

PSN COLLEGE OF ENGINEERING AND TECHNOLOGY



(An Autonomous Institution Affiliated to Anna University, Chennai)
Approved by AICTE, Recognized by UGC under section 2(f) & 12 (B)
An ISO 9001:2015 Certified Institution Accredited by NAAC with A+
Melathediyoor, Tirunelveli - 627 152



DEPARTMENT OF CIVIL ENGINEERING

CURRICULUM - B.E CIVIL ENGINEERING (FULL TIME PROGRAMME)

REGULATION 2022

SEMESTER – I

Sl. No	Course Code	Course Name		Classification	L	T	P	C
1.	IC610001	Professional English I	IC	Theory	2	0	0	2
2.	IC610002	Matrices and Calculus	IC	Theory	2	1	0	3
3.	IC610003	Engineering Physics	IC	Theory	3	0	0	3
4.	IC610004	Engineering Chemistry	IC	Theory	3	0	0	3
5.	IC610005	Problem Solving and 'C' Programming	IC	Theory	3	0	0	3
6.	ME610006	Engineering Graphics with CAD	IC	Theory with Practical	2	0	2	3
7.	IC610007	Tamil Marabu / Heritage of Tamil	IC	Theory	1	0	0	1
8.	IP610101	Physics & Chemistry Laboratory	IC	Practical	0	0	3	1.5
9.	IP610102	Programming in 'C' Laboratory	IC	Practical	0	0	3	1.5
10.		NCC/NSS/NSO *	IM	Institute Mandatory	1	0	0	0
Total					17	1	8	21

SEMESTER – II

Sl. No	Course Code	Course Name		Classification	L	T	P	C
1.	IC620008	Professional English II	IC	Theory with Practical	2	0	2	3
2.	IC620009	Transforms & Partial Differential Equations	IC	Theory	2	1	0	3
3.	IC620010	Engineering Materials (for Non Circuit Branches)	IC	Theory	3	0	0	3
4.	IC620011	Semiconductor Physics (for Circuit Branches)	IC		3	0	0	
5.	ME620012	Engineering Mechanics (for Non Circuit Branches)	PC	Theory with Project	3	0	0	3
6.	CS620013	Fundamentals of Artificial Intelligence (for Circuit Branches)			3	0	0	
7.	CS620014	Python Programming	IC	Theory	3	0	0	3

8.	ME620015	Basic Engineering	IC	Theory	3	0	0	3
9.	1C620016	Tamils and Technology	IC	Theory	1	0	0	1
10.	IM610401	Environmental Studies	IM	Institute Mandatory	2	0	0	0
	IP620103	Python Laboratory	IC	Practical	0	0	3	1.5
	IP620104	Engineering Practice Laboratory	IC	Practical	0	0	3	1.5
Total					25	1	8	22

*** The curriculum framed and approved by under the first year board / chairman.**

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SEMESTER – III

Sl. No	Course Code	Course Name		Classification	L	T	P	C
1.	IC630017	Numerical Methods and Statistics	IC	Theory	2	1	0	3
2.	CE630201	Surveying	PC	Theory	3	0	0	3
3.	CE630202	Concrete Technology	PC	Theory with Practical	2	0	2	3
4.	CE630203	Highway Engineering	PC	Theory with Project	3	0	0	3
5.	CE630204	Geotechnical Engineering I	PC	Theory	3	0	0	3
6.	#	Professional Elective I	PE	Theory	3	0	0	3
7.	CE630301	Surveying Laboratory	PC	Practical	0	0	3	1.5
8.	CE630302	Computer Aided Building Drawing	PC	Practical	0	0	3	1.5
9.	CE630501	Integrated Aptitude Skills - I (Lower)	EEC	Skill Based Course	0	0	1	0.5
10.	IM630402	Universal Human Values	IM	Theory	2	0	0	0
Total					18	01	09	21.5

