

Professional Certificate Program

Construction Project Management



CPP | CEPT
UNIVERSITY

Six days | On-Campus
06 - 11 January 2025



with technical support of
THE WORLD BANK
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ABOUT THE PROGRAM

CEPT Professional Programs (CPP), CEPT University with technical support from the World Bank, presents a six-day long co-branded Professional Certificate Program on Construction Project Management. This on-campus program is meticulously designed for professionals seeking to deepen their knowledge and enhance their skills in managing construction projects efficiently and effectively.

The course provides participants with a comprehensive understanding of key concepts, tools, and techniques in construction project management. Through a blend of theoretical insights and practical case studies, the program addresses crucial areas such as project planning, risk management, cost estimation, contract administration, and quality control.

Participants will benefit from interactions with expert faculty from CEPT University and industry leaders, as well as insights into global best practices supported by the World Bank's extensive knowledge base. The program aims to equip professionals with the ability to manage construction projects from conception to completion, ensuring adherence to timelines, budgets, and quality standards.

By the end of this certification, participants will emerge with the confidence and competence to tackle complex challenges in construction management and contribute to the successful delivery of projects in today's dynamic infrastructure landscape.

PROGRAM STRUCTURE

DAY-1

The first day of the program begins with an exploration of the conceptual stage of a construction project, emphasizing the analysis of Political, Economic, Social, Technological, Environmental, and Legal (PESTEL) factors. Participants will examine the problems that the project aims to address and engage in comparing various options to tackle the focal problem. The session will also cover project scoping, highlighting its importance in the overall conceptualization process.

Subsequent sessions focus on critical aspects of stakeholder management and technological viability in construction projects. Participants will learn how to identify stakeholders and manage their engagement, using real-life construction project examples to create a stakeholder register. The day concludes with a discussion on assessing the technical feasibility of construction projects and the significance of selecting optimal project locations. This analysis is essential for ensuring project success and resilience in meeting user demand amid uncertainties.

DAY-2

On the second day of the program, participants delve into the crucial aspects of risk management and financial management throughout the project lifecycle. The first session emphasizes the importance of identifying diverse project risks, assessing their severity, and developing effective risk response and control strategies to mitigate potential impacts.

Following this, the program shifts focus to financial considerations, highlighting the preparation of realistic cost estimates during the project appraisal stage. Participants will learn about the significance of block cost estimates and cost breakdown structures to understand various financial commitments. The final sessions of the day center on Financial Monitoring and Control, covering essential topics such as managing cash inflows and outflows, strategies for working capital management, and overseeing contractor invoices to ensure effective financial management throughout the project lifecycle.

DAY-3

On the third day, the program focuses on the critical phase of procurement strategy following the assessment of project viability concerning finance, risks, stakeholders, and technology. The first two sessions emphasize the onboarding of consultants and contractors, covering key topics such as determining procurement strategies, various types of contract agreements, designing bidding processes, and clarifying the roles and responsibilities of different consultants involved in the project.

The program then delves into the Engineering, Procurement, and Construction (EPC) model, exploring its context, the drafting of EPC contract agreements, and the selection and monitoring of EPC contractors. The final session introduces the Public Private Partnership (PPP) model as an innovative procurement strategy widely used in infrastructure delivery. Participants will examine different types of PPP models, their characteristics, and review examples of PPP projects across various infrastructure sectors.

PROGRAM STRUCTURE

DAY-4

On the fourth day, the program emphasizes the importance of developing a comprehensive project plan that includes detailed scheduling, monitoring, and control mechanisms. The first two sessions focus on various planning and scheduling tools, such as Critical Path Method (CPM) and Program Evaluation and Review Technique (PERT). Participants will gain hands-on experience with MS Project software to effectively plan and schedule projects. Additionally, the sessions will cover the establishment of baselines for tracking, monitoring, and controlling projects using Earned Value Management and performance indicators.

The latter sessions address the challenges of conventional construction processes, which often result in fragmented teams and communication breakdowns that lead to delays and increased costs. Participants will explore the necessity of integrated and collaborative approaches in construction. The sessions will introduce technology enablers that enhance planning, coordination, and execution of projects, highlighting the use of Building Information Modeling (BIM) and Lean practices for real-time collaboration, clash detection, and overall improved project management efficiency.

