5-Day Capacity Building Programme (Offline)

on

Project Management of Large-Scale and Mega Construction and Infrastructure Projects

Technology and Sustainable Aspects of Project Delivery

Department of Civil Engineering
NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPPALLI
Centre for Outreach and Digital Education (CODE), NIT Tiruchirappalli

14 – 18 DECEMBER 2026



5 DAYS

6 CORE MODULES

38 HOURS OF LEARNING

30 PARTICIPANTS (FIRST CUM, FIRST SERVED BASIS)

VENUE
Seminar Hall,
Department of Civil Engineering,
NIT Tiruchirappalli
Tiruchirappalli – 620015

LAST DATE FOR REGISTRATION
07 December 2026
Registration QR
See last page for details

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THE PROGRAMME

About the Institution · OrganisingCommittee · ProgrammeOverview

5	21	38	6
DAYS	SESSIONS	HOURS OF LEARNING	CORE MODULES

ABOUT NIT-T

The National Institute of Technology (formerly Regional Engineering College) Tiruchirappalli was established in 1964 as a joint venture of the Government of India and the Government of Tamil Nadu. It was granted Deemed University status in 2003, renamed NIT-T, and was declared an Institution of National Importance under the NIT Act, 2007. NIT-T is consistently ranked high (NIRF Rank #9, Engg. Category, 2025) among India's premier technical institutes under NIRF and has received the High Impact Entrepreneurship Campus Award from the Ministry of Skill Development and Entrepreneurship. The Institute offers UG and PG programmes in Science, Engineering and Technology, besides PhD programmes in all departments.

ABOUT THE DEPARTMENT

The Department of Civil Engineering, established alongside the Institutein 1964, has pioneered cutting-edge research, industry consultancy and academic excellence across Structural Engineering, Construction Technology and Management (CTM), Environmental Engineering, Transportation Engineering, etc.

ABOUT CODE

The Centre for Outreach and Digital Education (CODE) at NIT Tiruchirappalli is a multidisciplinary hub that expands academic access through high-impact professional skilling, online certifications, executive workshops and digital outreach programmes, connecting academia and industry seamlessly.

ORGANISING COMMITTEE

PATRON
Dr. G. Aghila
Director, National Institute of Technology Tiruchirappalli

CHAIRPERSON
Dr. S. Jayalekshmi
Head of the Department, Department of Civil Engineering

COORDINATOR
Dr. Santhosh Loganathan
Department of Civil Engineering

CO-COORDINATORS
Dr. Vigneshwar R V K · Dr. R Kesavamoorthi
Department of Civil Engineering

ABOUT THE PROGRAMME

Modern mega-infrastructure and large-scale construction projects are navigating an increasingly complex and volatile environment, characterised by compressed delivery timelines, supply chain uncertainties, contractual complexities, escalating project risks, and growing decarbonisation imperatives. These challenges demand a fundamental shift from conventional project execution approaches towards more integrated, resilient, and performance-driven management paradigms.

This 5-day capacity-building programme/workshop brings together contemporary practices, emerging technologies, and strategic management perspectives to equip engineering professionals, faculty members, project managers/leaders, academic researchers, and students with the knowledge and capabilities to navigate the complexities of modern project delivery. Spanning the entire project lifecycle, the programme explores mega-project planning and execution, contemporary FIDIC contract frameworks, BIM & lean construction integration, sustainability aspects and the critical behavioural and psychological dimensions underpinning effective project management and governance.

COURSE CONTENT

01
Large-Scale & Mega Projects
Characteristics of mega-projects, stakeholder management, interface complexities, front-end governance and risk mitigation

02
Project Planning & Control
Scope, Time, Cost, CPM/PERT, linear scheduling, 4D BIM-based control, Earned Value Management,and resource optimisation

03
Contract & Procurement
FIDIC, NEC and EPC contracts, claims and dispute resolution, arbitration, PPP models and agile procurement

04
Project Execution& Sustainability
Safety, Quality, and Risk Monitoring &Management, Life-cycle carbon accounting, LEED &GRIHA, circular economy, ESG compliance and Lean Construction