SEMESTER – IV

Sl. No	Course Code	Course Name		Classification	L	T	P	C
1.	IC640018	Boundary Value Problems and Probability Distributions	IC	Theory	2	1	0	3
2.	CE640205	Mechanics of Materials	PC	Theory with Practical	2	0	2	3
3.	CE640206	Fluid Mechanics and Hydraulic Machinery	PC	Theory with Project	3	0	0	3
4.	CE640207	Geotechnical Engineering II	PC	Theory	3	0	0	3
5.	#	Professional Elective II	PE	Theory	3	0	0	3
6.	\$	Institute Elective I	IE	Theory	3	0	0	3
7.	CE640303	Hydraulics Laboratory	PC	Practical	0	0	3	1.5
8.	CE640304	Geotechnical Engineering Laboratory	PC	Practical	0	0	3	1.5
9.	CE640502	Integrated Aptitude Skills - II (Lower)	EEC	Skill Based Course	0	0	1	0.5
10.	-	Inplant Training (2 Weeks)	IM		-	-	-	-
Total					16	01	09	21.5

SEMESTER – V

Sl. No	Course Code	Course Name		Classification	L	T	P	C
1.	CE650208	Structural Analysis I	PC	Theory with Practical	2	0	2	3
2.	CE650209	Design of RC Elements	PC	Theory with Project	2	1	0	3
3.	CE650210	Environmental Engineering	PC	Theory	3	0	0	3
4.	#	Professional Elective III	PE	Theory	3	0	0	3
5.	#	Professional Elective IV	PE	Theory	3	0	0	3
6.	\$	Institute Elective II	IE	Theory	3	0	0	3
7.	CE650801	Contract Laws for Civil Engineers	PM	Theory	2	0	0	0
8.	CE650305	Survey Field Practices Laboratory	PC	Practical	0	0	3	1.5
9.	CE650306	Concrete and Highway Engineering Laboratory	PC	Practical	0	0	3	1.5
10.	CE650503	Integrated Aptitude Skills - I (Higher)	EEC	Skill Based Course	0	0	2	1
Total					18	01	10	22

SEMESTER – VI

Sl. No	Course Code	Course Name		Classification	L	T	P	C
1.	CE660211	Structural Analysis II	PC	Theory with Practical	2	0	2	3
2.	CE660212	Design of Steel Structures	PC	Theory with Project	2	1	0	3
3.	CE660213	Construction Management	PC	Theory	3	0	0	3
4.	#	Professional Elective V	PE	Theory	3	0	0	3
5.	#	Professional Elective VI	PE	Theory	3	0	0	3
6.	\$	Institute Elective III	IE	Theory	3	0	0	3
7.	IM660403	Professional Ethics	IM	Theory	2	0	0	0
8.	CE660307	Environmental Engineering Laboratory	PC	Practical	0	0	3	1.5
9.	CE660308	Environmental and Irrigation Drawing Laboratory	PC	Practical	0	0	3	1.5
10.	CE660504	Training in Centre for Excellence	EEC	Skill Based Course	0	0	2	1
	-	Internship	IM		-	-	-	-
Total					18	01	10	22

SEMESTER – VII

Sl. No	Course Code	Course Name		Classification	L	T	P	C
1.	CE670214	Design of RC Structures and Detailing	PC	Theory with Project	2	1	0	3
2.	CE670215	Estimation, Costing and Valuation	PC	Theory with Practical	2	0	2	3
3.	CE670216	Dynamics and Seismic Design of Structures	PC	Theory	3	0	0	3
4.	#	Professional Elective VII	PE	Theory	3	0	0	3
5.	#	Professional Elective VII	PE	Theory	3	0	0	3
6.	\$	Institute Elective IV	IE	Theory	3	0	0	3
7.	MG670019	Innovation Entrepreneurship and Startups	IC	Theory	3	0	0	3
8.	CE670309	Computer Aided Design and Drafting Laboratory	PC	Practical	0	0	3	1.5
9.	CE670310	Design Project	PC	Practical	0	0	3	1.5
10.	CE670505	Advanced Career Development	EEC	Skill Based Course	0	0	2	1
Total					19	01	10	25