DAY-5

The fifth day of the program focuses on crucial dimensions of project execution, emphasizing quality, health and safety, environment, and social considerations, and contract management. The first two sessions focus on contract management, which is vital for effective project execution and meeting client expectations after work has been awarded to contractors. First session covers contract administration and claims handling, with a focus on managing scope changes, force majeure claims, and time extensions. Finally, session two discusses equitable dispute resolution, arbitration processes, and the critical aspects of contract closure and asset handover, ensuring a smooth transition post-project completion. Session three discusses socio-economic analysis, underscoring their significance in ensuring successful project outcomes.

The latter part of the day shifts attention to planning and monitoring of health and safety management and quality assurance and control processes, highlighting the importance of integrating these dimensions during the design and procurement phases.

DAY-6

Day six includes an insightful site visit to a construction site, where participants will explore advanced construction techniques. Following this, there will be an office visit dedicated to understanding digital construction and project delivery methods.

The day continues with Session 1, which delves into lean principles and various lean tools applicable to construction sites. This session will emphasize how these tools can enhance efficiency and reduce waste in construction processes. Session 2 then shifts the focus to the adoption of lean tools in project delivery within the public sector, discussing strategies to optimize project outcomes through lean methodologies.

PROGRAM FACULTY



Ganesh Devkar
Program Director

Ganesh Devkar, PhD is a senior associate professor at the Faculty of Technology at the CEPT University, Ahmedabad, India. He holds a Doctorate in Construction Management from the Indian Institute of Technology Madras (IIT Madras). His doctoral work focuses on competencies in urban local bodies for implementing water, sanitation, and solid waste management public private partnership (PPP) projects in India. During his doctoral research work, he was involved in research projects for Tamil Nadu Urban Development Fund; the Ministry of Urban Development; and the Institute of Water Policy, National University of Singapore. Ganesh teaches construction quality and safety management, project appraisal, lean construction, and public-private partnerships. He has been researching in the area of public-private partnerships, lean construction, and mega projects. He has participated in four systematic reviews focusing on the delivery of infrastructure like water supply, sanitation, hygiene, telecom, electricity, and transport. He received the “Young Research Scholar Award” from the Project Management Institute, India, in 2014.



Jyoti Trivedi
Program Faculty

Jyoti Trivedi, PhD is a Senior Assistant Professor at the Faculty of Technology, CEPT University. Dr. Jyoti is a highly accomplished professional with deep expertise in Building Information Modeling (BIM), Urban Planning, Civil Engineering, and Project Management using advanced tools like MS Project and Primavera P6. She possesses specialized skills in Lean Construction methodologies, focusing on enhancing efficiency and minimizing waste throughout construction processes. Dr. Jyoti excels at translating complex theoretical knowledge into practical, real-world applications, making significant contributions to both academia and industry practices.

She earned her Doctorate in Civil Engineering from the Sardar Vallabhbhai Patel National Institute of Technology (SVNIT) Surat in 2019. She completed her Master's in Engineering (M.E.) in Construction Engineering and Management in 2006 from Sardar Patel University, Vallabh Vidyanagar, Anand, India.

PROGRAM FACULTY



Devanshu Pandit
Program Faculty

Dr. Pandit has 35 years of overall experience in construction, teaching, research, and consultancy. During a long association of more than 28 years with CEPT, Dr. Pandit has organized several workshops, seminars, training programs, and faculty development programs. He is a versatile trainer, and his sessions are highly interactive as he discusses real-life examples and case studies for teaching. He has been a resource person for the training of municipal officers for their training in contracts which included PPP contracts. He conducted several capacity-building programs for government engineers over the last 25 years. Currently an Adjunct Professor at CEPT, and working as a freelance consultant, Dr. Pandit has an interest in infrastructure planning, designing, and project management. He has to his credit several research on mass housing, solid waste management, water supply & sewerage, and transportation. His work in academics and research complements the consultancy and his field experience has helped in making his subject relevant to the industry.

GUEST SPEAKERS



Bhargav Dave
Guest Speaker

Dr. Bhargav is the Co-founder and CEO of VisiLean Oy, a Finnish start-up focusing on solving complex production management problems in construction with lean methods. With an early interest in computing, Bhargav started programming at the age of 11. The seeds of digitalising the construction industry were planted during his graduation in Construction Technology from CEPT University. Soon after, Bhargav's career focused on leading process improvement and lean implementation on projects. With a Masters and PhD in Digitising Construction, Bhargav's research explorations continued on in improving production on construction projects with lean construction methods aligned with information systems. During this time, he contributed to the original research behind integrating lean construction and BIM as well. As of today, Bhargav has authored over 45 publications and led several research projects in the area. Work aside, he has a keen interest in photography, reading and travelling during his spare time.



