

KARNATAK LAW SOCIETY'S GOGTE INSTITUTE OF TECHNOLOGY ''JNANA GANGA'' UDYAMBAG, BELAGAVI-590008, KARNATAKA, INDIA. Approved by AICTE & UGC Permanently Affiliated and Autonomous Institution Under Visvesvaraya Technological University, Belagavi <u>www.git.edu</u>





# 4th Year 2018 N Scheme

Academic year 2021- 2022 onwards

**Department: Architecture** 

**Programme: B.Arch** 

1<sup>st</sup> to 10<sup>th</sup> Semester Scheme of Teaching and Examination

7<sup>th</sup> to 8<sup>th</sup> Semester Syllabus

#### **INSTITUTION VISION**

Gogte Institute of Technology shall stand out as an institution of excellence in technical education and in training individuals for outstanding caliber, character coupled with creativity and entrepreneurial skills.

#### MISSION

To train the students to become Quality Engineers with High Standards of Professionalism and Ethics who have Positive Attitude, a Perfect blend of Techno-Managerial Skills and Problem solving ability with an analytical and innovative mindset.

#### **QUALITY POLICY**

- Imparting value added technical education with state-of-the-art technology in a congenial, disciplined and a research oriented environment.
- Fostering cultural, ethical, moral and social values in the human resources of the institution.
- Reinforcing our bonds with the Parents, Industry, Alumni, and to seek their suggestions for innovating and excelling in every sphere of quality education.

## DEPARTMENT VISION

The Department of Architecture shall stand out as the Department of excellence in architectural education and space making, in training individuals for outstanding calibre, character and holistic development.

#### MISSION

To train the students to grapple with complex issues that are emerging in today's society and encourage them to be designers who will find architectural solutions that respond appropriately to culture, climate and context

#### COURSES, PERIODS OF STUDY AND SUBJECTS OF EXAMINATION UNDER CHOICE BASED CREDIT SYSTEM FOR THE ARCHITECTURE DEGREE PROGRAM

**1.0** Under the Choice based credit system, which is a student/ learner centric system, the courses of study in the Architecture Degree program shall be as under:

**1.1 Professional Core (PC) Course**: A course, which should compulsorily be studied by a candidate as a core requirement is termed as a Core course.

1.2 Basic Sciences and Applied Engineering (BS & AE) Course: A course which informs the Professional core and should compulsorily be studied.

**1.3 Elective Course:** Generally a course which can be chosen from a pool of courses and are of two types:

(i) **Professional Elective** (**PE**) which may be very specific or specialized or advanced or supportive to the discipline/ subject of study or which provides an extended scope

(ii) Open Elective (OE) which enables an exposure to some other

discipline/subject/domain or nurtures the candidate's proficiency/skill

**1.4 Employability Enhancement Courses (EEC)** which may be of two kinds: Employability Enhancement Compulsory Courses (EECC) and Skill Enhancement Courses (SEC)

**2.0** The Weightage in terms of Credits for each of the above in the prescribed curriculum of the institution shall be as follows:

1. Professional Core Courses (PC): 45%

- 2. Building Science and Applied Engineering (BS& AE) : 20 %
- 3. Elective Courses
- (i) Professional Electives (PE) : 10%
- (ii) Open Electives (OE) : 5%

4. Professional Ability Enhancement Courses (PAEC)

(i) Professional Ability Enhancement Compulsory Courses (PAECC) : 15%

(ii) Skill Enhancement Courses (SEC) : 5%

Note: Where it is not possible to offer Open Electives, Professional Electives may have a weightage 15% of the total credits.

## Semester wise distribution of credits for B.Arch. program

#### Total credits for B.Arch. Program: 260 credits

	Semester	Credits per Sem	Total credits
1 <sup>st</sup> year	1	25	54
	2	29	
2 <sup>nd</sup> year	3	29	57
	4	28	
3 <sup>rd</sup> year	5	31	63
	6	32	
4 <sup>th</sup> year	7	31	47
	8	16	
5 <sup>th</sup> year	9	20	39
	10	19	
	Total	260	260





#### Karnatak Law Society's GOGTE INSTITUTE OF TECHNOLOGY, BELAGAVI-08 Bachelor of Architecture SCHEME OF TEACHING AND EXAMINATION



Semester: I

#### Department :Architecture

					Contact Hrs												
	Subject Code										1	С	E	S	EE		
Subject Stream		Course Type	Subject Title	Teaching Department	L	S	P/SE	Total	Credits	СР	РА	<b>VIV</b> Л/Т	XAM	Total	Duration of Exam		
	18DES1.1N	PC	Basic Design and Visual Arts	Architecture	1	6	0	7	10	10	40	50	_	100			
DESIGN	18DES1_2N	PC	Model Making	Architecture	0	0	3	3	CA	20	80	-	-	100	-		
	18TEC1_1N	BS&AE	Building Construction and Materials-I	Architecture	1	2	2	5	5	10	40	50	_	100	-		
	18TEC1_2N	PC	Architectural Graphics-I	Architecture	0	1	3	4	3	10	40	50	_	100	_		
TECHNOLOGY	18TEC1_3N	BS&AE	Structures-I	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs		
	18HUM1_1N	PC	History of Architecture- I	Architecture	3	0	0	3	3	10	40	_	50	100	3 brs		
HUMANITIES	18HUM1_2N	SEC	Communication Skills	Architecture	1	0	0	1	1	20	80	_	_	100	-		
			117381	Total	9	9	8	26	25	90	360	150	100	700			

L-Lecture	CIE- Continuous Internal Evaluation	Class Participation	
S-Studio	SEE- Semester End Examination	PA-Progressive Assessment	CA-Computsory Audit
P-Practical	PC - Professional Core; BS&AE-Building S	cience and Applied Engineering, PE-Professiona	l Elective; OE- Open Elective
SE - Studio Exercise	PAECC - Professional Ability Enhancement	Compulsory Courses; SEC - Skill Enhancement C	ourses.
Minimum Marks for passing	Theory, Studio and Lab Marks (CIE) : 50%,	Term World/ Viva/Lab(SEE): 40% Theory Marks	; (SEE) : 40%,
	For a pass in a course, a candidate shall see	are overall 50% of the maximum marks of the cou	rse i.e., CIE+SEE put together.



#### Kamatak Law Society's GOGTE INSTITUTE OF TECHNOLOGY, BELAGAVI-08 Bachelor of Architecture SCHEME OF TEACHING AND EXAMINATION

#### **Department** :Architecture



Semester: II

						Contact His		Contact His				Marks					
		Course		Teaching					CIE		SEE			Duration			
Subject Stream	Subject Code	Туре	Subject Title	Department	L	S	P/SE	Tetal	Credits	СР	РА	/IVA/TV	EXAM	Tetal	ofExam		
DESIGN	18DES2.1N	PC	Architectural Design-I	Architecture	1	6	0	7	9	10	40	50		100	-		
	18TEC 2.1N	<b>BS&amp;AE</b>	Building Construction and Materials-II	Architecture	1	2	2	5	5	10	40	50		100	-		
	18TEC 2.2N	PC	Architectural Graphics-II	Architecture	0	1	3	4	3	10	40	50	( <del>4</del> 3)	100	-		
	18TEC 2.3N	BS&AE	Structure s-II	Architecture	3	0	0	3	3	10	40		50	100	3 hrs		
TECHNOLOGY	18TEC2.4N	BS&AE	Surveying and Levelling	Architecture	2	0	2	4	3	10	40	-	50	100	3 hrs		
	12HUM2.1N	PC	History of Architecture-II	Architecture	3	0	0	3	3	10	40	_	50	100	3 bus		
HUMANITIE S	18HUM 2.2N	PC	Art Appreciation	Architecture	2	0	0	2	2	20	50	-	-	100	-		
	18HUMB2_3N																
	18HUMS2_3N	SEC	Kamada	Architecture	2	0	0	2	1	5	20	-	25	50	2 bus		
			1008	Total	14	9	7	30	29	\$5	340	150	175	750			
			A A A A	N I I III	/	1											

