



IIM

भारतीय प्रबंध संस्थान विशाखपट्टणम
Indian Institute of Management Visakhapatnam

Executive Certificate Program in Infrastructure Project Management – Batch 01

Dear Participants,

Greetings from IIM Visakhapatnam!

Indian Institute of Management Visakhapatnam welcomes you to the 70-hour online course on 'Infrastructure Project Management'. As scheduled, the Programme will commence on 09th March 2025 and will culminate on 10th August 2025. The program has been designed by the experienced and learned faculty of IIM Visakhapatnam with the objective of enabling working professionals to understand the principles and techniques for effective infrastructure project management from the initiation phase through planning, execution, control, and closeout. These principles and techniques will help students to solve different difficulties associated with the four phases of project management. Topics include project initiation, estimation, budgeting, developing work plans, scheduling, tracking work, resource allocation, project coordination, leadership, managing teams, conflict and negotiations, and professional responsibility and closeout. Software expertise for project management will also be introduced into this program. The Information brochure comprising program objectives, day-wise session schedule, and faculty profile is being shared with you. We wish you a pleasant and fruitful interactive learning experience

Best wishes,

IIM Visakhapatnam

Course Objectives:

- Understand what a project is, the different phases of the project life cycle, stakeholders and roles, challenges, and the importance of project management.
- Develop and demonstrate the knowledge required for successful project evaluation and selection.
- Assimilation and practical application of different tools and techniques in project initiation and planning such as project costing and budget estimation, project proposal preparation, project plan formulation, project scheduling, risk management in project, and resource allocation.
- Demonstrate a thorough understanding of the basics of infrastructure project management, including the components' importance and interrelationship.
- Become an effective member of a project team and learn to manage projects by completing a group project.

Pedagogy:

1. The course will be taught through online platforms.
2. Instructor's notes, data, and scripts will be shared via the Uptop Platform.
3. Participants will be evaluated continuously through continuous assignments.
4. There will be a final examination with multiple-choice questions.
5. Course material is solely meant for recipients and should not be distributed/shared elsewhere.

Course material:

- Relevant chapters from the following Textbook.

Prescribed Textbook: Meredith, J. R., Shafer, S. M., & Mantel Jr, S. J. (2011). Project management: a strategic managerial approach (11th ed.). John Wiley & Sons. **(MMSH)**

Reference Textbook(s): Kerzner, H. (2022) " Project Management: A systems approach to planning, scheduling, and controlling (12th ed.). John Wiley & Sons. **(HKP)**

Evaluation Scheme:

Evaluation Component	Type (Individual/Group)	Weightage
End-Course Evaluation (End Examination)	Individual	50%
Final Project Report	Group	20%
Final Report Presentation	Group	20%
Class Exercise	Individual	10%

Roadmap of the Course

Session	Topics covered	References/ Textbook	Instructor
Module 1: Essentials of Infrastructure Project Management			
09 March Sunday (4:00-7:00 PM)			
1	Inauguration Discussion on Course Outline Project Details Basics of Project Management; Triple Constraint Scope of Project Management Project Life Cycle	Chapter 1 (MMSH)	Prof. Rohit Titiyal
16 March Sunday (4:00-7:00 PM)			
2	The Project Management Process Project Management Principles Project Planning and Initiation Introduction of PMI Certifications	Chapter 1 (MMSH)	
Module 2: Infrastructure Project Selection, Prioritization, and Project Portfolio Management			
23 March Sunday (4:00-7:00 PM)			
3	Portfolio Approach to Project Management Project Selection Technique and decision-making	Chapter 2 (MMSH)	Prof. Rohit Titiyal
30 March Sunday (4:00-7:00 PM)			
4	Cost-benefit analysis (CBA) Nature of infra project and selection procedures	Chapter 2 (MMSH)	
Module 3: Project Initiation and Appraisal			
6 April Sunday (4:00-7:00 PM)			
5	Project in the organization structure Stakeholder Analysis	Chapter 5 (MMSH)	Prof. Rohit Titiyal
13 April Sunday (4:00-7:00 PM)			
6	Project Proposal Project Appraisal and Feasibility Project Charter	Readings will be provided before the session	
Module 4: Managing Conflict and the Art of Negotiation			
20 April Sunday (4:00-7:00 PM)			
7	Conflict and Project Life Cycle Dealing with Conflict Nature of Negotiation Requirement and Principle of Negotiation	Chapter 4 (MMSH)	Industry Expert
Module 5:			