Anindo Chatterjee
Guest Speaker

Anindo Chatterjee is a Senior Social Development Specialist with the World Bank in India, with over 25 years of experience in international development, social risk management, governance reforms, and business sustainability. He has worked extensively with federal and state governments across South Asia on transformational development programs funded by the World Bank, ADB, DFID, and other leading agencies. Anindo has also partnered with IFIs, DFIs, and private sector entities to integrate ESG standards, corporate governance, and sustainability into their strategic and operational frameworks.

His expertise includes social sustainability and risk management (World Bank ESF, IFC standards), ESG compliance and reporting, governance reforms, institutional strengthening, citizen engagement, CSR implementation, and monitoring and evaluation. He has contributed to diverse sectors such as urban development, infrastructure, disaster risk management, transport, water and sanitation, social protection, sustainable finance, public health, agriculture, and forestry. Anindo specializes in building inclusive, sustainable systems through innovation and collaboration.

GUEST SPEAKERS



Manish Trivedi
Guest Speaker

Manish Trivedi is an experienced finance and management professional with a strong track record in managing P&L for consulting and real estate businesses. His expertise spans diversification strategy, business development, and capacity building at the group level. Manish leads a team of multidisciplinary professionals, advising public and private clients on investment decisions, including project configuration, structured finance, M&A, ESG, and due diligence. He is also involved in post-investment monitoring for large-scale infrastructure, transportation, and urban development projects across India, China, Southeast Asia, and the Middle East, covering sectors such as Maritime & Logistics, Highways, Airports, Metro & Rail, EMobility, Energy, Industrial Parks, Sustainable Tourism, and Urban Infrastructure. Manish has cultivated strong relationships with State and Central Government entities, financial institutions (Banks, NBFCs, PE Funds, Investment Bankers), and International Financial Institutions (IFIs).



Virat Kumar Dhebar
Guest Speaker

Mr. Virat Kumar Dhebar is an experienced coach, trainer, and consultant with nearly two decades of experience as an Assistant Vice President at a German certification body. He has a proven track record in implementing international standards and best practices across various domains. Virat is highly skilled in leadership development, people management, quality management, and operations management. His expertise also extends to computer forensics, information security management, asset management, and business transformation.

He has a diverse educational background, reflecting his commitment to continuous learning and professional development. He holds an Engineer's Diploma in Civil Engineering and a Post Graduate Diploma in Computer Science from A.V. Parekh Technical Institute in Rajkot. To further his expertise in management, he completed a Master of Business Administration (MBA) in Business Management with a focus on Executive Management from University 18, Karnataka State Open University. His academic achievements are complemented by specialized training in Information Security Management Systems (ISMS) auditing from STQC - Jaipur, where he completed the BS 7799 Implementation course.

GUEST SPEAKERS



Vandana Bhatt
Guest Speaker

Dr. Vandana Bhatt is a distinguished professional with an impressive academic background, earning her M.E. in Construction Management from Mumbai University with first-class honors. She also holds an MBA in Construction Law. A former Class I Engineer with the Government of India, Dr. Bhatt is now a Project Administration Consultant specializing in construction claims, adjudication, and arbitration. She received the prestigious Dadabhai Naoroji International Award in 1998.

A Fellow of the Institution of Engineers India and a member of the American Bar Association, Dr. Bhatt was the first woman Secretary of the Institution of Engineers (India) Maharashtra State Center. She has been a speaker for the American Society of Civil Engineers and represented India at the American Concrete Institute's seminar in Washington, D.C.



Sagar Deshmukh
Guest Speaker

SAGAR Deshmukh is an Executive Director of LEA India (LEA Associates South Asia Pvt. Ltd.). He has worked extensively in the areas of Traffic Transportation and Highways for LEA India. His expertise lies in formulating Strategic Policies and Planning, Project Preparation, Institutional Development, Road Asset Management and Innovative Designs. SAGAR has led and worked extensively in LEA's projects in India, the Middle East, and Africa for last almost three decades. He spearheads operations from the vibrant province of Gujarat in west India. In the infrastructure consultancy sector, he is reputed as one of the long-standing professionals exclusively working on the projects related to highways and transport sectors in Gujarat. In addition to working on various nationally as well as internationally funded projects, SAGAR has to his credit the JANMARG-Ahmedabad BRTS project, which has won International and National awards for its best-in-class Planning and Engineering Design.

