



Pandit Deendayal Petroleum University (PDU), Gandhinagar

School of Technology

Department of Civil Engineering

M.Tech in Infrastructure Engineering and Management

About the Program

Department of Civil Engineering is offering 2 years full time M. Tech Programme in Infrastructure Engineering and Management. This programme aims at developing professionals to meet the requirements of present day project management challenges in terms of technology selection, planning, design, finance and sustainable development. The course will comprehensively cover major areas of infrastructure like Highways, Mass Rapid Transit System (MRTS) projects, Bridges, Ports, Railways, Mass housing, Real estate, Water supply and sanitation, Solid waste management, Power sector and Renewable energy sector. The programme would also covers latest tools of project management like Building Information Modelling (BIM), Primavera P6, MSP software and processes like Integrated Project Delivery (IPD) and Critical Chain Project Management (CCPM).

At the end of the course, the Graduates of the program will be able to:

- Develop techno-managerial skills required for handling complex mega infrastructure projects as Project Managers
- Able to apply latest tools and techniques to respond to present day requirements and challenges in project management
- Able to establish as very strong decision makers fully trained to manage mega multidisciplinary infrastructure projects

Who is eligible to apply?

B.E. /B. Tech. in Civil Engineering / Construction Technology /B. Arch./B. Plan with minimum 60% or CPI/CGPA of 6.5 on a 10 point scale.

Pre-requisite:

Students are expected to have good background in Civil Engineering / Architecture/ Planning with aptitude towards Construction Management

About Curriculum

The curriculum for the course has been designed by referring the curriculum of reputed Indian & Foreign Universities. It is further fine-tuned as per the industry requirement.

The curriculum has been structured in three phases:

1. Core Courses:

The core courses are designed to cover the fundamental aspects of infrastructure engineering and management. These courses are also designed to develop ability for solving problems and taking decision pertaining to the present day challenges in the complex infrastructure projects. The core courses include (1) Infrastructure Planning & Engineering-I (2) Project Management (theory & lab) (3) Project Design Studio-I (4) Infrastructure Planning & Engineering-II (5) Technology for Infrastructure Construction (6) Project Design Studio-II (7) Financial Management

2. Elective Courses:

These courses are designed to suit the requirements of the construction industry and infrastructure sector. Domain knowledge would be enhanced by these courses. Some of the elective courses include (1) Smart Infrastructure and Cities (2) Real Estate Management (3) Ground Improvement Techniques (4) Environmental Impact Assessment (5) Earthquake Engineering

3. Research Project:

The objective of this course is to affiliate the students from day one towards research in the area of Infrastructure Engineering and Management. Some of the potential research trust areas include Project Management; Project Risk Management; Technologies for Metro Rail Construction; Building Information Modeling (BIM); Integrated Project Delivery (IPD); Statistical Quality Control for Quality Monitoring of Ready Mixed Concrete (RMC); Regulatory Framework for PPP Models; Green Building Materials & Technology; GIS and Remote Sensing; Solid Waste Management