments used, plotting and adjustment of closing error.

Unit III: Plane table survey, method and instruments used.

Unit IV: Levelling, methods of levelling -dumpy level and its uses.

Unit V: Contours, use of theodolite, contour survey.

.Unit VI: Planimeter and its use.

**Practicals:**

- a) Chain and compass survey, traversing.
- b) Plane table survey of cluster of buildings.
- c) Levelling using dumpy level and water table.
- d) Setting out site layout.
- e) Contour survey, plotting contour maps.

**Sessional work:** Practical record book, plates and notes

**Course Outcome:**

On completion of the course the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge/understanding acquired during this 3<sup>rd</sup> semester by professionally applying and integrating principles/fundamentals and acquired know-how based on such as : -

- i. Types of surveys, fundamentals, various methodologies/systems. Various Instruments - equipments and their use/application.
- ii. Reduced levels, contours, linear and angular measurements. Plain Table Surveys

And effectively employing this know-how for topographical studies, site planning, layouts of building(s) various services /infrastructures in all their future building works/projects during their Internship in an Architects Office as well as in Practice as Professional Architects.

## **Climate and Architecture**

**3S-A-7**

**Objective:** This part of the subject provides a scope to apply the knowledge of basic Climatology gained earlier for designing in different climatic conditions, with emphasis on tropical climate.

**Syllabus:**

Unit I: Study of traditional / vernacular architecture in relation with the climate types, with emphasis on vernacular architecture in Indian Context.

Unit II: Understanding climate data, its analysis and method of presentation.

Unit III: Study of passive cooling techniques, techniques of solar radiation control and heat transfer and insulation.

Unit IV :Study of effect of orientation, topography, vegetation, form, building materials and surfaces on the building design in response to the climate.

Unit V: Approach to climate responsive built environment.

**Sessional work:** Notes, Plates, Case studies etc.

### **Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge / understanding skills and techniques acquired during this 3rd Semester by professionally applying and integrating principles / fundamentals and acquired know-how such as of : -

- i. Principles/fundamentals of passive and advance passive solar control systems/methodologies - techniques to modulate thermal conditions of built environment, their application in traditional building designs and innovative use in contemporary Architecture.
- ii. The principles/fundamentals - process of climate Responsive building designs, energy conservations.

And use this learning / know-how to effectively integrate into their designs by adopting and practicing the techniques in all their future studies through 4<sup>th</sup> to 7<sup>th</sup> Semesters, Internship in an Architects office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thus finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works / designs, of various Buildings as Professional Architects.

### **Elective A**

#### **Vernacular Architecture**

**3S-AA-1**

#### **Objective :**

To impart and develop understanding/knowledge about the concepts of Vernacular Architecture the construction techniques, skills, materials employed with specific emphasis on Indian Dwellings.

To implore, explore and develop understanding about the correlation of local and regional material, sociocultural factors and construction techniques related to Vernacular Architecture with emphasis on regional variation in Indian culture.

### **Syllabus :**

Unit-I: Introduction to Vernacular Architecture.

Factors affecting Vernacular Architecture. Traditional vs Vernacular architecture.

Unit-II: Environment and Materials

Typical building materials, Built form & elements, Construction techniques & environmental performance.

Unit-III:- Introduction to Kutcha architecture and Pucca architecture.

Unit-IV:- Study various climate zones in India and its impact on vernacular architecture.

Unit-V:- Planning aspects, materials of construction, Constructional details & Settlement Planning of

- i. Kerala – Nair houses(Tarawads), Kerala Muslim houses(Mappilah houses),Temples, Palaces and theaters –
- ii. TamilNadu – Toda Huts, Chettinad Houses (Chettiars) & Palaces
- iii. Karnataka – Gutthu houses (land owning community), Kodava ancestral home (Aynmane)
- iv. Andhra Pradesh –Kaccha buildings

Religious practices, beliefs, culture & climatic factors influencing the planning of the above

Unit-VI:- Planning aspects, Materials used, Constructional details, Climatic factors influencing the planning of

- i. Jat houses for farming caste, Bhungas(Circular Huts) and Havelis (Pukka houses) of Rajasthan
- ii. Pol houses of Ahmedabad - Primitive forms, Symbolism, Colour, Folk art etc in the architecture of the deserts of Kutch & Gujarat state.
- iii. Vernacular architecture of Goa.

Unit-VII:- Factors influencing the planning aspects, materials of construction & Constructional details of the above.

- i. Kashmir – Typical Kutcha houses, mosque, Dhoongas(Boathouses), Ladakhi houses, bridges
- ii. Himachal Pradesh – Kinnaur houses
- iii. Uttar Pradesh – Domestic housing of Uttar Pradesh
- iv. Bengal – Bangla (Rural house form), Aat Chala houses – change from Bangla to Bungalow, Kutcha & Pucca architecture of Bengal.Nagaland – Naga houses & Naga village, Khasi house.

Unit-VIII :- Study of Modern/ Contemporary Vernacular Architecture. Studying works of Geoffery Bawa, Laurie Baker, Charles Correa, Muzharul Islam Bashirul Haq, Balkrishna Doshi, Sheila Sri Prakash Aldo van Eyck,Samuel Mockbee, Christopher Alexander and Paolo Soleri.

### **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the knowledge/ understanding, skills and techniques acquired during this third semester, by professionally applying all principles/ fundamentals and skills, techniques, acquired know how, tools and skills of drawing with respect to:-

Concepts, construction techniques/ systems, skills and materials- their co-relation, fundamentals of vernacular architecture with emphasis on Indian dwellings as well as their co-relation, contextually to socio-cultural, geographical (regional), climatic factors.

And use this learning/ know how to represent their designs and construction by adopting and practicing the art, skills and techniques in all their future studies through 4<sup>th</sup> to 7<sup>th</sup> semesters, as well during their Internship in an Architect's office and in their Project (thesis) work of 10<sup>th</sup> semester as well.

Thereby finally leading them to be Proponent and Practitioner of Vernacular Architecture in all their future works as professional architects.

## **Environmental Impact**

**3S-AA-1**

### **Objective :**

To impart and develop understanding / knowledge about : -

- Awareness of variety of environmental concerns thereby sensitizing the students towards the environment.
- Understanding and the need to lead more sustainable lifestyles and the need to use resources more equitably.
- Creating a concern for our environment that will trigger pro-environmental action.
- The changes need to be made in the way in which students view the environment by inculcating a practical approach based on observation and self learning.
- To the field experience thereby acting as a catalyst to interpret what the student observes or discovers in his/her own environment.
- The ways and means we (mankind) can help with the mitigation of environmental issues.

### **Syllabus :**

Unit - I :Introduction to the term 'Environmental Impacts, Types of Environmental Impacts

Unit - II : Causes and impact on Air Environment , Control measures of Environmental Air Quality, Causes and Impact on Water Environment, Control measures of Environmental Water Quality, Causes and Impact on Noise Environment, Control measures of Environmental Noise Quality

Unit - III :Causes and Impact on Socio-economic Environment, Resettlement and rehabilitation of people; its problems and concerns, Case Studies, Environmental ethics : Issues and possible solutions, Control measures of Environmental Socio-economic Quality

Unit - IV: Introduction to Environmental Impact Assessment (EIA) , Basic Steps of Prediction and Assessment, Various methods and terms related to Environmental Impact Assessment (EIA) - public participation, environmental decision making, Environmental Management Plan (EMP), Standards for Environmental Management: ISO 14000 in EIA

Unit -V :Case studies : Visit to a local polluted site-Urban/Rural/Industrial/Agricultural

### **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the knowledge/ understanding, skills and techniques acquired during this third semester, by sensibly applying all principles/ fundamental of Environmental Impact such as environmental air quality control, environmental water quality control, environmental noise quality control, environmental ethics and control measures for socio-economic quality, environmental impact assessment, environmental management plan in all their future studies as well as in design/ planning/ construction of built spaces and environments, objects when they move to higher semester that is 4<sup>th</sup> to 7<sup>th</sup> semester as well during their Internship in an Architect's office.

Thus, leading them to be Proponent and Practitioner of this learning of Environmental Impact in all their future works as Professional Architects.

## **Environmental Studies**

**3S-AA-1**

### **Objective :**

To impart and develop understanding / knowledge about : -

- Environment and its allied problems
- Acquiring skills to identify and solve environmental related problems
- Inculcating an attitude of concern for environment and motivate students to participate in environment protection and improvement.

### **Syllabus :**

Unit - I :Multidisciplinary Nature of Environment - definition, Scope and importance ,public awareness, institutions in environment and people in environment.

Unit - II : Natural Resources:- renewable and non renewable .Role of individual in conservation of natural resources.

Unit - III : Ecosystem and Biodiversity – Concept, value and conservation of Biodiversity .

Unit - IV : Pollution causes effects and control measure. Over exploitation of resources . Laws and Legislation for environment protection.

Unit - V : Social Issues and Environment- Resettlement and rehabilitation of people population explosion & control measures, environment and human health, Role of information technology.

### **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the knowledge/ understanding, during this third semester, by sensibly applying all principles/ fundamental of Environmental Studies such as environmental conservation of natural resources, minimizing environmental pollution, 3R concept, laws and legislations for environmental protection, resettlement and rehabilitation of people, population growth, human health, human rights, role of information technology in protection of environment.

And to effectively adopt, apply, integrate, implement and practice this acquired knowledge in all their future studies, specially related to design, planning and construction of various studio assignments of subjects of architectural design, through 4th to 7th semester as well during their Internship in an Architect's office and for their Project (thesis) of 10th semester.

Thus, leading them to be Proponent and Practitioner of this learning of such sustainable practices in all their future works as Professional Architects.

## **Elective B**

### **History of Indian Traditional Art and Craft**

**3S-AA-2**

#### **Objective :**

To impart and develop understanding / knowledge with an aim for an all round and holistic education that equips the students to face challenges of a global and rapidly changing world, while preserving their own cultural assets, traditions and values with a thrust on : -

- To understand the critical role of the crafts community and its integral relationship to the Indian society in general and to profession of Architecture in particular.
- To enable students to explore the linkages between craft, traditions and society through various activities, and integrate the same in their building design.
- To make students aware about Indian culture through the crafts, so that students appreciate the variety of skills and expressions of the Indian artists, and incorporate the same in their works.
- To stimulate students with a creative aesthetic experience of the unique visual and materials, culture of India and develop values of conservation, protection of the environment, resources and heritage of the country.

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#### **Syllabus :**

UNIT - I :A general introduction to history of various Indian traditional arts and crafts like Madhubani art, Phad paintings, warli, gond, kalighat etc

UNIT - II :An introduction to the crafts traditions of India, details about the different crafts, their classifications, regional distribution etc.

Each of these topics will incorporate aspects such as the

- Philosophy and aesthetics,
- Materials, processes and techniques,
- Environment and resource management,
- Social structures,
- Economy and marketing

UNIT - III :Understanding Art in Architecture

UNIT - IV :Hands-on activities for the students experimenting various types of art forms on various materials.

SESSIONAL WORK/PRACTICAL WORK/SUBMISSIONS:

Assignments related to the art forms taught and implementing them on various materials.

### **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge/ understanding, skills and techniques acquired during this third semester, by sensibly applying all principles/ fundamentals, acquired know how, tools such as of: –

Understanding various arts and crafts of India such as of Madhubani, Warli and Patachitra and understanding their historical perspective. Explore, learn their principles, medium and means of expression, their socio- cultural and regional context, influences and ideologies and ways and means to adopt and integrate in various Architectural Solutions.

And use this learning/ know how to represent their design works by adopting and practicing the art, skills and techniques in all their future studies through 4th and 7th semesters, as well during their internship in an architect's office.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ/ use the acquired know how in all their future design works of various buildings as Professional Architects as well to be Proponent and Practitioners of this tradition.

### **Critical Appreciation**

**3S-AA-2**

#### **Objective :**

To impart and develop understanding / knowledge by disseminating a broad overview of Art and Architecture and making aware and abreast the students to understand visual awareness, creativity and cultural understanding of architecture as a multidimensional creative Art and technology.

#### **Syllabus :**

Unit - I :Introduction to Critical Appreciation: The need for critical thinking and reasoning for Architecture- The theoretical basis for architecture criticism- Critical discourses in Architecture.

Unit - II ;The interdisciplinary nature of Architecture theory- Power to draw from arts and science.

Unit - III : Normative theories of Architecture: Modernism, Structuralism, Post Modernism- Post Strcuturalism - Deconstructivism.

Unit - IV : Modes of architectural criticism- Descriptive, Analytical, the influence of different ideologies and power structures on architecture – how architecture influence power structure.

Unit - V :Communicating the architectural criticism- Developing a schema for the criticism- presentation of the criticism- analysis of critical writings in Architecture- The power of rhetorical in criticism.

Unit \_ VI :Modes of Critical Appreciation.

Sessional Work : Assignment, Quiz, Seminar Test etc.

### **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge/ understanding, skills and techniques acquired during this third semester, by sensibly applying all principles/ fundamentals and skills, techniques, acquired know how such as of: –

- Theoretical basis and modes of Architectural Criticism, Normative theories of Architecture and ways to communicate the criticism.
- Normative Criteria Gestalts theories, Critical thinking, analysis and prevalent discourses and critical presentations.

And use/ employ this learning in all their future studies through 4th to 7th semesters and in their Project (thesis) work of 10th semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ/ use the acquired knowledge/ know how in all their future works/ designs, construction works of various buildings as Professional Architects.

### **Architectural Documentation**

**3S-AA-2**

#### **Objective :**

To impart and develop understanding / knowledge with an aim to equip students with expertise, principles, systems, methodologies, techniques and skills for planning and preparing Architectural Documents with emphasis to make abreast, aware about various data / information required - its sources, its collection, its analysis, presentation and interpretations. Pre-plannings, on site activities / works, on site planning management and

finally to prepare / produce Architectural Drawings / documents in total conformity with the purpose of documentation.

### **Syllabus :**

UNIT-I:- Introduction-what is Document and Documentation. Purpose and objectives of Documentation. Means and Mediums of Documentation. Types of Documentation. Terminology - Understanding Rehabilitation, Replication, Restoration, Reproduction, Conservation, Preservation. Introduction to Architectural Documentation; its purpose, usefulness, objectives and types.

UNIT-II: - Understanding Architecture. Type of Information and their gathering/collection for building(s) to be documented their detailed explanation. Such as – Function, concepts, Philosophy, Socio-cultural/religious, Political, Ethos, Materials, Construction systems, Economical considerations, Aesthetics, Time frame, Existing state etc.

UNIT-III:- Sources/Mean of Information, data for Architectural Documentation; such as Drawings, Photography, Written, Interviews, Existing Data records and Drawings etc. - a complete study

UNIT-IV:- Goals, Modes/Mean, Characteristics of Document. Contents of Drawings for Architectural Documentation-such as all floor plans, elevations, sections, fenestrations provided, balconies, special features/details, spaces around and between buildings, site and its levels/topography. Detail/Special drawings showing complete details of Facades, Fenestrations Roof(s), Site, Special Features etc. and ways and means to collect all this information and preparation of Drawings. Photographs and other means to produce/create the document.

UNIT-V:- Details of Construction Systems in conjunction with Materials. Ways and means to collect this information and its presentation. Details of Services provided. Ways and means to collect this information and its presentation.

UNIT-VI:- Miscellaneous information; such as Estimated Cost, Cost when completed, Time frame with respect to planning and execution.

UNIT-VII:- Measured Drawings – Its purpose, contents, ways, means and methodologies for collecting necessary information/data and its presentation in form of Drawing, report etc.

UNIT-VIII:- Characteristics of Architectural Documentation. Preplanning, Field work.

### **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge/ understanding, skills and techniques acquired during this third semester, by professionally applying all principles/ fundamentals and techniques, acquired know how, tools and skills of drawing such as of:-

- Various data collection- its means and methods, interpretation, analysis, presentation.

- Documentation- preplanning, site work its planning and management and measurements.
- Means, methods, systems to prepare/ provide the architectural documentation.

And use this learning/ know how by adopting and practicing the art, skills and techniques, either fully or partially in all their future studies through 4th to 7th semesters, as well during their Internship in an Architect's office and in their Project (thesis) work of 10th semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ/ use the acquired knowledge/ know how in all their future works/ designs works of various buildings as Professional Architects.

### **Fourth Semester B. Arch.**

#### **Architectural Design III**

**4S-A-1**

#### **Objective :**

The study of this subject will continue to be based on learning's of last 2 Semesters with greater emphasis and focus on architecture as well as functional aspects with a thrust to impart and inculcate application of various building materials to evolve a design integrating

their aesthetic appeal, functional quality and elementary structural concepts to evolve desired form(s) in conformity and considerations to climate, orientation of built-form on the site.

**Syllabus:**

This course will be in continuation with the previous semester i.e. Architectural Design II

**Sessional work:** Assignments on each head with presentation, lecture and site visits.

Design of simple single activity spaces like residence, school, canteen etc.

Small modules of short design projects based on the understanding developed about above mentioned topics.

**Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge, understanding, skills and techniques acquired during this 4<sup>th</sup> Semester by professionally applying all principles / fundamentals, techniques acquired know-how, tools and skill of designing, of drawing and detailing various types of buildings designed in this semester with special thrust / emphasis on Building Design solutions planned on the basis of : -

- Application of various types of buildings materials to evolve a design with aesthetic appeal, functional quality, integrating structural concepts leading to a desired plan/building form
- Design Solutions - Integrating Climate, orientation of building in context to site

And to effectively adopt, apply, integrate, implement and practice this acquired learning and experiences in all their future studies and especially in designing of various types of building through 5<sup>th</sup> and 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to incorporate, to detail out, to plan, design and execute by using this acquired knowledge / know-how in all their future works / designs, of various Buildings as Professional Architects

**Construction Technology & Materials –IV**

**4S-A-2**

**Objective :**

In furtherance to the objectives stated under 1<sup>st</sup> Semester of this course heading -

To impart, develop and instil understanding / knowledge about properties and attributes and uses of various commonly used metals in construction of buildings and its components.

To impart and develop understanding / knowledge with respect to design principles, construction systems/methodologies/techniques, detailing, drawing work of : -

- Various types of doors other than hung /hinged doors.
- Partitions using commonly used materials. (other than masonry and concrete)
- Temporary assemblies / structures to aid construction activities.
- Rehabilitation / strengthening of existing foundations.

### **Syllabus:**

Unit I: Metals: Aluminium, copper, steel, titanium etc.

Unit II :Doors Windows – Steel, Aluminium and sliding doors, sliding and folding doors, revolving doors, revolving shutters, collapsible gates.

Unit III: Partitions – Aluminium, timber, steel.

Unit IV: Temporary Structures and temporary supports – Timbering to trenches, formwork, centering, shoring and underpinning.

**Sessional Work:** Site visit reports, tutorials, notes, sketches and market surveys.

Plates of Small modules of design based on the construction principles.

### **Course Outcome:**

On completion of the course the students will be able to:-

Achieve, develop – competency, confidence and capabilities to

Effectively and conscientiously incorporate and implement the knowledge and understanding acquired during this 4<sup>th</sup> semester by professionally applying all principles / fundamentals, systems and techniques of construction, basics of drawing and detailing related to subject / topics of:

- Windows made out of steel, Aluminium.
- Sliding doors, sliding and folding doors, revolving doors, using various materials and steel rolling shutters, collapsible gates
- Partitions out of Aluminium, timber, steel
- Temporary structures and temporary supports to facilitate construction activities like timbering to trenches, form work, centering, shoring and underpinning As well additionally to effectively incorporate, adopt and implement the acquired know-how of this semester related to :-
- Characteristics and use /application of building materials such as Aluminium, Copper, Steel and Titanium in design and construction of buildings.

And to effectively apply, implement and practice this learning in all their future studies especially related to designing/planning/construction in various studio assignments in subjects of architectural design and construction through 5<sup>th</sup> to 7<sup>th</sup> semester, as well as during their internship in an architect's office and thereafter in their project work of 10<sup>th</sup> semester.

Thus finally leading the students to fully equip themselves with professional competency and capabilities to incorporate, detail out, execute the acquired knowledge and experience in all their future works as professional architects.

## **Structural Design & Systems- IV**

**4S-A-3**

### **Objective :**

The aim of this course is to impart, develop and instil knowledge/understanding of structural analysis to study the effect of loads and end moments induced due to fixity and continuity of supports for various beams like continuous beams, fixed beam and portal frame with various end condition and how to analyse the beam using different methods of analysis. Also the study of deflection beam of various loading. Study of IS-875 part I, part II and part III regarding dead load, live load and wind loads.

### **Syllabus:**

Unit I: Concept of fixity – independent fixed beams with different loadings - BM and SF diagrams.

Unit II: Concept of continuity – three moment theorem - BM and SF diagrams.

Unit III: Method of Moment distribution for

a) For continuous beams

b) Single portal frames

BM. And SF. Diagrams.

Unit IV: Deflection of beams – simple supported and cantilever beams by using Macaulay's method.

Unit V: Determinate and indeterminate structures – degree of indeterminacy.

Unit VI: Study of Arches

a) Study of behaviour fixed arch and Two hinged arch.

b) Analysis of three hinge arches.

Unit VII: Study of IS 875 Part I, Part II and Part III

Unit VIII: Concept of load distribution for structural systems and overall stability like:

a) One way

b) Two way

c) Suspension Structures

d) Arch Action

**Sessional works:** Sketches, notes, tutorials, tests and presentations

### **Course Outcome :**

On completion of the Course, the students will be able to :-

Achieve, develop-Competency, Confidence and Capabilities to :-

Effectively and conscientiously incorporate, adopt and implement the knowledge/understanding acquired during this 4<sup>th</sup> semester by professionally applying and integrating principles/fundamentals and acquired know-how based on such as :-

The concept of Fix end moments along with the bending moment and shear force due to loads and to arrive at the design moments considering the above two facts. Also understanding the analysis of framed structures.

And employing this learning into all their future studies, more specifically to effectively detail/work out Building Design solutions by integrating/incorporating these learning's in the various building design solutions through 5<sup>th</sup> to 7<sup>th</sup> Semester as well during their Internship in an Architect's Office and so also in their Project (Thesis) work of 10<sup>th</sup> Semester.

Finally leading the students to be fully equipped and capable to incorporate /use this learning for all their works / projects as Professional Architects.

## **Building Services–I**

**4S-A-4**

**Objective:** Aim of this subject is make the students aware of the importance, installation and working of essential services in buildings, and a way building services help in generating a cleaner and healthier built environment. The students should also be made familiar with I.S. codes related to services. The first part deals with the basic aspects of water supply, sewage disposal, refuse and storm water disposal in buildings.

### **Syllabus:**

Unit I: General idea of sources of water supply, qualitative & quantitative aspects, impurities, hard and soft water, standards for quality of water. Study of standards regarding water demand and consumption in different types of buildings, computing demands for domestic

use, connection from municipal supply, domestic water supply systems, types, capacity-design-construction of suction & storage tanks.