L-Lecture	CIE - Continuous Internal Evaluation	CP-Chass Participation	
S-Stulio	SEE - Sementer End Examination	PA-Progressive Assessment	CA-Computery Ambit
P-Pnoial	PC - Professional Core; BS&AE - Building S	tience and Applied Engineering, PE- Professional	Elective; OE- Open Elective
SE - Stulio Exercise	PAECC - Professional Ability Enhancement (	Compulsary Courses, SEC - Skill Enhancement Co	HISES.
Minimum Marks for passing	Theory, Studio and Lab Marks (CIE) : 50%, 1	Cenn Work/ Viva/Lab(SEE) : 40% Theory Marks	(SEE) : 40%,
	For a pass in a course, a candidate shall secu	re overall 50% of the maximum marks of the cour	se i.e., CIE+SEE put together



Karnatak Law Society's

#### **GOGTE INSTITUTE OF TECHNOLOGY, BELAGAVI-08**

# **Bachelor of Architecture**

#### SCHEME OF TEACHING AND EXAMINATION



#### Department :Architecture


Subject Stream	Subject Code	Course	Subject Title	Teaching		Contact Hrs		Contact Hrs			Contact Hrs			Contact Hrs			Contact Hrs			Contact Hrs		Contact Hrs		stact Hrs Credits			Marks				Duration of	
		Туре		Department	spartment L	S	P/SE	Total	]	CIE		SEE		Total	Exe																	
										a	FA	VIVATW	FLAM	]																		
DESIGN	18DES 3.1N	PC	Architectural Design-II	Architecture	I	6	0	7	10	10	40	50	-	100	-																	
	18DES 3_2N	BS&AE	Climatology /	Architecture	3	Q	0	3	3	10	40	-	50	100	3 hus																	
	18TEC 3_IN	<b>BS&amp;A</b> E	Building Construction and Materials-III	Architecture	1	2	2	5	5	10	40	50	-	100	-																	
TECHNOLOGY	18TEC 3_2N	<b>BS&amp;A</b> E	Building Services-I (WATER SUPPLY AND SANITATION)	Architecture	3	P	0	3	3	10	40	-	50	100	3 hus																	
	18TEC 3.3N	BS&AE	Structures-III	Architecture	3	0	0	3	3	10	40	1	50	100	3 hrs																	
	18TEC 3.4N	SEC	Computer Application-I	Architecture	1	0	2	3	2	10	40	50		100	-																	
	18HUM 3_1N	PC	History of Architecture-III	Architecture	3	0	0	3	3	10	40	-	50	100	3 hus																	
HUMANITIES	18HUM 3_2N	PC	Vacation Assignment-I	Architecture	0	0	0	0	CA	20	\$0	-	-	100	-																	
				Total	15	1	4	27	29	90	360	150	200	\$00																		

L-Lecture	CE- Continuous Internal Evaluation	CP-Class Participation							
S-Studio	SEE- Semester End Examination	PA-Progressive Assessment	CA-Compulsory Audit						
P-Practical	PC - Professional Core; BS&AE- Building	Science and Applied Engineering, PE- Professio	nal Elective; OE- Open Elective						
SE - Studio Exercise	PAECC - Professional Ability Enhancemen	PAECC - Professional Ability Enhancement Compulsory Courses; SEC - Skill Enhancement Courses.							
Minimum Marks for passing:	Theory, Stufio and Lab Marks (CIE) : 50%	Theory, Studio and Lab Marks (CIE): 50%, Term Work/ Viva/Lab(SEE): 40% Theory Marks (SEE): 40%,							
	For a pass in a course, a candidate shall see	are overall 50% of the maximum marks of the c	ourse i.e., CIE+SEE put together						

Note: Students are to be taken on study tour or given vacation assignment after II semester examinations, before the starting of III semester



## Karnatak Law Society's GOGTE INSTITUTE OF TECHNOLOGY, BELAGAVI-08 Bachelor of Architecture SCHEME OF TEACHING AND EXAMINATION



#### **Department** :Architecture

Semester: IV

Subject Stream	Subject Code	Course	Subject Title	Teaching		Co	utact B	<b>I</b> 15	Credits	dits Marks			Marks 3		Duration	
		Туре	0785	Department	L	S	P/SE	Total		CE		E	SEE		Total	ofExam
										œ	PA	VIVA/TW	RIAM	1		
DESIGN	18DES 4.1N	PC	Architectural Design -III 👘 🍏	Architecture	1	6	0	7	10	10	40	50	-	100	-	
	18TEC 4.1N	<b>BS&amp;A</b> E	Building Construction and Materials-IV	Architecture	1	2	2	5	5	10	40	50	-	100	-	
TECHNOLOGY	18TEC 4.2N	BS&AE	Building Services-II	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs	
	18TEC 4.3N	BS&AE	Structures-IV	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs	
	18TEC 4.4N	SEC	Computer Application-II — 🦉	Architecture	1	0	2	3	2	10	40	50	-	100		
	18HUM 4.1N	PC	History of Architecture-IV	Architecture	3	0	0	3	3	10	40	-	50	100	3 hrs	
HUMANITIES	18HUM 4.2N	PC	Humanities	Architecture	21	0	2	3	2	20	\$0	-	-	100	-	
				Total	13	1	6	27	28	\$0	320	150	150	700		
				NN		1	2ª	•								

L-Lecture	CIE - Continuous Internal Evaluation	<b>CP-Class Participation</b>	
S-Studio	SEE - Semester End Examination	PA-Progressive Assessment	CA-Compulsory Audit
P-Practical	PC - Professional Core; BS&AE-Buildin	g Science and Applied Engineering, PE- Profe	ssional Elective; OE- Open Elective
SE - Studio Exercise	PAECC - Professional Ability Enhancement	nt Computsory Courses, SEC - Skill Enhancer	nent Courses.
Minimum Marks for passing	Theory, Studio and Lab Marks (CIE) : 509	%, Term Work/ Viva/Lab(SEE) : 40% Theory	<b>Marks (SEE) : 40%,</b>
	For a pass in a course, a candidate shall s	ecure overall 50% of the maximum marks of t	he course i.e., CIE+SEE put together.



#### Karmtak Law Society's GOGTE INSTITUTE OF TECHNOLOGY, HELAGAVI-08 Bachelor of Architecture SCHEME OF TEACHING AND EXAMINATION



Semester: V

#### **Department** :Architecture

Subject Stream	Subject Code	Course	Subject Title	Teaching	Contact Hrs		ct His Cre		s Marles					Duration	
		Туре		Department	L	S	PSE	Total		CE		SEE		Total	ofExam
										a	PA	VIVATW	REAL	1	
DESIGN	18DES 5.1N	PC	Architectural Design -IV	Architecture	0	1	0	1	12	10	40	50	-	100	-
	18DES 5.2N	PC	Theory of Architecture-I	Anthiecture	3	0	0	3	3	10	40	-	50	100	3 <b>i</b> ns
	18DES 5.3N	SEC	Working Drawing	Architecture	1	0	2	3	2	10	40	50	-	100	-
	18TEC 5.1N	BS&AE	Building Construction and Materials- V	Architecture	1	2	2	5	5	10	40	50	-	100	-
TECHNOLOGY	18TEC 5.2N	BS&AE	Building Services-III	Antilecture	3	0	0	3	3	10	40	-	50	100	3 <b>i</b> ns
	18TEC 5.3N	BS&AE	Structures-V	Antilecture	3	0	0	3	3	10	40	-	50	100	3 <b>i</b> ns
	18HUM 5.1N	PC	History of Architecture-V	Antilecture	3	0	0	3	3	10	40	-	50	100	3 <b>i</b> ns
HUMANITIES	18HUM 5.2N	PC	Vacation Assignment-II	Architecture	0	0	0	0	CA	20	\$0	-	-	100	-
				Total	14	10	4	21	31	90	360	150	200	\$00	
		-		N	)	J.						-			

I-Lecture	CIE - Continuous Internal Evaluation	CP-Class Participation						
S-Studio	SEE - Semester End Examination	PA-Progressive Assessment	CA-Compulsory Audit					
P-Practical	PC - Professional Core; BS&AE-Building S	cience and Applied Engineering, PE- Professional	l Elective; CE- Open Elective					
SE - Studio Exercise	PAECC - Professional Ability Enhancement Compulsory Courses, SEC - Skill Enhancement Courses.							
Minimum Marks for passing	Theory, Stutio and Lab Maries (CIE) : 50%,	Tenn World Viva/Lab(SEE) : 40% Theory Marks	(SEE): 40%,					
	For a pass in a course, a candidate shall seco	re-overall 50% of the maximum marks of the cou	rse i.e., CIE+SEE put together.					

