



AUTONOMOUS SCHEME - MTech CAD Structures First Year CCS

SCHEME: 2023

Aca. Year.: 2023-24

SL No	Course Type	Course type series	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations					
								L	T	P	PBL/ABL/SL/others.	CIE Marks	SEE			Tot. Marks	
								Lecture	Tutorial	Practical			Dur.	Th. Mrks	Lab. Mrks.		
SEM: I																	
1	BSC	1	23CCST11	Numerical Methods and programming	CV	CV	3	3	0	0		50	3	50	-	100	
2	IPCC	2	23CCSI12	Finite Element Analysis of Structural Systems - Concepts and Procedures	CV	CV	4	3	0	2		50	3	50	-	100	
3	PCC	3	23CCST13	Computational Structural mechanics - Classical and FE approach	CV	CV	3	3	0	0		50	3	50	-	100	
4	PCC	4	23CCST14	Continuum mechanics - Classical and FE approach	CV	CV	3	3	0	0		50	3	50	-	100	
5	PCC	5	23CCST15	Structural Dynamics- Theory and Computations	CV	CV	3	3	0	0	2	50	3	50	-	100	
6	PCC	6	23CCST16	Research Methodology and IPR	CV	CV	3	3	0	0		50	3	50	-	100	
7	PCCL	7	23CCSL17	CAD Lab - FE Programming	CV	CV	2	1	0	2		50	3	-	50	100	
SEM-I Total							21	19	0	4	2	350		300	50	700	
SEM: II																	
1	IPCC	1	23CCSI21	Analysis of Plates and shells - Classical and FE Approach	CV	CV	4	3	0	2		50	3	50	-	100	
2	PCC	2	23CCST22	Structural stability analysis - Classical and FE approach	CV	CV	3	3	0	0	2	50	3	50	-	100	
3	PEC	3	23CCSP21y	Professional elective- 1	CV	CV	3	3	0	0		50	3	50	-	100	
4	PEC	4	23CCSP22y	Professional elective- 2	CV	CV	3	3	0	0		50	3	50	-	100	
5	PRJ	5	23CCSP25	Mini Project with seminar	CV	CV	4	0	0	0	@PBL	50	3	50	-	100	
6	PCCL	6	23CCSL26	CAD Lab - FE Modelling and Analysis	CV	CV	2	0	0	0		50	-	-	50	100	
SEM-II Total							19	12	0	2	2	300		250	50	600	
FIRST YEAR TOTAL							40										

BSC: Basic science course, PCC: Professional core, IPCC-Integrated Professional Core Courses, PCCL-Professional Core Course lab, PEC: Professional elective course, PRJ: Project, INT: Internship(G), SL: Self learning course, L-Lecture, P-Practical, T/SDA-Tutorial / Skill Development Activities (Hours are for Interaction between faculty and students)

PEC-1

PEC-2

Course Code	Course Title	Course Code	Course Title
23CCSP211	Advanced Design of Steel Structures	23CCSP221	Structural Optimization
23CCSP212	Design of Bridges	23CCSP222	Mechanics of Composites
23CCSP213	Advanced Design of RC Structural Elements	23CCSP223	Structural Health Monitoring
23CCSP214	Design of Offshore Structures	23CCSP224	Reliability Analysis of Structures

Comm
Dr. Prasad CSMV

HOD

Head of Department
Department of Civil Engineering
SJB Institute of Technology
Uttarahalli Road, Kengeri
Bengaluru-560 060.

Dr. Babu N.V.
Dr. Babu N.V.
Academic Dean

Prof. & Academic Dean
SJB Institute of Technology
BGS Health & Education City
Kengeri, Bengaluru-560060

Dr. K.V. Mahendra Prashanth
Dr. K.V. Mahendra Prashanth
Principal

SJB Institute of Technology
67, BGS Health & Education City,
Dr. Vishnuvardhan Road,
Kengeri, Bengaluru - 560 060.



AUTONOMOUS SCHEME - MTech CAD Structures Second Year CCS

SCHEME: 2023

Aca. Year.: 2024-25

SL No	Course Type	Course type series	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				
								L	T	P	S	CIE Marks	SEE			Tot. Marks
								Lecture	Tutorial	Practical	PBL/ABL/SL/othrs.		Dur.	Th. Mrks	Lab. Mrks.	
SEM: III																
1	PCC	1	23CCST31	Advanced structural analysis	CV	CV	4	3	2	0		50	3	50	-	100
2	PEC	2	23CCSP33X	Professional elective- 3	CV	CV	3	3	0	2		50	3	50	-	100
3	PEC	3	23CCSP34X	Professional elective- 4	CV	CV	3	3	0	0		50	3	50	-	100
4	PRJ	4	23CCSPR34	Project Work phase -1	CV	CV	3	0	0	0	@PBL	50	3	50	-	100
5	PRJ	5	23CCSPR35	Societal Project	CV	CV	3	0	0	0	6	50	3	50	-	100
6	INT	6	23CCSG36	Internship			6	(06 weeks between of II and III semesters.)				50	3	-	50	100
SEM-I Total							22	9	2	2	6	300		250	50	600

PEC-3

PEC-4

Course Code	Course Title	Course Code	Course Title
23CCSP331	Design Concepts of Substructures	23CCSP341	Admixtures and Special Concretes
23CCSP332	Advanced Design of Prestressed Concrete Structures	23CCSP342	Earthquake Geotechnical Engineering
23CCSP333	Design of Industrial Structures	23CCSP343	Fracture Mechanics
23CCSP334	Design of Precast and Composite Structures	23CCSP344	Action and Response of Structural Systems

SEM: IV																
1	PRJ	2	23CCSPR41	Project work phase 2			18	-	-	-	@PBL	100	03	-	100	200
2	SLC	1	23CCSS1y	Self learning course- 1	NPTEL	NPTEL	PP/NP	0	0	0						
3	SLC	2	23CCSS2y	Self learning course- 2	NPTEL	NPTEL	PP/NP	0	0	0						
SEM-II Total							18	-	-			100		-	100	200
SECOND YEAR TOTAL							40									

BSC: Basic science course, PCC: Professional core, IPCC-Integrated Professional Core Courses, PCCL-Professional Core Course lab, PEC: Professional elective course, PRJ:Project, INT: Internship(G), SLC: Self learning course, L-Lecture, P-Practical, T/SDA-Tutorial / Skill Development Activities(Hours are for Interaction between faculty and students)

Dr. Prasad CSMV
HOD
Head of Department
Department of Civil Engineering
SJB Institute of Technology
Uttarahalli Road, Kengeri
Bengaluru-560 060.

Dr. Babu N.V
Academic Dean
Prof & Academic Dean
SJB Institute of Technology
BGS Health & Education City
Kengeri, Bengaluru-560060

Dr. K.V Mahendra Prashanth
Principal
SJB Institute of Technology
67, BGS Health & Education City,
Dr. Vishnuvardhana Road,
Kengeri, Bengaluru - 560 060.