Unit II: Down take supply, water supply pipes, and their sizes, jointing, fixing and laying. Various valves, fittings and fixtures like taps, showers etc. Domestic hot water supply system, water heaters.

Unit III: Principles of sanitation, water carriage systems, collection of waste matter in buildings. Various sanitary fittings and fixtures like water closets, urinals, wash hand basins, sinks, flushing cisterns, shower trays, bath tubs, bidets, drinking water fountains etc.

Unit IV: Various traps and their function, sewage collection and disposal system for individual buildings. Various types of sanitary pipes and their jointing, fixing and laying, manholes, inspection chambers, intercepting chambers.

Unit V: Self cleansing velocity, invert levels, drains on sloping sites, sewage disposal system in un-sewered localities- septic tank, soak pits, cesspools, aqua-privy, leeching pits for individual building of urban and rural areas.

Unit VI: Refuse disposal- Sources, types, collection, storage and transport, provisions for refuse disposal individual building level, refuse chutes. Storm water drainage- collection and disposal.

**Sessional works:** Sketches, notes, tutorials, tests and plates.

### **Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding acquired during this 4<sup>th</sup> Semester by professionally applying and integrating all principles / fundamentals and acquired know-how such as of : - (for buildings with smaller built-up areas, such as Residential Buildings)

- a) Planning/designing and working principles of water supply and distribution systems.
- b) Planning/designing and working principle of sewage, waste water, storm water collection and disposal systems.
- c) Planning/designing and working principle of Solid Waste collection and disposal systems : - Into all their future studies more specifically to effectively plan, integrate and detail out these services in designs of various types of buildings through 5<sup>th</sup> to 7<sup>th</sup> Semester as well during their Internship in an Architect's Office; Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thus finally leading the students to fully equip themselves, with Professional Competency and Capabilities to integrate, plan/design, detail out and execute employing the acquired knowledge in all their future Designs of various Buildings as Professional Architects.

## **Architectural Graphics IV**

**4S-A-5**

### **Objective :**

To impart, develop and instil knowledge / understanding the principles / theories, the skills and techniques with an aim to enable the students to present in Graphic : -

- Casting of shade and shadow in buildings to be worked on simple objects and later - on with simple building through adequate exercises
- Perspective views of interiors to be draw for an object and later on for interiors / exteriors of buildings through series of appropriate exercises
- The practice / application of acquired / gained know-how to draw and present perspectives and sciography for various architectural Designs

**Syllabus:****Sciography:**

Unit- I : Study of visual effects of shades and shadows when cast by Sight rays on solids and planes.

Unit- II : A principle of conventional angle of light and its rays acting as a projector to cast a shadow on simple geometrical object including shadow cast partly on horizontal and vertical plans.

Unit- III : Study of combination of shades and shadows.

Unit- IV: Complex problems on-buildings, building projections, louvers, chajjas, canopies etc. rendered in appropriate medium.

Unit-V : Study of shades and shadows cast by artificial light on solids and planes.

Perspective :

Unit- VI: Perspective of interior of buildings rendered suitably.

Unit- VII : Parallel and angular exterior perspective views of objects of buildings in different materials rendered with appropriate colours showing shades and shadows.

Unit- VIII : Bird's eye view showing a building or any object with surrounding landscape, buildings etc. rendered

**Sessional works:** Sketches, notes and plates

**Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding skills and techniques acquired during this 4<sup>th</sup> Semester by professionally applying all principles / fundamentals and skills, techniques, acquired know-how, tools and skill of drawings and detailing related to topics such as of : -

Sciography, its study with solid blocks and building elements.

Perspective views- various types.

And use this learning / know-how to represent their designs and construction drawings by adopting and practicing the skills and techniques in all their future design solutions and construction drawings through 5<sup>th</sup> to 7<sup>th</sup> Semesters, Internship in an Architect's office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works / designs, construction work of various Buildings as Professional Architects.

## **Theory of Architecture-I**

**4S-A-6**

### **Objective :**

- To impart, develop and instil understanding / knowledge with the overall purpose of the course aims to support each student to establish a personal, reflective and examined intellectual position in relation to design as a professional process of inquiry, thought and action with a thrust to focus on creating an expanded intellectual understanding of complex design processes with an underlying assumption that a reflective and philosophical comprehension of practice reinforces and fosters a developed practical design competence, in the course the thrust therefore will be to examine, analyze, study

and discuss and how design can be understood, described and developed as a process of inquiry, thought and action.

- To abreast with basics of architecture which stresses on how architecture is formed and evolved due to various influences like climate, topography, materials, socio economic conditions and other basic needs of man, and make them aware with the understanding of primary elements of form in the order of their growth from the point to a one dimensional line, from the line to a two dimensional plane and from the plane to a three dimensional volume and with this awareness to explore the form in relation to arranging and coordination the elements and parts of a composition so as to produce a coherent image.

### **Syllabus:**

Unit I: Introduction to Architectural Design: Definition of Architecture; Elements of Architecture backed by need and followed by fulfilment of need.

Unit II: Scope of Architectural Design: Architectural Design – An analysis – Integration of aesthetic and function

Unit III: Architectural Space and Mass:

Mass and space, Visual and emotional effects of geometric forms and their derivatives – Sphere, Cube, Pyramid, Cylinder, Cone, etc.

Unit IV: Aesthetic Components of Design

Proportion, Scale, Balance, Rhythm, Symmetry, Hierarchy, Pattern, Axis with building examples.

Unit V: Application of Colour in Architecture

Effect of colour in architecture – Colour symbolism

**Sessional work:** Notes, case studies and presentations.

### **Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding acquired during this 4<sup>th</sup> Semester by sensibly / professionally applying all principles / fundamentals acquired know-how such as of : -

Critical appraisal of form, space, volume, organisation of space(s) and learning about principles of design scale and proportion. And analysis and application of this learning by relating it to any type of building

And use this learning in all their future studies through 5<sup>th</sup> to 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to use this acquired knowledge / know-how in all their future works as Professional Architects.

## **Theory of Landscape Architecture**

**4S-A-7**

**Objectives:** The scope of the subject is to make students aware of architecture beyond buildings, in the outdoor environment and spaces, and, the role and importance of landscaping and site planning in enhancing and improving the quality of building environs, functionally and aesthetically.

### **Syllabus:**

Unit I: Introduction to Landscape Architecture, definitions, importance, need and scope. Levels of landscape planning and design. Landscape architecture and ecology. Relationship

between landscaping and environmental planning, regional planning, urban planning, urban design , architecture and interior design.

Unit II: Historical development of landscape architecture. Origins of gardens. Design Principles, salient features and elements of various gardens in history - like Egyptian, Persian, Spanish, Italian, French, English, American, Japanese, Moghul Indian etc.

Unit III: Modern garden development. Changed scenario for modern garden designs. Effect of industrialization on garden designs. Company towns, parks movement, green belts, urban parks, residential gardens, small gardens.

Unit IV: Different factors and components of a landscape. Social and economical factors. Psychological considerations of spaces and enclosures. Brief idea about man made components like walls, fences, entrances, gates, barriers, screens, planters, roads and pathways, street furniture, signage, services-electrical, water supply and drainage. Basic natural components - land, trees, water and climate.

Unit V: Land. Different aspects of land as a landscape element - soils, geology, topography, earth forms, levels, foundations, grading, drainage, paved and unpaved surfaces. The importance and use of the aspects as a landscape design element.

Unit VI: Plants. Different aspects of trees, shrubs, climbers, hedges, lawns as landscape elements. Basic horticultural idea about plants, plant selection, planting design and care of plants. Importance and use of the aspects as a landscape design element.

.Unit VII: Water. Various forms 'of water elements in a landscape - fountains, waterfalls, pools, cascades, channels irrigation etc. Importance and use of water as a landscape design element. Construction of various water elements. Unit VIII : Climate. Macro and micro-climatic considerations in landscape architecture. Effect of climate on landscape and various components of landscape on the microclimate. Relationship between climate and landscape and architecture.

Reference Books:

Landscape Architecture By J.O.Symonds. McGraw Hill Publications.

Earthscape by J.O,Symonds, McGraw Hill Publications,

Architecture-A manual of site planning and design by J.O.Symonds, McGrawHill Publications,

Site Planning by Kevin Lynch,

Site Planning by R.Genebrooks, Prentice Hall.

**Sessional Work:** Notes, sketches, tests and seminars based on the above topics.

**Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding acquired during this 4<sup>th</sup> Semester by professionally applying all principles / fundamentals, acquired know-how, such as of : -

Critical appraisal of historical Landscapes in terms of History, the psychological context of the society, the prevalent social conditions and the study of landform, vegetation and climate of the region.

Principles of the landscape design so as to accumulate the knowledge regarding development of various historical landscape styles.

Appreciation of street landscape features along with the contours, the various light fixtures and outdoor sitting arrangements etc.

And use this learning in all their future studies through 5<sup>th</sup> to 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to use this acquired knowledge / know-how in all their future works related to various Landscape Architecture as Professional Architects.

**Elective A****Graphic Software****4S-A-8****Objective :**

To impart, develop and instil understanding / knowledge and application of fundamentals of software applications in design and planning building such as Auto CAD and prepare students to ; -

- Gain skill to use the digital tools as a powerful means of communication for creation, modification and presentation of architectural projects
- Demonstrate a thorough understanding of the elements of graphic design.
- Read, understand and communicate in the language of graphic design.
- Use software and design for the tasks related to design and planning of various types of buildings.

## **Syllabus :**

### **Unit - I : Getting Started with AutoCAD, basics and editing commands**

Starting AutoCAD AutoCAD's Screen Layout Working with Commands Opening an Existing Drawing File Saving Your Work, Drawing Lines Erasing Objects Drawing Lines with Polar Tracking Drawing Rectangles Drawing Circles Viewing Your Drawing Undoing and Redoing Actions

### **Unit - II : Drawing Precision in AutoCAD**

Using Object Snap, Object Snap Overrides Polar Tracking , Setting Object Snap, Tracking Drawing with SNAP and GRID, Selecting Objects for Editing, Moving Objects, Copying Objects, Rotating Objects Scaling Objects ,Mirroring Objects, Editing Objects with Grips

### **Unit - III : Drawing Organization and Information**

Creating New Drawings, What are Layers? Layer State Changing an Object's, Layer Drawing, Arcs Drawing, Polylines. Editing Polylines, Drawing Polygons, Drawing Ellipses, Measuring Objects, Working with Properties

### **Unit - IV : Creating Complex Objects**

Trimming and Extending, Stretching Objects, Creating Fillets and Chamfers, Offsetting Objects, Creating Arrays of Objects, What are Blocks? Inserting Blocks from Tool Palet, Inserting Blocks using Insert, Inserting Blocks with Design Centre

### **Unit - V : Annotating and Adding Dimensions**

Working with Annotations, Adding Text in a Drawing, Modifying Multiline, Text Formatting, Multiline Text Hatching, Dimensioning Concepts, Adding Linear Dimensions, Adding Radial and Angular Dim, Editing Dimensions, Adding Notes to Your Drawing.

### **Unit -VI : Beyond the Basics**

Setting up the Interface, Using the Keyboard, Effectively Working in Multiple Drawings, Using Grips Effectively, Additional Layer Tools, Coordinate Entry Locating Points with Tracking, Construction Lines, Placing Reference Points

### **Unit - VII : Creating and Organizing Blocks; Set-up and Utilities**

Creating Blocks, Editing Blocks, Removing Unused Elements, Controlling Units Display, Creating Text Styles, Creating Dimension Styles, Creating Multileader Styles.

### **Unit - VIII : Preparing to Print**

Printing Concepts, Creating Viewports, Setting up Layouts, Guidelines for Layouts, Printing Layouts ,Printing a Check Plot, Publishing Drawing Sets.

## **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge/ understanding, skills and techniques acquired during this fourth semester, by professionally applying all principles/ fundamentals and skills, techniques, acquired know how of Computer Aided Design (CAD) such as of:-

- A comprehensive know how of Computer Aided Design, its application and use in Planning and Architectural projects.
- Composing, annotation, dimensioning of projects in detail, plotting – printing in various mediums.
- Ability to create their own blocks and its use in design.

And use this know how to represent their designs and construction drawings by adopting and practicing the art, skills and techniques in all their future studies through 5th to 7th semesters, as well during their Internship in an Architect's office and in their Project (thesis) work of 10th semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ/ use the acquired know how in all their future designs, construction works of various buildings as Professional Architects.

## **Elective B**

### **Design of Building Elements**

**4S-A-9**

#### **Objective :**

To impart, develop and instil understanding / knowledge about : -

- Various components and variables of buildings and their associated vocabulary.
- The themes of Architectural Style conveyed by various elements of buildings both in vernacular and modern styles
- Understanding different expressions and attributes of various elements of building.

#### **Syllabus :**

Unit - I : Floor as a building element- Typo-logical variations with respect to form and material, treatments and attributes.

Unit - II : Introduction to wall as building element, typological variations and various attributes.

Unit - III : Door and windows, their evolution, functions and attribute.

Unit - IV : Stairs as physical link, typological variations and attributes.

Unit - V : Introduction to roof, evolution, overhead plane of building and attributes.

Unit - VI : Architectural style and role of building elements ,vernacular and contemporary style.

### **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge/ understanding, during this fourth semester, by sensibly applying all principles/ fundamentals, systems and techniques of Design of building elements, their attributes, materials and expressions in Architectural design.

And to effectively adopt, apply, integrate, implement and practice this acquired knowledge in all their future studies especially related to design, planning and construction of various studio assignments of subjects of Architectural design, through 5<sup>th</sup> to 7<sup>th</sup> semesters, as well during their Internship in an Architect's office.

Thus finally leading the students to equip themselves, with Professional Competency and Capabilities to employ/ use the acquired knowledge/ know how in all their future works/ designs, construction works of various buildings as Professional Architects.

## **Product Design**

**4S-A-9**

### **Objective :**

The Product Design course aims to impart, develop and instil understanding and basic knowledge of the subject. It aims to help students to acquire ability to use various tools, techniques and methods for product design. The course also aims to create awareness of the role of multiple functions and disciplines in creating a new product. As a studio subject where teams will work on a product development it also aims to enhanced team working and team building skills.

### **Syllabus :**

Unit - I : Introduction to Product design and various trends and styles in Product Design

Unit - II : Product design evolution, effect of urbanization and technology on product design

Unit - III : Importance of Product design in current scenario and Parameters to be considered during product design process.

Unit \_ IV : Basic Product Design exercise of designing a product to express the knowledge gained.

### **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the knowledge/ understanding, skills and techniques acquired during this fourth semester, by professionally applying all principles/ fundamentals and skills, techniques, acquired know how, tools with respect to: –

- Learning fundamental, principles of product design, evolving and developing a product and its features. Need and purpose of a product, its design considerations, methodologies.
- Learning- identifying the market need/ demands, strategies for marketing the product.

And use/ employ this learning in all their future studies through 5th to 7th semesters as well during their Internship in an Architect's office.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ/ use the acquired knowledge/ know how in all their future works/ designs as Professional Architects.

## **Anthropometrics and Ergonomics**

**4S-A-9**

### **Objective :**

To impart, develop and instil understanding / knowledge of subjects of Anthropometrics & Ergonomics to equip and enable the students to : -

- Develop clear understanding of human measurements and proportions of tangible and intangible factors and employing this knowledge to skillfully and effectively design various built spaces in relation to its function / planned activity, to and of furniture, equipment's, accessories etc to ensure comfortable and convenient functioning and utilisation of each and every space and object designed by Architects.

### **Syllabus :**

Unit - I : Human Factor Design and its components.

Unit - II : Introduction to Anthropometrics What is Anthropometric data .

Unit - III : Introduction to Ergonomics. What is Ergonomics

Unit - IV : Relation between Anthropometry and Ergonomics

Seasonal Work:- Plates, sketches, notes, tutorials, tests and presentation

### **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the knowledge/ understanding, skills and techniques acquired during this fourth semester, by professionally applying all principles/ fundamentals, techniques, acquired know how, tools and skills of drawing with respect to:-

Basics/ fundamentals of this subject with emphasis on human dimensions, proportions, to employ the gained skill and techniques to and knowhow for design, detailing and construction of various built spaces. Co-relating to function/ planned activities to and of furniture, equipments, and accessories- to ensure optimum utilisation / working of every space and objects designed by Architects.

And use this learning/ know how to represent their designs and construction by adopting and practicing the art, skills and techniques in all their future studies through 5th to 7th semesters, as well during their Internship in an Architect's office and in their Project (thesis) work of 10th semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ/ use the acquired knowledge/ know how in all their future works/ designs, construction works of various buildings as Professional Architects.

## **Photography**

**4S-A-9**

### **Objective :**

In continuation to objectives stated for this course of 2<sup>nd</sup> semester the aim is to place thrust and emphasis on upgrading and enhancing the skills and knowledge and applying the acquired learning by practice and field work.

### **Syllabus :**

UNIT - I : Learning Theory of Photography. Learning Light effects, the built form and Photographic elements.

UNIT - II : Photography Data Management - Basics

UNIT - III : Learning Photo Shooting techniques, equipment's for Architectural photography of interiors and exteriors. Learning Thematic photography.

UNIT - IV :Photographing architectural buildings and spaces-challenges and solutions.  
Photographic Documentation.

**Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop – Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the knowledge/ understanding, skills and techniques acquired during this fourth semester, by sensibly applying all principles/ fundamentals, techniques, acquired know how, tools and skills with respect to:-

Up gradation and enhancement of the skills and knowledge of this subject acquired during second semester and now applying this upgraded/ enhanced knowhow to practice and field.

And use/ employ this learning in all their future studies through 5th to 7th semesters as well during their Internship in an Architect's office and in their Project (thesis) work of 10th semester as well.

Thereby finally leading the students to equip themselves, with Competency and Capabilities to employ/ use the acquired knowledge/ know how in all their future works as Professional Architects.

**Fifth Semester B.Arch.**

**Architectural Design-IV**

**5S-A-1**

**Objective-** The study of this subject will continue further with-greater emphasis on functional aspects involved in complex design situations. The main objective is to understand effect of climate, topography and services on the buildings, to understand relationship between form and function of buildings, The design process to deal with the following:

**Syllabus:**

1. Effect of sun, rain and wind on buildings.
2. Functional organization of activities with respect to site, its topography and surroundings.
3. Development control rules, building byelaws and standard codes.

4. Functioning of building services like drainage, water supply and electricity

5. Form to suit the purpose of building.

Sessional work: Study of the above aspects in the form of book study, case study etc. followed by a relevant design problem. Minimum two major design problems and two short/time problems to be tackled in each-semester.

Type of design problems:

Design problems on sloping sites such as Duplex residence, Yatri niwas, Library etc.

College building, Hostel, Primary health center, Museum,

Club, Holiday resort, Memorial, Multistoried apartment, Office/Commercial complex.

Reference Books:

Time Saver Standards for Building Types by J.H. Calender, Mc-Graw Hill Publications  
Time Saver Standards Design data, by J.H. Calender, Mc. Graw-Hill Publications,

Neuferts Architects Data, By Rudolph Herg Crosby, Lockwood and Sons.

A.J. Metric Handbook.

### **Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge, understandings skills and techniques acquired during this 5<sup>th</sup> Semester by sensibly applying the acquired principles, fundamentals, techniques and skills of designing, of drawing and detailing, of presentations related to design of various types of buildings designed in this semester with special thrust/emphasis on Building Design solutions, planned on the basis of :

-

- i. Planning/designing buildings specific to site, its characteristics, climate and overall context
- ii. Significance / importance of structured open spaces, meaningful functional and symbolic relationship between them and surrounding spaces
- iii. Learning about the use of fenestration treatment to achieve visual language - conformity to activities.

And to effectively adopt, apply, integrate, implement and practice this acquired learning and experiences in all their future studies and especially in designing of various types of building through 6<sup>th</sup> and 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office and thereafter in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thus finally leading the students to fully equip themselves, with Professional Competency and Capabilities to incorporate, to detail out, to plan, design and execute by using the acquired knowledge and experiences in all their future Designs of various Buildings as Professional Architects.

## **Construction Technology & Materials –V:**

**5S-A-2**

### **Objective :**

To impart, develop and instil understanding/knowledge about properties and attributes of various finishing materials and finishes/coatings - uses and application

To impart, develop and instil understanding/knowledge with respect to design, construction and Structural concepts, principles, systems, techniques, methodologies, detailing, drawing work of : -

- i. Expansion joints
- ii. Water proofing
- iii. Earth Quake Resistant Structure
- iv. False /Suspended Ceilings
- v. Common and Advanced foundations, footings - of various types.

**Syllabus:**

Unit No. I: Cement, paints, various types of plasters, paints, varnishes and finishes.

Unit No. II: Plasters and finishes.

Unit No. III: Expansion Joints, Water-Proofing, earthquake resistant structures.

Unit No. IV: False Ceiling, Suspended ceilings, roofs.

Unit No. V: Foundations, footings and all advanced foundations.

**Sessional Work:** Site visit reports, tutorials, notes, sketches and market surveys.

**Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding acquired during this 5<sup>th</sup> Semester by sensibly applying all principles, fundamentals, systems and techniques of construction, basics of drawings and detailing related to subjects/topics of :-

- a) False ceilings - design, detailing, incorporating various services
- b) Water proofing, dampness control, causes, control systems
- c) Expansion joints, types, design and detailing

AND

As well / additionally to effectively incorporate, adopt and implement the acquired know-how, of this Semester, related to : -

- a) Characteristics and use of materials such as Paints, Varnishes, Mortar for plaster, the techniques, methodologies, basics, tools and skills of applying as finishing items.
- b) Earth Quake Resistant Structure, Design/Planning Principles, fundamentals, methodologies, strategies, detailing etc.

And to effectively adopt, apply, implement and practice this learning in all their future studies especially related to design / planning and construction of various studio assignments of subjects of Architectural design, of Construction through 6<sup>th</sup> to 7<sup>th</sup> semester, as well during their internship in an Architect's office and there- after in their Project Work of 10<sup>th</sup> semester.

Thus finally leading the students to fully equip themselves with Professional Competency and capability to incorporate, detail out, execute the acquired knowledge and experience in all their future works as Professional Architects.

## **Structural Design & Systems – V**

**5S-A-3**

### **Objective :**

At this stage the aim is to make students aware with respect to methodical investigation of the stability, strength and rigidity of structures as well to acquaint the students about analysis and design to produce a structure capable of resisting all applied loads without failure during intended life span of structure. These principle and concepts to be accomplished by studying beams that is Singly reinforced, doubly reinforced, shear reinforcement, T-beam and L-beam section, to be co-related on the basis of IS -456:2000 an IS code for RCC design considerations.