Note: Students are to be taken on study tour or given vacation assignment after IV semester examinations, before the starting of V semester



## Karıntak Law Society's GOGTE INSTITUTE OF TECHNOLOGY, BELAGAVI-08 Bachelor of Architecture SCHEME OF TEACHING AND EXAMINATION



Semester: VI

#### **Department** :Architecture

Subject Stream	Subject Code	Course	Subject Title	Teaching		Co	ntact B	lirs 🛛	Credits	Maris					Duration of
		Туре		Department	L	S	P/SE	Total		C	CE S		SEE Total		Exam
										æ	PA	VIVA	HAN	1	
DESIGN	18DES 6.1N	PC	Architectural Design -V	Architecture	0	1	0	5	12	10	40	50	-	100	-
	18DES 6.2N	PC	Theory of Architecture II	Architecture	3	0	0	3	3	10	40	-	50	100	3 hus
	18DES 6.3N	PC	Landscape Architecture 🧠 🚿	Architecture	2	0	2	4	3	10	40	-	50	100	3 hus
TECHNOLOGY	18TEC 6.1N	<b>BS&amp;A</b> E	Building Construction and Materials- VI	Architecture	1	2	2	5	5	10	40	50	-	100	-
	18TEC 6.2N	<b>BS&amp;AE</b>	Structures -VI	Architecture	3	0	0	3	3	10	40	-	50	100	3 hus
	18HUM 6.1N	PC	Physical Planning	Architecture	3	0	0	3	3	10	40	-	50	100	3 hus
HUMANITIES	18HUM 6.2N	PC	Contemporary Architectore	Architecture	3	0	0	3	3	10	40	-	50	100	3 hus
	•			Total	15	10	4	29	32	70	250	100	250	700	
				A A	/	JK.		•	•			•		•	

		For a pass in a course, a candidate shall see	re-overall 50% of the maximum marks of the c	ourse i.e., CIE+SEE put together.					
Minimum Marks for	passing	Theory, Stufio and Lab Marks (CIE): 50%, Term Worl/ Viva/Lab(SEE): 40% Theory Marks (SEE): 40%,							
SE - Studio Exerci	se in the second se	PAECC - Professional Ability Enhancement	Compulsory Courses; SEC - Skill Enhancemen	tCourses.					
P-Practical	PC - Professi	onal Core; BS&AE-Building Science and App	lied Engineering, PE- Professional Elective; O	E- Open Elective					
S-Studio		SEE- Semester End Examination	PA-Progressive Assessment	CA-Compulsory Authit					
L-Lecture		CIE - Continuous Internal Evaluation	<b>CP-Class Participation</b>						



Karnatak Law Society's

# GOGTE INSTITUTE OF TECHNOLOGY, BELAGAVI-08 Bachelor of Architecture SCHEME OF TEACHING AND EXAMINATION



Semester: VII

#### **Department : Architecture**

Subject Stream	Subject	Course	Subject Title	Teaching	Contact Hrs		Credits	Marks					Duration		
	Code	Туре		Department	L	S	P/SE	Total		C	E	SEE		Total	of Exam
				YPV		1				СР	PA	VIVA	EXAM		
DESIGN	18DES7.1N	PC	Architectural Design -VI	Architecture	2	8	<u> </u>	10	14	10	40	50	-	100	-
	18DES7.2N	PC	Specification,Estimation and Costing	Architecture	3	0	1	3	3	10	40	-	50	100	3 hrs
TECHNOLOGY	18TEC7.1N	BS&AE	Alternate Building Techniques	Architecture	0	0	4	4	2	10	40	50	-	100	-
	18TEC7.2N	BS&AE	Building Services - IV(Building Acoustics)	Architecture	3	0	11	3	3	10	40	-	50	100	3 hrs
	18TEC7.3N	PC	Earthquake Resistant	Architecture	2	0		2	2	20	80	-	-	100	-
HUMANITIES	18HUM7.1N	PE	Elective -I	Architecture	2	0	2	4	3	20	80	-	-	100	-
	18HUM7.2N	PAECC	Professional Practice-I	Architecture	3	0	-	3	3	10	40	-	50	100	3 hrs
	18CRT7.1N	SEC	Certification Course	Architecture	0	0	-	0	1	-	50	-	-	50	-
				Total	15	8	6	29	31	90	410	100	150	750	

L-Lecture	<b>CIE-</b> Continuous Internal Evaluation	CP-Class Participation	
S-Studio	SEE- Semester End Examination	PA-Progressive Assessment	<b>CA-Compulsory</b> Audit
P-Practical	PC - Professional Core; BS&AE- Building	Science and Applied Engineering; PE- Professional Electi	ve; OE- Open Elective
SE - Studio Exercise	PAECC - Professional Ability Enhancemen	t Compulsory Courses; SEC - Skill Enhancement Courses	
Minimum Marks for passing:	Theory, Studio and Lab Marks (CIE): 50%	, Term Work/ Viva/Lab(SEE) : 40% Theory Marks (SEE)	:40%,
	For a pass in a course, a candidate sha	ll secure overall 50% of the maximum marks of the course	e i.e., CIE+SEE put together.

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C mines			SCHEME OF	TEACHING AN	DEX	AM	NATIO	N						VI SAN	
Department :Ard	hitecture												Seme	ster: VI	
Subject Stream Subject		Course	Subject Title	Teaching		Contact Hirs			Credits		Mar	ks		Duration	
-	Cede	Туре	-	Department	L	S	P/SE	Total	1	CIE	S	EE	Tetal	ofExa	
										PA	VIVA	EXAM	1		
DESIGN	18DES 8.1N	PAECC	Professional Training	Architecture	1	1	ló weeks	I	16	50	50	-	100	-	
I		Į	/	Total	5	1			16	50	50		100		
			6	PAR	10	6	1								
Lecture		CIE- Com	tinunus Internal Evaluation	CP-Class Parti		-	1								
Studio		SEE- See	ester End Examination – 🖉	PA-Progressive Assessment							CA-Compulsory Audit			ž	
Practical		PC - Profe	ssional Core; BS-Building Sc	ience and Applied	Eng	ncei	ing, PE-1	Professi	onal Electi	ve; OE-	Open Ele	ective			
- Stulio Exercise	•	PAECC -	Professional Ability Enhancer	ent Compulsory C	ourse	s; SF	C - Shit	l Enhand	ement Cou	ISES.					
inimum Marks for p	assing	Theory, St	ndio and Lab Marks (CIE) : 50	%, Term Work/ V	iva/I	ab(S	EE): 40	% Theo	ry Marles (S	SEE) : 4	<b>)%</b> ,				
		For a pass	in a course, a candidate shall :	secure overall 50%	6 of	he m	azimum 1	marks of	the course	ie, CI	HSEE pu	nt togeth	er		
L_		l			1										



## Karantak Law Society's GOGTE INSTITUTE OF TECHNOLOGY, BELAGAVI-08 Bachelor of Architecture SCHEME OF TEACHING AND EXAMINATION



