

2022	M.Tech-Construction Technology & Management
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Course Code	Course Title	Description of the Course Outcome
15CE5121	Green Buildings	Understanding the concept of green buildings and practices
		Understanding the Green Building Opportunities And Benefits and Green Building Design
		Understanding the concept of optimal air conditioning
		Understanding the concept of Material Conservation and Indoor Environment Quality And Occupational Health:
15CE5122	Construction Materials & Concrete Technology	Understanding and knowing about the different construction materials properties
		Knowing about the special concretes
		Knowing about the Tests on Concrete
		Understanding the concept of Precast Concrete structures
15CE 5119	Construction Planning Scheduling and Control	Understand the Project Management, Project manager, organization structures, organizing and staffing the project office and team
		Understand the Management functions, Directing, controlling, project authority, interpersonal influences, barriers, team building, communication, time management, conflicts
		Understand and explain Construction Planning milestone schedules, WBS, Network Techniques, CPM, PERT and Prima Vera, Resources leveling and smoothing.
		Understand Cost Control, operating cycles, cost account codes, Job cost report, Projected Cost Estimates, status reporting, variance and earned value and Project Management System, MIS reporting, Daily, Weekly
15CE 5120	Statistical Methods for Management	Understanding the concept of One Dimensional Random Variable
		Understanding the Estimation Theory and Testing of Hypothesis
		Design of Experiments
		Understanding the Queueing Models
15CE 5221	Mechanized Construction and Machinery	Understanding the Standard types of Equipment
		Knowing the Earthmoving Equipment-I
		Knowing the Earthmoving Equipment- II
		Knowing the Pumping Equipment's
		Preparation of report on Different equipment types and their usage
15CE 5222	Project Formulation Appraisal	To study elements of project formulation and appraisal
		Gain knowledge on project costing and appraisal
		To understand the financial aspects of projects.
		To study the scope and applications of private sector participation in construction projects.
15CE 5223	Construction Laws and Regulations	Understanding the Construction Contracts
		Understanding the Tenders
		Understanding the concept of Arbitration
		Understanding the Legal Requirements and Labour Regulations
15CE 5224	Quality Management and Safety Management	Understand concepts of quality management, system requirements and documentation.
		Understand quality planning and programs in construction industry.
		Understand objectives, techniques for testing and analysis and application of tools for improvement of quality

	Systems in Construction	Understand the fundamentals of safety management systems in construction industry
		Demonstrate procedures and quality assurance systems and safety management systems in construction projects.
15CE 51I1	High Performance Buildings	Introduction to High Performing Buildings
		Understanding the High Performance Building Concepts and Practices
		Understanding the High Performance Building Design and Air Conditioning
		Understanding the Material Conservation and Indoor Environment Quality and Occupational Health
15CE 51I2	Precast Concrete Structure	Introduction to Precast Concrete Structures
		Knowing about the Prefabricated components
		Understanding the Design Principles
		Understanding the Joint in Structural Members and Design for abnormal loads
15CE 51I3	Special Concrete	Understand the manufacturing process and additional ingredients of concrete
		Recognize different types of special concretes
		Calculate the different mix designs of concrete
		Thoroughly know the mechanical properties and durability of concrete
15CE 51I4	Structural Health Monitoring	Understanding the Static Field Testing
		Dynamic Field Testing
		Understanding the Periodic and Continuous Monitoring of structures
		Understanding the different types Structural Cracks
15CE 51J1	Construction Personnel Management	Understanding about Manpower Planning
		Understanding about the Organisation
		Understanding about Human Relations and Organizational Behaviour
		Understanding the Welfare Measures, Management and Development Methods
15CE 51J2	Building Services, Maintenance Management	Understanding the Water Supply and Electric Services
		Understanding the Drainage and Solid Waste Disposal methods
		Understanding the Fire Fighting Services, Plumbing and Firefighting Layout of simple building
		Understanding the Illumination and lighting design
15CE 51J3	Infrastructure Valuation	Understand the fundamentals of Value, worth and value engineering and also understand the general techniques in infrastructure valuation.
		Gain knowledge on the various special techniques in infrastructure valuation.
		Understand the different numeric analysis techniques in value engineering and study life cycle cost.
		Recognize the applications of value engineering
15CE 51J4	Construction Economics & Finance	Understanding the Construction accounting
		Understanding the Benefit-cost analysis
		Understanding the Turnkey activities
		Understanding the International finance
15CE 52K1	Environmental Impact Assessment	To acquire the Knowledge of Environmental Technology.
		To attain Strong base of knowledge of EIA

15CE 52K1	on built Environment	To obtain the Knowledge of EIA Methodologies
		To know the Risks to Environment and Human, Health to solve societal problems
15CE 52K2	Deep Excavations and ground water control methods	Understanding about the Deep Excavation
		Understanding about the Roads, Tunnels and Dewatering
		Understanding about the Grouting Methods
		Understanding about the Piling & Cofferdams and Caisson
15CE 52K4	Form Work for Construction Structures	Understanding about Planning, site equipment and plant for form work
		Understanding about Materials accessories proprietary products and pressures
		Understanding the Design of forms and shores
		Understanding the building and erecting the form work methods and forms for domes and tunnels, slip forms and scaffoldings
15CE 52L1	Emerging construction Technologies	Knowing and understanding about the emerging construction technologies
		Knowing and understanding about the Modular FRP Composite Bridge Deck construction procedures
		Understanding the Post-tensioned Steel Structure construction procedure
		Understanding the behaviour of Low Temperature Concrete Admixture
15CE 52L2	Building Envelopes	Understanding the Building envelop systems
		Understanding about foundation construction
		Understanding about wall construction and roof construction
		Understanding about window, door installation and ventilation system; building envelope best practices
15CE 52L3	Construction and fire safety	Understanding about the Classification of fire
		Understanding about the Site planning and housekeeping
		Understanding about the Safety in scaffolding
		Understanding about the Road work and pilling operation
15CE 52L4	Resource Management and Control In Construction	Understanding about the Resource Planning
		Understanding about the Labour Management
		Understanding about the Materials and Equipment
		Understanding about the Time Management, Resource Allocation and Leveling
15 IE 5148	Seminar	
15 IE 5250	Term Paper	
15 IE 6050	Dissertation	