### **Syllabus:**

Unit I: Structural properties of: a) Concrete b) Reinforced Concrete

Unit II: Concepts in RCC Design: a) Elastic b) Ultimate Load c) Limit State

Unit III: Different Limit states, partial safety factors, permissible stresses

Unit IV: Design of Singly Reinforced RCC Sections

Unit V: Design of doubly reinforced sections

Unit VI: Design of 'T' and 'L' beam sections

Unit VII: Design of shear reinforcement in beams.

Unit VIII: Design of RCC Sections in Tension

Unit IX: Study of IS 456 – Section III – Design Considerations.

Note: It is expected Concrete as a building material shall be dealt in Materials in detail.

**Sessional work:** Sketches, notes, tutorials, tests and presentations.

**Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge/understanding acquired during this 5<sup>th</sup> semester by professionally applying and integrating principles/fundamentals and acquired know-how based on such as : -

Designing RCC beams of various types, and learning fair idea about dimensions and reinforcement required in the section for various loading conditions.

And employing this learning into all their future studies, more specifically to effectively detail/work out Building Design solutions by integrating/incorporating these learning's in the various building design solutions through 6<sup>th</sup> to 7<sup>th</sup> Semester as well during their Internship in an Architect's Office and so also in their Project (Thesis) work of 10<sup>th</sup> Semester.

Finally leading the students to be fully equipped and capable to incorporate /use this learning for all their works / projects as Professional Architects.

## **Building Services –II**

**5S-A-4**

**Objective:** The second part of the subject continues with the services related to electricity. The students are required to design the service layouts so as to get a deeper insight into the working of the various services at a larger magnitude, with students getting information related to large campuses, complexes, high-rise buildings and special uses like swimming pools, fire fighting etc.

### **Syllabus:**

Unit I: Electrical services, various wiring systems, calculation and distribution of loads, electric fittings and appliances, detailed layout of electrical services in a residence.

Unit II: Schematic water distribution system from treatment plants to town, group housing etc. Computing demands for group housing schemes and high-rise building, design of storage and distribution system, Detailed layouts of water supply systems.

Unit III: Hot water supply in high-rise buildings, boilers, furnaces, solar water heaters, computing a special demands of water for swimming pools, air conditioning plants, fire fighting, street washing, fountains and gardens etc. and their systematic layouts.

Unit IV: Sewage collection and disposal for large campuses, complexes, high-rise buildings etc, Mechanical methods for removal of sewage from special areas like basements (shones ejector).

Unit V: Rain water harvesting.

**Sessional work:** Sketches, notes, tutorials, tests and presentations

**Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding acquired during this 5<sup>th</sup> Semester by professionally applying and integrating all principles / fundamentals and acquired know-how such as of : - (for buildings with Larger built-up areas, multi-floor structures etc.)

- a) Planning / designing and working principles of Electrical supply and distributions systems
- b) Planning / designing and working principle of water supply and distribution systems.
- c) Planning/designing and working principle of Solid Waste collection and disposal systems : -
- d) Planning / designing and working principle of Rain water harvesting and conservation systems.

Into all their future studies more specifically to effectively plan, integrate and detail out these services in designs of various types of buildings through 6<sup>th</sup> to 7<sup>th</sup> Semester as well during their Internship in an Architect's Office; Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thus finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works / designs, construction work of various Buildings as Professional Architects.

## **Architectural Graphics-V**

**5S-A-5**

**Objective:** The objective of this subject is to train the students for the preparation of :

1. Submission drawing as per the local building bye laws
- 2) Working drawings required for carrying out actual construction work. The graphics of the drawings will be with specific reference to the code of practice for Architectural and Structural drawings as laid down in B.I.S. No.962 of 1960. The course of this subject shall be completed in two semesters i.e. Semester-5 and Semester-6.

### **Syllabus:**

Unit I: Study of building bye-laws, building regulations, requirements of parts of Buildings etc. as per the National Building Code.

Unit II: Understanding the concept of Ground coverage, Built-up area, FSI/ FAR etc:

Unit III: Preparations of submission drawings for a single storied residence with approximate 75 Sq. Mt. built-up area..

Unit IV: Preparation of working drawings for the same building. The set of drawings to be prepared shall include Foundation / centre line plan (considering Load Bearing as well as R.C.C. Frame structure type), Floor Plan, Lintel level plan, Terrace Plan showing roof drainage arrangement. Sections, All elevations, Details of stair, Doors and windows, Flooring pattern, Kitchen, Architectural features etc. (Set of min. 10 drawings of imperial size prepared to facilitate the execution of building).

**Sessional Work:** Plates on above topics.

**Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding skills and techniques acquired during this 5<sup>th</sup> Semester by professionally applying all principles / fundamentals and skills, techniques, acquired know-how, tools and skill of preparing, working / construction drawing and detailing with respect to : -

Comprehensive study / learning every aspect of Development Control rules, Building Bye-laws as per National Building code.

Preparing Submission drawing in conformity to rules, regulations as stipulated in Development Control Rules/Building Bye laws.

To study, learn principles, fundamentals, techniques, methodologies, skills and tools and to prepare Working / Construction Drawings with all necessary supporting detailing of various levels, stages of construction for a double storied structure of or about 750 to 1500 sq. metres built up area; of both Load Bearing and R.C.C frame construction.

And use this learning / know-how to represent their designs and construction drawings by adopting and practicing the art, skills and techniques in all their future studies through 6<sup>th</sup> to 7<sup>th</sup> Semesters, Internship in an Architect's office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ this acquired knowledge / know-how in all their future works / designs, construction work of various Buildings as Professional Architects.

## **Theory of Architecture -II**

**5S-A-6**

### **Objective :**

- In continuation to objectives stated earlier for 4<sup>th</sup> Semester the course would aim to further enhance, improve and upgrade with a thrust focusing on Critical investigation and awareness of design practices, design philosophies, design actions, design process.
- To emphasis on the awareness about correlating the Form to be purpose and Structure Specific.

### **Syllabus:**

Unit I: Organization of Forms and Spaces

- a) Spacial relationships: i) Space Within Space ii) Interlocking Space iii) Adjacent Space iv) Space linked by common space
- b) Spacial Organization- influencing factors and their types: i) Centralised ii) linear iii) Radial iv) Clusterd v) Grid
- c) Articulation of Forms and Space types: i) Edges and Corners ii) Surface

Unit II: Character and Style in Building

Factors influencing the Character and Style in Buildings, study of examples in Contemporary Architecture ( Including Modern and Post Modern)

Unit III: Principles of Composition:

Unit IV: Harmony and specific qualities of design to include dominance, punctuating effect, dramatic effect, fluidity, climax, accentuation and Contrast with building examples.

Unit V: Circulation

Study of circulation pattern and its relation to organisation functional spaces and activities .

**Sessional work:** Case Studies, notes, plates and presentations.

**Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding continuing from previous semester as well during this 5<sup>th</sup> Semester by sensibly applying all principles / fundamentals, acquired know-how such as of : -

Critical appraisal of various theories of Architecture and learning to correlate and contextualise with form, space, volume, organisation of space(s) and further understanding of principles of design, theories related to scale and proportion and their application.

And use this learning in all their future studies through 6<sup>th</sup> to 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to use this acquired knowledge / know-how in all their future works as Professional Architects.

## **Specifications**

**5S-A-7**

**Objective:** Art of writing specifications for materials and works is very important in which emphasis on the required qualities of materials and proper sequence of construction should be brought out.

### **Syllabus:**

Unit I: Introduction, importance of specifications building construction activity. Types of specifications and its applications,

Method of writing specifications (contents, correct order and sequence), use of Indian standard codes and specifications, PWD specifications.

Unit II: Specifications of basic building materials such as bricks, stones, aggregate, cement, steel, timber etc. Specifications of materials used in flooring and finishing such as ceramic tiles, marble- mosaic tiles, paints and varnishes.

Specifications of materials used in roofing and roof covering such as tiles, A.C, G.I. and Aluminum sheets etc.

Unit III: Specifications for fixtures and fastenings; Study of proprietary materials along with manufacturer's specifications, trade names of such materials.

Unit IV: Specifications of works for a residential building of load bearing type or R.C.C. framed type. Specification of construction of steel structure, ceilings and partitions, paneling insulation and Water proofing.

Unit V: Specifications for items of services such as drainage, wafer supply, electrical installation.

Unit VI: Specifications for demolition-work, temporary construction like sheds, exhibition stalls, gateways.

Reference Books:

Estimating & Costing by B. N. Dutta, B.S. Publishers.

Estimating and Costing by S.C. Rangawala, Charotar Publishing House..

Red Book of Public Works Department Government of Maharashtra.

Estimating and Costing in Civil Engineering by Chakravarti, Bhaktivedanta Book Trust.

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**Sessional work:** Notes and tests on above topics.

### **Course Outcome:**

On completion of the Course, the students will be able to :-

Achieve, develop - Competency, Confidence and Capabilities to :-

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding skills and techniques acquired during this 5<sup>th</sup> Semester by professionally applying all principles / fundamentals and skills, techniques, acquired know-how, with respect to :-

- Specifications - its importance, utility and application – Various types
- Principles, methodologies, techniques/skills of writing/preparing specifications - correct in contents, order, sequence for all types of material used in design, construction of building so also for various building services; as well as for workmanship for every Item of building construction - inclusive of various services provided in buildings.

And use / employ this learning in all their future studies through 6<sup>th</sup> to 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works / designs, construction work of various Buildings as Professional Architects.

## **Elective A**

### **Advanced Building Material**

**5S-AA-1**

#### **Objective :**

To impart, develop and instil understanding / knowledge of building materials-developed and being used in present day building designs with emphasis on making students aware and abreast with properties, attributes and usefulness of such materials with smart substance, intelligent interfaces and sensors surfaces which are able to anticipate and respond to changes in the environment and provide added values in terms of increased performance and functionality. Their adoption and integration in various Architectural solutions/designs.

#### **Syllabus :**

#### **Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding skills and techniques acquired during this 5th Semester by professionally applying all principles / fundamentals and acquired know-how such as of : -

Building materials developed recently-their attributes, properties with smart substance intelligent interfaces and sensors surfaces and response to changes in environment to achieve increased performance and function and their integration in Architectural designs.

And use this learning / know-how to represent their designs and construction drawings by adopting and practicing the art, skills and techniques in all their future studies through 6th Semesters, Internship in an Architect's office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works / designs, construction work of various Buildings as Professional Architects.

## **Computer Applications II**

**5S-AA-1**

### **Objective :**

To impart, develop and instil understanding / knowledge and empowering to use computers as 2D drafting and 3D modeling tool and to familiarize realistic rendering and architectural presentation techniques using computers.

### **Syllabus :**

Unit - I : Introduction to 3D MAX, Importance of 3Ds Max for Architecture Students.

Unit - II : User Interface and commands, Creating basic shapes, Importing Auto CAD 3D, Building Model File in 3Ds Max.

Unit - III : Creating all type of Standard, Extended, Primitive objects, Creating Compound Objects ,Applying Camera, Lights and Materials in 3D Model view.

Unit - IV : Rendering Model View using Default Scan line Renderer, Creating Road Night views using Spot light and Lens effects.

## **REVIT ARCHITECTURE**

Unit - I : Exploring user interface, Revit Architecture basics, creating and modifying levels and creating and modifying walls.

Unit - II :Element properties, about component families, adding and modifying floors, doors, windows, Adding and modifying roofs (soffit, footprint, extrusion) and creating openings, Adding and modifying stairs, railing, ramps.

Unit - III : Using materials, textures and creating renderings, Creating exterior view (Topo surface, sub-region, building pad, etc.) ,Using climatic analysis by applying sun path chart.

**Sessional Work** : Layout generation process , Design and present a product / Exhibit using software, generate views of building etc.

### **Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge / understanding skills and techniques acquired during this 5th Semester by professionally applying all principles / fundamentals and acquired know-how such as of : -

Basic and advanced commands for creating , editing , rendering .Know -how and analysis of sun path and climate charts. Computer software for design of building , generate views and present work digitally.

And use this learning / know-how to represent their designs and construction drawings by adopting and practicing the art, skills and techniques in all their future studies through 6th to 7th Semesters, Internship in an Architect's office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works / Designs, construction work of various Buildings as Professional Architects.

### **Elective B**

**5S-AA-2**

### **Appropriate Technology**

#### **Objective :**

To impart, develop and instil understanding/knowledge about the

- Meaning of Appropriate Technology and its concept.
- Significance of Appropriate Technology in present context as compared to conventional technology.
- Various techniques of cost effective & sustainable technologies available today.

Role of architectural design in achieving the objectives of Appropriate Technology.

#### **Syllabus :**

Unit - I : Introduction to the concept of Appropriate Technology. Its relevance in present context.

Unit - II : Conventional technology verses appropriate technology. Environmental impact of building construction activities.

Unit - III :Use of appropriate technology in Housing Sector. Appropriate technology for different building elements and materials.

Unit - IV : Recycling waste in buildings.

Unit - V : Presentation of case studies.

Unit - VI : Assignments and their scope and objectives.

Unit - VII : Visit to CSV Wardha to study the technologies developed by the centre and points for discussion during seminar presentation.

Seminars based on CSV visit

### **Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding skills and techniques acquired during this 5th Semester by professionally applying all principles / fundamentals of "Appropriate Technology" such as :-

Adoption of suitable design / construction techniques , materials and system to plan and provide cost effective design solutions and promoting sustainable development in all their future studies as well as in design / planning, construction of built space through 5<sup>th</sup> to 7<sup>th</sup> semester, and during their Internship in an Architect's Office .

Thus leading them to be proponent and practitioner of employing Appropriate Technology and thereby of Sustainable Development in all their future works as Professional Architects.

## **Regional Architecture**

**5S-AA-2**

### **Objective :**

To impart, develop and instil understanding / knowledge about vernacular architecture as distinct from other historical and modern styles of architecture; to appreciate that it is site responsive and an outcome of indigenous techniques and various social, economic and mythical values of the society, with a thrust on : -

- To understand the approaches, values and concepts of Vernacular architecture
- To Identify and conserve the untapped values and principles towards the evolution of new theories for architectural creations.
- To Highlight needs and various ways of vernacular building research, analysis, presentation of finding, documentation and its application to design of contemporary buildings today.

## **Syllabus :**

UNIT - I :Introduction to various terminologies used in Regional Architecture like Satellite Village, Tourist Village etc..

UNIT - II :Approaches and concepts to the study of Regional architecture – Introduction to planning aspects, materials of construction, Constructional details and Settlement Planning of various regions, Religious practices, beliefs, culture and climatic factors influencing the planning of the above.

UNIT - III : Regional architecture in India and around the world . Factors that contributed to its evolution.

UNIT - IV : Vernacular architecture of various regions in India. To understand the factors that contributed to its evolution. Settlement planning strategies, Regional and occupation wise variations.

UNIT - V : Influence on modern architecture, examples from the works of the great architects like Frank Lloyd Wright, HasanFathy, GeofferyBawa. Possible applications of vernacular architectural techniques today.

## **SESSIONAL WORK/PRACTICAL WORK/SUBMISSIONS:**

Assignments and documentation of various regions through book case study and study tours.

## **Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding acquired during this 5th Semester by sensibly applying all principles / fundamentals and acquired know-how of Regional Architecture such as of : -

Identifying and conserving values, principles in evolution of Vernacular as well as new theories of Architectural solutions in context to a specific region and its interface with surroundings regions.

Vernacular structures/settlements - various means and methods of its Documentation and presentations and application in present context.

And use / employ this learning in all their future studies through 6th to 7th Semester, as well during their Internship in an Architect's Office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future Designs of various Buildings as Professional Architects.

## **Sustainable Development**

**5S-AA-2**

### **Objective :**

To impart, develop and instil understanding / knowledge about principles and concepts of Sustainability their application to plan, provide and achieve Sustainable Development emphasizing on making students aware and abreast with : -

- Approaches to balance different , but often competing needs of the environment, Socio-cultural, economic constrains as faced by society
- Present status of Sustainable Development in various domain and action plan, strategies methodologies / actions to be initiated for achieving Sustainable Development.

Understanding correlation interdependence between Architecture and Sustainable Development and role of Government, society and private participants.

### **Syllabus :**

Unit I : Introduction about the subject ,Importance of the subject in today's context. Relevance of the subject in architecture .To understand the relation between Architecture and Sustainable Development Approach.

Unit II : Sustainable Development Principles and Objectives. Role of an Architect in Sustainable Development. Role of community participation to achieve Sustainable development, how local communities can help on sustainable basis. Role of government agencies and private ownership.

Unit III : Study the Sustainable development Components. Study what are the sustainable development goals? Study What are the three factors of sustainability?

Unit IV : Study various examples of sustainable development. Study live projects which help to achieve sustainable development. What are the 17 sustainable development goals?

Unit V : What is Neighborhood? Study Sustainable neighborhood and study Six Critical Outcome Domains For Sustainable Neighbourhood.

**Sessional work :**

Discussion among students on various aspects of Sustainable Development.

**Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding skills and techniques acquired during this 5th Semester by sensibly applying all principles / fundamentals of "Sustainable Development" such as of : -

Eco-friendly/Green materials , concepts of Reduce, Reuse, Recycle, related technologies in all their future studies as well as in design /planning , construction of Built Spaces and Objects when they move to next that is 6th semester,7th semester as well during their Internship in an Architect's Office.

Thus leading them to be proponent and practitioner of Sustainable Development in all their future works as Professional Architects.

**Sixth Semester B. Arch.**

**Architectural Design V**

**6S-A-1**

**Objective :**

To impart, develop and instil understanding and knowledge with the aim to:-

- Understand the site context, its topography and physical characteristics.
- Understand positive and negative spaces and their complex relationship when designing built and un-built form.
- Understand the concept of context and contextuality, with emphasis on climate and tradition.
- Understand the concept of modular organisation and repetitive designs, as well as nuances of multiple users in a cohesive design.
- Understand advanced level of design theory, as well to incorporate regional identity, expression and contextuality in design.

**Syllabus:**

Course work to be continued and completed in this semester as mentioned in Architectural Design-IV Syllabus. ( of 5<sup>th</sup> Semester )

**Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge, understandings, skills and techniques acquired during this 6<sup>th</sup> Semester by professionally applying the acquired principles, fundamentals, techniques and skills of designing, of drawing and detailing, of presentations related to design of various types of buildings designed in this semester with special thrust/emphasis on building Design Solutions, planned on the basis of :-

- a) Integrating Climatological, Topographical Conditions
- b) Conformity to Development Control Rules (D.C.R) / Building By laws
- c) Integrating all allied services to support the purpose/function of the buildings to be designed
- d) Suitable, appropriate Structural Systems in conformity to complexities of design solutions worked out.

And to effectively adopt, apply, integrate, implement and practice this acquired learning and experiences in all their future studies and especially in designing of various types of building through 6<sup>th</sup> and 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office and thereafter in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thus finally leading the students to fully equip themselves, with Professional Competency and Capabilities to incorporate, to detail out, to plan, design and execute by using the acquired knowledge and experiences in all their future Designs of various Buildings as Professional Architects.

**Construction Technology & Materials –VI****6S-A-2****Objective :**

To impart, develop and instil understanding/knowledge about properties and attributes of various materials used for cladding as well as of bamboo, mud, ferro- cement and their use and application in construction of various components/elements of building.

To impart, develop and instil understanding / knowledge with respect to design principles, construction systems / methodologies / techniques, detailing, drawing work of : -

- High rise construction.
- Flat Slab, Grid Slabs, Lift -slab construction with R.C.C.

**Syllabus:**

Unit I: Cladding Materials

Unit II: Bamboo, mud, ferro-cement, vault domes, flat slabs etc.

Unit III: High rise construction

Unit IV: Advanced R.C.C. Structures

**Sessional Work:** Site visit reports, tutorials, notes, sketches and market surveys.

Plates of Small modules of design based on the construction principles.

**Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding skills and techniques acquired during this 6<sup>th</sup> Semester by professionally applying all principles / fundamentals and skills, techniques, acquired know-how, tools and skill of drawing and detailing with respect to subject / topics of : -

- R.C.C - Flat Slab, Grid Slab, Lift slab - various types.
- Guna tile vaults and Nubion Arch roof

AND

As well/additionally to effectively in-corporate, adopt and implement the acquired know-how of this semester related to : -

- a) Various cladding work out of materials such as, ACP, Glass, Plastics, Stainless Steel.
- b) Bamboo, ferro-cement, Mud - their characteristics, usefulness, application in construction of building
- c) High rise construction : - Design/planning - principles, fundamentals, structural systems, techniques.

And use this learning / know-how to represent their designs and construction drawings by adopting and practicing the art, skills and techniques in all their higher / future studies through 7<sup>th</sup> Semesters, Internship in an Architect's office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works / designs, construction work of various Buildings as Professional Architects.

## **Structural Design & Systems- VI**

**6S-A-3**

### **Objective :**

At this stage aim is to abreast the students about earthquake resistant structures, slabs, columns, their footings, grid structures and building frames. As well as to make students aware about the structural behavior of various structural systems like shell roofs- cylindrical and conical, Space structures and innovative structural frames so that they can apply this knowledge in their architectural solutions/designs.

### **Syllabus:**

Unit I: Study of IS 1893 – Earthquake Resistant Structures

Unit II: Design of: a) One Way Slab b) Two Way Slab c) Continuous Slabs

Unit III: Design of RCC Sections in Compression – Columns: a) Short Columns b) Limitation of Long Columns c) Columns subjected to Uniaxial bending ( using charts)

Unit IV: Design of Independent Column Footings

Unit V: Design of RCC Grid Structures – Simple Concept

Unit VI: RCC Building frames – Structural Behaviour

Unit VII: Design of RCC Sections for Retaining Wall a) Continuous b) Supported in one direction c) Supported in both directions

Unit VIII: Structural Behaviour of Large Span RCC Structural Systems like: a) Portal Frames b) Arches c) Open Web Sections d) Bow String Girders e) Shell Roofs – Cylindrical, Conical, Hyperbolic Paraboloid and others f) Space Structures g) Innovative Structural Forms

**Sessional work:** Sketches, notes, tutorials, tests and presentations.

### **Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge/understanding during this 6<sup>th</sup> semester by professionally applying and integrating principles/fundamentals and acquired know-how based on such as : -

Make use of design criteria specified in IS-456 code book of RCC structures, application of this knowledge in designing different types of slabs , Columns and it's footings.

And employing this learning into all their future studies, more specifically to effectively detail/work out building design solutions by integrating/incorporating these learning's in the various Building Design solutions through 7<sup>th</sup> Semester as well during their Internship in an Architect's Office and so also in their Project (Thesis) work of 10<sup>th</sup> Semester.

Finally leading the students to be fully equipped and capable to incorporate /use this learning for all their works / projects as Professional Architects.