SEMESTER – VIII

Sl. No	Course Code	Course Name		Classification	L	T	P	C
1.	CE680506	Project Work	PC	Practical	0	0	20	10
Total					0	0	20	10

Semester	I	II	III	IV	V	VI	VII	VIII	Total
Credit	21	22	21.5	21.5	22	22	25	10	165

- IC - Institute Core
- PE - Programme Elective
- PC - Professional Core
- PM - Professional Mandatory
- IM - Institute Mandatory
- EEC - Employment Enhancement Course
- IE - Institute Elective

PROGRAMME ELECTIVES LIST

Vertical 1 – Structures

Sl. No	Course Code	Course Name		Classification	L	T	P	C
1.	CE606101	Prefabricated Structures	PE	Theory	3	0	0	3
2.	CE606102	Prestressed Concrete Structures	PE	Theory	2	1	0	3
3.	CE606103	Building Planning and Services	PE	Theory	3	0	0	3
4.	CE606104	Tall Buildings	PE	Theory	3	0	0	3
5.	CE606105	Corrosion of RC Structures	PE	Theory	3	0	0	3
6.	CE606106	Computer Aided Design of Structures	PE	Theory	3	0	0	3
7.	CE606107	Maintenance and Repair of Concrete Structures	PE	Theory	3	0	0	3
8.	CE606108	Design of Masonry Structures (NPTEL)	PE	Theory	3	0	0	3
9.	CE606109	Reinforced Concrete Road Bridges (NPTEL)	PE	Theory	3	0	0	3
10.	CE606110	Finite Element Method and Computational Structural Dynamics (NPTEL)	PE	Theory	3	0	0	3

Vertical 2 – Constructions

Sl. No	Course Code	Course Name		Classification	L	T	P	C
1.	CE606201	Construction Planning and Scheduling	PE	Theory	3	0	0	3
2.	CE606202	Energy Conservation Methods in Construction	PE	Theory	3	0	0	3
3.	CE606203	Advanced Construction Techniques	PE	Theory	3	0	0	3
4.	CE606204	Green Construction	PE	Theory	3	0	0	3
5.	CE606205	Environmental Impact Assessment for Construction Engineers	PE	Theory	3	0	0	3
6.	CE606206	Project Formulation and Appraisal	PE	Theory	3	0	0	3
7.	CE606207	Modern Construction Materials (NPTEL)	PE	Theory	3	0	0	3
8.	CE606208	Basic Construction Materials	PE	Theory	3	0	0	3
9.	CE606209	Development and Application of Special Concrete (NPTEL)	PE	Theory	3	0	0	3
10.	CE606210	Introduction to Lean Construction (NPTEL)	PE	Theory	3	0	0	3

Vertical 3 – Water Resources & Environmental

Sl. No	Course Code	Course Name		Classification	L	T	P	C
1.	CE606301	Water Resources Engineering	PE	Theory	3	0	0	3
2.	CE606302	Industrial Waste Management	PE	Theory	3	0	0	3
3.	CE606303	Environmental Monitoring Instruments	PE	Theory	3	0	0	3
4.	CE606304	Air Pollution & Control	PE	Theory	3	0	0	3
5.	CE606305	Environmental Impact Assessment	PE	Theory	3	0	0	3
6.	CE606306	Environmental Policy and Legislations	PE	Theory	3	0	0	3
7.	CE606307	Ground Water Hydrology and Management (NPTEL)	PE	Theory	3	0	0	3
8.	CE606308	Surface Water Hydrology	PE	Theory	3	0	0	3
9.	CE606309	Computational Hydraulics (NPTEL)	PE	Theory	3	0	0	3
10.	CE606310	Rural Water Resources Management (NPTEL)	PE	Theory	3	0	0	3