#### Department : Architecture

Senester: IX

Subject Stream	Subject Code	Course	Subject Title	Teaching	Contact Hirs			Credits	Marks					Duration	
		Туре	0.58	Department	L	S	P/SE	Total	1	CE		SEE		Total	of Exam
										œ	PA	VIVATW	FLAM	1	
DESIGN	18DES 9.1N	PAECC	Dissertation (Thesis Part- I)	Architecture	2	4	0	6	2	10	40	50	-	100	-
	18DES 9.2N	BS&AE	Energy Efficient Architecture	Architecture	1	0	4	5	3	10	40	50	-	100	-
	18DES 9.3N	PE	Elective-II	Architecture	2	0	2	4	3	20	\$0	-	-	100	-
TECHNOLOGY	18TEC 9_1N	PE	Elective-III	Architecture	2	0	2	4	3	20	\$0	-	-	100	-
HUMANITIES	18HUM 9_1N	PAECC	Professional Practice-II	Architecture	3	0	0	3	3	10	40	-	50	100	3 <b>b</b> us
Total		•	100		10	4	-	22	20	70	2\$0	100	50	500	
			<i>4</i>		25	C	7/		•						

L-Lecture	CIE- Continuous Internal Evaluation	CP-Class Participation						
S-Studio	SEE- Semester End Examination	PA-Progressive Assessment	CA-Compulsary Audit					
P-Practical	PC - Professional Core; BS- Building Sci	ience and Applied Engineering, PE- Professi	anal Elective; CE- Open Elective					
SE - Studio Exercise	PAECC - Professional Ability Enhancement Compulsory Courses; SEC - Skill Enhancement Courses.							
Minimum Marks for passing.	passing: Theory, Studio and Lab Marks (CIE): 50%, Term Work/Viva/Lab(SEE): 40% Theory Marks (SEE): 40%, For a pass in a course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put to:							



# KarmtakLar Society's GOGTE INSTITUTE OF TECHNOLOGY, BELAGAVI-08 Bachelor of Architecture SCHEME OF TEACHING AND EXAMINATION

#### Department :Architecture



Senester: X

Subject Stream	Subject Code	Course	Subject Title	Teaching		Contact Hirs		Credits	Marks					Duration of		
		Туре		Departm	ent	L	S	P/SE	Total	1	С	IE.	S	1212	Total	Eram
											œ	PA	WVA	<b>FXAM</b>	1	
DESIGN	18DES10.1N	PC	Architectural Design Project	Architect	bre	0	10	-	10	15	10	40	50	-	100	-
HUMANTIES	18HUM10.1N	SEC	Constitutional Law	Architect	bre	2	0		2	2	20	\$0	-	-	100	-
	•	Œ	Open Elective	20		2	0	7-	2	2	-	50	-	50	100	3 Has
				1	Total	4	10	24	14	19	30	170	50	50	300	-
			4	1.7	The second		N B	-								

L-Lecture	CIE - Continuous Internal Evaluation	CP-Class Participation						
S-Studio	SEE- Semester End Examination	PA-Progressive Assessment	11	CA-Compulsory Audit				
P-Practical	PC - Professional Core; BS&AE-Build	ing Science and Applied Enginee	ring; PE- Professional Elective;					
	OE- Open Elective(Offered by other engineering departments)							
SE - Stulio Exercise	PAECC - Professional Ability Enhancer	nent Compulsary Courses; SEC -	Skill Enhancement Courses.					
Minimum Marks for passing:	Theory, Stufio and Lab Marks (CIE): 5	0%, Term World Viva/Lab(SEE)	: 40% Theory Marks (SEE) : 40%,					
	For a pass in a course, a candidate shall	secure overall 50% of the maxin	ummarks of the course i.e., CIE+SEE put	togeher				

# **ARCHITECTURAL DESIGN - VI**

Course Code	18DES7.1N	Credits	14
Course type	PC	CIE Marks	50
Hours/week: L-T-P	10 Hrs (2 Lectures + 8 Studios) per Week	SEE Marks	50
Total Hours	140 Hrs	SEE	Viva Voce

**Course learning objectives:** 

- 1.To understand what is Urban-context and introduce the idea and importance of `urban space'.
- 2.To introduce the concept of `Urban design' and develop skills to understand reading and documentation of urban contexts and to understand the difference between Architecture, Urban-design and Planning.
- 3.To demonstrate tools to document and analyze urban sites and understand the role of Architecture in shaping urban fabric that are public in nature and fit into specific urban contexts.
- 4.To understand and analyze the role of people's perspective in the process of Urban Design.
- 5.To develop design skills that can explore ideas of place making.

#### Module I: Introduction and Site Selection

Introduction to the concept of urban space and urban design. A Site with identified urban issues shall be selected from any urban context inside the core or its immediate and periurban/agglomeration areas having potential to explore urban insert project. The site area shall have strong context and have potential for demonstrating urban insert projects.

#### Module II: Data Collection and Representations

Understanding and reading of the site should be carried out by detailed documentation of physical conditions of Site by conducting actual site surveys, drawings, sketches, photographic/audiovisual documentation and interviewing the user/people. Data from various official sources like Planning Authorities, City Corporation, City survey office, National Highway Authority, PWD and concerned authorities shall be integrated with the documentation to generate a base map for the study. Students shall be exposed to various methods and tools to represent the physical conditions by mapping of Site aspects like-Built Vs Open, Plot numbers, Land-use plans, Building heights, Roof Typologies, Building Typologies, Techniques of Building Construction, Street patterns, Types of open spaces, Services, Landscape elements, Landmarks, Street Elevations, Street Sections, Community Types, Occupations, Legal and Illegal constructions.

#### Module III: Analysis and Representations

Data Collected will be interpreted in terms of maps by layering the built fabric over the socio-cultural, political and economic layer of the city. The intent of analysis is to understand, represent the context sensitively and identify the problems, potentials and

#### **06 Hours**

#### **30 Hours**

#### **34 Hours**

needs of the area at City as well as Site level. Analysis shall lead to generate strategies and formulation of a design programme.

#### Module IV: Programme Formulation and Design70 Hours

Design programme shall be formulated based on the observations and strategies derived from the analysis stage which shall aim at resolving the site problems, identify and enhance the site potentials, fulfill the needs and be sensitive to contextual characteristics of the site. Finally the program is transformed into physical design with the help of examples of 'Urban Infill' projects. The project shall be formulated at various scales like City level, Area level and spot level interventions to demonstrate the integration of urban spaces and built-form. The projects shall have multiple functions, shall provide public access to majority of spaces, large gathering areas/plazas which are open and extendable to immediate urban contexts.

#### **References:**

1.Geddes Patrick, Cities in Evolution: An Introduction to the Town Planning Movement and to Study of Civics, Harper & Row, New Edition, London, UK, 1968 2.Lynch Kevin, The Image of the City, MIT Press, Massachusetts, USA, 1960.

3.Gordon Cullen, The Concise Townscape, Architectural Press, New York, USA 1971

4.Alexander Christopher, A Pattern Language -Towns, Buildings, Construction, Oxford University press, New York, USA, 1977

5.Jacobs Jane, The Death and Life of Great American cities, Vintage books, New York, USA, 1961

6.Katz Peter, The New Urbanism: Toward an Architecture of Community, Mc Graw Hill, New York, 1993

7.Krier Rob, Urban Space, Rizzoli International Publications, USA, 1993

Course delivery methods	Assessment methods
1. Lectures and Presentations	1. Assignments marking and Reviews evaluation.
2.Presentation of Documentaries and Case studies	2. Exhibition of Documentation and Analysis work.
3.Expert Talks / Site visits	3. Semester End Internal Evaluation and Assessment

#### Scheme of Continuous Internal Evaluation (CIE):

Components	Portfolio Marking	Average of assignments (Two) /activity	Quiz/ Seminar/ Project	Class Participation	Total Marks
Maximum Marks:50	40	-	-	10	50
> Minim	um marks rec	quired to qualify fo	or SEE: 25/50 (509	%)	•

#### Scheme of Semester End Examination (SEE):

- 1. It will be conducted as 50 marks Viva-Voce exam and the same will be considered for the calculation of SGPA and CGPA.
- 2. Minimum marks required in SEE to pass: 20/50 (40%)
- 3. For a pass in the course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together.

# SPECIFICATION, ESTIMATION AND COSTING

Course Code	18DES7.2N	Credits	3
Course type	РС	CIE Marks	50
Hours/week: L-T-P	3 Hrs. (Lecture) per Week	SEE Marks	50
Total Hours:	42 Hrs.	SEE Duration	3 Hrs.