## **Building Services -III**

**6S-A-4**

### **Objective :**

To impart, develop and instil understanding/knowledge, abilities with the aim to make the students abreast, aware of the importance, installation planning and designing guidelines/criteria, load calculations and working of advanced essential services in buildings; so as to achieve a deeper know-how and insight to ensure effective, safe, secured and convenient functioning of buildings and its environment. The students should be made familiar with I.S and National Building Codes (N.B.C.) related to services such as of : -

Various audio-video communication and surveillance/security systems. Building Automation Systems, Fire safety, detection, suppression and fighting/extinguishing systems. Natural and Mechanical Ventilation Systems. Ducts, Trenches, conduits, Risers/Shafts to accommodate these systems.

### **Syllabus:**

Unit I: Communication systems in buildings, Video conferencing, Computer networks and trenches and conduits to accommodate the systems. Security and Surveillance.

Unit II: Introduction to building automation systems, components and application of BAS, Architectural implications.

Unit III: Causes of fire in buildings, types of fire, spread of fire, production of smoke and poisonous gases. Fire safety and preventive measures.

Unit IV: Fire fighting regulations with reference to National Building code. Fire escape, stairways and escape routes, dry and wet risers, Water demand for fire fighting, storage tanks, fire hydrants etc.

Unit V: Study of Fire detection systems, smoke detectors, heat detectors, fire alarms etc. Fire extinguishing systems, Unit fire extinguishers, Chemical and foam extinguishers, Chemical and foam extinguishers.

Unit VI : Ventilation of buildings, Natural and mechanical ventilation, Need of mechanical ventilation, Exhaust fans, Axial flow fans, Blowers for industrial ventilation.

**Sessional works:** Sketches, notes, tutorials, tests and plates

**Course Outcome:** On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge / understanding, during this 6<sup>th</sup> Semester by professionally applying and integrating all principles / fundamentals and techniques, acquired know-how such as of : -

Principles, fundamentals, various types / systems, material of construction, components, planning and design guidelines-criteria, load calculations, architectural implication, limitations, utility, application of :-

- i. Audio-Video Communication Systems, their distribution systems
- ii. Security Surveillance Systems in buildings
- iii. Building Automation Systems
- iv. Fire safety, prevention and fire control (fighting), Fire detection systems
- v. Natural and Mechanical Ventilation System for buildings.
- vi. Building Automation Systems

And use / employ this learning in all their future studies more especially to effectively integrate and detail out these services in designs of various types of buildings through 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works / designs, construction work of various Buildings as Professional Architects.

## **Architectural Graphics VI**

**6S-A-5**

### **Objective :**

In continuation of previous semester, students shall be required to handle the projects of greater magnitude in this semester and they shall be trained to prepare working drawings of a class problem already completed in design class having Multi-storeyed R..C.C. framed structure.

### **Syllabus:**

Unit I : Centre-line plan, all floor plans, lintel and slab level plans.

Unit II: Sections, elevations and large- scaled details,

Unit III: Site development Plan showing landscaping roads .

Unit IV: Toilet details, Drainage Layout showing soil, waste and rain water drainage system. Sanitary fittings, traps, inspection chambers etc.

Unit V: Water supply layout indicating supply tapping point with meter, supply line to storage tanks and connections to different equipment in building.

Unit VI: Electrical layout showing meter board and power supply lines to different parts of building and different equipment.

**Sessional Work :** Plates on above topics .

**Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge / understanding, skills and techniques acquired during the 5<sup>th</sup> Semester and so also during this 6<sup>th</sup> Semester by sensibly / professionally applying all principles / fundamentals, techniques, acquired know-how, tools and skill of preparing working /construction drawing and detailing with respect to : -

Continuing to adopt and practice the study, learning gained and perfected during 5<sup>th</sup> semester with emphasis on preparing / drawing working details (detailing) and so also on preparation of working drawing and detailing of various services / support systems for the same building taken up during 5<sup>th</sup> Semester.

And use this learning / know-how to represent their designs and construction drawings by adopting and practicing the art, skills and techniques in all their future studies through 7<sup>th</sup> Semesters, Internship in an Architect's office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ this acquired knowledge / know-how in all their future works / designs, construction work of various Buildings as Professional Architects.

## **Design of Human Settlements**

**6S-A-6**

**Objectives:**

The study aims at introducing students to the development of planning thought from that of historic to present age. It also gives emphasis on stressing broad principles of settlement in such period. The study of this subject continues with emphasis on planning philosophies and the student to carry out the further studies in the specialized field of Urban Planning.

**Syllabus:**

Unit I: Man's role in designing and developing the towns and cities from ancient times through Medieval, Renaissance and Industrial revolution to present day development.

Unit II : Town planning in India, Pre-historic, Vedic, Pre- British and British Planning in India, Planning after independence.

Unit III: Pioneers and their works, Planning concepts of Patric Geddes, Ebenezer Howard, Abereronmbie, Le-corbusier, C. A. Parry, Clarence Stein, Doxiadis, Kevin Lynch, F.L. Wright, Lewis Mumford, Rob Krier and Victor Gruen.

Unit IV : Present concept of planning at various levels, Planning as a team work, Role of Architects/Planners in a team , Importance and methodologies of surveys in the planning process, Factors governing the location and growth of towns.

Unit V : Understanding the process of development plan making, general ideas of implementation of such plans and planning agencies, study of planning legislation and administration, town and regional planning acts., M.R.T.P Act., Development control rules, zoning, density, height, FSI Structures, Role of local and planning authorities.

Unit VI : Introduction to the problem of urban and rural housing in India, Analysis of demand and supply, General study of Planning consideration of housing and area development and housing infrastructure such as utilities and services.

**Sessional works :** Notes and Seminar of above topics, Critical appraisal of existing proposed housing schemes, planning exercise of residential community.

Reference books :

Fundamentals of Town Planning by G.K.Hiraskar, Danpatrai & Sons.

Town Planning by S.C.Rangwala and K.S.Rangwala

Town Planning by Abir Bandhopadhyaya, Books and Allied (P) Ltd.,

Urban Pattern City Planning and Design by Gallion and Eisher.

**Sessional work :-** Sketches, assignments and tests.

### **Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge / understanding and techniques acquired during this 6<sup>th</sup> Semester by professionally applying all principles / fundamentals and techniques, acquired know-how, tools with respect to : -

1. Development of Planning thoughts from historic to present age their design and planning principles, concepts, systems.
2. Planning in India from prehistoric period through British period and Post Independence.
3. Pioneers and their planning concepts, works and present planning concepts, systems, methodologies, process, surveys their implementation, management, various planning bodies / organisation, rules / act.
4. Urban and Rural Housing - analysis, Planning, infrastructures in Indian context.

And use / employ this learning in all their future studies through 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works / designs, construction work of various Buildings as Professional Architects.

## **Estimating and costing**

**6S-A-7**

### **Objective :**

The course aim is to impart, develop and instil understanding / knowledge of Estimating. To know types of estimates. To acquaint students with means /methods to prepare Estimates, Bills of Quantities, Rate Analysis for both load bearing and framed construction including various services in relation to IS- 1200, as well to make them understand Brief Specifications and Schedule of Rates.

### **Syllabus:**

Unit I: Purpose of Estimating, types of estimates

Unit II: Bill of quantities for single story structures - (a) Load bearing (b) R.C.C, frame.

Unit III: Study of IS-1200.

Unit IV: Estimation of quantities for R.C.C. structural members like footing, column, beam and slab.

Unit V: Estimation for electrification, water supply and sanitation, (only for residential buildings)

Unit VI: Rate Analysis - general, factors affecting the rate of an Item, rate analysis for R.C.C. work, brick work, plaster work, flooring, painting, doors and windows

Unit VII: Brief specifications and schedule of rates.

**Sessional work:** - Plates, sketches, & tests.

**Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge / understanding, during this 6<sup>th</sup> Semester by professionally applying and practicing, principles, fundamentals, methodologies and acquired know-how and skills such as of : -

- a) Fundamentals and methodologies of Estimating detailed Item wise quantities and their rate analysis of all civil items as well as of Items related to various building services. (for a small sized building such as a Residence)
- b) Fundamentals, methodologies, skills of preparing and writing Item wise brief specifications. And working out cost estimates.

And employing this learning, experiences into all their future studies more specifically to effectively integrate, detail out, work out estimated costs of various types of buildings (as and when if required to be done) during 7<sup>th</sup> Semester, Project work of (Thesis) 10<sup>th</sup> Semester as well during their Internship in an Architect's Office.

Thus finally leading the students to equip themselves, with Professional Competency and Capabilities to integrate the acquired knowledge and employ the same to detail / work out the estimated costs of all types of buildings in all their future works as Professional Architects.

**Elective A**

**Project Management**

**6S-AA-1**

**Objective :**

1. To bridge the gap between feasibility of construction and demands of design. To understand the complexities and challenges of construct-ability of design to be the primary focus to learn this subject by students.
2. To impart, develop and instil understanding / knowledge about the practical ground realities of construction and maintain the harmony between the design and its construction phase, as well as to understand the impact of constraints and limitation of construction industry vis-a-vis architectural and structural design of building.
3. To acquaint the students with the various concerns which are vital to understand at the time of design phase like quality, project completion time, budget and safety of construction.
4. To impart, develop and instil understanding / knowledge about universally accepted techniques of scheduling of construction projects like Bar Chart method, Milestone Chart, CPM (Critical Path Method) and PERT (Program Evaluation and Review Techniques).

5. To abreast students with the latest information of construction equipment and their appropriateness in construction industry.
6. To impart and develop understanding / knowledge about various site practices, work methodologies, methods of work inspection, instructions to follow quality and safety norms followed at big construction sites.

**Syllabus :**

Unit I : Historical review of large construction projects and management techniques.

Unit II : Fundamentals of project management, relationship of work, time and cost, stages of project management, (Planning, Scheduling and Evaluation)

Unit III : Study of bar charts, milestone charts, its application in construction process, Work Breakdown Schedule.

Unit IV : Fundamentals of CPM (Critical Path Method), activity, events, floats and slacks, network Construction, time computation, Project completion period.

Unit V : Introduction to PERT (Project Evaluation and Review Technique), probability, standard deviation etc.

Unit VI : Construction Machinery and Equipment.

Unit VII : Construction site practices, site inspection and instructions for quality control

**Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge, understanding acquired during this 6<sup>th</sup> semester by professionally applying and integrating the fundamentals and techniques of Project Management and means and methods to make best use of relationship of work, time and cost, stages of project management and (Planning, Scheduling and Evaluation), application of bar charts, milestone charts in construction process, Work Breakdown Schedule, Fundamentals of CPM (Critical Path Method) and PERT (Project Evaluation and Review Technique) for scheduling and time tracking of projects, Construction Machinery and Equipment, their cost implication on project, Site inspection and instructions for quality control, safety norms at construction sites, and employing this learning's into all their future assignments, studies and projects when they move to next semester that is 7<sup>th</sup> sem. as well as during their internship in an Architect's Office.

Thus, finally leading the students to fully equip themselves and develop the professional competency in them to handle the challenges and remedial solutions as well plan out better

management of their own projects during construction phase and capability to incorporate this acquired knowledge in all their future works as practicing architects.

## **Architect office and Site Practice**

**6S-AA-1**

### **Objective :**

To impart, develop and instil understanding / knowledge and make aware students about the functioning of Architect's office, as well as - Registration of self as well as the office, it's setup, Knowing Development control regulations, Office sections and related staff, Preparation of documents required to execute a project, interaction with clients and consultants concerned, Structure of fees to be charged, Office tools and stationery, Site management, Account keeping, i.e. everything required to know about a project from start to end (from documentation required to start a project to it's completion)

### **Syllabus :**

Unit I :To let the students know about what an Architect's office is, How it is different from other professional's offices. What is the registration process as an Architect with the Local Development Authority, in the particular city where the office is located, it's Development Control Regulations and other Registrations required from time to time. To make oneself conversant with the norms of Council of Architecture, the guidelines laid for general practice.

Unit II : To know regarding the overall Office setup, sections in the office and the staff required. To know about Client's requirements regarding the project offered, interaction with

client at the various nodes of the project. To know as to which documents are required at which level either in form of drawings or text or any other form required to meet the need.

Unit III : To know about requirement of other Consultants such as Structural Designer, Landscape Designer, Electrical, Acoustics, Building services consultants. To hire their services in order to assist the client for perfect execution of the project. To procure various drawings and other documents, To amalgamate the same with Architectural documents if required so, To assist the client to arrange for the services such as Material Contractor, Labour Contractor if required and to engage their services. To prepare legal documents like tenders, bills of works, various stage certificates as and when required.

Unit IV : To manage the office mechanism from computers, printers, other required stationery, furniture etc., its supply and maintenance. Account keeping of the office which shall include filing yearly returns of individual to firm, to have subsequent knowledge regarding prevailing Tax system and its implications on practice. To know about the structure of Fees to be charged. To maintain a regular record of Office activities.

Unit V : To visit the project site as per the schedule and as and when required. To know about the site tools and plants. To engage assistants to keep a track of site proceedings whether the work is being precisely executed as per the drawings issued so as to reach a successful commissioning of the project.

#### **Sessional work :**

Notes and journal submission, Visit to Architect's office and understanding the actual procedures used in practice, Visit to site to know how the collaboration takes place.

#### **Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge/ understanding acquire during this 6<sup>th</sup> semester by professionally applying all principles / fundamentals and acquired know-how related to:

Architects office-its technical, administrative, financial establishment/ setup, management, working/ operational criteria, systems, methods.

Know-how and importance and practical implications of relevant laws, rules- regulations-that is of all statutory provisions regulating or affecting the practice.

Management and practice of

A) Relations, interactions, cooperation between contractors, consultants, clients.

B) Site arrangements/ working

C) All technical, non-technical, administrative, financial documents- their records.

And use/ employ this learning in all their future studies through 7<sup>th</sup> semester as well during their Internship in an Architect's Office and in their Project (thesis work) of 10<sup>th</sup> semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ/ use this acquired knowledge/ know-how in all their future works/ Designs, construction work of various buildings as Professional Architects.

## **Computer Application in Estimation and Costing**

**6S-AA-1**

### **Objective :**

The aim of this subject is by using computers to impart, develop and instil knowledge / understanding about the procedure, methodology, commands and similar inputs for preparation of building estimates as well as bills of quantities overcoming the conventional manual calculations and methodologies.

### **Syllabus :**

Unit I : Introduction to the subject- method of preparing estimates, Data required for framing estimate and type of estimates.

Unit II : Introduction to MS Excel (Components of excel user interphase/ page setup /formatting/ cell reference etc.) Plotting of graphs in MS Excel.

Unit III : Introduction to functions and formulas in MS Excel, program to solve quadratic equation and do calculations.

Unit IV :Detailed estimate of project for references and understanding.

Unit V :Exercises in detailed estimate of project and use of computer for the same, Which includes :

- Preparing detailed estimate for excavation.
- Preparing detailed estimate till plinth level.

- Preparing detailed estimate till lintel level.
- Preparing detailed estimate till slab level.

Unit VI :Final submission of detailed estimate prepared in hard copy and soft copy

### **Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding and techniques acquired during this 6<sup>th</sup> Semester by professionally applying all principles / fundamentals and techniques, acquired know-how, tools with respect to : -

Learning of preparing estimates for buildings using M.S.Excel, learning-to plot graph, to solve quadratic equations, other methodologies to prepare bills of quantities, rate analysis, cost calculations.

And use / employ this learning in all their future studies through 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ this acquired knowledge / know-how in all their future works / designs, construction work of various Buildings as Professional Architects.

## **Elective B**

### **Man - Environment Relationship**

**6S-AA-2**

#### **Objective :**

To impart, develop and instil understanding / knowledge about : -

- Understanding Concept of Environment and socio-cultural impacts of built environment.
- Various facets of human Environment interaction
- Effect of Environment and human behaviour and making students aware of future threats of and to environment

#### **Syllabus :**

Unit - I: Concept of Environment -Multidisciplinary nature of environment ,renewable and non-renewable resource .

Unit - II : Human environment interface, environmental pollution causes, effects and control measure, Man-made disasters and its management.

Unit - III : Social issues and environment - Urban problems related to water conservation, rainwater harvesting, resettlement and rehabilitation of people, problems and concerns .

Unit - IV : Climate as driving force in determining parameters & Lifestyle, Socio-economic aspects such as occupation, food, color and symbol, clothing sports .

Unit - V : Natural environment and man-made environment- settlements pattern, circulation, material and construction technique.

### **Course Outcome :**

On Completion of the Course, the Students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt, implement the acquired knowledge, understanding, during this 6<sup>th</sup> semester by sensibly applying all principles, fundamentals, systems and techniques of improving Man environment relation as they will learn through this course the importance of interrelation between social, cultural and built environment, future threats to environment due to human behavior and interventions, sustainable approach for protection of Environment.

And to effectively, adopt, apply, integrate, implement and practice this acquired know-how all their future studies, especially related to design, planning and construction of various studio assignments of subjects of Architectural design, of 7<sup>th</sup> semester as well as their internship in an Architect's office, as well in the Project (Thesis) work of 10<sup>th</sup> Semester.

Thus finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works / designs, construction work of various Buildings as Professional Architects.

### **Architecture Appreciation**

**6S-AA-1**

#### **Objective :**

To impart, develop and instil understanding and knowledge about the cultural implication of buildings in their geographic and social contexts, fundamental design principles, building materials and construction techniques, environmental factors that affect building design, and the roles of designers, builders, patrons, clients, and users of buildings.

To make aware through broader perspective how human beings perceive the world in which they live and imagine, that has influenced the shape and function of the structures in the built environment which impacts on our daily lives.

To make aware about key concepts and ideas in architecture of people who are interested in the same.

To create ability to identify key works of architecture from the period and their significance.

To impart a good understanding of architectural principles and of traditional building construction techniques.

### **Syllabus :**

The course provides a broad introduction to architecture before the modern era. It discusses the historical evolution of architecture and the design and construction of buildings from prehistory to 1400.

UNIT I : Introducing the vocabulary of art and architecture constituted by elements and principles. Appreciating art and architecture through the study of modern movements in art and architecture.

UNIT II : Understanding the social and cultural movements that shaped architecture of the past monuments and moments; memory and identity. Architecture as a socio-cultural product with linkages to natural environment.

UNIT III : Introduction to the meaning, context, and significance of the elements and outcomes of designs in graphics, textiles, ceramics, sculpture, painting and printing as related to architecture. Study of building materials and construction techniques, environmental factors that affect building design, and the roles of designers, builders, patrons, clients, and users of buildings.

UNIT IV : Improvising the ability to understand, interpret and evaluate visual messages. Study of Master Architect's work of the period, importance of their work and analysis of the same.

### **REFERENCE BOOKS**

- Amos Rapaport , House form and culture
- Don Norman, The Design of Everyday Things
- Emily Cole, The Grammar of Architecture
- Francis D.K. Ching, A Visual Dictionary of Architecture
- John Berger, Ways of Seeing
- Juhani Pallasmaa, The Eyes of the Skin: Architecture and the Senses, John Wiley & Sons, 2012
- James C. Snyder, Introduction to Architecture, McGraw-Hill, 1979
- Stephen Grabow, Kent Spreckelmeyer, The Architecture of Use: Aesthetics and Function in Architectural Design, Routledge, 2014
- V S Parmar , Social history of Indian architecture
- William Lidwell, Kritina Holden and Jill Butle, Universal Principles of Design

### **Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding skills and techniques acquired during this 6<sup>th</sup> Semester by professionally applying all principles /fundamentals and skills, techniques, acquired know-how such as of : -

Socio-cultural concepts geographical and climatical context, available building materials, construction techniques and skills Shaping the architectural built-form in the past-the moments, movements, memory and identity and role of designers, builders, patrons, clients, users as well; in shaping the said built form.

Learning of architectural principles, fundamentals of past and present building design and construction systems.

And use / employ this learning in all their future studies through 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works / Designs as Professional Architects.

## **Advance Spatial Analysis**

**6S-AA-1**

### **Objective :**

The study aims to impart, develop and instil understanding / knowledge about spatial aspects and their analytical tools in terms of urban areas, as well as to :-

- Provide emphasis on stressing broad principles of spaces and its relation with the built environment.
- Study of this subject highlighting planning concepts and act as a guideline to carry out further studies in the specialized field of Urban Planning and Urban Design.
- Include Spatial analysis by the use of GIS to analyze and simulate dynamic processes, in addition to analyzing static patterns
- Related software like Q-GIS (Quantum GIS), Arc GIS (Geographic Information Systems)
- Acquaint with interpretation of the data on sheets and drawing conclusions from the course content

## **Syllabus :**

UNIT- I : Study of Urban aspects and elements like Demography, Land Use, Land Cover, Built Environment, Topography & Geography, Physical Infrastructure, Social Infrastructure, Housing, Zoning, Transportation, Urban/ City Planning, Urban Design, Regional Planning, Environmental Planning etc. as an urban space creating features.

UNIT- II : Understanding the concept of neighborhood in present context and Defining the terminologies involved in neighborhood, Case studies explaining the terms and various aspects of neighborhood, Site visits and Data Collection.

UNIT- III : Defining Spatial terminologies, Define Geographic Information analysis, Review the entity-attribute model of spatial data as consisting of points, lines, areas, and fields, with associated nominal, ordinal, interval, or ratio data.

UNIT- IV : Introduction of Q-GIS (Quantum GIS), Arc GIS (Geographic Information Systems), ENVI (Environment for Visualizing Images), Space Syntax tools for Spatial Analysis (An Overview)

UNIT- V : Implementation/Application of software with available data, Compilation of data in software, Exploration of different possibilities and ways of data analysis and interpretation, interpreting the data on sheets and drawing conclusions from the course content.

## **Sessional Work:**

- Submitting a tutorial by explaining the terms through case studies
- Learning of feeding and compilation of data in above software
- Submission of Compiled report

## **Course Outcome :**

On completion of the Course, the students will be able to :-

Achieve, develop - Competency, Confidence and Capabilities to :-

Effectively and conscientiously incorporate, adopt and implement the knowledge/ understanding skills and techniques acquired during this 6<sup>th</sup> semester by professionally applying all principles/ fundamentals and skills, techniques acquired know-how, tools such as of :-

Principles of space and its relation to built environment. Planning concepts and acts as guidelines for Urban planning/Urban Design. Spatial analysis employing GIS, related software's, interpretation of data on sheets and drawings.

And use this learning / know-how to represent their designs and construction by adopting and practicing the art, skills and techniques in all their future studies through 7<sup>th</sup> Semesters, Internship in an Architect's office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works / designs, construction work of various Buildings as Professional Architects.

