



SIDDHARTHA INSTITUTE OF TECHNOLOGY & SCIENCES

(UGC – AUTONOMOUS)

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)

Accredited by NBA and NAAC with 'A+' Grade

Narapally, Korremula Road, Ghatkesar, Medchal-Malkajgiri(Dist)-501 301



M.Tech – Structural Engineering

Course Structure (SITS - R22)

Applicable From 2022-23 Admitted Batch

Structure Breakup

S. No	Category	Breakup of credits (Total 68 credits)
1	Program Core (PC)	20
2	Professional Elective (PE)	15
3	Open Elective (OE)	3
4	Mandatory Credit Course (MCC)	2
5	Project Work / Seminars (PS)	28
6	Audit Course (AC)	-
Total Credits		68

M.Tech – Structural Engineering**Course Structure (SITS - R22)**

Applicable From 2022-23 Admitted Batch

I YEAR I SEMESTER

S. No.	Course Code	Course Name	Course Area	Periods per week			Credits	Scheme of Examination Maximum Marks		
				L	T	P		Internal (CIE)	External (EIE)	Total
1	2212001	Advanced Structural Mechanics	PC	3	0	0	3	40	60	100
2	2212002	Theory of Elasticity and Plasticity	PC	3	0	0	3	40	60	100
3		Professional Elective - I	PE	3	0	0	3	40	60	100
4		Professional Elective - II	PE	3	0	0	3	40	60	100
5	2212003	Computer Aided Design Laboratory	PC	0	1	2	2	40	60	100
6	2212004	Structural Engineering Laboratory	PC	0	1	2	2	40	60	100
7	2212005	Research Methodology & IPR	MCC	2	0	0	2	40	60	100
8		Audit Course – I	*AC-I	2	0	0	0	-	-	-
TOTAL				16	2	4	18			

I YEAR II SEMESTER

S. No.	Course Code	Course Name	Course Area	Periods per week			Credits	Scheme of Examination Maximum Marks		
				L	T	P		Internal (CIE)	External (EIE)	Total
1	2222001	Finite Element Analysis	PC	3	0	0	3	40	60	100
2	2222002	Structural Dynamics	PC	3	0	0	3	40	60	100
3		Professional Elective - III	PE	3	0	0	3	40	60	100
4		Professional Elective - IV	PE	3	0	0	3	40	60	100
5	2222003	Numerical Analysis Laboratory	PC	0	1	2	2	40	60	100
6	2222004	Advanced Structural Analysis and Design Laboratory	PC	0	1	2	2	40	60	100
7	2222005	Mini Project with Seminar	PS	0	0	4	2	100	-	100
8		Audit Course – II	*AC-II	2	0	0	0	-	-	-
TOTAL				14	2	8	18	340	360	700

*Non-credit Audit Courses will not carry any credits.

II YEAR I SEMESTER

S. No.	Course Code	Course Name	Course Area	Periods per week			Credits	Scheme of Examination Maximum Marks		
				L	T	P		Internal (CIE)	External (SEE)	Total
1		Professional Elective - V	PE	3	0	0	3	40	60	100
2		Open Elective	OE	3	0	0	3	40	60	100
3	2232001	Dissertation Work Review-II	PS	0	0	12	6	100	0	100
TOTAL				6	0	12	12	180	120	300

II YEAR II SEMESTER

S. No.	Course Code	Course Name	Course Area	Periods per week			Credits	Scheme of Examination Maximum Marks		
				L	T	P		Internal (CIE)	External (SEE)	Total
1	2242001	Dissertation Work Review-III	PS	0	0	12	6	100	0	100
2	2242002	Dissertation Viva - Voce	PS	0	0	28	14	0	100	100
TOTAL				0	0	40	20	100	100	200

Professional Elective (PE) Courses**Professional Elective-I**

S. No.	Course Code	Course Title
1	2212006	Theory of Plates and Shells
2	2212007	Computer Oriented Numerical Methods
3	2212008	Advanced Foundation Design of Reinforced Concrete

Professional Elective-II

S. No.	Course Code	Course Title
1	2212009	Advanced Reinforced Concrete Design
2	2212010	Structural Health Monitoring
3	2212011	Structural Stability

Professional Elective-III

S. No.	Course Code	Course Title
1	2222006	Advanced Structural Steel Design
2	2222007	Structural Optimization
3	2222008	Design of High-Rise Buildings

Professional Elective-IV

S. No.	Course Code	Course Title
1	2222009	Advanced Prestressed Concrete Design
2	2222010	Structural Reliability
3	2222011	Design of Bridges

Professional Elective-V

S. No.	Course Code	Course Title
1	2232002	Earthquake Resistant Design of Structures
2	2232003	Pre-Engineered Buildings
3	2232004	Rehabilitation and Retrofitting of Structures

Audit Courses (AC) – I & II

S. No.	Course Code	Course
1	22XAC01	English for Research Paper Writing
2	22XAC02	Disaster Management
3	22XAC03	Sanskrit for Technical Knowledge
4	22XAC04	Value Education
5	22XAC05	Constitution of India
6	22XAC06	Pedagogy Studies
7	22XAC07	Stress Management by Yoga
8	22XAC08	Personality Development Through Life Enlightenment Skills

Open Elective (OE) Courses Offered by CE

S. No.	Course Code	Course Title
1	2232005	Green Buildings
2	2232006	Construction Project Management
3	2232007	Safety and Construction Practice Regulations

Note: For Audit Courses 'X' indicates 1 or 2 Sem