PROGRAM CALENDAR

Day 1

| Sessions | Description |
|----------------------|---|
| 09:00 AM to 11:00 AM | Pre-Project Planning <ul style="list-style-type: none">Context Setting & Project Execution OverviewPESTEL AnalysisProblem AnalysisOptions AnalysisScope Development |
| 11:00 AM to 11:15 AM | Tea Break |
| 11:15 AM to 1:00 PM | Pre-Project Planning Stakeholder Analysis <ul style="list-style-type: none">Understanding the stakeholders associated with the projectPerforming the stakeholder analysis |
| 1:00 PM to 2:00 PM | Lunch Break |
| 2:00 PM to 3:30 PM | Pre-Project Planning <ul style="list-style-type: none">Detailed Project ReportTechnical viability |
| 3:30 PM to 3:45 PM | Tea Break |
| 3:45 PM to 5:00 PM | Pre-Project Planning <ul style="list-style-type: none">Location analysisDemand analysisTechno-economics of the projects |

PROGRAM CALENDAR

Day 2

| Sessions | Description |
|----------------------|--|
| 09:00 AM to 11:00 AM | <p>Pre-Project Planning</p> <p>Project Risk Management</p> <ul style="list-style-type: none">• Investing the risks associated with the project• Performing the risk analysis |
| 11:00 AM to 11:15 AM | Tea Break |
| 11:15 AM to 1:00 PM | <p>Project Cost Baseline-Budget and Financial Analysis</p> <ul style="list-style-type: none">• Project Cost Estimates• Block Cost Estimates |
| 1:00 PM to 2:00 PM | Lunch Break |
| 2:00 PM to 3:30 PM | <p>Financial Monitoring and Control</p> <ul style="list-style-type: none">• Value Capture Finance• Project life-cycle assessment with financial implications |
| 3:30 PM to 3:45 PM | Tea Break |
| 3:45 PM to 5:00 PM | <p>Financial Monitoring and Control</p> <ul style="list-style-type: none">• Project configuration and viability perspective• Structured finance• Financial modelling with case study |

PROGRAM CALENDAR

Day 3

| Sessions | Description |
|----------------------|--|
| 09:00 AM to 11:00 AM | Contract Preparation and Pre-bid Strategies <ul style="list-style-type: none">• Project Procurement Strategy• Types of Contract Agreements• Bid process management |
| 11:00 AM to 11:15 AM | Tea Break |
| 11:15 AM to 1:00 PM | Contract Preparation and Pre-bid Strategies <ul style="list-style-type: none">• Role of Supervision / Project Management Consultant and other related consultants• Procurement of consultancy services• Procurement of works |
| 1:00 PM to 2:00 PM | Lunch Break |
| 2:00 PM to 3:00 PM | EPC Contracting |
| 3:00 PM to 3:15 PM | Tea Break |
| 3:15 PM to 5:00 PM | Public Private Partnerships (PPPs) for Infrastructure |

PROGRAM CALENDAR

Day 4

| Sessions | Description |
|----------------------|---|
| 09:00 AM to 11:00 AM | <p>Project Baselines</p> <ul style="list-style-type: none"> Construction Schedule Project monitoring and control Earn Value Management <p>Establishing Baselines and Enabling Works</p> <ul style="list-style-type: none"> Construction Kick-off and Alignment – Also agreeing Key Objectives and Key Success Factors and common meaning of project success. Format and Contents of ISR (Implementation Status and Results Report) Establishing and agreeing Level 3 baseline schedule for the projects Progress Measurement Guideline and Triple Convergence in Schedule Performance Physical Progress, Critical Path Progress and Commercial Progress Stage Checklists – Including Contractor Mobilization Checklist |
| 11:00 AM to 11:15 AM | Tea Break |
| 11:15 AM to 1:00 PM | <p>Project Baselines</p> <ul style="list-style-type: none"> Construction Schedule Project monitoring and control Earn Value Management |
| 1:00 PM to 2:00 PM | Lunch Break |
| 2:00 PM to 3:30 PM | Integrated Project Management – Digital Tools for Construction Project Management |
| 3:30 PM to 3:45 PM | Tea Break |
| 3:45 PM to 5:00 PM | Integrated Project Management – Digital Tools for Construction Project Management |