## **Environment Psychology**

**6S-AA-1**

### **Objective :**

To impart, develop and instil understanding and knowledge : -

- To make students familiar. The theory and research in the field of environmental psychology
- About the awareness and impact of physical surroundings on human behavior and make them willing to change the environment to meet the needs
- About understanding of psychological methods to improve functioning of physical settings

### **Syllabus :**

Unit - I : Nature and Scope of Environmental Psychology: Pioneers of Environmental Psychology, Environmental Perception (Theories), Environmental Cognition (Cognitive maps)

Unit - II : Effects of Urban Life: Population, Density, Crowding, Privacy, Noise Neighborhood and Community Environments: Effects of High Density on Humans, Effects of Density on Social Behavior, Effects of Crowding

Unit - III : Emotional Relationships to Place: Personal Space, Personalization, Sense of Belonging and Identity, Territorial Behavior. Residential Environments: Attachment to Place, Preferences, Satisfaction With the Home Environment

Unit - IV : Emotional Relationships to Place: Learning spaces, Offices, Hospitals, Institutional Environments: Classroom Settings, Hospital Settings, Museum Environments, Prison Design and Behavior , Designing for the Elderly.

Unit - V : Work Environments: Ambient Work Environments, Territoriality and Status, Human Factors, Open-Plan vs. Private Offices, Environmental Solutions to Urban Problems: The interface between environmental psychology and design, Means of changing human behavior or attitude towards the environment

### **Course Outcome :**

On completion of the course the students will be able to: -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate and implement the knowledge and understanding acquired during this 6th semester by sensibly applying all principles/fundamentals of environmental psychology such as stimulation theories, control theories, ecological psychology and issues related to personalization, sense of belonging and identity, place attachment in all their future studies, as well as in designing/planning/construction of built spaces and environments, and employing this learning; in all their future assignments, studies and projects when they move to next semester that is 7<sup>th</sup> semester as well as during their Internship in an Architect's Office.

Thus leading them to be proponents and practitioners of environmental psychology in all their future works as Professional Architects.

### **Seventh Semester B.Arch.**

#### **Architectural Design-VII**

**7S-A-1**

**Objective-** Study of this subject shall conclude with emphasis on urban development, design problems of increasing structural and design complexity will be set with full opportunity, coordination, collection and analysis of data. Emphasis will be on preparation of design programme, preparation of drawings and detailing.

The process will deal with

- 1) Design orientation of advance and specialized buildings and environmental services, climate and acoustical system oriented buildings, their appropriate structural buildings and construction techniques.
- 2) Orientation on development control rules like, density, zoning, FSI etc. redevelopment and urban conservation techniques.
- 3) Study of urban environment, complex building forms, their design including positive and negative space relationship, Parking Provision, Precincts concept and pedestrian movement.

**Sessional work** : will include appropriate exercises on one or more of the above mentioned aspects followed by at least 3 design problems arranged in a sequence of complexity and as a problem solving approach.

Site visits audio, visual presentation and library reference is emphasized.

Design problem will be like :

- a) Public buildings : Theatre, museum, auditorium, recreation, complexes, stadium, etc.
- b) High rise apartment, offices, hospitals, laboratories, campuses etc.
- c) Urban design level problems such as commercial complexes, group housing, area development etc.

**Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge, understandings, skills and techniques acquired during this 7<sup>th</sup> Semester by professionally applying all principles/fundamentals and skills, techniques, acquired know-how, tools and skill of designing, of drawing and detailing various types of buildings designed in this semester with special thrust/emphasis on Building Design Solutions, planned on the basis of :-

- Learning to decide and design with regard to suitability of activity vis-a-vis the potential for the site as well the prevailing architectural style in and around the site for the sites of larger areas mostly above 6 Hectares
- Learning to formulate and finalise various architectural design elements, to plan iconic and landmark solutions for the proposed design/structure; respecting/integrating the contextual considerations of the precinct.

And to effectively adopt, apply, integrate, implement and practice this acquired learning and experiences in all their future studies and especially in designing of various types of building through 7<sup>th</sup> Semester, as well during their Internship in an Architect's Office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to incorporate, to detail out, to plan, design and execute by using this acquired knowledge / know-how in all their future works / designs, of various Buildings as Professional Architects.

## **Construction Technology & Materials –VII**

**7S-A-2**

**Objective:** Study of this subject is aimed at teaching the students the advanced and more complex aspects of construction. It also aims at making students aware of systems and techniques of construction used to cover the large spans..

### **Syllabus:**

Unit I: Introduction to space structures, possibilities in different materials, types of space structures and possibilities in different materials to cover large spans. General study of shell structures and folded plate structures in concrete, various types, constructional aspects, merits and demerits etc.

Unit II: General study of Grid structures and Skeletal structures, space frames, domes etc. in steel, various types, constructional aspects, merits and demerits, etc.

Unit III: Pre-cast concrete, Design considerations and constraints, advantages over cast-in-situ construction, construction techniques and jointing details, applications. Modular coordination, RCC pre-fabricated roofing systems to cover large spans, with or without north light.

Unit IV: Study of pre stressed concrete, principals and methods of pre-stressing, system of pre-stressing, advantages and disadvantages and applications.

Unit V: Temporary structures, materials and techniques used, constructional aspects using timber and M.S Sections, design and detailing problems on small temporary structures.

Unit VI: General study of various external cladding materials and systems, curtain walling in various materials, construction details of glass curtain.

Reference books :

Advanced Building Construction by Mitchell, Allied Publishers.

Construction of Buildings by R.Barry, Orient Longman.

Space structures by N. Subramaniam, Wheeler.

A.J.Handbook of Building Structures by A. Hodgkinson.

Pre-stressed Concrete Structures by P.Dayaratnan.

Building Construction illustrated by Francis D.K.Ching, Van Nostrand.

Concrete Technology by M.S.Shetty, S.Chand and Co.

Erection of Pre-fabricated Reinforced Concrete Structures by Y.Bessar & V.Proskurnin.

Structures by Daniel L.Segodak,Prentice – Hall, Inc.

Structural Concepts and Systems for architects and Engineers by T.Y.Lin and Stotesbury.

**Sessional work :** Notes, plates, assignments (Problems) and test.

**Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge / understanding, and techniques acquired during this 7<sup>th</sup> Semester by professionally applying all principles / fundamentals and techniques, acquired know-how, such as of : -

Principles, fundamentals, various types, their materials of construction, structural systems, application, limitations, usefulness of:- Space Structures, Pre- Cast- Concrete, Pre-stressing, External Cladding / Structural Glazing

AND

As well additionally - to effectively in-corporate, adopt and apply Principles, fundamentals, systems, techniques and tools of designing and constructing with basics of drawings and detailing, materials involved of Temporary Structures put to use for short duration.

And use this learning / know-how to represent their designs and construction drawings by adopting and practicing the skills and techniques in all their higher studies, Internship in an Architect's office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works / designs, construction work of various Buildings as Professional Architects.

## **Building Services-IV**

**7S-A-3**

### **Objective :**

To impart, develop and instil understanding/knowledge, abilities with the aim to make the students abreast, aware of the importance, installation, planning and designing guidelines/criteria, load calculations and working of advanced essential services in buildings; so as to achieve a deeper know-how and insight to ensure effective, safe, secured and convenient functioning of buildings and its environment. The students should be made familiar with I.S and National Building Codes (N.B.C.) related to services such as of : -

Air conditioning - a complete study. Electric supply and distribution systems for Group of buildings, urban complexes, high rise buildings - a complete study. Electro-Mechanical means and systems of vertical transportation in buildings - a complete study.

### **Syllabus:**

Unit I: Principles of Psychometrics and heat transfer, Study of Air conditioning systems and their applicability, Unit A.Cs, Central A.Cs, Split A.Cs.

Unit II: Components of A.C. systems such as chilling plants, cooling towers, air handling units, etc. Calculation of A.C. loads and Air distribution systems, ducts and ducting layouts, space requirement, integration of A.C. system in design, Water demand for A.C.

Unit III: Electric supply and distribution for group housing projects, urban complexes, high-rise building etc. Study of load calculations and distribution systems for larger areas as mentioned above.

Unit IV: Importance and functions of bus bar, set up, step up and step down transformers, electrical substation, lightning conductors, stand by generators, automatic relays, invertors, circuit breakers etc.

Unit V: Electromechanical means of vertical transportation in buildings, requirements, occupant load, study of elevators, various components of elevators, standard space requirements, various types of elevators, various components of elevators, standard space requirements, various types of elevators and architectural implications.

Unit VI: Escalators and Trav-o-lators, its components arrangements and functioning, space requirements, construction detailing.

**Sessional work:** Sketches, notes, tutorials, tests and presentations.

**Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge / understanding, during this 7<sup>th</sup> Semester by professionally applying and integrating all principles / fundamentals and techniques, acquired know-how such as of : -

Principles, fundamentals, various types / systems, material of construction, components, planning and design guidelines-criteria, load calculations, architectural implication, limitations, utility, application of :-

- i. All types and systems of Lifts/Elevators, Escalators
- ii. Electrical supply and distribution systems for Multi storied / high rise buildings, group of buildings
- iii. Air conditioning systems, distribution systems

And use / employ this learning in all their future studies more especially to effectively plan, integrate and detail out these services in designs of various types of buildings during their Internship in an Architect's Office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well. Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works / designs, construction work of various Buildings as Professional Architects.

## **Structural Design & Systems – VII**

**7S-A-4**

### **Objective :**

Aim at this level is to make students aware about the Design Considerations using Study of IS 800, to understand the types of connection, to understand the types of Tension and Compression Members in steel design and other similar steel members from architectural point of view.

### **Syllabus:**

Unit I: Study of IS 800 – Design Considerations.

Unit II: Steel Connections – Welded Joints

- a) Types of Welds
- b) Concentric Sections
- c) Eccentric Sections

d) Sections in Bending

e) Sections in Torsion

Unit III: Design of Tension Members

Unit IV: Design of Compression members – Struts / Independent

Unit V: Design of Built in Columns

Unit VI: Design of Sections in Bending

Unit VII: Sections Subjected to Biaxial Bending (design of purlin)

Unit VIII: Structural behaviour of Types of Large Span Steel Structures like:

a) Arches

b) Open Web Sections

c) Bow String Girders

d) Suspension Structures

e) Geodesic Dome

f) Space Structures

**Sessional work:** Sketches, plates, notes, tutorials and tests

**Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge/understanding, during this 7<sup>th</sup> semester by professionally applying and integrating principles/fundamentals and acquired know-how based on such as : -

Of adopting design criteria specified in IS-800 code book for steel structures, to design steel structures by using various steel structural sections available in the steel table and designing the end connection of members by using welding.

And employing this learning into all their future studies, more specifically to effectively detail/work out Building Design solutions by integrating/incorporating these learning's in the various building design solutions during their Internship in an Architect's Office and so also in their Project (Thesis) work of 10<sup>th</sup> Semester.

Finally leading the students to be fully equipped and capable to incorporate /use this learning for all their works / projects as Professional Architects.

## **Research Skills & Project Introduction**

**7S-A-5**

### **Objective:**

Perspective on research framework and methods in architectural planning and design which can be quantitative, qualitative as well as techniques in visual, special and contextual evaluation.

### **Syllabus:**

Unit I: Identification of the investigation to be done in research, methodology in sequence to achieve to acquire desired results.

Unit II: Assessment of data to be used in formation of the total thesis profile.

Unit III: Data collection methods like reference books, internet resource, monographs, microfilms, tables and charts and statistical data.

Unit IV: Concluding part of research comprising of the data used in the case study for final presentation in presentable format through similar case studies.

**Sessional work:** Sketches, notes, tutorials, tests and presentations.

**Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge, understanding, skills and techniques acquired during this 7<sup>th</sup> Semester such as the know-how of : -

- a) Types of Researches and Research Methodologies
- b) Types of surveys, methods of Data Collection, presentation and Data analysis - And sensibly and effectively applying, adopting, integrating, implementing and practicing these know-how and skills of Research in all their future studies and works, during their Internship in an Architect's Office and thereafter in their Project work (Thesis) of 10<sup>th</sup> Semester and for Post Graduate Studies.

Finally leading the students to be fully equipped, and become Competent and Capable to apply/ use this know-how and skills for all their works /project as Professional Architects.

**Acoustics and Illumination****7S-A-6****Objectives:**

Study of this subject will make students realize the importance of acoustics in interior spaces and necessity of manipulating acoustical environment in buildings. And also to impart knowledge of basic illumination design and illumination system for the indoor spaces.

**Syllabus:****Acoustics**

Unit I: Frequency range of audible sounds. Propagation of sound, sound reflection, diffusion, diffraction. Sound Isolation, Mass law, Transmission loss, STC rating, TL for single and double walls sound leaks and flanking.

Unit II: Acoustical Material and interior finishes, Sound absorbing materials and their properties. Constructional and planning measures for good acoustical design of building in general, Acoustical treatment of Auditorium / Lecture Halls / Conference hall.

**Illumination**

Unit III: Light radiation, its units, Laws of illumination, inverse square law and cosine law. Artificial light calculation by Lumen Method. Light sources, various types of Lamps and their characteristics.

Unit IV: Types of lighting systems, task lighting, accent lighting, general lighting, lighting for mood etc. Luminaries, their types, properties and uses.

Reference Books:

Acoustics In Building Design by K.A. Siraskar.

Architectural Acoustics by David Egan.

Auditorium Acoustics and Architectural Design by M. Barron.

**Sessional Work** : Notes & problems based on acoustical design theory, tutorials, Sketches.

Survey of various sound insulating materials for interior elements. Survey of various lighting fixtures.

**Course Outcome :**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge / understanding, during this 7<sup>TH</sup> Semester by professionally applying and integrating, principles, fundamentals and acquired know-how such as of : -

- i. Principles / fundamentals of Acoustics. Propagation of sound - its behavior, transmission in built and un-built spaces
- ii. Acoustical defects / problems - causes, remedies / solutions
- iii. Acoustical materials - properties, use and application
- iv. Noise - Noise controls - fundamentals, methodologies, noise insulation, Design Principles, solutions, detailing

AND

- a) Theory of light. Principles/fundamentals of artificial Illumination; their types, system.
- b) Sources of artificial illumination - types, utilities limitations, application
- c) Artificial lighting designs - Principles/fundamentals, various types /methods, for various spaces / activities, its calculation, designing and application

And employing all this acquired know-how in all their future studies more especially to effectively plan, integrate and detail out these two services in designs of various types of buildings, semi-built and or open spaces during their Internship in an Architect's office, Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thus finally leading the students to fully equip themselves, with Professional Competency and Capabilities to integrate, plan/design, detail out and execute employing the acquired knowledge in all their future Designs of various Buildings as Professional Architects.

## **Elective A**

### **Architectural education**

**7S-AA-1**

#### **Objective :**

To impart, develop and instil understanding /knowledge of the subject with an aim to make students aware of the different learning methods, as well as to enrich the knowledge about architecture pedagogy.

To abreast students about History of architecture education, Traditional teaching and with a thrust/ emphasis on learning methods, Relationship between teacher, students and environment.

- To understand ways and importance of Architectural Education; and ways to create joyful learning environment.
- To develop scientific attitude, creativity, lateral thinking, critical thinking and learning by doing

#### **Syllabus :**

Unit I : Vitruvius Theory, Principles of teaching, Bi-polar, Tri-polar process, Tradition of teaching methods – Bauhaus, E'cole, AA school.

Unit II : Appreciation and criticism: Normative criteria, Gestalt theory of visual perception

Unit III : Creativity and Architecture, Vertical & Lateral thinking

Unit IV : Pillars of learning, Design Processes

Reference Books:

Lateral Thinking: By Edward De Bono

Sessional Work : Creative article writing, product designing, report writing, brainstorming and group discussions, Sessional exam.

### **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding acquired during this 7th semester, by sensibly applying all principles / fundamentals of Architectural

Education, such as:-

- The history of architecture education, Vitruvius theory and different traditional learning methods of Bauhaus, E'cole de Beaux Art and AA school of Architecture.
- Learning related to vertical and lateral thinking methods, different design processes and approaches for various design problems and role of creativity in Architecture
- Learning to analyse buildings using Normative criteria and Gestalt, Visual perception theories and developing critical thinking

And use this education in all their future studies as well during their Internship in an Architects Office and in their Project (Thesis) work of 10<sup>th</sup> Semester.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to incorporate the acquired education in all their future works as Professional Architects.

## **Interior design**

**7S-AA-1**

### **Objective :**

To impart, develop and instil understanding / knowledge to enable the students to : -

- Prepare them with a practical approach to design of Interior Spaces complete in every respect to meet the client's requirements well within their budgetary Limitations / provisions.
- Be able to work out Materials and their Specifications and Costing, design and detail out furniture and other associated / terms forming integral part/s of Interior Design Solutions; and handle work contract, organise manage and get implemented the work(s) through different agencies involved.

### **Syllabus :**

### **Course Outcome :**

On completion of the course, the students will be able to:-

Achieve, develop - Competency, Confidence and Capabilities to:-

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding skills and techniques acquired during this 7th Semester by professionally applying all principles / fundamentals techniques, acquired know-how, tools and skill of drawing with respect to :-

- Interior Design to meet the requirements of clients, well within their budgetary resources.
- Ability to work out materials their specifications, estimations, costing, detailing, drawing work, execution / management of work / project.

And use this learning / know-how to represent their Interior Designs and related construction drawings by adopting and practicing the art, skills and techniques in all their future studies through 7th Semesters, Internship in an Architect's office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to use this acquired knowledge / know-how in all their future works of Interior Designs, construction work as Professional Architects.

## **Landscape design**

**7S-AA-1**

### **Objective :**

- To impart and further develop and instil enhanced understanding / knowledge of various natural elements and correlating and integrating such elements into / with variety of built spaces suited to specific purpose / function of the space (s)
- To impart a thorough knowledge / understanding and practice of preparing Landscape Drawings / Designs Solution with emphasis on planting plan(s), detailing, selection criteria.

### **Syllabus :**

Unit I : Introduction to the subject Landscape Design with a brief understanding of Landscape Planning, Environmental Planning and other subjects related to Landscape Design.

Unit II - Drawing a base map to be converted into landscape layout plan, understanding the function of a space, surrounding and the environment in which the site is located.

Unit III -Introduction to Landscape Drawing with emphasis on layout plan, sections and elevations of the overall site.

Unit IV - Plant specification and introduction to Planting Plan along with visit to nursery to introduce various plant species.

**Course Outcome :**

On completion of the Course, the students will be able to:-

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge, understandings, skills and techniques acquired during this 7<sup>th</sup> Semester by professionally applying the acquired principles, fundamentals, techniques and skills of Landscape Design solutions, with special thrust/emphasis on landscape solutions, planned, based on considerations such as of :-

- Understanding site conditions, Landform, existing trees/vegetation, the terrain, water features, site environs, interpreting site conditions.

- Basic features such as Grid Intervals, Services layout, natural conditions/features.

Evolving Landscape solutions in conformity to existing natural conditions/eco-systems and working out planting plans/solutions.

And to effectively adopt, apply, integrate, implement and practice this acquired learning and experiences in all their future studies and especially when designing and providing Landscape solutions during their Internship in an Architect's Office and thereafter in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with professional competency and capabilities to employ / use this acquired knowledge / know-how in all their future Landscape Designs Solutions as Professional Architects.

**Advanced Spatial Analysis**

**7S-AA-1**

**Objective :**

To impart, develop and instil understanding / knowledge with the aim to equip the students with holistic education related to green buildings, its certification and to exposes them to different parameters of understanding or reading a building with an emphasis and thrust.

- To understand the critical role of efficient use of natural resources like building materials, water, energy and other resources with minimal generation of non-degradable waste.
- To enable students to explore the criteria related to green building certification.
- To abreast students to with newer tools, techniques, means of designing buildings by using advanced software.

**Syllabus :**

UNIT - I: Introduction to Green Buildings, Green building Rating Systems like IGBC (Indian Green Building Council) and GRIHA (Green Rating for Integrated Habitat Assessment)

UNIT - II : Explaining and introducing parameters like

- Daylight Analysis
- Shadow Analysis
- Thermal Comfort Analysis

UNIT - III : Introducing Software Briefing students regarding spatial analysis software like ECOTECT or DESIGN BUILDER (Software's based on climatology)

UNIT - IV : Visit to Green rated or certified building and understanding the new parameters introduced.

**SESSIONAL WORK/PRACTICAL WORK/SUBMISSIONS:**

Assignment 1: Related to Software's taught.

Assignment 2 : Documentation of Green certified building

**Course Outcome :**

On completion of the Course, the students will be able to:-

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding skills and techniques acquired during this 7th Semester by professionally applying all principles / fundamentals and skills, techniques, acquired know-how, tools such as: -

- Understanding of every criteria, parameters, tools, techniques essential for design, construction and working of Green Buildings.

- Basic requirements, methodologies, procedures related to Green Buildings certifications.

And use this learning / know-how to represent their designs by adopting and practicing the art, skills and techniques in all their future studies through 7th Semesters, Internship in an Architect's office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works / Designs, of various Buildings as Professional Architects. Thus leading them to be proponent and practitioner of Green Building Concepts in all their future works as Professional Architects.

**Elective B**

**Urban planning**

**7S-AA-2**

**Objective :**

Is to impart, develop and instil understanding / knowledge with the aim to make the student aware of basic knowledge of various planning strategies in urban scenarios, making students aware and abreast with the historical influences in general in the development of planning as a field and its importance in current scenario, as well as regarding various planning based Private and Government bodies and their policies in current context and emphasizing on:-

- To make the student aware of current Housing (Urban & Rural) policies in national and regional context their need and importance.
- Understanding of various concepts established by Pioneers of the field and their initiatives.
- To study and explore the Varna Planning System as a specialized learning.

**Syllabus :**

Unit - I : Introduction to various pioneers and their concepts, relevance and importance to current scenario.

Unit - II : Urban & Rural Housing in India, various Housing agencies, Housing Infrastructure, Planning consideration of Housing & Area Development

Unit - III : Importance of Planning at various levels, introduction to various Planning agencies, their hierarchy, Legislation & Administration.

Unit IV : Study of traditional planning systems (such as Vedic Planning in India – Varna Planning system).

### **Course Outcome :**

On completion of the Course, the students will be able to:-

Achieve, develop - Competency, Confidence and Capabilities to :

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding acquired during this 7th Semester by professionally applying all principles / fundamentals of Urban Planning such as of : -

Zoning, Density, Infrastructure use, etc. as well as integration of concepts like Garden City, Neighbourhood unit and Satellite development, housing, Planning agencies, Planning Legislations etc. in all their future studies. As well as during their Internship in an Architect's Office, in their Project (Thesis) work of 10<sup>th</sup> Semester, and for their post -graduate studies.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use in corporate, detail out, execute this acquired knowledge / know-how in all their future works as Professional Architects.

### **Urban aesthetics**

**7S-AA-2**

#### **Objective :**

To impart, develop and instil understanding/knowledge with aims to familiarize the students with the next level of city designing with emphasis on designing of parts of a city. To envisage and explore the process of designing for public so as to make the city live and vibrant and increase the interaction between the residents. With a thrust on understanding and examining Urban Aesthetics laying focus on the Urban design dimensions that is Morphological, Perceptual, Social, Visual, Functional & Temporal.