Vertical 4 – Surveying

Sl. No	Course Code	Course Name		Classification	L	T	P	C
1.	CE606401	Hydrographic Surveying	PE	Theory	3	0	0	3
2.	CE606402	Geo- Informatics	PE	Theory	3	0	0	3
3.	CE606403	Satellite Image Processing	PE	Theory	3	0	0	3
4.	CE606404	Cartography	PE	Theory	3	0	0	3
5.	CE606405	Cadastral Surveying	PE	Theory	3	0	0	3
6.	CE606406	Higher Surveying	PE	Theory	3	0	0	3
7.	CE606407	Geographic Information Systems (NPTEL)	PE	Theory	3	0	0	3
8.	CE606408	Modern Surveying Techniques	PE	Theory	3	0	0	3
9.	CE606409	GPS Surveying (NPTEL)	PE	Theory	3	0	0	3
10.	CE606410	Digital Land Surveying and Mapping (NPTEL)	PE	Theory	3	0	0	3

Vertical 5 – Soil & Foundation

Sl. No	Course Code	Course Name		Classification	L	T	P	C
1.	CE606501	Soil Dynamics	PE	Theory	3	0	0	3
2.	CE606502	Advanced Foundation Engineering	PE	Theory	3	0	0	3
3.	CE606503	Ground Improvement Techniques	PE	Theory	3	0	0	3
4.	CE606504	Earthquake Resistant and Design of Foundations	PE	Theory	3	0	0	3
5.	CE606505	Geotechniques for Infrastructure	PE	Theory	3	0	0	3
6.	CE606506	Earth and Earth Retaining Structures	PE	Theory	3	0	0	3
7.	CE606507	Soil Structure Interaction	PE	Theory	3	0	0	3
8.	CE606508	Geotechnical Earthquake Engineering (NPTEL)	PE	Theory	3	0	0	3
9.	CE606509	Unsaturated Soil Mechanics (NPTEL)	PE	Theory	3	0	0	3
10.	CE606510	Geosynthetics Engineering - In Theory and Practice (NPTEL)	PE	Theory	3	0	0	3

Vertical 6 – Transportation

Sl. No	Course Code	Course Name		Classification	L	T	P	C
1.	CE606601	Railway Infrastructure Planning and Design	PE	Theory	3	0	0	3
2.	CE606602	Airport Infrastructure Planning and Design	PE	Theory	3	0	0	3
3.	CE606603	Waterway Infrastructure Planning and Design	PE	Theory	3	0	0	3
4.	CE606604	Road Safety System	PE	Theory	3	0	0	3
5.	CE606605	Intelligent Transportation Systems	PE	Theory	3	0	0	3
6.	CE606606	Environmental Impacts of Transportation	PE	Theory	3	0	0	3
7.	CE606607	Traffic Engineering and Management (NPTEL)	PE	Theory	3	0	0	3
8.	CE606608	Pavement Engineering	PE	Theory	3	0	0	3
9.	CE606609	Urban Planning and Development (NPTEL)	PE	Theory	3	0	0	3
10.	CE606610	GIS for Transportation Systems (NPTEL)	PE	Theory	3	0	0	3

INSTITUTE ELECTIVES LIST

Institute Elective I

Sl. No	Course Code	Course Name		Classification	L	T	P	C
1.	CE607103	Climate Change Adaptation and Mitigation	IE	Theory	3	0	0	3
2.	CE607104	Sustainable Development	IE	Theory	3	0	0	3
3.	CE607105	Watershed Conservation and Management	IE	Theory	3	0	0	3

Institute Elective II

Sl. No	Course Code	Course Name		Classification	L	T	P	C
1.	CE607203	Environmental Risk Management	IE	Theory	3	0	0	3
2.	CE607204	Energy Efficiency, Acoustics and Day Lighting in Building	IE	Theory	3	0	0	3

Institute Elective III

Sl. No	Course Code	Course Name		Classification	L	T	P	C
1.	CE607303	Plastic Waste Management	IE	Theory	3	0	0	3
2.	CE607304	Waste to Energy Conversion	IE	Theory	3	0	0	3

Institute Elective IV

Sl. No	Course Code	Course Name		Classification	L	T	P	C
1.	CE607402	Electronic Waste Management	IE	Theory	3	0	0	3
2.	CE607403	Environmental Quality Monitoring & Analysis	IE	Theory	3	0	0	3