PROGRAM CALENDAR

Day 5

| Sessions | Description |
|----------------------|--|
| 09:00 AM to 10:30 AM | Contracts and Claims in Different Types of Contracts <ul style="list-style-type: none">• Handling of Scope Changes and Variation• Handling of Force Majeure Claims• Handling of Extension of Time (EOT Claims)• Contracts administration, change control, arbitration |
| 10:30 AM to 10:45 AM | Tea Break |
| 10:45 AM to 12:00 PM | Contractual Risks <ul style="list-style-type: none">• Leading Indicators of Claim Situation• Handling Breach of Contract• Alternate Dispute Resolution and Arbitration• Contracts administration, change control, arbitration• Contract Closing and Asset Handover |
| 12:00 PM to 1:15 PM | Project Controls <ul style="list-style-type: none">• Environment and Social Aspects |
| 1:15 PM to 2:00 PM | Lunch Break |
| 2:00 PM to 3:45 PM | Project Controls <ul style="list-style-type: none">• Health and Safety Management |
| 3:45 PM to 4:00 PM | Tea Break |
| 4:00 PM to 5:30 PM | Project Controls <ul style="list-style-type: none">• Quality Assurance and Control |

PROGRAM CALENDAR

Day 6

| Sessions | Description |
|----------------------|---|
| 09:00 AM to 11:00 AM | Site Visit |
| 11:00 AM to 11:15 AM | Tea Break |
| 11:15 AM to 1:00 PM | Site Visit |
| 1:00 PM to 2:00 PM | Lunch Break |
| 2:00 PM to 3:30 PM | Lean Construction: Concepts <ul style="list-style-type: none">• Genesis of lean• Core concepts lean project delivery |
| 3:30 PM to 3:45 PM | Tea Break |
| 3:45 PM to 5:00 PM | Lean Construction: Tools <ul style="list-style-type: none">• Foreman delay survey• 5S |
| 5:00 PM to 5:30 PM | <ul style="list-style-type: none">• Feedback Session• Certificate Distribution |

IMPORTANT INFORMATION

How to Apply? To apply visit the CPP website <http://cpp.cept.ac.in/> and submit the online application form.

Application Deadline **22 December 2024**
The program deadline is tentative, and applications will be reviewed on a rolling basis. Seats are allocated on a first-come, first-served basis, and admissions will close once all seats are filled.

Program Dates **06 - 11 January 2025**
(On-Campus)

Who Should Apply? The program is open to professionals across various fields, including practicing civil and construction engineers, structural engineers, architects, site engineers, project managers, and construction supervisors. It also welcomes participants from related sectors such as real estate and infrastructure development.

Program Fee **INR 87,000/- + GST**

(This includes a comprehensive package with a welcome kit, study materials, refreshments, and a working lunch on each training day.)

An early bird discount of INR 12,000/- on the abovementioned fee is available till 15th December 2024.

A discount of INR 14,000/- on the abovementioned fee is available for **female applicants** and **officials working on World Bank-funded projects**.

Accommodation Charges (Optional) : INR 30,000/- + GST

(By paying the accommodation charges an applicant may opt for a single occupancy accommodation for six nights which includes complimentary breakfast)

Who will Certify? Participants will receive a **co-branded certificate from CEPT University and the World Bank** on successful completion of the program with a minimum of 80 percent attendance.

About CPP

CEPT Professional Programs (CPP) aims to bridge the gap between academics, practice, policy-making, and implementation through short certificate programs. The mission of CPP is to support individual and organizational learning by creating opportunities to acquire new skills and capabilities, thus allowing professionals to stay relevant in the current knowledge-based global context. It achieves this by offering professional development, continuing education, and up-skilling opportunities for professionals and in-service persons across disciplines concerned with urban development and the built habitat.

CPP draws from the expertise and capacity of the accomplished faculty at CEPT University, which is enhanced further by experts and practitioners from the field. Its programs are built on deep research, vast consultancy projects, and innovative pedagogies. CPP offers a repertoire of short programs and topic-focused programs across disciplines of architecture, design, planning, and management with immersive learning approaches combining interactive lectures, case studies, and peer-to-peer exchanges.




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