#### **Syllabus :**

Unit - I : I Definition of Urban Design & Urban Aesthetics and Elements of Urban Design like Buildings, Streets, Public Space, Transport and Landscape

Unit- II : Levels of urban Design – City level, Neighborhood level, Street level

Unit III : Study of Urban Design objectives like Character, Continuity, Quality , Legibility, Adaptability and Diversity

Unit IV : Six Dimension of Urban Design, Morphological, Perceptual, Social, Visual, Functional and Temporal Visual Dimension- Aesthetic preferences

Unit V : Challenges to implement Urban Design Project, Challenges to implement Urban Design Project, Smart city Proposal and guidelines.

**Course Outcome :**

On completion of the Course, the students will be able to:-

Achieve, develop - Competency, Confidence and Capabilities to :

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding acquired during this 7th Semester by professionally applying all principles / fundamentals of Urban Aesthetics such as of : -

Urban Aesthetics-definition, elements, its correlation to Urban Design-its process to make city live, vibrant, aesthetic and interactive to various users

Understanding Urban design language, design dimensions, such as Morphological, Perceptual, Socio-cultural, Visual, Functional and Temporal.

And use this learning in all their future studies as well as during their, Internship in an Architect's Office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works as Professional Architects.

**Valuation**

**7S-AA-2**

**Objective :**

To impart, develop and instil understanding / knowledge about the concepts, principles classification, methodologies, purposes and application / practice of Valuation of Buildings with a thrust on : -

- To understand various methods of Valuation, factors affecting the Valuation as well as different purposes for which Valuation is required.
- To understand concept, principles of depreciation factors affecting it and methods to calculate the same.
- To understand concepts, principles of Market Value, Book Value, Capital Cost, Capitalized Value-factors affecting them and methods to calculate the same as well as scale of fees for Valuation.
- Valuation Reports / Certification, its preparation - factors to be considered / adopted etc.

**Syllabus :**

Unit I : Importance of Valuation? Registration of Architect as Authorized Valuer. A brief about Institute of Valuers. Duties of a Valuer.

Unit II :What is valuation of a built structure and it's methods. The factors such as location, environment, the climate, vicinity with different types of structures affecting Valuation. Reasons a structure is required to be evaluated? Such as buying and selling property, taxation, rental purpose, security of loans and mortgages, govt. acquisition, insurance, betterment charges etc.

Unit III : To know about terminology used in Valuations and their legal repercussions. What is an easement, types of easements, How easements are created, Difference between Easement & Natural rights and their effect on valuation.

Unit IV : What are rights? The difference between various types of rights such as Acquired right, Inherited right, Purchased right. Reasons- the valuations of different type of structures having same age may vary? What is depreciation and what are the factors affecting it? Methods of calculating depreciation.

Unit V : What is meant by Market value, Book value, Capital cost and Capitalized Value. Valuation and stock market. Scale of fees for Valuation.

### **Sessional work**

To maintain a journal comprising all the notes adhere to above. Class tests on various topics. Test concerning Valuation of specific structure

### **Course Outcome :**

On completion of the Course, the students will be able to:-

Achieve, develop - Competency, Confidence and Capabilities to :

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding acquired during this 7th Semester by professionally applying all principles / fundamentals of acquired know how of Valuation of buildings such as of :-

Valuation-Purpose, various methods, factors affecting it

Depreciation-Concepts, principles, various methods, factors affecting it.

Market Value, Book Value, Capital Cost, Capitalised Value, their methods of calculation and factors affecting them.

Scales-fees for Valuation. Preparing Valuation Reports.

And use this learning in all their future studies as well as during their, Internship in an Architect's Office and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works as Professional Architects.

## **Conservation**

**7S-AA-2**

### **Objective :**

The aim of the subject is to impart, develop and instil understanding and concepts of heritage and need of conservation, To understand the concept of the same in Indian and International context. Make students fully aware and abreast with the principles, systems, techniques, materials, tools and practices of architectural conservation as part of the course.

### **Syllabus :**

Unit - I : Introduction to Conservation , Definitions related to conservation, need, objectives and scope of architectural conservation , Definitions of – Cultural heritage, Natural heritage, Built heritage – Ancient Monument , History of Conservation - Beginning of Conservation movement – Contribution of John Ruskin and William Morris , Agencies involved in conservation – UNESCO, ICCROM, ICOMOS, ASI, State department of Archaeology ,Town planning departments, State Art and Heritage commission, INTACH , Charters – Athens Charter, Venice Charter and other important Charters.

Unit - II : Traditional building Construction and causes of decay and deterioration, Introduction to traditional building material and construction techniques and understanding through case studies , Causes of decay and deterioration in material and structures – Natural, Man- made and others.

Unit - III : Techniques of Conservation, Preparatory procedures for conservation, Identification of values in the heritage, Inventories, initial inspections, Documentation, research, analysis and recording (Reports) Seven degrees of Intervention.

Methodology of teaching – Through lectures, article reading and reviewing, field visits, group discussions, guest lecture, group and individual assignments.

### **Course Outcome :**

On completion of the Course, the students will be able to:-

Achieve, develop - Competency, Confidence and Capabilities to :

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding acquired during this 7th Semester by professionally applying all principles / fundamentals and skills , techniques ,acquired know-how, tools such as of :-

Understanding about concepts, ideologies of Heritage and need of conservation in respect to their Indian and International Contexts. Agencies involved in Conservation, Conservation Charters

Know-how of the principles, systems, tools, techniques, materials and practices of Architectural Conservation.

And use this learning/know how by adopting and practicing the art, skills and techniques in all their studies or works related to Architectural Conservation.during Internship in an Architect's office and if related to , then in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works of Architectural Conservation as Professional Architects.

Thus leading them to be proponent and practitioner of Architectural Conservation as Professional Architects.

## **Eighth & Ninth Semester B.Arch.**

### **Practical Training**

**8S-A-1 & 9S-A-1**

#### **Objective :**

To impart, develop and instil understanding/knowledge with the aim that : -

- The student acquires an office experience in respect of preparation of working drawing, detail drawings, perspective, preparation of architectural models, estimates, and study of filing systems of documents, drawings, prints and preparation of tender document.
- The student also acquires site experience, in respect of supervision of the construction activity, Observation, layout on site, study of the storage methods of various building materials, taking the measurement and recording and billing.

#### **Details of Practical Training:**

(1) The Practical Training of six months duration (under a Registered Architect only) envisages the following varied experience in order to ensure exposure of a student to various tasks.

- a) Office experience in respect of preparation of working drawing, detailing drawings of perspective, preparation of architectural models, study of filing systems of documents, drawings, ammonia prints and preparation of tender document.
- b) Site experience, in respect of supervision of the construction activity, Observation, layout on site, study of the staking methods of various building, materials, taking the measurement and recording.
- (2) Student will have to maintain a weekly record of their engagement for the period of training. This will be recorded in an authorized log-book to be counter-signed by architect at the end of each month.
- (3) At the end of the training period, student will have to procure a certificate of training and satisfactory performance from the concerned office in the prescribed form.
- (4) Certificate of satisfactory completion of training same shall be submitted to the principal of the College, immediately after training, through Head of Architecture Department along with the report and drawings made during the training period and appear for Viva-voce at a prescribed date by the university.

### **Course Outcome:**

On Completion of the Internship the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Gain, first- hand experience and acquaint themselves with Nuance of what Architectural Practice is all about : - The management, the art, skills and techniques of : -

- a) Running and administration of the office
- b) Dealing with clients, contractors, consultants and similar agencies and maintaining relationships and contacts
- c) All types of Architectural, submission and working drawings and models
- d) Preparing estimates, tender documents, specifications
- e) Site Practices, site co-ordinations site management
- f) Co-ordinations and with various Sanctioning / competent authorities
- g) Of accounting, finance, various tax laws
- h) Documentation
- i) Taking, recording, certifying measurements as well, preparation and certification of contractors bills that is to say almost everything of and about Architectural Practice

And use this first- hand experience and know-how to effectively work out their Project (Thesis) work of 10<sup>th</sup> Semester and instil and provide Confidence and Competency to enable them to establish and manage their Architectural Practice either independently or as Partnership firm.

## **Tenth Semester B. Arch.**

### **Project :**

**10S-A-1**

### **Objective and Course content:-**

Every student shall select a subject for Research project of an Architectural interest, Experimental work, dissertation or a combination. The nature of the problem shall be based on the synthesis of their total experience and knowledge gained from the allied subjects. Emphasis, shall be laid on the approach to the design solution rather than the end-result. The subject of the project shall be approved by the Department at the commencement of the term.

The students shall have to give at least one seminar on their subject.

On the prescribed data students have to submit to department a bound report of the project, containing identification of the problem scope of the work, data collection, case studies, analytical studies, and its application to the final design solution. On the date prescribed by the Nagpur University, final and finished drawings with models etc. shall be submitted in the department, for the Final Viva-Voce.

### **Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the acquired knowledge / understanding skills and techniques acquired during last 7 Semesters as well as during their Internship of 8<sup>th</sup> and 9<sup>th</sup> Semester in an Architect's Office by professionally applying all principles / fundamentals, techniques, acquired know-how, tools and skill of drawing with respect to : -

Learning Holistic and effective application of all their learning of various subjects during last 9 semesters to a singular type of building or urban design related topics on their own, individually, independently, by doing relevant research, data collection, analysis, framing of goals and space requirements as well incorporating all technical inputs/provisions of various building support systems, structural systems and finally providing the architectural solutions complete in all respect including report writing. Similar in every respect as is done and practiced by Practicing Architects.

And use this learning / know-how to represent their designs and construction drawings by adopting and practicing the art, skills and techniques in all their higher studies.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ this acquired knowledge / know-how in all their future works / Designs, construction work of various Buildings as Professional Architects.

## **Construction Technology & Materials –VIII**

**10S-A-2**

### **Objective :**

To impart, develop and instil understanding / knowledge with respect to design principles / concepts, construction and structural systems / techniques / methodologies, for : -

- Suspension structures, Membrane and Pneumatic Structures to cover Large Spans.
- High Rise Buildings.
- Earth Quake Resisting Buildings

To impart and make aware the students with the knowledge of : -

- Cracks and other defects in buildings, their causes and remedies.
- Various Non destructive tests and their applications.
- Various methods of Rehabilitation of existing structures.
- Construction Chemicals, Admixtures.
- To impart, develop and instil structural understanding/knowledge with respect to principles/concepts, construction systems/techniques/methodologies detailing, drawings of Additions, Alterations and modifications to existing buildings.

### **Syllabus:**

Unit I : General study of Construction techniques to cover large spans using short length timber and laminated timber material, lamella roofing, portal frames, solid beams and web beams.

Unit II : General study of suspension structures, membrane structures and pneumatic structures, types, materials used, merits – demerits and examples.

Unit III : High rise buildings, foundations structural systems and architectural design considerations.

Unit IV : Study of causes of defects in buildings such as cracks, seepage, deflection etc. and their remedies. General idea of non destructive tests such as Rebound test, Penetration test etc. Rehabilitation methods, Grouting, Guniting, Jacketing etc. General Study of special chemicals used in construction and repairing work.

Unit V : Earthquakes and its effects on buildings, earthquake zones in India, Architectural design considerations and construction detailing for earthquake resistance.

Unit VI : Design and detailing of additions and alterations in existing buildings put to new use Process of modification and precautions to be taken.

Reference Books :

Structure in Architecture by M.Salvadorri.

Advances in Tall Buildings by L.S.Beedle

Construction Technology 1-4 Vol. By R.Chudley, British Library Cataloguing.

Explanatory Handbook on Codes for Earthquake Engineering, IS-1893-1975 & IS-4326-1976, Bureau of Indian Standards.

National Building Code.

**Sessional Work:** Site visit reports, tutorials, notes, sketches and market surveys.

Plates of Small modules of design based on the construction principles.

### **Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding acquired during this 10<sup>th</sup> Semester, by sensibly applying all principles, fundamentals, systems and techniques of construction related to subjects / topics of : -

- a) Techniques, systems to cover large spans by using Short Length Timber
- b) Principles, Fundamentals, structural attributes of Suspended / Tensile Structures, Membrane Structures, Pneumatic Structures
- c) High rise buildings, foundations, structural systems and architectural design considerations
- d) i) Defects in buildings - various types, causes, remedies, prevention  
ii) Building rehabilitation systems - types, application  
iv) Construction Chemicals, construction aids-types, usefulness, application
- e) Earth Quake resistance Structures various structural systems, structural aspects detailing and implication in Architectural Solutions.

AND

As well additionally to effectively incorporate, adopt and apply principles, fundamentals, systems, techniques of constructions, basics of drawings and detailing related to subject of :

Designing and Detailing Additions and Alterations in existing buildings

And to effectively adopt, apply, implement and practice this learning in their current Project (Thesis) work and future post graduate studies.

Thus finally leading the students to fully equip themselves, with Professional Competency and Capability to incorporate, detail out, execute the acquired know-how and experience in all their future works as Professional Architects.

## **Professional Practice**

**10S-A-3**

**Objective:** The study of this subject is to enable the student to acquaint with the various responsibilities of an architect and understand the technicality of the profession.

### **Syllabus:**

Unit I : Nature of profession, difference between trade, business and profession, taking instructions from the client, its interpretation, design process and its stages.

Role of professional society, Professional code of conduct, Ethical ways of getting architectural commission, Importance of conduct of architectural competitions, architectural copy right.

Unit II : Responsibilities and Liabilities of an architect towards the client. Scale and basis of fees. Professional charges of various jobs. Stages of Architectural design and the specific task in each of such stage.

Unit III : Architects Office, Organisation and Administration., Office set up, Correspondence, filing, preparation of drawing, standardization and documentation Professional partnership, various options, advantages. Partnership deal, responsibilities and liabilities of partners. Provisions of Professional Tax, Service Tax, Income Tax rules.

Unit IV: Tender, types of tender, tender document, tender notice, procedure for opening and selection of tender, analysis bids, comparative statement, report to owner, work order.

Unit V : Contract, type of contract, contract document, Detailed knowledge of various condition of contract as published by Indian Institute of Architects with special reference to responsibilities and liabilities of architect, contractor and the client.

Unit VI : Architects Act 1972 , its effects on profession and education. General information and introduction to various acts and laws such as land acquisition Act, urban land ceiling Act. Building bye-laws, Sale deed procedure, owner ship documents.

Reference Books :

Professional Practice by Roshan Namavati

COA Handbook of Professional Documents.

**Sessional Work** : Notes, Tutorials & Report writing on above topics.

### **Course Outcome:**

On completion of the Course, the students will be able to : -

Achieve, develop - Competency, Confidence and Capabilities to : -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding acquired during this Semester by professionally applying all fundamentals and acquired know-how to help, assist in establishing of their own either independently or in partnership their Professional Architectural Practice (office) with enough confidence and courage to handle and promote their work by adopting proper professional ethics, code of conduct related to clients, contractors, similar agencies, government, semi-government, bodies, with legal, taxation, organizational frame work, where by enabling them to grow and prosper as Professional Architects.

## **Elective**

### **Urban Design**

**10S-AA-1**

### **Objective :**

To impart, develop and instil understanding and knowledge with the aim to familiarize the students with the next level of city design with emphasis on designing of parts of a city. Students are envisaged to know the process of designing spaces for public so as to make the city live and vibrant and increase the interaction amongst the residents. With the emphasis and focus on the Urban space its qualities with major thrust on physical and morphological characteristics of Urban space. To make aware about concepts of Physical characteristic which includes landmark, scale, proportion and vistas and similarly of Morphological characteristic which includes character, legibility and memorable.

### **Syllabus :**

UNIT- I : Introduction about Syllabus

Introduction, Definition of Urban Design and Urban Aesthetics, scope of Urban Design in Indian and Foreign Context. Historical Development and approach to Urban Design, Integration with Urban Planning.

UNIT- II : Levels of urban Design –

Various levels- City, Neighborhood, Street, Individual site level and City planning

UNIT- III : Urban form and its elements-

Understanding of various elements like Buildings, Streets, Public Space, Transport and Landscape. Urban form of Aesthetics, Visual order of Form, Space – Grain and Texture, Scale- Skyline and massing, Urban structure- Users and activities

UNIT- IV : Components of urban design-

Urban aesthetics and image, Built form and open space scale, Urban spaces and urban places, Concept of Pedestrian pathways, malls and plazas.

### **Course Outcome :**

On completion of the Course, the students will be able to: -

Achieve, develop - Competency, Confidence and Capabilities to: -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding skills and techniques acquired during this 10<sup>th</sup> Semester by professionally applying all principles / fundamentals and skills, techniques, acquired know-how, tools with respect to Principles, fundamentals of urban design- its elements and dimensions.

Learning/understanding about development and planning and designing components of city, learn and develop urban language, evolve and adopt design concepts, principles, systems, methodologies of city design and their application at city level.

And use this learning / know-how to represent their designs by adopting and practicing the art, skills and techniques in all their higher studies, in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works / Designs, of various Buildings as Professional Architects.

## **Campus Planning**

**10S-AA-1**

### **Objective :**

To impart, develop and instil understanding / knowledge about concepts, principles of campus planning both in respect of National and International context with emphasis/thrust to make students abreast, aware of variations / differences in design criteria and principles vis-a-vis the primary function purpose for which campus is to be planned.

### **Syllabus :**

Unit I: Theory for Principles of Design. Types of campuses.

Ref books for reading Campus Planning by Achyut Kanvinde . Paul Rudalf, American campuses

Unit II: Evolution of campuses since historical times and its relevance.

Unit III: Contemporary campuses, types, classification, etc

Unit IV: Study of educational and corporate campuses. Study of Medical institutional campuses, study of IMT, Sawangi Meghe, etc.

**Course Outcome :**

On completion of the Course, the students will be able to: -

Achieve, develop - Competency, Confidence and Capabilities to: -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding and techniques acquired during this 10<sup>th</sup> Semester by professionally applying all principles / fundamentals and techniques, acquired know-how with respect to:

Principles of Campus Planning both in context of National and International practices of past and present. Learning of Design tools, principles, criteria, fundamentals and their correlation and contextuality to purpose for which the campus is planned.

And use this learning / know-how to represent their designs by adopting and practicing the art, skills and techniques in all their higher studies and in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ / use this acquired knowledge / know-how in all their future works / Designs, construction work of various Buildings as Professional Architects.

**Housing****10S-AA-1****Objective :**

To impart, develop and instil understanding and knowledge with the aim to familiarize students about the need, demand and supply of housing in urban and rural scenario. Role of different Government/Semi-government organisations / undertakings, of Non - government agencies / private players in housing with emphasis on : -

- Study of urbanisation, slums, squatters - problems, solutions, strategies to mitigate the problems
- Various Governments policies, schemes/programmes for or related to housing, and organisations / bodies / authorities roles
- Planning / design standards, criteria related to and specific to housing.

## **Syllabus :**

Unit I : Introduction and pre history to current situation of Housing, Definition of Housing & types, Housing through ages in Urban and Rural areas with location factors, Importance of Housing in Urban and Regional development

Unit II : Urbanization and problem of housing, slums and squatter settlements, problems and possibilities. Need, demand, and supply of Housing in Urban & Rural areas

Unit III : Comparative study of various housing policies and programmes (Pradhan Mantri Awas Yojana (PMAY) (Urban), Pradhan Mantri Gramin Awaas Yojana, Rajiv Awas Yojna. Delhi Development Authority Housing Scheme, Maharashtra Housing And Area Development Authority (MHADA)

Unit IV : Evolution of physical standards for housing designs like Factors, Density, Planning consideration, Importance of Physical & Social Infrastructure in Housing development, Types of Cluster Planning

## **Course Outcome :**

On completion of the Course, the students will be able to: -

Achieve, develop - Competency, Confidence and Capabilities to: -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding skills and techniques acquired during this 10<sup>th</sup> Semester by professionally applying all principles / fundamentals of housing such as of: -

- Urban and rural housing , its concepts, needs, demand and supply, its context and its relation to development control rules/ byelaws, codes, norms.
- Policies related to housing like slum rehabilitation, Pradhan Mantri Awaas Yojana and Role of Government bodies/ organization in Housing and its development.

And use this learning in all their future studies and housing related works.

Thereby finally leading the students to fully equip themselves with Professionals Competency and Capabilities to incorporate, detail out, execute the acquired know how in all their future works as Professional Architects.

## **High Tech Architecture**

**10S-AA-1**

### **Objective :**

To impart, develop and instil understanding / knowledge about Hi - Tech Architecture encompassing renewed belief in the power of technology to improve the world.

Hi - Tech Architecture also aims to make aware the students about the study and understanding of a new industrial aesthetic spurred by the renewed faith in the progression of technology.

### **Syllabus :**

UNIT - I : Introduction to the concept of Hi-tech Architecture, Introduction to different building's structural, functional and technical components, Materials used in Hi-tech Architecture, Construction techniques.

UNIT - II : The typology of High Tech, Revolution versus continuity – Hi- Tech and the city, Relation between Hi-Tech Architecture and Energy consumption, The collaboration between architect and product designer.

UNIT- III : Main pioneers of Hi-tech architecture like:

- a. Sir Norman Foster.
- b. Sir Richard Rogers.
- c. Sir Michael Hopkins.
- d. Sir Renzo Piano.

UNIT - IV : Function and representation - Technique or style, Design, develop, manufacture, and market a standard building, catalogue components, Image of quality and sophistication, Structure and services - The glorification of technology.

UNIT - V : Space and flexibility - The omniplatz, Movable Building Elements, The plug-in pod - A practical strategy, preoccupations with flexibility, demount ability, renewability, and mass production.

### **Course Outcome :**

On completion of the Course, the students will be able to: -

Achieve, develop - Competency, Confidence and Capabilities to: -

Effectively and conscientiously incorporate, adopt and implement the knowledge / understanding skills and techniques acquired during this acquired 10<sup>th</sup> Semester by sensibly applying all principles / fundamentals, techniques, acquired know-how, tools such as of: -

Hi-tech architecture :- Principles, fundamentals, its structural functions, technical aspects and components-materials used, its correlation to Energy efficiency.

The plug-in pod- A practical strategy, preoccupations with flexibility, demount —ability, image of quality and sophistication, related techniques.

Collaboration between Architect and Product Designer. And use / employ this learning in all their future studies in their Project (Thesis) work of 10<sup>th</sup> Semester as well.

Thereby finally leading the students to equip themselves, with Professional Competency and Capabilities to employ this acquired knowledge / know-how in all their future works / Designs, construction work of various Buildings as Professional Architects as well to be proponent and practitioner of Hi-tech Architecture in all their future works.



Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur

Faculty of Engineering & Technology

Board of Studies, Architecture

Syllabus of Master of Design (Industrial Design)

Choice Base Credit System (CBCS )

## **S E M E S T E R – I**

### **History of Design**

**PGID101T**

**Objective:** To make the students aware about evolution of design as faculty, arts and crafts movement and influence of urbanization on product design.

#### **Syllabus :**

UNIT I: Concept & design starting from decoration to the giant exhibition leading to the Bauhaus, works of Bauhaus, history of design profession in Europe & America. Influence on design of various episodes like, war, politics, technology, etc.