05
Psychological Aspects of Project Management
Behavioural decision-making, cognitive biases in cost forecasting, leadership, team resilience and conflict negotiation

06
Digital Project Management
BIM Level 2/3, Common Data Environments, AI/ML for predictive analytics, drone surveying, IoT site tracking and Digital Twins

LEARNING APPROACH

Expert-led Training sessions	Case-study-based learning	Action-learning exercises	International Best Practices	Digital Project Management	Interim&Final assessment

SESSION TIMETABLE

Five days · 21 sessions · 38 hours of learning

Indicative schedule.
Daily sessions run 09:00–18:30 with tea breaks (11:00–11:15 and 16:15–16:30) and lunch (13:15–14:15).

TIME	NO.	SESSION & KEY TOPICS	HRS	RESOURCE PERSON
DAY 1	**Mon, 14 Dec 2026** — *Foundations & Contracts*			
08:30–09:00	–	**Registration & Inaugural Function**	0.5	
09:00–11:00	1	**Introduction to Project Management (PM) & PM Framework** Operations vs projects · lifecycle · PM processes · EPC · success & failure factors	2	*Dr. Santhosh Loganathan* *NIT Tiruchirappalli*
11:15–13:15	2	**Project Selection, Appraisal & Mobilisation** Selection models · viability analysis · risk allocation · statutory approvals · EPC planning	2	*Dr. KesavamoorthiR* *NIT Tiruchirappalli*
14:15–16:15	3	**Project Scope Monitoring & Management** Scope · WBS · baseline · levels of schedule · weekly & 3-monthly look-ahead	2	*Dr. Santhosh Loganathan* *NIT Tiruchirappalli*
16:30–18:30	4	**Contract & Procurement – 1** Contract administration · contract types & compensation · prime contracts	2	*Dr. Kesavamoorthi R* *NIT Tiruchirappalli*
DAY 2	**Tue, 15 Dec 2026** — *Procurement,Scheduling& Claims*			
09:00–11:00	5	**Contract & Procurement – 2** Supply chain management · procurement strategy · inventory control models	2	*Dr. Murali Jagannathan* *IIT Madras*
11:15–13:15	6	**Change Monitoring & Claims Management** Types & causes of change · variation claims · dispute resolution · case studies	2	*Dr. Murali Jagannathan* *IIT Madras*
14:15–16:15	7	**Project Planning & Scheduling – 1** Bar charts · PDM · CPM · critical & near-critical path · PERT	2	*Dr. Vigneshwar R V K* *NIT Tiruchirappalli*
16:30–18:30	8	**Project Planning & Scheduling – 2** Float · crashing & fast-tracking · time–cost trade-off · schedule health check · EPC integration	2	*Dr. Vigneshwar R V K* *NIT Tiruchirappalli*
DAY 3	**Wed, 16 Dec 2026** — *Resources, Cost & Sustainability*			
09:00–11:00	9	**Resource Monitoring & Management** Resource planning · conflict resolution · resource-constrained critical path · levelling	2	*Dr. C Murali Krishna* *NIT Tiruchirappalli*
11:15–13:15	10	**Project Cost Monitoring & Management** Cost structuring · estimation · budgeting · control · Earned Value Management	2	*Dr. Vigneshwar R V K* *NIT Tiruchirappalli*
14:15–16:15	11	**Project Execution** Safety & quality management · QA/QC tools · OHS&E · equipment & workforce productivity	2	*Mr. Kartik G,* *Head, Corporate Centre* *Power Transmission & Distribution IC* *Larsen & Toubro Ltd.*
16:30–18:30	12	**Risk Monitoring & Management** Risk register · qualitative & quantitative analysis · Monte Carlo simulation	2	*Dr. Santhosh Loganathan* *NIT Tiruchirappalli*
18:30–19:00	13	**Intermediate Assessment**	0.5	
DAY 4	**Thu, 17 Dec 2026** — *Project Execution, Risk & Digital Project Management*			
09:00–11:00	14	**Sustainable Aspects of Project Management – 1** Triple bottom line · sustainable procurement · LCA · lean construction	2	*Dr. Santhosh Loganathan* *NIT Tiruchirappalli*
11:15–13:15	15	**Sustainable Aspects of Project Management – 2** Waste quantification · RRR practices · circular economy · ESG reporting	2	*Mr. Kartik G,* *Head, Corporate Centre,* *Power Transmission & Distribution IC,* *Larsen & Toubro Ltd.*
14:15–16:15	16	**Psychological Aspects of Project Planning** Planning fallacy · strategic misrepresentation · escalation of commitment · rent seeking	2	*Dr. Santhosh Loganathan* *NIT Tiruchirappalli*
16:30–18:30	17	**Digital Project Management** Construction 4.0 · BIM · UAV, AR & VR · digital dashboards & progress monitoring	2	*Dr. C Murali Krishna* *NIT Tiruchirappalli*
DAY 5	**Fri, 18 Dec 2026** — *Simulation, Control & Closure*			
09:00–13:00	18	**Project Management Simulation (CESIM)** Hands-on simulation · teamwork & leadership · collaboration · debrief & reflection	4	*Dr. C Murali Krishna* *NIT Tiruchirappalli*