#### **Course learning objectives:**

To develop the necessary skills for writing specifications and preparing estimates for various types of buildings and developmental works.

#### **Module 1: Specifications**

a)Introduction: Definition, Purpose, Procedure for writing specification,types of specification. General specifications for all types of buildings.

b)Abstract and detailed specifications : Bricks, sand, cement, coarse aggregate, water, reinforcement, storing and handling of materials, Earth work in foundation, PCC, RCC, First class brick work in cement mortar, half brick thick partition in cement mortar, reinforced brick work, DPC, glazed tiles in skirting and dadoing, cement plaster, joinery in wood, steel &aluminum, painting to walls – cement paint, oil bound distemper, acrylic emulsion, enamel paint, painting to joinery, varnishing, French polishing.

#### Module 2: Introduction to Estimation of Building

a) Introduction, definition Importance of Estimation and Terminologies, types of estimate; various methods of approximate estimate of buildings.

b) Preliminary estimate, Approximate estimate, Abstract estimate, Plinth Area estimate, Key break estimate, Detailed estimate, Revised estimate, Supplementary estimate and Annual repair estimate. c)Data required (Drawings, Specifications and Rates), methodology of preparation, contingencies, work-charged establishment, bill of quantities.

Self-Learning Topics: To prepare estimation for different types of construction methods

#### Module 3: Estimate -Types and Quantification

- a)Methods of Estimates: Centre Line Method, In to In, Out to out and Individual wall method.
- b) Mode of Measurement: Cubic meter Square metre and Running Metre
- c)Percentage of various materials used in building items like cement, steel, rubble, metal, sand, bricks, tiles.

d) To work out steel and concrete quantities from various RCC components in the building.

**Self-Learning Topics:** To know the use of innovative materials used in building construction to replace conventional materials.

#### Module 4: Analysis of Rates

Rate analysis – definition; method of preparation; quantity and labour estimate for unit work; task or outturn work; rate analysis for: earth work, concrete works, first class brick work, reinforced brick work, cement plastering, DPC with cement mortar/ concrete, finishing (cement paint, distemper, acrylic emulsion, enamel paint) to walls & ceiling.as per current schedule of rates (CSR) of local PWD.

#### **10 Hours**

# 10 Hour

#### 8 Hours

# **08 Hours**

#### **Module 5: Estimation of Building Services**

**6 Hours** 

a)Estimate for water supply works: Sump tank, Overhead tank.

- b)Estimate for sanitary works: Septic tank, Soak pit, Subsoil drain pit and Inspection chambers.
- c) Detail estimate of a residential toilet block.

#### **Books:**

**1.Dutta.B.N: Estimating and Costing, UBS Publishers Distributors (P) Ltd. New Delhi, 2012 and onwards .** 

2.Rangwala S.C: Estimating and Costing, Charotar Publishing house (P) Ltd. New Delhi, 2013 and onwards .

Course delivery methods	Assessment methods
1. Lectures	1. Assignment
2. Documentary Videos	2. Internal Assessment Test
	3. Semester End Examination

Scheme of Continuous Internal Evaluation (CIE):

Components	Total of best two IA tests out of three	Average of assignments (Two) /activity	Quiz/Seminar/ Project	Class Participation	Total Marks
Maximum Marks:50	40	-	-	10	50
Minimum marks required to qualify for SEE: 25 (50%)					

# Scheme of Semester End Examination (SEE):

1. It will be conducted for 100 marks of 3 hours duration. It will be reduced to 50 marks for the calculation of SGPA and CGPA.

2. Minimum marks required in SEE to pass: 20 out of 50

3. Question paper contains two questions from each unit each carrying 20 marks. Students have to answer one full question from each unit.

4. For a pass in the course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together

# **ALTERNATIVE BUILDING TECHNIQUES**

Course Code	18TEC7.1N	Credits	2
Course type	BS & AE	CIE Marks	50 marks
Hours/week: L-T-P	4Hrs ( 4 Studio Exercise) per Week	SEE Marks	50 marks
Total Hours:	56 Hrs	SEE Duration	Viva Voce

#### **Course learning objectives:**

1.Introduction to Non-Conventional Building Materials and Techniques

2. To study Non-Conventional Building Construction Methods.

3.To study Regional Vernacular Construction techniques.

#### Unit I: Non-Conventional Building Construction Methods - Bamboo Construction 16 hours

a)Introduction to Bamboo Construction techniques.

b)Details of Foundation and Plinth Construction.

c)Details of Bamboo Construction in Building Superstructure.

d)Details of Roof Construction.

e)Various joinery details in Bamboo.

#### **Self-Learning Topic:**

- 1. To collect Bamboo samples of various types, sizes and species and to study its local applications.
- 2. Case study documentation of one domestic house or small building built with Bamboo.

# Unit II: Non-Conventional Building Construction Methods-Adobe Earth Construction. 8 hours

- a) Introduction to Adobe Earth Construction Techniques.
- b) Adobe Earth Shallow Foundations and Plinth details.
- c) Adobe Earth walls and its Junctions.
- d) Doors and Window fixing details in the Adobe Earth Wall.

#### **Unit III: Non-Conventional Building Construction Methods-Rammed Earth Construction.**

8 hours

- a) Introduction to Rammed Earth Construction Techniques.
- b) Rammed Earth Shallow Foundations and Plinth details.
- c) Rammed Earth walls and its Junctions.
- d) Doors and Window fixing details in the Rammed Earth Wall.

#### Unit IV: Non-Conventional Building Construction Methods-Cob, Wattle and Daub Earth Construction. 8 hours

a) Introduction to Cob Construction Techniques- Details in Walls, Floors, Roofs and Joinery.

b) Introduction to Wattle and Daub Construction Techniques- Details in Walls, Floors, Roofs and Joinery.

#### **Unit V: Study of Regional Vernacular Construction Techniques**

16 hours

- a) Analysis of vernacular and traditional buildings across climatic zones.
- b) Details of Foundation and Plinth
- c) Details of Superstructure.
- d) Details of Roof Construction Techniques.

**NOTE:** Case Studies, documentation and study of material application shall form the part of the portfolio and report.

#### **Books:**

1.Community Architects Network: Bamboo Construction Source Book, Hunnarshala Foundation, Gujarat, India, 2013

2.McHenry Paul Graham Jr.: Adobe and Rammed Earth Buildings - Design and Construction, University of Arizona Press, USA, 1984

**3.Bee Becky: Cob Builders Handbook-You Can Hand-Sculpt Your Own Home, Groundworks Press, UK, 1998** 

4. Sunshine Paula: Wattle and Daub, Shrine Publications, UK, 2006

#### Scheme of Continuous Internal Evaluation (CIE):

Components	Portfolio Marking	Average of two assignments	Quiz/Seminar / Project	Class Participation	Total Marks
Maximum Marks: 50	40	-	-	10	50

>Minimum marks required to qualify for SEE: 25 (50%)

**Course delivery methods** 

Assessment methods

1. Lectures

1. Case study report assessment

2. Case Study

2. Construction Viva

3. Site visit

#### Scheme of Semester End Examination (SEE):

- 1. It will be conducted as 50 marks Viva-Voce Exam and the same will be considered for the calculation of SGPA and CGPA.
- 2. Minimum marks required in SEE to pass: 20 (40%)
- 3. For a pass in the course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together

# **BUILDING SERVICES-IV (BUILDING ACOUSTICS)**

Course Code	18TEC7.2N	Credits	3
Course type	BS&AE	CIE Marks	50 marks
Hours/week: L-T-P	3 Hrs (3 Lecture ) per Week	SEE Marks	50 marks
Total Hours:	42 Hrs	SEE Duration	3 Hrs

#### **Course learning objectives:**

To develop skills and knowledge required to understand acoustics in buildings and its integration with architectural design.