UNIT II: Isms, style, trend and society and their examples.

UNIT III: Pioneers of design, their philosophy and study of famous products.

UNIT IV: History of design in Indian society, case studies of traditional evolved Indian products, system etc. their roots and associations.

UNIT V: Influences of urbanization, technology etc. at global and national level.

Texts/References.

Armitage, W.H. A Social History of Technology, Faber & Faber.

Bronowski, J. the Ascent of Man, BBC Publication.

Derry, T.K. and Williams, T.I. A Short History of Technology, oxford University Press.

#### **Course Outcome :**

On completion of the course the student will be able to:

- Know the history of design profession in Europe and America.
- Understand about various isms, trends and styles.
- Study the design philosophy of pioneers of design.
- Know Indian scenario in product design and effect of urbanization and technology on product design.

### **Materials and Processes**

**PGID102T**

#### **Objective:**

To expose the students to the material aspects of product design, application based selection of materials and material processing techniques.

#### **Syllabus :**

UNIT I: Metals forms (ferrous & non ferrous), constitution & character of alloys like Aluminum, Copper, Brass, Benin, Titanium, Zinc, Magnesium, Zinc, etc. Properties of

materials like malleability, ductility, hardness, toughness, strength, elasticity, plasticity. Processes like hardening, tempering, annealing, etc on metals.

UNIT II: Plastics, thermoplastics, selector & pure of plastic for energy & corn products composition & basic constitution of acrylic, phenolic, polypropylene, epoxy, nylon polyester, DVC, cellulose acetate, polyethylene, polymethane etc.

UNIT III: Design factors for process issues like filter, reinforcement, corners, tapes, holes, expansions, finishing etc.

UNIT IV: Woods & natural materials like bamboo, cane, leather, cloth, jute, paper and their use at industrial level.

UNIT V: Process like vacuum forming, hardening, die casting, design factors for processing SMC, DMC, properties & uses of rubber, ceramic, glass, concept of strucers casting.

#### Texts/References

Beadle J.D., Plastic Forming, Production Engineering Series, Macmillan, London, 1971.

Beadle J.D., Metal Forming, Production Engineering Series, Macmillan, London, 1971.

Beadle J.D., Product treatment & finishes, Macmillan, London, 1971.

#### **Course Outcome :**

On completion of the course the student will be able to:

- Understand craft as expression of Indian tradition and means to explore materials
- Gain knowledge about various creative processes in crafts
- Know about post modern interpretation and contemporary trends in craft
- Understand current design practices in craft design

**Objective:**To highlight the importance of craft and creativity for new product development and explore the post modern interpretation of craft design.

**Syllabus :**

UNIT I: Craft as an expression of Indian tradition, cultural roots in Craft, creative processes in craft.

UNIT II: Craft as a means to explore materials, processes and forms. Natural materials like bamboo, wood, cane, leather, cloth, jute, paper and their uses in craft.

UNIT III: Post modern interpretation of craft, contemporary trends in craft and creativity.

UNIT IV: Significance of craft as a creative base for current design practices

UNIT V: Creative exploration in craft design to suit urban and export markets.

**Text/ References**

- 1) John Thackara (Ed), Design After Modernism (Beyond the Object), 1989
- 2) Victor Margolin (Ed), Design Discourse (History, Theory, Criticism), The University of Chicago Press, 1989
- 3) Powell, Jim; Postmodernism for beginners, Orient Longman, India, 1998
- 4) Jencks, Charles; Post-Modernism: A New Classicism in Art and Architecture, Academy Editions, London, 1987
- 5) McKim, Robert; Experiences in Visual Thinking, Publisher: Brooks/Cole Publishing Company, 1980

**Course Outcome :**

On completion of the course the student will be able to:

- Understand craft as expression of Indian tradition and means to explore materials
- Gain knowledge about various creative processes in crafts
- Know about post modern interpretation and contemporary trends in craft
- Understand current design practices in craft design

## **( A ) Elements of Design**

**PGID104P**

**Objective:** To introduce the students to basic visual design concept and its relationship with the society along with design elements interpreted in terms of 2D and 3D compositions.

### **Syllabus :**

UNIT I: Introduction to the concept of design, its relevance in society, value of design and composition, principles of design.

UNIT II: Studies of basic elements and concept of elements of visual design: line, texture, color, form, balance, proportion, size, shape, mass, unity and variety.

UNIT III: Spatial relationship and compositions in 2 and 3 dimensional space, 2 dimensional radii manipulation and form transition.

UNIT IV: 2-d and 3-d exercises in graphic composition and layout.

UNIT V: Use of grids in graphic composition.

Texts/References

R.G.Scott, Design fundamentals, McGraw-Hill, New York, 1951.

E.A.Harwitz, Design, a Search for Essential, International Textbook Co., Scranton, 1967.

J.Karo, Graphic Design Problems, Methods, Solution, (VNR), New York, 1975.

R.A.Ballinger, Layout and Graphic Design, (VN), 1970 .

### **Course Outcome :**

On completion of the course the student will be able to:

- Understand the principles of design
- To know about various elements of design
- To understand 2D and 3D compositions

## **( B ) Workshop Practice**

**PGID104P**

**Objective:**To gain knowledge about basic mechanical equipment, their potentials and workshop facilities and it's interlinking.

**Syllabus :**

UNIT I: Carpentry joints, wood process, etc.

UNIT II: Understanding hands on jobs focused on specific equipments like drilling, lathe, Milling, threading, tapping, grinding, etc.

UNIT III: Making small jobs of metals.

UNIT IV: Understanding process of fabrication like roll forming, stamping, forging, annealing, drawing, deep draw, spinning, extruding, sintering by site visits.

UNIT V: Practicals on threading, turning, routing, lapping, sandcasting, ceramics, plaster, clay.

Texts/References

Begeman M.L., Manufacturing Processes, 8th ed. John Wiley, New York, 1987. Champman W.A.J., Workshop Technology Vol. I, II, III, Oxford/IBH Pub., New Delhi 1975.

**Course Outcome :**

On completion of the course the student will be able to:

- Understand various carpentry and metal works
- Gain experience of hands on jobs based on different equipments
- Know the fabrication processes

**Objective:**To gain knowledge about basic mechanical elements and units and terminology of technical parameters involved in the process of product design.

**Syllabus :**

UNIT I: Electric motors and its functioning, bionic motors, thermocouples, turbines, internal combustion engines, springs, and propulsion.

UNIT II: Parameters like acceleration force, shocks, vibration, pressure, thermodynamics with units

UNIT III: Defining wind energy, solar energy, gravity, weight and measurements.

UNIT IV: Understanding gears, type of gears like spin gear, helical worm, bevel belts, flat, v-belts, timing, chains, flexible shaft, flexible couplings, universal points, toggle joints, pulleys, shear and cams, etc.

UNIT V: Controls-governors, clutches, brakes, flywheel, pendulums, ratchets, rudders, valves, damper, relays, servo motors, bearings switches. Sheets and plates on the above mentioned elements.

**References**

Manufacturing Technology vol. 29 Nievel, B.W. and Drayer, A.B. (1975) Production, Design and Process Engineering, Mc Graw-Hill.

School Council (1974) Material and Design Edward Arnold.

**Course Outcome :**

On completion of the course the student will be able to:

- Understand the basic functioning of motors and engines
- Define various technical parameters
- Define various forms of energy and their parameters
- Gain basic knowledge about gears and various control governors

**Elective-II**  
**PRODUCT DESIGN AND DEVELOPMENT PROCESS**  
**PGOPENARCH012**

**Objective:**

The focus of Product Design and Development Process is to give the students an insight about fundamentals of product design and integration of design, manufacturing and marketing aspects involved in the process of creating a new product for a firm. It also aims at impart the knowledge about various legal issues involved in new product development.

**Syllabus :**

**UNIT I - INTRODUCTION TO PRODUCT DESIGN AND PRODUCT DEVELOPMENT PROCESS**

Significance of product design, objectives of product design, factors influencing product design and development process, the challenges of product development, Identifying opportunities.

**UNIT II - MARKET SURVEY, CUSTOMER NEED IDENTIFICATION AND PRODUCT SPECIFICATIONS**

Identifying target market and customer, market survey questionnaire, market survey analysis, market trends, SWOT Analysis, customer need identification, requirement generation based on market survey analysis and customer needs, analysis of technical constraints, establish target specifications, setting final specifications.

**UNIT III - CONCEPTUAL DESIGN AND SELECTION**

Product concepts based on product requirements, feasibility, cost, safety, compatibility, efficiency and other criteria for selection, concept screening, methods of selection.

**UNIT IV- DETAIL DESIGN OF PRODUCT AND PROTOTYPING**

2D and 3D drawings of the product, mock models, prototypes, functional tests to determine the performance of the product.

**UNIT V - INTELLECTUAL PROPERTY**

Intellectual property rights (IPR) like trademarks, copyrights, patents, industrial design rights, etc, design for environment impact, government regulations, ISO system.

**TEXT BOOKS/REFERENCES**

1. Ulrich K. T, Eppinger S.D. and Anita Goyal, "Product Design and Development", Tata McGraw Hill, 2009.
2. Otto K, and Wood K, "Product Design", Pearson Education, 2001.
3. Jones, J.C: Design methods: Seeds of human futures, Wiley inter science, London, 1992.
4. Gorb, Peter (Ed), Living by Design, Lund Humphries, London 1978.
5. Andreasen M.M, Hein L, Integrated Product Development, IFS Publications Ltd. / Springer Verlag, Berlin, 1987.
6. Asimow Morris; Introduction to Design, Englewood Cliffs, N.J: Prentice Hall, 1962.

**Course Outcome :**

Upon completion of the course, the students will be able to:

1. Understand various aspects of product design and development process.
2. Identify and classify various stages involved in the process of product design from market survey to detailed design.
3. Gain knowledge about process of prototyping and performance testing of the product.
4. Be exposed to the legal issues involved in new product development.
5. Understand the rules and regulations involved in trademarks, copyrights, patents and industrial design rights and infringement of the same.

### **Studies in Form – I**

**PGID106P**

**Objective:** To explore and study 2D and 3D forms to develop visual awareness, imagination and creative insight.

#### **Syllabus :**

UNIT I: Study of elements of form to develop visual awareness, imagination and creative insight.

UNIT II: Form elements in the context of product design, 2 & 3 dimensional radii manipulation; joints, grooves and openings, 2 & 3 dimensional form transition, creative form synthesis.

UNIT III: Introduction to color and color as elements of design, Color classification and dimensions of color; hue, value and chrome relationships

UNIT IV: Color dynamics and interaction of colors, color meaning and traditions, psychological use of colors, color in nature.

UNIT V: Color & form relationships.

Texts/References

Itten J., Elements of Color, VNR, New York, 1970.

Sloane patricia, Color: Basic Principles & New Directions, Studio Vista, London 1963.

#### **Course Outcome :**

On completion of the course the student will be able to:

- Know elements of form in the context of product design
- Understand 2 and 3 dimensional form transition
- Gain knowledge about use of colour as element of design and colour dynamics
- To establish the relationship between form and colour

### **Design – I**

**PGID107P**

**Objective:**To gain knowledge about contextual study in product design to generate design brief and interpreting data and formulating conclusion helpful in the initiation of the process of product design. Shall primarily comprise of 2 small projects and one large project. 'Simple objects', hand held, craft base and for SS industries

**Syllabus :**

UNIT I: Comprehending the factors that directly or indirectly have the impact on the context and the objects, systems and the products.

UNIT II: Group assignments on assessing relevance of available products with respect to the framework of their existence, analyzing evolved objects, product rapport, cost optimization, image, value, exclusive products.

UNIT III: Understanding of problem areas and limitations generating design brief familiarization studies and programming for detailed investigation of context.

UNIT IV: Developing questionnaires, interviewing users and selecting suitable techniques to study user behavior and reactions, interviewing and observing user and photographic studies of products in use, understanding of market demands and manufacturing constraints.

UNIT V: Documenting and interpreting data and formulating conclusions, role of creativity in understanding of latest needs, comparative analytical studies in other creative fields.

**Texts/References**

Asimow Monis, Introduction to Design, Prentice Hall, Englewood Cliffs, N.J.,1962.

Jones J.C., Design Methods: Seeds of Human Futures, Wiley Inter-science, London, 1970.

Gasson, P.C. Theory of Design, Anchor Press.

**Course Outcome :**

On completion of the course the student will be able to:

- Understand various factors which are having impact on product design
- Generate design brief
- Know various techniques to study user behavior and reactions
- Document and interpret data obtained
- Carry out analytical studies in other creative fields.

**S E M E S T E R – II**

**Product Development**

**PGID201T**

**Objective:**To introduce the students to basic parameters of product development and creative methodology with focus on the front end processes.

**Syllabus :**

UNIT I: Process of design, methodology, identifying problem area, divergent, lateral thinking, sources of information, convergent thinking, imposition of controlling factors, specifications, models, sketches, concepts, strengths, consolidation of workable solutions.

UNIT II: Society and products, market research, understanding market pressure, policies, ecology concerns, economic climate, raw material availability.

UNIT III: Life cycle assessment for feasibility, marketability, manufacturing, reliability, maintenance, safety, operations, etc.

UNIT IV: Process of product development, investigation in identifying the product to be designed, generating problem statement, formulating design brief, design specification, sales specification, performance, material and system specification.

UNIT V: Concept development, product engineering, assembly drawing, evaluation, product testing, re-engineering, re-detailing, pilot production, vendor development.

**Texts/References**

Rader, Melvin, Ed, A Modern Book of esthetics, Holt Rinehart & Winston, New York, 1973

Nievel, B.W, and Dray Production, Design and Process Engineering, Mc Graw-Hill

Stone, m Product Planning-An Integrated Approach, Mcmillan.

**Course Outcome :**

On completion of this course the students will be able to:

- Demonstrate an understanding of the overview of all the product development processes.
- Gain knowledge about market research and related aspects.
- Know about life cycle assessment.
- Gain knowledge of concept generation, testing, pilot production and related aspects.

**Product Planning and Marketing**

**PGID202T**

**Objective:**To introduce the students to corporate world and basic concepts of product planning and various marketing strategies involved in the process of product planning and brand developing.

**Syllabus :**

UNIT I: Corporate strategy for product planning, management thinking on new products, seeing products as part of the image of the company, moving into future, defining companies business.

UNIT II: Technology transfer problems, SWOT Analysis (analysis of strength, weakness, opportunities and threat). Brief Introduction to assessing of company's financial performance, Study of Product life cycle, monitoring of sale and competition, when to introduce new products.

UNIT III: Assessing market potentials for new products, market research, consumer research and its demographic aspects, setting up a questionnaire for these aspects, establishing market segments and their dimensions, assessing competitions marketing approach and strategies.

UNIT IV: Developing a strategy to introduce new products using market gaps as competitive edge, cost considerations and profitability of new products, developing a product plan and product mix, price policy, positioning the company, product positioning, planning for future position.

UNIT V: Evolving a design brief by inter-linking with market/product plan, develop brand image, house style, marketing strategy and corporate image, discriminating product range from each other and form competitor's range. Developing product specifications for different products within the range. Market communication, launching the product, monitoring the market performance.

Texts/References

Kotler Philips, Marketing management, 5 ed., prentice Hall, New Delhi, 1984.

Agrawall, Product Planning, Seminars on Product Planning held in IDC, IIT Bombay 1982.

Levitt Theodore, Marketing Imagination, Free Press, New York, 1986.

**Course Outcome :**

On completion of the course, the students will be able to:

- Understand the importance of ergonomics in the design of new products
- Learn the effect of anthropometry, physiology, biomechanics, etc. on the design and development of new products
- Understand the effects of other human factors
- Gain knowledge about controls and display elements

**Human Factor Design****PGID203T**

**Objective:** To expose the students to the various aspects of Industrial Design so as to develop new products considering ergonomics, cognitive response and other human factors. On completion of the course,

**Syllabus :**

UNIT I: Human being in manmade world, gross human anatomy, static and dynamic anthropometry, muscles and work physiology, biomechanics, environmental condition.

UNIT II: Function of control and display elements, dials, knobs, push buttons, handles and electronic displays.

UNIT III: Investigations and study of visual, functional and ergonomical requirements of control and display elements, legibility of display elements, character of different typefaces and their readability.

UNIT IV: Printing and transfer techniques, product graphics, study of different textures and patterns, area, volume and proportion, order and system.

UNIT V: Individually planned design projects involving research, analysis and design of control and display panels.

**Texts/References**

W.E. Woodson, Human Engineering Guide for equipment Designers, University of California, Uerkley, 1000.

Henry Dreyfuss, Measure of Man, Whitney N.Y.,1960

Crosby, Fletchers & Forbes, A Sign Systems Manual, Studio Vista, London, 1970

W.H. Mayall, Machines & Perception in Industrial Design, Studio Vista, N.Y., 1968.

**Course Outcome :**

On completion of the course, the students will be able to:

- Understand the importance of ergonomics in the design of new products
- Learn the effect of anthropometry, physiology, biomechanics, etc. on the design and development of new products
- Understand the effects of other human factors
- Gain knowledge about controls and display elements

**Elective – III (Discipline)****Presentation Techniques****PGID204P**

**Objective:**To introduce the students to various presentation techniques like sketching, drawing human body parts, modeling involved in the process of product design.

**Syllabus :**

UNIT I: Techniques of pencil drawing through elementary exercises to coordinate eye, hand and body movements to acquire necessary control over the line drawing, introduction to object drawing.

UNIT II: Introduction to the use of color, color scale, drawing human elements, understanding of curves, edges and corners and their presentation.

UNIT III: Theory of perspective, one point and two point perspective

UNIT IV: Basic Photography. Understanding SLR Camera, B/W printing, Slide process, Digital Photography.

UNIT V: Making of scaled model of designed objects to match its properties.

Texts/References

Dobin Jay, New System for Designers, Whitney, N.Y., 1956.

Begeman M.L., Manufacturing Processes, 8 ed. John Wiley, New York, 1987.

Chapman W.A.J., Workshop Technology Vol. I, II, III, Oxford/IBH Pub., New Delhi 1975.

**Course Outcome :**

On completion of the course the student will be able to:

- Work on pencil drawing, object drawing and model making.
- Understand the use of colours in design.
- Know about perspective drawing.
- Gain knowledge about basic photography.

**Web Design****PGID204P**

**Objective:** To give the students understanding of the basic web concepts and fundamentals of web design for static dynamic and active web pages.

**Syllabus :**

UNIT I: introduction to HTML and XHTML basics, LIST, unordered list, nested and ordered list, basic HTML tables, intermediate HTML table and formatting, basic HTMLf and formatting, more complex HTML forms, frameset element, nested frameset, style sheets and graphics: introduction to style sheets, formatting text by using style sheets, formatting paragraphs by using style sheets

UNIT II: Graphics in web design, selecting a graphics format, preparing graphics for web use, inserting graphics, arranging elements on the page, controlling image size and padding, hyper linking from graphics, utilizing thumbnail graphics, including alternate text for graphics.

UNIT III: Tables & layouts, navigation: creating navigational aids, creating tables formatting tables layouts: creating division, based layouts, creating user forms, using frames for layout, incorporating audio and video dynamic HTML

UNIT IV: Dynamic web pages,need, tiers, concept of a tier, comparison of microsoft and java technologies,web pages, static web pages ,plug-ins, frame, forms, magic of dynamic web pages, overview of dynamic web page technologies, overview of DHTML, Common Gateway, Interface, ASP, ASP Technology, ASP Example, modern trends in ASP, Java and JVM, Java Servlets, Java Server Pages.

UNIT V: Active web pages, java applets, lifecycle of java applets, activeX controls, java beans.

Texts/References

Faith Wempen,"Microsoft Step by Step – HTML and XH", Prentice Hall of India Private Limited, New Delhi, 2011.

Achyut S Godbole & Atul Kahate, "WEB TECHNOLOGIES TCP/IP to Internet Applications Architectures", TMH 2007.

Thomas A. Powell, McGraw-Hill "HTML & CSS: The Complete Reference", Fifth Edition (Complete Reference Series) Osborne Media; 5 edition, 2010.

### **Course Outcome :**

At the end of the semester, the students will be able to:

- To know the Basic web concept and Internet protocols.
- To learn about the XHTML Forms, Frames and Tables.
- To learn about CSS.
- To Study about the DHTML, CGI, ASP, JSP, Java servlets.
- To Study about Java applets, Java Beans.

## **Game Design**

**PGID204P**

**Objective:**To develop strategic thinking and problem solving approach in game design and enhance creativity in game design.

**Course objective**

1. Introduction to philosophy of research.
2. Understand process to formulate research questions / idea
3. Understand process of planning of research time, resource
4. Understand different statistical analysis methods
5. Develop thesis and report writing.

**Course outcome**

1. Knowledge on various kinds of research questions and research designs
2. Formulate research problems (task) and develop a sufficiently coherent research design
3. Assess the appropriateness of different kinds of research designs
4. Knowledge on qualitative, quantitative and mixed methods of research, as well as relevant ethical and philosophical considerations
5. Develop independent thinking for critically analyzing research reports

**Syllabus :**

UNIT I: Definition of games, differences between toys, puzzles and games, classification of games, learning through games, educational games with focus on fun and education, game design process, iterative cycles in game design process.

UNIT II: Use of luck and development of strategic thinking and problem solving in game design, concepts of play value and game play.

UNIT III: Players' involvement in design process, feedback as a source of creativity in game design, differences between game design and other design areas.

UNIT IV: Age specificity of games, learnability as a criteria for game design, games as a social process, studying and developing player interactions.

UNIT V: Designing conventional game hardware and board games, paper prototyping and testing, play testing of games for feedback, market for board games in India.

The elective expects developing and play-testing an original game.

**Texts/References**

Berlin, Eric : Amazing family game board book : includes • authentic game pieces, Pub: Innovative kids, 2005

**Course Outcome :**

At the end of the semester, the students will be able to:

- Understand game design process.
- Gain knowledge about game design as against other design areas.
- Understand ability to learn as criteria for game design.
- Design game hardware and board game and their testing.

**Foundation Course I : Research Methodology****PGFD205T****Objective :**

1. Introduction to philosophy of research.
2. Understand process to formulate research questions / idea
3. Understand process of planning of research time, resource

4. Understand different statistical analysis methods
5. Develop thesis and report writing.

**Syllabus :**

**Unit I : Research Foundation**

What is Research, Objectives of Research, Types of Research, Scientific Research, Research and Theory, Conceptual and theoretical Models, Importance of research methodology in scientific research

**Unit II :Review of Literature**

Need for Reviewing Literature, What to Review and for what purpose, Literature Search Procedure, Sources of Literature, Planning of Review work, Note Taking, Library and documentation

**Unit III : Planning of Research**

The planning process ,Selection of a Problem for Research, Formulation of the Selected Problems, Hypothesis formation, Measurement, Research Design/Plan

**Unit IV : Processing of Data and Statistical Analysis of Data**

Introduction to Statistical Software, MINITAB, SPSS, Measures of Relationship, Simple Regression Analysis, Multiple Correlation and Regression, Partial Correlation, MATLAB and Neural Network based optimization, Optimization of fuzzy systems, Error Analysis, Results and their discussions

**Unit V :Report and Thesis writing**

Types of Reports, Planning of Report Writing, Research Report Format, Principles of Writing, Data and Data Analysis Reporting in a Thesis, Use of Endnote, Bibliography, API , appendix, table, Observations arrangement, Preparation of type script and lay-out of thesis, Use of LATEX Indexing of Journals, Impact factor and social Media for Researchers.

