

Year & Sem	Course Code: CE3505	Course Name: Infrastructure Planning and Management	No. of Credits: 4	L	T&PS	P
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Unit-I: An overview of Basic Concepts Related to Infrastructure. Introduction to Infrastructure. An Overview of the Power Sector in India. An Overview of the Water Supply and Sanitation Sector in India. An overview of the Road, Rail, Air and Port Transportation Sectors in India. An overview of the Telecommunications Sector in India. An overview of the Urban Infrastructure in India. An overview of the Rural Infrastructure in India. An Introduction to Special Economic Zones. Organizations and Players in the field of Infrastructure.

Unit-II: The Stages of an Infrastructure Project Lifecycle. An Overview of Infrastructure Project Finance - I. An Overview of Infrastructure Project Finance - II.

Unit-III: Private Involvement in Infrastructure: A Historical Overview of Infrastructure Privatization. The Benefits of Infrastructure Privatization. Problems with Infrastructure Privatization. Challenges in Privatization of Water Supply : A Case Study of Cochabamba, Bolivia. Challenges in Privatization of Power : Case Study from the Philippines. Privatization of Infrastructure in India : Case Study of the Tirupur Water Supply Project. Privatization of Road Transportation Infrastructure in India.

Unit-IV: Challenges to Successful Infrastructure Planning and Implementation: Mapping and Facing the Landscape of Risks in Infrastructure Projects. Economic and Demand Risks : The Case of the Vadodhara-Halol Expressway. Political Risks - I : The case of the Chand-Cameroon Pipeline. Political Risks - II : The Dabhol Power Plant Case Study.

Unit-V: Socio-Environmental Risks - I : The Case of Bujagali Dam in Uganda , Socio-Environmental Risks - II : The Case of Conoco's Oil Exploration in S.America. Cultural Risks in International Infrastructure Projects. Legal and Contractual Issues in Infrastructure. Challenges in Construction and Maintenance of Infrastructure.

Unit-VI: Strategies for Successful Infrastructure Project Implementation: Risk Management Framework for Infrastructure Projects. Shaping the Planning Phase of Infrastructure Projects to mitigate risks. Designing Sustainable Contracts. Introduction to Fair Process and Negotiation. Negotiating with multiple Stakeholders on Infrastructure Projects. Sustainable Development of Infrastructure. Information Technology and Systems for Successful Infrastructure Management. Innovative Design and Maintenance of Infrastructure Facilities. Infrastructure Modelling and Life Cycle Analysis Techniques. Capacity Building and Improving the Governments Role in Infrastructure Implementation. An Integrated Framework for Successful Infrastructure Planning and Management - Infrastructure Management Systems and Future Directions.

References/Text Books:

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- 3.
- 4.

Lecture Plan: Unit-I & -II syllabus for MID-I, Unit-III & -IV syllabus for MID-II and Unit-V & -VI syllabus for MID-III examinations.