#### Unit I: Introduction and Behavior of Sound.

- a) Introduction to acoustics: Brief history, definition, importance of acoustics in the building design. nature of sound, auditory range for humans.
- b) Basic terminologies: Propagation of sound, Displacement amplitude, Wave length, Frequency, Pitch, Tone, Frequency bands, Speed of sound, Sound pressure, Acoustical power, Intensity of sound, Decibel scale, Loudness level, Threshold of audibility and Pain, Impaired hearing, Inverse Square Law.
- c) Room acoustics: Behavior of sound in an enclosed space, Reflection from plane and curved surfaces, Diffusion, Refraction, , Diffraction, Reflection, Acoustical shadows.
  Self Learning Topics: Study of behavior of sound on concave and convex surfaces.

#### Unit II: Acoustical Materials and Equipment.

- a) Acoustical Materials : Sound absorption, Acoustical materials and various types like Prefabricated units, Panel absorbers, Diffusers; Acoustical plaster and sprayed on materials; Acoustical blankets and curtains, porous materials, fiberglass, foam panels; Special and variable sound absorptive materials like Helmholtz resonators, draperies
- b) Whispering galleries, Echoes, flutter echoes, room resonances, sound foci, dead spots, ultrasonic and infra range sound. Reverberation and reverberation time, open window unit, Absorption coefficients of important materials used for acoustical treatment. RT calculations using Sabine's formula. Effect of RT on speech and music. Acoustical design recommendation for building examples with RT calculations.
- c) Introduction to Acoustical Tools and Measurements: AI (Articulation Index), STI, (Speech Transmission Index). RASTI (Room Acoustic Speech Transmission Index), Use of SLM (Sound Level Meter), sound attenuation and STC ratings—(sound transmission class), sound reinforcement systems.

Self Learning Topics: Behaviour of sound in historical buildings.

#### **Unit III: Acoustical Design of Built Spaces**

- a) Open Air Theater: History of Greek and Roman theaters. Articulation test, Design of an open airtheater with orchestra shell.
- b) Closed Auditoriums: Design details of an auditorium like floor area, volume, hall shapes, ceiling, balcony recess, side walls, raking of seats for auditorium and balcony.
- c) Acoustical design of seminar/lecture halls, audio visual room and cinema halls.

# 10 hours

**08** hours

#### 10 hours

d) Acoustical devices and related terminologies: Need and use of sound reinforcement systems, background noise, masking effect and masking systems, importance of speech privacy, speech intelligibility, sound amplification systems.

#### **Unit IV: Noise Reduction and methods of Noise Control**

- a) Introduction to noise: Definition, outdoor and indoor sources of noise, acceptable noise levels, NRC value (noise reduction coefficient), air borne and structure borne (impact) noise, noise from ventilation system, Noise transmission, Transmission loss.
- b) Construction measures of noise control of air borne and structure borne noise. Enclosures, screens, Barriers, sound locks, sound proof doors and windows, Sound insulation in A.C.ducts and plants, acoustical filters, generator rooms, machine isolation, Construction details of composite walls, double(cavity) walls, floating floors, wood joist floors and plenum barriers.

#### Unit V: Environmental Noise and its Control By Site Planning

- a) Environmental Noise: Introduction, Air traffic, Rail traffic, Road traffic, industrial noise, recreational activities, background noise. Various methods of controlling environmental noise.
- b) Noise control in Urban Sounds cape: urban noise design considerations, sustainable design (green building) strategies in building acoustics, Noise reduction and control by site planning.

#### **Books:**

- 1. Doelle Leslie L., Environmental acoustics, McGraw Hill Higher education, New York,1972 Onwards.
- 2. Knudsen Vern O. and Harris Cyril M., Acoustical Designing in Architecture, American institute of Physics, NewYork 1978 onwards
- 3. Parkin Peter Hubert. And Humphreys Henry R. Acoustics, Noise and Buildings, Faber and Faber, London 1969 onwards.

**Course delivery methods** 

- 1. Lectures 1. Assignment
- 2. Documentary Videos
- 3. Semester End Examination

Scheme of Continuous Internal Evaluation (CIE):

Components	Total of best two IA tests out of three	Average of assignments (Two) /activity	Quiz/Seminar / Project	Class Participation	Total Marks
Maximum Marks:50	40	-	-	10	50
►Minimum marks required to qualify for SEE: 25 (50%)					

07 hours

07 hours

Assessment methods

- 2. Internal Assessment Test

#### Scheme of Semester End Examination (SEE):

1. It will be conducted for 100 marks of 3 hours duration. It will be reduced to 50 marks for the calculation of SGPA and CGPA.

2. Minimum marks required in SEE to pass: 20 out of 50

3. Question paper contains two questions from each unit each carrying 20 marks. Students have to answer one full question from each unit.

4. For a pass in the course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together

# EARTHQUAKE RESISTANT ARCHITECTURE

Course Code	18TEC7.3N	Credits	2
Course type	PC	CIE Marks	100
Hours/week: L-T-P	2 Hrs (Lectures)per Week	SEE Marks	
Total Hours	28 Hrs	SEE Duration	

#### **Course learning objective:**

To provide awareness and introduction to earthquake resistant buildings

#### **Unit I: Introduction**

- a. Building Safety from natural Hazards.
- b. Earthquake Elementary Seismology.
- c. Earthquake occurrence in the world, plate tectonics, faults, earthquake hazard maps of India and the states, Causes of earthquake, seismic waves, magnitude, intensity, epicenter and energy release, characteristics of strong earthquake ground motions.
- d. Case studies to understand the failure of buildings due to past Earthquakes.

#### **Unit II: Architectural Design Concepts**

- a. Site planning, Building Forms and Architectural Design Concepts for Earthquake resistance
- b. Site selection Site development Building forms Horizontal and vertical eccentricities, mass and stiffness distribution and soft storey
- c. Seismic effects related to building configuration Performance of Ground and Building in past earthquakes.

#### **Unit III: Effects of Earthquake**

- a. On ground, soil rupture, liquefaction, landslides behavior of various types of buildings, structures, and collapse patterns
- b. Behavior of Non-structural elements like services, fixtures, mountings
- c. Social and Economic consequences of earthquakes
- d. Seismic vulnerability evaluation of existing buildings.

#### **Unit IV: Seismic Design Principles**

- a. Concept of seismic design, stiffness, strength, period, ductility, damping, center of mass,center of rigidity, torsion, design eccentricities.
- b. Ductility based design: Design of energy absorbing Seismic base isolation and seismic active control
- c. Seismic response control of buildings : base isolation technique, tuned mass damper, mechanical damper.
- d. Case studies to understand the different earthquake resistant techniques used for High rise structures.

#### **06 Hours**

**06 Hours** 

#### 06 Hours

#### Hours

# Unit V:Techniques of Building Repairs (Retrofitting) and Earthquake resistant features

04 Hours

Total

Marks

100

- a. Repairs of Load bearing and framed structures.
- b. Ductility factors affecting ductility, need for ductility in earthquake resistant structures detailing of RCC flexural and compression members.
- c. Study of various materials used for building repairs post-earthquake.

#### **References:**

1.Duggal S. K., Earthquake Resistant Design of Structures, Oxford University Press, New Delhi, 2007

2. Agarwal Pankaj and Shrikhande Manish, Earthquake Resistant Design of Structures, PHI India

**3.C.V.R.** Murty, Earthquake Tips, National Information Center of Earthquake Engineering, IIT Kanpur, 2005

4.National Programme for Capacity Building of Architects in Earthquake Risk Management, Faculty of Architecture, Manipal Institute of Technology, Manipal, 2008 5.Hosur Vinod, Earthquake Resistant Design of building Structures, Wiley, New Delhi, 2013

**Course delivery methods** 

#### Assessment methods

1. Lectures

1. Case study report assessment

2. Case Study

#### Components Portfolio Average of **Ouiz/Seminar/** Class Marking of all assignments Project **Participation** the Modules (Two) /activity 80 Maximum 20 \_ \_ Marks:100

#### Scheme of Continuous Internal Evaluation (CIE):

>Note: This subject does not have Semester End Examination (SEE).

