M.TECH (WORKING PROFESSIONAL)

CIVIL ENGINEERING

SCHEME OF STUDIES

Semester-wise Course Structure

Semester I

Course Code	Course Title	Type	Periods	Credits
PWCE-101	Advanced Structural Analysis	Theory	4	4
PWRM-102	Research Methodology & IPR	Theory	4	4
PWCE-103	Structural Analysis Lab (STAAD/ETABS)	Practical	4	2
PWCE-104	Geotechnical Investigation Lab	Practical	4	2
PWCE-105	Technical Seminar I (Literature Review)	Seminar	4	2
PWCE-106	Mini Project I (Problem Identification)	Project	4	2
PWCE-10X	Elective I	Elective	4	4
TOTAL	**Theory: 12 | Practical/Project: 16**		**28**	**20**

Semester II

Course Code	Course Title	Type	Periods	Credits
PWCE-201	Foundation Engineering & Soil Dynamics	Theory	4	4
PWCE-202	Advanced Concrete Technology	Theory	4	4
PWCE-203	Concrete Technology & Materials Lab	Practical	4	2
PWCE-204	Hydraulics & Environmental Engg Lab	Practical	4	2
PWCE-205	Technical Seminar II (State-of-the-Art Review)	Seminar	4	2
PWCE-206	Mini Project II (Design & Simulation)	Project	8	4
PWCE-20X	Elective II	Elective	4	4
TOTAL	**Theory: 12 | Practical/Project: 20**		32	**22**

Semester III

Course Code	Course Title	Type	Periods	Credits
PWCE-301	Project Planning & Construction Management	Theory	4	4
PWCE-302	Environmental & Water Quality Lab	Practical	4	2
PWCE-303	Industry Internship	Practical	8	4
PWCE-304	Seminar III (Thesis Proposal Presentation)	Seminar	4	2
PWCE-305	Pre Thesis / Dissertation	Thesis	8	4
PWCE-30X	Elective III	Elective	4	4
TOTAL	**Theory: 8 | Practical/Project: 24**		**32**	**20**

Semester IV

Course Code	Course Title	Type	Periods	Credits
PWCE-401	Thesis / Dissertation	Thesis	24	12
PWCE-402	Seminar IV (Final Presentation)	Seminar	16	8
TOTAL	**Theory: 0 | Practical/Project: 40**		**40**	**20**

Credit Summary

Semester	Theory Credits	Practical/Project Credits	Total Credits
Semester I	9	11	20
Semester II	9	11	20
Semester III	6	14	20
Semester IV	6	14	20
GRAND TOTAL	**30**	**50**	**80**

List of Elective Courses

Elective	Course Code	Course Title	Domain	Offered In
I	PWCE-108	Transportation Engg & Highway Design	Transportation / Infrastructure	Sem I
I	PWCE-109	Remote Sensing & GIS in Civil Engg	Geomatics	Sem I
I	PWCE-110	Advanced Steel Structures	Structural Engineering	Sem I
II	PWCE-208	Finite Element Method in Structural Analysis	Structural Engineering	Sem II
II	PWCE-209	Water Resources Engineering	Hydraulics / Water Resources	Sem II

Elective	Course Code	Course Title	Domain	Offered In
II	PWCE-210	Urban Infrastructure & Smart Cities	Infrastructure Planning	Sem II
III	PWCE-307	Earthquake Engineering & Structural Dynamics	Structural Engineering	Sem III
III	PWCE-308	Solid Waste & Hazardous Waste Management	Environmental Engineering	Sem III
III	PWCE-309	Building Information Modelling (BIM)	Modern Construction Technology	Sem III
		Sustainable Construction & Green Buildings	Environment / Sustainability	
		Pavement Design & Rehabilitation	Transportation Engineering	
		Advanced Prestressed Concrete Structures	Structural Engineering	