PARTICIPATION & REGISTRATION

Who should attend · Fees· Dates· Contact

TIME	NO.	SESSION & KEY TOPICS	HRS	RESOURCE PERSON
14:00–16:00	19	**Project Monitoring, Control & Closure** Monitoring tools · visualization · schedule, cost, resource & risk control · closure	2	***Dr. Santhosh Loganathan*** ***NIT Tiruchirappalli***
16:00–17:00	20	**Final Assessment**	1	
17:00–18:00	21	**Training Feedback & Reflection**	1	
18:00–18:30	–	**Valedictory & Certificate Distribution**	0.5	

TARGETED PARTICIPANTS

- Engineering professionals and project managers/leaders
- Faculty members and academic researchers
- Institutional and technical staff
- Full-time students and research scholars (UG / PG / PhD)

OUTCOME OF THE PROGRAMME

Participants will be able to plan and control mega-projects using advanced scheduling and earned value techniques, manage contracts and claims, integrate ESG requirements, address behavioural factors in teams, and apply digital tools for predictive project management.

REGISTRATION

PARTICIPANT CATEGORY	FEE (₹)
Industry Professionals & Corporate Executives	**15,800 /-**
Faculty Members & Academic Researchers	**11,000 /-**
Institutional Staff & Supporting Technical Staff	**8,100 /-**
Full-Time Students & Research Scholars (UG/PG/Ph.D.)	**7,000 /-**

Fee is inclusive of GST, kit, lunch & refreshments, and certificate.

IMPORTANT DATES

Last date for registration – **07-12-2026**

Workshop dates – **14-12-2026 to 18-12-2026**

Accommodation

On a self-payment basis. Guidance on on-campus guest houses and partner hotels near NIT Tiruchirappalli will be provided after registration confirmation.

REACHING NIT TIRUCHIRAPPALLI

BY TRAIN

Trichy Junction is a major hub of Indian Railways with connections across the country.

BY AIR

Trichy Airport is about 5 km from the main city, with regular flights.

BY ROAD

Well connected to Chennai, Bengaluru, Coimbatore, Salem, Cochin and other cities by private and state buses.

LOCAL

NIT-T is on the Trichy–Thanjavur Highway (NH 67), about 18 km from the city. Bus no. 128 or Thanjavur-bound buses from CBS (≈40 min); taxis/autos ≈25 min.

SCAN TO REGISTER & PAY

REGISTRATION

Scan to open the registration link

PAYMENT

Scan for SBI Collect payment steps

HOW TO APPLY

Register using the link provided and pay the applicable fee according to the organizers' instructions. Attach your payment receipt to the registration form. Please refer to the separate payment guide for details.

CERTIFICATION

Certificates will be provided upon successful completion of the programme. Attendance and assessment are mandatory.

CONTACT DETAILS

Programme Coordinator: **Dr. Santhosh Loganathan**

Co-Coordinators: **Dr. Vigneshwar R V K,**
Dr. R Kesavamoorthi

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All correspondence and clarifications should be addressed to the coordinators via the email above.