>Minimum marks required to pass CIE: 50/100 (50%)

# **ELECTIVE - I**

Course Code	18HUM 7.1N	Credits	3
Course type	HUM	CIE Marks	100
Hours/week: L-T-P	3Hrs (Lectures) per Week	SEE Marks	-
Total Hours	48 Hrs	SEE Duration	-

#### **Course learning objective:**

To expose the students to specialized areas of Architecture

#### 18HUM 7.11. ARCHITECTURAL JOURNALISM

**Architectural Journalism** is a novel way to discuss architecture, a language that aims to bridge the gap between built environment and people . It has the potential to raise questions, build curiosity, drive discourses, explain events, ideas and phenomena. The course aims to introduce students to architectural writing, avenues to write and publish their works.

#### A. Architectural Writing

- 1. Different kinds of Architectural Writing : Documentary, Commentary, Journalism, History, Theory, Critics. Different kinds of Architectural Writers
- 2. History of Architectural writing.
- 3. Types of writing- Essay writing, concept writing, article writing, paper writing, Report writing, building/design reviews, book reviews
- 4. Introduction to References and Bibliography

#### **B.** Architectural Journalism

- 1. Relevance of Architectural Journalism
- 2. Difference between Architectural Journalism, Criticism and Communications
- 3. Avenues for reading and writing Print media (Magazines, Journals, Books, Newspapers) Digital Media (Blogs, websites, open access Journals/Magazines)

#### References

- 1. Lange Alexandra "Writing about Architecture Mastering the Language of Buildings and Cities" Architecture Briefs. The Foundation of Architecture, 2015.
- 2. Wiseman Canter "Writing Architecture: A Practical Guide to Clear Communication" Trinity University Press, Texas, 2014.
- 3. Dutta Apoorva "Architectural Voices of India: A blend of Contemporary Traditional Ethos" Cambridge Scholar Publishing, 2017.
- 4. SunejaPappal "Exploration of Architectural journalism in India" 2019.
- 5. White Strunk "The Elements of Style" econo-Clad Books Publisher, Division of Armerican Cos. Inc, Fourth Edition, 2016.

### **18HUM 7.12 ARCHITECTURAL CONSERVATION**

Architectural conservation describes the process through which the material, historical, and design integrity of mankind's built heritage are prolonged through carefully planned interventions. Architectural conservation deals with issues of prolonging the life and

integrity of architectural character and integrity, such as form and style, and/or its constituent building materials.

- i. Understanding the need and purpose of Heritage Conservation. Types of Heritage-Cultural Heritage (Tangible and Intangible), Natural Heritage and Mixed Heritage.
- ii. Introduction to the terms: Preservation, Conservation, Restoration and Reconstruction.
- iii. Ethics of conservation, Significance and Value Assessment.
- iv. Understanding the Process and Degree of Interventions -Indirect Conservations, Preservation, Consolidation, Restoration, Rehabilitation and Reconstruction.
- v. Introduction to Conventions, Charters and Institutes
- vi. Understanding the Process of Documentation-Name and Reference, Location, History, Description, Functional type, Organization, Building material and Technique, Physical threats and risk, Socio Economic value.

#### **References:**

- a) M.Feilden's Bernard ,Conservation of Historic Buildings , architectural press ,Third edition ,2003 onwards .
- b) N.L. Batra, Heritage Conservation: Preservation and Restoration of Monuments, 1997 onwards
- c) ChainaniShyam, Brief-Heritage Conservation-Legislative and Organizational Policies for India ,Intach(UK) ,2009 onwards .
- d) Gupta Divay ,Identification of Documentation of Built Heritage in India,Intach(UK) trust ,2007 onwards
- e) <u>https://whc.unesco.org/en/publications/</u>

#### 18HUM 7.13. DECODING CULTURAL LANDSCAPES - FINDING MEANINGS

The aim of this elective is mainly to sensitize students about systemic thinking and deriving rational interpretations based on cultural Landscapes and their processes. To explore stories, myths revolving around landscapes and elaborate his/her thinking about their interdependencies with an inclusive approach. The elective will also update students aboutunderstanding and analyzing crises that the natural systems or cultural landscapes are going through or would possibly undergo and develop a schematic solution to the same. This course aims to introduce and give an overview of:

- 1. Different systems and subsystems Wetlands, Forests, Rivers.
- 2. Settlement patterns and resource boundary depiction.
- 3. Migration and interdependency patterns Based on landscapes.
- 4. Interpreting myths, anecdotes and folklores based on natural resources and landscapes also tracing their paths back in history.

5.

#### **REFERENCES:**

- 1. Jellicoe Geoffery, The Landscape of Man, Thames and Hudson, London, 2006 and onwards.
- 2. Mcharg Ian, Design with Nature, John Wiley and Sons, New Jersey, 1992 and onwards.
- 3. Amita Sinha, Landscapes in India Form and Meanings, The University Press of Colorado, July 2006
- 4. P Sainath, Everybody loves a good draught, Penguin books India, 1996
- 5. Peter Whollben, The hidden life of trees, Foreword by Tim Flannery. Greystone Books, Vancouver and Berkeley, 2016
- 6. Amita Sinha, Cultural landscapes of south east Asia, by Routledge, 2018

### 18HUM7.14 HUMANIZING URBAN SPACE - DESIGN OF PUBLIC SPACES

### **OBJECTIVES:**

- To study and understand public spaces, with new ways of seeing, hearing and experiencing the settlements and city.
- To humanize urban spaces, produce qualitative aspects derived from the sociocultural patterns of community life and fostering its integration with a more interactive urban edge.

#### **OUTLINE:**

- Concepts of humane habitat, the nature and composition and characters.
- Concepts of space and place; City as a human network.
- Private space, social space, community space and public space.
- The end user, stakeholder's economy, and equity.
- Pedestrian infrastructure and pedestrianization.

Seminar topics: Case studies of best practices in design of public spaces and community spaces.

## **LEARNING OUTCOME:**

- Site reckoning, document everyday life and events within the selected neighborhoods and analysis.
- Propose Spot level revitalization strategies and a design intervention
- An attempt to create humanized place for interactions to enhance human experience in a neighborhood.

#### **REFERENCES:**

- 1. Mumford Lewis, "Culture of Cities", Thomson Learning, 3rd Edition, 1970.
- 2. Montgomery Charles, Happy City, ,2013.
- 3. Jacob Jane, The Death and Life of Great American Cities, 1961.
- 4. Christian Norberg-Schulz, Genius Loci, 1979.
- 5. Gehl Jan and Svarre Birgitte How to study Public Life, 2013.
- 6. Efroymson Debra Tran Thi Kieu Thanh Ha Pham Thu Ha, Public Spaces: How They Humanize Cities, Health Bridge WBB Trust, 2009.

Scheme of Continuous Internal Evaluation (CIE):

Components	Submissions and Assignments	Average of assignments (Two) / activity	Quiz/Semina r/Project	Class Participatio n	Total Marks
Maximum Marks: 100	80	-	-	20	100

> Note: This subject does not have Semester End Examination (SEE).

➤ Minimum marks required to pass CIE: 50 (50%)

#### **PROFESSIONAL PRACTICE-I**

Course Code	18HUM7.2N	Credits	3
Course type	PAECC	CIE Marks	50
Hours/week: L-T-P	3 Hrs. (Lectures) per Week	SEE Marks	50
Total Hours	42 Hrs	SEE Duration	3 Hrs

#### **Course learning objectives:**

- 1. To understand the Profession of Architecture.
- 2. To understand the Responsibilities and Liabilities of the Profession.
- 3. To understand the Process of Contract Management.

#### **UNIT I: Profession**

- a. Introduction to Profession of Architecture: Definition and brief history, overview of Architectural Profession in India, opportunities, new challenges for architects, difference between profession and business.
- b. The Council of Architecture (COA): Overview, Role of Council of Architecture, difference between COA and IIA. functional structure of COA, Registration procedure of COA for graduate architects, code of professional conduct as per COA regulations.
- c. Indian Institute Architects(IIA):Overview, brief history,Functional structure of IIA,role and aims of IIA as a Professional body, Architects Act, 1972
- d. Professional Duties and Liabilities of An Architect as per COA norms, importance, moral, professional and criminal liabilities, Duties and responsibilities of Architect towards client and under contract.