Session	Topics covered	References/ Textbook	Instructor	
Financial Management in Infrastructure project				
27 April Sunday (4:00-7:00 PM)				
8	Project cost estimation and economics Estimating project budget and monitoring	Chapter 7 (MMSH)	IIMV Faculty	
4 May Sunday (4:00-7:00 PM)				
9	Defining capital (CAPEX) and operational expenditure (OPEX). Cost Control and Forecasting	Readings will be provided before the session		
Module 6: Project Planning				
11 May Sunday (4:00-7:00 PM)				
10	Project Scope and Schedule Planning (PERT & CPM)	Chapter 8 (MMSH)	Prof. Rohit Titiyal	
18 May Sunday (4:00-7:00 PM)				
11	Resource Planning: Resource Types, Resource Loading, and Resource Constraints	Chapter 9 (MMSH)		
25 May Sunday (4:00-7:00 PM)				
12	Budget Planning: Cost Allocation and Contingency Planning Case study	Readings will be provided before the session		
Module 7: Project logistics and risk management				
1 June Sunday (4:00-7:00 PM)				
13	Identifying, analysing, and managing risks related to infrastructure projects Project risk analysis	Readings will be provided before the session	Prof. Aalok Kumar	
8 June Sunday (4:00-7:00 PM)				
14	Project inventory control Lean construction	Readings will be provided before the session		
15 June Sunday (4:00-7:00 PM)				
15	Project resource optimization Project coordination	Readings will be provided before the session		
Module 8: Materials Procurement and Contracts Management				
22 June Sunday (4:00-7:00 PM)				
16	Procurement strategies, public procurement Design-Bid-Build (DBB), Design-Build (DB), Build-Operate- Transfer (BOT) Tendering processes	Readings will be provided before the session	Prof. Aalok Kumar	

Session	Topics covered	References/ Textbook	Instructor
29 June Sunday (4:00-7:00 PM)			
17	Contract and dispute Administration Vendor and Supplier Management Case study	Readings will be provided before the session	
Module 9: Project Monitoring and Control			
6 July Sunday (4:00-7:00 PM)			
18	Project Monitoring Strategies and Frameworks Earned Value Management (EVM)	Chapter 10 (MMSH)	Prof. Rohit Titiyal
13 July Sunday (4:00-7:00 PM)			
19	Project Control Project Quality Management Project Termination	Chapter 11 & 13 (MMSH)	
Module 10: The Modern Development in Project Management			
20 July Sunday (4:00-7:00 PM)			
20	Data Analytics for Data-Driven Project Management Industry 4.0-driven infrastructural project management	Readings will be provided before the session	Industry Expert
27 July Sunday (4:00-7:00 PM)			
21	Critical Chain Project Management Waste management in the project Sustainability issues and reporting	Readings will be provided before the session	
Module 11: Course project submission and presentation and hands-on project monitoring tool			
3 August Sunday (4:00-8:00 PM)			
22	MS Excel MS Project	Readings will be provided before the session	Industry Expert
10 August Sunday (4:00-7:00 PM)			
23	Project Presentation		Prof. Rohit Titiyal & Prof Aalok Kumar

**This is the tentative schedule it may be subject to change.*

Program Directors

Prof. Rohit Titiyal - Program Director

Prof. Aalok Kumar - Program Co-director

Dr. Rohit Titiyal is an assistant professor at the Indian Institute of Management Visakhapatnam. He held the position of Assistant Professor at Thiagarajar School of Management, Madurai, before joining IIM Visakhapatnam. He holds a Ph.D. in management from Vinod Gupta School of Management at IIT Kharagpur and an MTech. in Industrial Engineering and Management from ISM (IIT) Dhanbad. He wrote several research articles that were published in well-known management journals. His research focuses on E-tailing, E-fulfillment, Last-Mile Delivery, Healthcare Operations, Game Theory, and MCDM.

Dr. Aalok Kumar has been awarded PhD in Operations Management from Department of Management Studies, Indian Institute of Technology (IIT) Roorkee, India, and MTech. in Industrial Management from IIT(BHU) Varanasi with Gold Medal. His PhD work also received the “Excellence in Doctoral Research Award” from IIT Roorkee. He has been working as Newton-Bhabha Fellow at the University of Sussex, UK, and Queen Elizabeth Visiting Fellowship at the University of Regina, Canada (awarded by Government of Canada). Before joining IIMV, he was associated with University of Maribor, Slovenia. He has more than 5 years of teaching work experience. His research interests are in multimodal logistics planning, data-driven logistics operations in Industry 4.0 era, electric vehicles-based freight mobility.