

R.V.R & J.C.COLLEGE OF ENGINEERING (Autonomous)

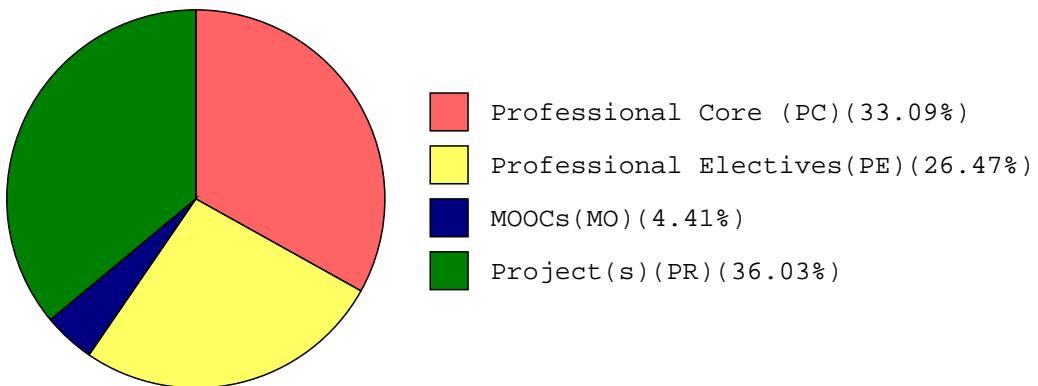
DEPARTMENT OF CIVIL ENGINEERING

MTECH - STRUCTURAL ENGINEERING

(w.e.f. the batch of students admitted from the academic year 2025-2026)

Programme Curriculum (R-25) grouping based on course components

Course Component	Curriculum Content (% of total number of credits in programme)	Total number of contact hours	Total number of credits
Professional Core (PC)	33.09	27	22.5
Professional Elective(s) (PE)	26.47	18	18
Project(s) (PR)	36.03	3	24.5
MOOC's (MO)	4.41		3
Mandatory Course(s) (MC)	--	2	--
Total number of Credits			68



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MTECH - STRUCTURAL ENGINEERING

Course Structure, Scheme of Instruction (R25) and Examination

(w.e.f. the batch of students admitted from the academic year 2025-2026)

I Year I Semester

COURSE STRUCTURE

SNo.	Course Details		Scheme of Instruction		Scheme of Examination		Category		
	Code No.	Subject Name	Periods per week		Maximum Marks	Credits			
			L	T	P	Code			
1	SE511	Theory of Elasticity and Plasticity	3	-	-	40	60	3.0	PC
2	SE512	Dynamics of Structures	3	-	-	40	60	3.0	PC
3	SE513	Matrix Methods of Structural Analysis	3	-	-	40	60	3.0	PC
4	SE514	Professional Elective-I	3	-	-	40	60	3.0	PE
5	SE515	Professional Elective-II	3	-	-	40	60	3.0	PE
6	SE516	Professional Elective-III	3	-	-	40	60	3.0	PE
7	SE551	Structural Engineering Laboratory	-	-	3	40	60	1.5	PC
8	SE552	Computer Aided Detailing Laboratory	-	-	3	40	60	1.5	PC
TOTAL			18	0	6	320	480	21	TPW-24

I Year II Semester

COURSE STRUCTURE

SNo.	Course Details		Scheme of Instruction		Scheme of Examination		Category		
	Code No.	Subject Name	Periods per week		Maximum Marks	Credits			
			L	T	P	Code			
1	SE521	Finite Element Analysis of Structures	3	-	-	40	60	3.0	PC
2	SE522	Pre-Engineered Buildings	3	-	-	40	60	3.0	PC
3	SE523	Theory of Plates and Shells	3	-	-	40	60	3.0	PC
4	SE524	Professional Elective-IV	3	-	-	40	60	3.0	PE
5	SE525	Professional Elective-V	3	-	-	40	60	3.0	PE
6	SE526	Professional Elective-VI	3	-	-	40	60	3.0	PE
7	SE561	Computer Aided Design Laboratory	-	-	3	40	60	1.5	PC
8	SE562	Mini Project	-	-	3	40	60	1.5	PR
9	MC	Research Methodology and IPR	2	-	-	100	-	0.0	MC
TOTAL			18	0	6	320	480	21	TPW-24
Internship 4-8 weeks (Mandatory) during summer vacation (to be evaluated during next semester)									

II Year I Semester**COURSE STRUCTURE**

SNo.	Course Details			Scheme of Instruction		Scheme of Examination		Category		
	Code No.	Subject Name		Periods per week		Maximum Marks				
				L	T	P	CIA			
1	SE611	MOOCs		-	-	-	100	3.0	MO	
2	SE651	Internship		-	-	-	40	60	3.0	PR
3	SE652	Dissertation Phase-I		-	-	-	40	60	6.0	PR
TOTAL				0	0	0	80	220	12	TPW-0

II Year II Semester**COURSE STRUCTURE**

SNo.	Course Details			Scheme of Instruction		Scheme of Examination		Category		
	Code No.	Subject Name		Periods per week		Maximum Marks				
				L	T	P	CIA			
1	SE661	Dissertation Phase-II		-	-	-	40	60	14.0	PR
TOTAL				0	0	0	40	60	14	TPW-0

CIA - Continuous Internal Assessment; SEE - Semester End Examinations

TPW - Total periods per Week

Professional Elective Courses

Code No.	Subject Name	Code No.	Subject Name
SEEL01	Advanced Theory and Design of RCC Structures	SEEL02	Building Information Modeling
SEEL03	Pre Engineered Buildings	SEEL04	Fracture Mechanics of Concrete
SEEL05	Advanced Concrete Technology	SEEL06	Green Buildings
SEEL07	Health Monitoring of Structures	SEEL08	Repair and Rehabilitation of Structures
SEEL09	Advanced Design of Steel Structures	SEEL10	Earthquake Resistant Design of Structures
SEEL11	Disaster Management	SEEL12	Ground Improvement Techniques
SEEL13	Advanced Foundation Engineering	SEEL14	Composite Construction
SEEL15	Design of Prestressed Concrete Structures	SEEL16	Design of Tall Buildings
SEEL17	Advanced Bridge Engineering	SEEL18	Experimental Stress Analysis and Motion Measurement
SEEL19	Precast Concrete Structures	SEEL20	Formwork for Concrete Structures
SEEL21	Structural Optimization		