Self-Learning Topic: Membership details and Registration procedure of IIA and COA.

#### **Module II: Architectural Practice**

- a. Types of Architectural firms: Proprietorship, partnership, associateship, combined concerns, Private Limited concerns. Advantages and disadvantages of each type of firm.
- b. Establishment of Architect's office with alternative solutions, staff structure, administration, basic accounting system, various taxes like professional tax, income tax, capital gain tax, wealth tax, GST(Goods and Services Tax).
- c. Types and extent of services offered by architects, scale of fees, stages of payment and agreement between client and architect.

#### **10 Hours**

#### **09 Hours**

Various means of getting works and obtaining projects including works partly executed by real estate agencies, architect, engineer, consultants.

- d. Professional fees for comprehensive architectural services, urban design, landscape architecture, interior architecture, Conditions of engagement and Scale of charges as per guidelines formulated by COA.
- e. Architectural competitions: Introduction, purpose, types, procedure to conduct competitions as per guidelines formulated by COA, architectural copyright for projects.
- f. RERA (Real Estate Regulatory Authority) and its implications.

Self-Learning Topic: Case study of an Architect's office to understand nuances of practice.

#### **Module III: Tender**

- a. Introduction, definition, invitation to tender, types of tenders, merits and demerits of each type of tenders, suitability of different types to various categories of projects. Technical bid, price bid, prebidconference, comparison between conventional and e-tendering.
- b. Typical tender notice, essential characteristics of tender notice, tender documents and contents, procedure of calling for tenders, Architect's role in tender process, issue of tender notices, receipt and opening of tender forms, scrutiny, comparative statement, process of selection and work award.

c. Various issues arising out of the tender document and tendering process. Self-Learning Topic: Preparation of the tender document for a design project of the previous semester.

#### **Module IV: Contracts**

- a. Contracts: General principles, definition, types of contract, Contract document-Articles of Agreement with Clauses, conditions of contract, appendix, bonus and penalty clauses, liquidated and unliquidated damages, earnest money deposit, security deposit, retention amount, mobilization fund, bank guarantee.
- b. Technical specification of civil, water supply and sanitation works. Details of workforce, workshop facilities, list of construction equipment, particulars of work executed, key persons permanently employed by contractor.

#### **Module V: Issues of Contract**

- a. Issues of contract: Breach of contract, termination of contract by client, by architect, by contractor. Types of insurance necessary during contract for safeguarding interest of architect, client and contractor.
- b. Extension of time, delay and penalty, Architect's role in certification and approval of clients in non tendered items, extras, additional works, variations, rate analysis in case of any changes involving cost factor.

07 Hours

#### 07 Hours

#### **09 Hours**

#### **Books:**

- 1.Namavati Roshan: Professional Practice for Architects and Engineers, Lakhani Book Depot, Mumbai (2001 and onwards)
- 2.Deobhakta Madhav: Architectural Practice in India, Pragati offset, Hyderabad (2007 and onwards)
- **3.** K G Krishnamurthy and Ravindra S. V.: Professional Practice, Bangalore (2004 and onwards)
- 4.Council of Architecture, Handbook of Professional Documents 2015, AP India, New Delhi
- 5.Ar. Apte Vasant S.: Architectural Practice and Procedure, Mrs. Padmaja Bhide, Pune (2008 and onwards)

Course delivery methods	Assessment methods
1. Lectures	1. Assignment

- 2. Documentary Videos
- 0
- 2. Internal Assessment Test
- 3. Semester End Examination

Scheme of Continuous Internal Evaluation (CIE):

Components	Total of best two tests out of three	Average of assignments (Two)/Activities	Quiz/ Seminar /Project	Class Participation	Total Marks			
Maximum Marks:50	40	_	-	10	50			
→Minimum marks required to qualify for SEE: 25/50 marks (50%)								

# Scheme of Semester End Examination (SEE):

1. It will be conducted for 100 marks of 3 hours duration. It will be reduced to 50 marks

for the calculation of SGPA and CGPA.

- 2. Minimum marks required in SEE to pass: 20 out of 50
- 3. Question paper contains two questions from each unit each carrying 20 marks. Students have to answer one full question from each unit.

# 4. For a pass in the course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together

# **PROFESSIONAL TRAINING**

Course Code	18DES8.1N	Credits	16
Course type	PAECC	CIE Marks	50
Hours/week: L-T-P	-	SEE Marks	50
Total Hours	16 Weeks	SEE Duration	Viva Voce for 200 marks

#### **Course learning objectives:**

To learn and participate in the various facets of Architectural Practice through Internship at an established architectural studio to get acquainted with the Profession of Architecture.

**Outline:** It is expected that the student understands the role and importance of the Profession. He / She should be advised / guided on the mode of application and selection of the architectural firms / design studios for internship. During the Training Period, the student is expected to take initiative and be proactive in ensuring that he/she derives the maximum benefit out of the training experience.

The student may be given opportunity and exposure to: Development of design concepts and their expression, Preparation of drawings at various stages of the project: presentation, design development, statutory approval, tender, working drawings etc. 3-D visualization of design using physical and digital models, Preparation of bill of quantities with item specifications, area statements, schedule of finishes. Understanding and evaluating impact of various building regulations for FAR / FSI, parking, height, environment, Fire Protection services, etc. Preparation of Tender documents comprising tender conditions and technical specifications. Study of works at site through time spent on construction sites, Services - collaboration with consultants and other agencies in the building project. Choice of materials available in the market - assessment and selection.

Aspects of Office Management: Understanding the nature of flow of work / instructions in the studio's setup Teamwork – organizing and presenting data for easy access to others. Effective communication – oral, written, graphical and electronic. Meetings with clients / consultants / vendors / contractors etc. Various facets of working in an office atmosphere, use of office resources.Obtaining, distribution, handling and management/ organization of work in office.

It is understandable that all of the above may not be feasible during the period of training, but it would be good to cover as many of the above points as possible, at-least cumulatively during the training period.

Viva voce marks to be awarded based on the following works to be submitted by the student and presented during the viva:

Training Report – This shall contain copies of drawings done by the student and other works like photographs of sites visited, models produced etc. The office is required to certify each

sheet as produced by the student period. Should be supported with photographs, sketches, drawings, and other relevant data. As part of this report, a particular detail or element shall be highlighted and elaborated upon.

Building Study Report – Detailed critical study of a completed building designed by the architect with whom the student has worked. The student must have visited the building in person and should include photographs and write-ups .

Building Materials Report– Study of building material/element/technology/detail using live projects that the student has documented over the duration of training as case studies with findings regarding cost, use, maintenance, assessment etc. as obtained from the office/user/manufacturer. This can include photographs, samples, video clips, etc.

Site Study Report – A report of observations at one/more project sites over the course of the training

#### Note:

A candidate failing in the viva examination shall repeat the training afresh for 16 weeks, the starting date coinciding with the beginning of a subsequent semester.

To take up Viva Voce examination, a student shall produce the training certificate by the principal of the architectural firm where training was undergone, stating the nature and types of work completed during internship, as well as the satisfactory completion of training.

Further, the student shall also maintain and produce a log book/ Diary of day to day work at office relating to the assigned work and duly signed by the principal or authorized representative.

Components	Portfolio Marking	Average of assignments (Two) /activity	Quiz/ Seminar /Project	Class Participation	Total Marks
Maximum Marks	50	-	-	-	50

Scheme of Continuous Internal Evaluation (CIE):

The Internal Marks CIE (Continuous Internal Evaluation) will be awarded by the Principal Architect of the Firm.

>Minimum marks required to qualify for SEE:25/50(50%)

#### Scheme of Semester End Examination (SEE):

- 1. It will be conducted as a 200 marks viva-voce exam and the same will be reduced to 50 marks for the calculation of SGPA and CGPA.
- 2. Minimum marks required in SEE to pass: 20/50 (40%)
- 3. For a pass in the course, a candidate shall secure overall 50% of the maximum marks of the course i.e., CIE+SEE put together.