**Reference Book:**

1. Research Methodology: Methods and Techniques by C. R. Kothari, New Age International Publishers, ISBN:81-224-1522-9
2. Statistical Methods for Research Workers by Fisher R. A., Cosmo Publications, New Delhi ISBN:81-307-0128-6
3. Design and Analysis of Experiments by Montgomery D.C. (2001), John Wiley, ISBN: 0471260088
4. MINITAB online manual
5. Methodology of Research in Social Sciences by O. R. Krishnaswamy and M. Rangnatham Himalaya publication House, 2005, ISBN: 8184880936
6. SPSS online manual

**Course outcome :**

- 1.Knowledge on various kinds of research questions and research designs
- 2.Formulate research problems (task) and develop a sufficiently coherent research design
- 3.Assess the appropriateness of different kinds of research designs
- 4.Knowledge on qualitative, quantitative and mixed methods of research, as well as relevant ethical and philosophical considerations
- 5.Develop independent thinking for critically analyzing research reports

**Studies in Form - II**

**PGID206P**

**Objective:**

To carry out form exploration based on use of various materials and process of form development based on different parameters

### **Syllabus :**

**UNIT I:** Studies in 3d forms, manipulation of 3 d models in Styrofoam thermocol, wax, Tactile and semantic values of forms, study of curves curvatures, corners edges, permutation and combination of forms and materials, character study of industrial materials.

**UNIT II:** Principles of beauty, studies in color and form, texture, value and color and their character effects of light and shade on 3d objects

**UNIT III:** Additive, negative process of form development, function as a driving force for arriving at a form, combination of different materials and responses, typology of a object. Synthesis of 3 dimensional combination.

**UNIT IV:** Semantics and structural aspects of visual inputs, through series of projects, visual complexity, visual interest and recall of forms, spatiotemporal relationships in visual elements, and its role in forms and its derivations, understanding characteristics features in objects/ form recognition and natural categorization process, Concepts of proto-typicality and variations.

**UNIT V:** Meanings attached to visual signals, Gestalts theory, information theory and application to spatial and design forms.

### **Texts/References**

W.E. Woodson, Human Engineering Guide for equipment Designers, University of California, Uerkley, 1000.

Knoblauch, Ralph R, Model Making for Industrial Design, NY, McGraw-Hill, Styling, the look of things, General Motors Corporation 1968.

Santayana, George, The Sense of Beauty, NY, Dover Publication.

Drefuss Henry, Symbol Source Book, Mcgraw Hill Book CO. NY. 1972

Diotholm Walter, Visual Transformation, ABC Edition, 1982

### **Course Outcome :**

On completion of the course the student will be able to:

- Experiment with 3 dimensional form in various materials
- Understand the principles of beauty
- Gain knowledge about process of form development
- Understand theories related to form development

### **Design - II**

**PGID207P**

**Objective:** To initiate the process of creative thinking through use of various techniques so as to plan design projects.

**Syllabus :**

UNIT I: Theoretical information and short supporting assignment on following topics: Role of creativity in problem solving, study of inhibitions, conformity and vertical thinking.

UNIT II: Assignments on using techniques like brain storming, synectics to develop creative attitude and open mind, the development of modern design methods from craft evolution.

UNIT III: Detailed discussion on stages in design process, complimentary nature of systematic and creative thinking in various stages of design process, discussion on nature of synthesis.

UNIT IV: Methodology for visual analysis of products, principles of value analysis, use, esteem, time and exchange values and definition of function.

**Texts/References**

Jones J.C, Design Methods, Seed of Human Futures, Wiley Inter-science, London, 1970

Buhi H.R., Creative Engineering Design, Iowa State Univ. Press, Iowa, 1960

Hill P.H., This Science of Engineering Design, Holt, Rinebart and Sinston, N.Y., 1970

De Bono Edward, Lateral Thinking, Penguin (UK), 1972,

Gordon W.J.J., Synectics, Harper & Row, N.Y., 1968

**Course Outcome :**

On completion of the course the student will be able to:

- Know the importance of creative thinking
- Understand product properties
- Understanding aspirations of users
- Know about stages involved in design process

**S E M E S T E R – III****ELECTIVE- IV****PRODUCT DESIGN FOR ENERGY AND ENVIRONMENT****PGOPENARCH019**

## **OBJECTIVE:**

To impart knowledge to the students regarding design and development of sustainable products using emerging renewable sources of energy such as solar, wind and bio energy.

### **UNIT I - INTRODUCTION**

Energy and environment scenario, global and Indian perspectives, necessity for promotion of energy generation and environment friendly products

### **UNIT II - SOLAR PRODUCTS – DESIGN AND DEVELOPMENT**

Solar energy conversion and its types, solar products like solar water heater, solar lantern, solar cooker & storage devices (Solar PV modules, battery, charge controller, inverters), existing designs, avenues for improvements.

### **UNIT III - BIO ENERGY PRODUCTS – DESIGN AND DEVELOPMENT**

Bio energy conversion and its types, processes and equipments, existing avenues for improvements, creativity and innovation, eco-friendly concepts in bio energy

### **UNIT IV - TESTING**

Standards and procedures for solar and bio products, design and testing, testing of equipments, safety standards, International standards and Indian scenario

### **UNIT V - ECONOMICS**

Barriers involved in commercialization of energy products, factors under considerations - cost, payback, reliability, comfort factors, technical factors, policy affairs, economics of solar and bio power generation, quantitative and qualitative approach.

### **TEXT BOOKS/REFERENCES:**

1. Garg H P., Prakash J, Solar Energy: Fundamentals & Applications, Tata McGraw Hill, 2000.
2. David Boyles, Bio Energy Technology Thermodynamics and costs, Ellis Horwood Chichester, 1984.
3. Duffie J.A and Beckman W.A., solar Engineering of Thermal Processes, John Wiley & sons, 1991.
4. Roger Messenger and Jerry Vnetre, Photovoltaic Systems Engineering, CRC Press, 2004.
5. Khandelwal KC, Mahdi SS, Biogas Technology – A Practical Handbook, Tata McGraw Hill, 1986.

### **Course Outcome :**

Upon completion of the course, the students will be able:

- 1) To understand and appreciate the need for energy efficient and environmental friendly products.
- 2) To gain knowledge about use of new and renewable energy sources for development of new product.
- 3) To get acquainted with various standards and testing procedures.
- 4) To identify various barriers involved in commercialization of energy products.

## **Foundation Course II**

### **PROJECT PLANNING, EVALUATION & MANAGEMENT**

**PGFD302T**

**Project Management (PM)** will provide students with the opportunity to gain a systematic and comprehensive understanding of key concepts and skills essential to project management

in international affairs. By examining the project cycle using potential projects, students will learn techniques and tools used in formulating and managing projects and programs for desired impact. By course end, students will be familiar with aid and development of project works, language and terminology used, different project structures, implementation practices, and strategies to address potential conflicts and obstacles. More importantly, students will have developed skills - strategic design, needs assessment, implementation, proposal and report writing, budgeting, monitoring and evaluation, advocacy, and others - that practitioners need to be effective in a range of professional contexts.

**Course Philosophy:** This is a course that will utilize learning techniques to provide students with opportunities to practice and process what they learn. This course attempts to cover skills that are relevant and current in international program work.

**Learning Objectives:** By course end students will be able to, within the above-stated limitations:

1. Conduct a basic needs assessment for a proposed project
2. Develop a project proposal
3. Develop a logical framework
4. Develop measureable indicators
5. Have ability to insert Monitoring and Evaluation into a project
6. Develop a grant proposal
7. Develop a project budget

As part of comprehensive preparation for the subject, by end of semester students will prepare an analytical and operational concept note that demonstrates:

1. Comprehensive understanding of the context in which they will work, including socio-political, economic, and cultural aspects.
2. Understanding of the issue they will work on, the causes, and its variations across contexts.
3. Strategies that have been used to tackle the problem(s) - the usual ones, and innovative ones. Students can introduce also other possible solutions worth exploring.

Benefits

- \* Establish measures of success
- \* Quantify value commensurate with cost
- \* Optimize use of organizational resources
- \* Incorporate quality principles
- \* Put strategic plans into practice
- \* Ensure fast time-to-market Project Manager□
- \* Reduced cost to deliver solutions
- \* Lower risk of slipping schedule
- \* Repeatable successes on projects
- \* Crisis prevention
- \* Early problem identification and risk mitigation
- \* Structured approach to Project Management
- \* More predictable results
- \* Improved resource productivity and satisfaction
- \* Project success that builds business success

**Syllabus :**

Unit I : Basics of Project Management: Introduction, Need for Project Management, Project Management Knowledge Areas and Processes, The Project Life Cycle, The Project Manager (PM), Phases of Project Management Life Cycle, Project Management Processes, Impact of

Delays in Project Completions, Essentials of Project Management Philosophy, Project Management Principles

**Unit II : Project Identification and Selection:** Introduction, Project Identification Process, Project Initiation, Pre-Feasibility Study, Feasibility Studies, Project Break-even point

**Project Planning:** Introduction, Project Planning, Need of Project Planning, Project Life Cycle, Roles, Responsibility and Team Work, Project Planning Process, Work Breakdown Structure (WBS)

**Organisational Structure and Organisational Issues:** Introduction, Concept of Organisational Structure, Roles and Responsibilities of Project Leader, Relationship between Project Manager and Line Manager, Leadership Styles for Project Managers, Conflict Resolution, Team

**Unit III: Resources Considerations in Projects:** Introduction, Resource Allocation, Scheduling, project Cost Estimate and Budgets, Cost Forecasts

**Project Risk Management:** Introduction, Risk, Risk Management, Role of Risk Management in Overall Project Management, Steps in Risk Management, Risk Identification, Risk Analysis, Reducing Risks.

**Unit IV : Project Quality Management and Value Engineering:** Introduction, Quality, Quality Concepts, Value Engineering

**Project Management Information System:** Introduction, Project Management Information System (PMIS), Planning of PMIS, Design of PMIS.

**Purchasing and Contracting for Projects:** Introduction, Purchase Cycle, Contract Management, Procurement Process

**Unit V : Project Performance Measurement and Evaluation:** Introduction, Performance Measurement, Productivity, Project Performance Evaluation, Benefits and Challenges of Performance Measurement and Evaluation, Controlling the Projects

**Project Execution and Control:** Introduction, Project Execution, Project Control Process, Purpose of Project Execution and Control

**Project Close-out, Termination and Follow-up:** Introduction, Project Close-out, Steps for Closing the Project, Project Termination, Project Follow-up.

**Project Management Software:** Introduction, Advantages of Using Project Management Software, Common Features Available In Most of the Project Management Software, Project 2000.

Reference Books:

1. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, by John W. Creswell, 2 nd Edition , Sage Publication, 2003
2. Qualitative Inquiry and Research Design: Choosing among Five Approaches, by John W. Creswell, 3 rd Edition , Sage publication, 2013.
3. Evaluation: A Systematic Approach, Peter H. Rossi, Mark W. Lipsey, and Howard E. Freeman, 7 th edition , Sage publications, 2007.
4. Handbook of Practical Program Evaluation, Joseph S. Wholey, Harry P. Hatry, Kathryn E. Newcomer. 4 th edition, Wiley, 2015
5. Program Evaluation and Performance Measurement: An Introduction to Practice, James C. McDavid and Laura R. L. Hawthorn, Sage Publication, 2013.
6. Evaluation, Carol H. Weiss, 2 nd Edition, ABE books, 1997.
7. Case Study Research: Design and Methods, Robert K. Yin, 3 rd Edition, Sage Publications, 2011

**CAD Modeling and Digital Design**

**PGID303P**

**Objective:**

To impart knowledge on computer aided 3D modeling, computer graphics, computer interface and software useful in the process of product design.

**Syllabus :**

**UNIT I:** Introduction to application of computer graphics for visualizing concepts, Introduction to hardware including hardware limitations.

**UNIT II:** Introduction to the basic concepts of 3d, software exploration of various packages for painting, sketching, drawing, drafting, 3d modeling and animation composition, Presentation techniques on computer, simulation, material manipulation.

**UNIT III:** Design and computer application, cad cam, limitations of software, design process as an extension to software cognitive process, assimilation of elements

**UNIT IV:** Generating tools for digital design process, interface of software and its parameters, graphic simulation and communication to the user, human cognitive process

**UNIT V:** Formatting and planning the digital, global scenario of digital technology, web page and interactive java systems.

**Texts/References**

Marshall G.R., Computer Graphics in Application, Prentice hall, 1987.

Kerlow I.V. and Rosebush J, Computer Graphics for Designers and Artists, VNR, N Jersey, 1986

**Course Outcome :**

On completion of the course, the students will be able to:

- Get familiarized with the computer graphics and computer hardware
- Explore various software, their limitations and multimedia
- Understand interface of software and its parameters and graphic simulation
- Generate tools for digital design process
- Gain knowledge about global scenario of digital technology

**Objective :** The students are required to carry out research in any area related to project to be carried out in 4<sup>th</sup> semester. Areas which would encourage diverse research inclinations should be identified, inputs about structuring design briefs, establishing subject matter, generating keywords and key statements. Students are expected to carry out book, magazine, journal study, meet and interview people and experts. In diverse areas external resource persons can be consulted. Students shall submit a paper of minimum 1000 words supporting his issues and study area with other presentation tools like models, drawings, animation with all bibliography references and quotes. The student shall be evaluated on the ability to carry out research, analysis, synthesis and exploration.

**Syllabus :**

**Course Outcome :**

**Objective:**To make the students aware about the significance of brand identity and corporate image for a product design company and incorporating the same in the products designed by them.

**Syllabus :**

UNIT I: Design in the context of industry, corporate image, brand name.

UNIT II: Understanding the role of designer as a leader / interventionist in a group of managers and technocrats.

UNIT III: Product analysis, market research, ergonomics studies.

UNIT IV: Value engineering, block modeling, technical analysis, operational analysis.

UNIT V: Pilot production.

**Course Outcome :**

On completion of the course the student will be able to:

- Understand the importance of brand identity and corporate image
- Know the role of designer as a leader
- To know the various methods of product analysis and pilot production

## **Professional Training**

**PGID401P**

**Objective :** The Students at the end of 3rd Semester are required to undergo a 8 weeks industrial training at an industry in the Design department to have an in-house experience of manufacturing/design drawings etc.

**Syllabus :**

**Course Outcome :**

The students will be able to : -

- Received enhanced knowledge on processes involved in design, development and manufacturing of different products.
- Get training on manual techniques & digital tools to accurately visualize, simulate & present multiple alternatives to satisfy user's needs.
- In teamwork to work in team spirit and improve up on learning.
- **To get a general perspective & opportunities for a career in Industrial design.**

## **Colloquium**

**PGID402P**

**Objective :** The Colloquium will involve meetings and discussions of project research work presented by the students, by researchers from faculty of industrial design, from other departments and from other universities. The presentations will reflect contemporary research in product design and related fields.

### **Syllabus :**

### **Course Outcome :**

The student will be able to : -

- Apply integrative idea to a larger context.
- Evaluate idea critically within a logically and coherently organized essay.
- **Formulate research questions, utilize proper research methods, provide explanation and document.**

**Dissertation****PGID403P**

**Objective :** Student has to identify an industry / organization who would allow him to work on their project sponsored by the industry / organization. He is expected to carry the project up to completion as a prototype or productionized product. A guide with experience in the particular product area would have to be chosen by the student. The student is required to submit progress reports of his project to the department endorsed by the guide. The evaluation of the final project will be through assessment by the guide and a final jury on his successful completion of the project.

**Syllabus :****Course Outcome :**

The students will be able to :-

- Find, analyse, evaluate, select and integrate information from various sources such as data collection, questionnaire, case studies and need identification.
- Present the dissertation with conceptual planning and real time data translating into hypotheses.
- Determine ethical / scientific / user value of his own research.
- Refer to appropriate psychological theory to explain the need of the product.
- Critically analyse popular concepts of products in market and his / her own concept based on separate views and common sense.
- **Use computer programs like 3D Max and sketch up for final design outcomes and prototypes.**

Professional Training

Outcome -

Outcomes of thesis Dissertation

Colloquium outcomes

## **QUESTION BANK FOR 6<sup>TH</sup> SEMESTER CONSTRUCTION (2014-2015)**

Prof. Ramesh Bhambani (PIADS)

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### **UNIT – I : CLADDING MATERIALS**

- a) What is cladding? Enumerate its various types and also list out the various materials out of which these various types are designed & constructed.
- a) What are materials used in 'Tile' form for cladding? List these out and also explain for what type of cladding these materials can be ideally used.
- a) List out the various metals that have been or are being used for cladding & in what form. Out of this list identify the two most commonly used metals & elaborate for what type of claddings they are commonly used.

***NOTE – a) these questions will form ½ the part of a full question on this UNIT.***

- b) Fully describe Glass as a building material and explain where & how it is used for cladding.
  - b) Fully describe Stainless Steel as material used for Building Design/Construction & explain where, how and in what format it is used for purpose of cladding.
  - b) Provide a complete description of Alluminium Composite Panel (ACP) as building material and its application for Cladding in general and specifically bring out its use for curtain walling and for other decorative forms as Cladding.
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### **UNIT – II : HIGH RISE CONSTRUCTION**

- 1) With reasons explain why & how the Architectural solutions/ designs for High Rise Buildings are dictated by Structural solutions/designs to limit its deflection? List out these Structural criteria/parameters and in detail explain any FOUR of them.
- 2) Which aspect prominently affects the design solutions of High Rise Buildings vis-à-vis the low or medium rise buildings? What are various structural-cum-design

parameters to ensure safety as well as economy for High Rise Building and so also to limit its deflection?

- 3) Design of vertical support systems such as walls, columns, shafts, etc. is Critical factor in design of High Rise Buildings. With reasons explain why and what are the various design parameters to ensure safe and economical design for such structures?

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#### **UNIT IV : ADVANCED R.C.C. STRUCTURES**

- 1) What is “Flat Slab”? With reasons explain where you will design the Flat slabs. Bring out all its Characteristics, Merits, De-merits and Application.
  - 2) Explain what is Flat Plate Slab, Drop Panel Flat Slab and Haunched Panel Flat Slab and briefly explain characteristics of all the three. Differentiate between the first two types and fully bring out their Merits, De-merits and Application.
  - 3) Briefly describe Flat Slab, drop Panel Flat Slab and Haunched Panel Flat Slabs and their basic characteristics. What are limiting as well as economical spans for each one of these systems. With reasons explain for what conditions you will adopt Flat slab, Drop panel and Haunched Panel Flat Slab.
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- 1) What is Grid/Waffle slab and with reasons explain where you will provide R.C.C. Grid/Waffle Slab. Explain how it is advantageous to use this kind of slab as compared to conventional slab-beam system.
  - 2) Explain Ortho-Grid and Dia-Grid slabs and bring out the difference between the two and their application in covering large span spaces.
  - 3) Explain Dia-grid and Ortho-Grid Slabs and with reasons explain why Dia-Grid Slab is an advantageous solution than Ortho-Grid slabs for covering wide span spaces.
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- 1) What is “Lift Slab”? Fully describe it, also explain its construction and erection systems, Limitations and other Salient Characteristics.
  - 2) What is “Lift Slab” Construction? Elaborate this system is suitable for what type of building and why this system has not become popular in our country.

#### ***Drafting questions on Unit -IV***

- 1) A Multipurpose hall measuring 13mts by 25mts is to be designed with **Ortho Grid Slab**. Assuming a suitable spacing of Grid Beams draw a Key plan at 1:100 scale

clearly showing the Grid and supporting columns. At 1:20 scale for this slab make a Detail drawing clearly showing the reinforcement arrangement at **Crossing of Grid Beams**. The drawing should be neatly drawn, fully dimensioned and described.

- 2) A Multipurpose hall measuring 13mts by 25mts is to be designed with **Ortho Grid Slab**. Assuming a suitable spacing of Grid Beams draw a Key plan at 1:100 scale clearly showing the Grid and supporting columns. At 1:20 scale for this slab make a Detail drawing clearly showing the reinforcement arrangement at **Junction of Grid Beam with Peripheral Beams**. The drawing should be neatly drawn, fully dimensioned and described.
- 3) A Multipurpose hall measuring 13mts by 25mts is to be designed with **Dia Grid Slab**. Assuming a suitable spacing of Grid Beams draw a Key plan at 1:100 scale clearly showing the Grid and supporting columns. At 1:20 scale for this slab make a Detail drawing clearly showing the reinforcement arrangement at **Crossing of Grid Beams**. The drawing should be neatly drawn, fully dimensioned and described.
- 4) A Multipurpose hall measuring 13mts by 25mts is to be designed with **Dia Grid Slab**. Assuming a suitable spacing of Grid Beams draw a Key plan at 1:100 scale clearly showing the Grid and supporting columns. At 1:20 scale for this slab make a Detail drawing clearly showing the reinforcement arrangement at **Junction of Grid Beam with Peripheral Beams**. The drawing should be neatly drawn, fully dimensioned and described.
- 5) A **Drop Panel Flat Slab** is to be designed for an office floor measuring 30mts in length and 24mts in width (this space is excluding lifts, stair and toilet blocks, etc.) Draw a key Plan at 1:100 scale showing the position of columns along with Drop Panel. Submit a neatly drawn, well described and dimensioned Detail drawn at 1:20 scale clearly showing the Reinforcement arrangement/ details at Drop Panel.
- 6) A **Haunched Panel Flat Slab** is to be designed for an office floor measuring 30mts in length and 24mts in width (this space is excluding lifts, stair and toilet blocks, etc.) Draw a key Plan at 1:100 scale showing the position of columns along with Haunched Panel. Submit a neatly drawn, well described and dimensioned Detail drawn at 1:20 scale clearly showing the Reinforcement arrangement/ details at Haunched Panel.

- 7) A pavilion roof measuring 50mts X 50mts is provided with **Dia Grid Slab** with 600mm X 600mm columns placed in a grid of 10mts (in both direction). Assuming a suitable spacing of Grid Beams draw a key plan at 1:200 scale clearly showing the Grid and the supporting columns. Submit neatly drawn, well dimensioned and described, Detail drawn at 1:20 scale clearly showing the reinforcement arrangement/details between Grid Beams and Internal columns.