



L&T Institute of Project Management

"Towards Excellence in Global Project Management"

Vadodara - 390019 (Gujarat), INDIA

www.Lntipm.org



Looking Ahead
www.Lntipm.org



Larsen & Toubro

INSTITUTE OF PROJECT MANAGEMENT

Vision

To develop a premier world class education centre, for creating global project management professionals, thereby making Larsen & Toubro (L&T) a centre of excellence in project management.

Mission

To develop and deliver high quality education and research in project management in consonance with the vision of L&T by providing state-of-the-art infrastructure and learner friendly atmosphere with innovative pedagogy thereby creating a pool of world class and socially responsible project professionals.

Charter

- Provide a high quality and relevant education in project management for all L&T employees and prepare them to be proficient as contributing members of project teams and also as excellent project managers.
- Collate and disseminate the body of knowledge in project management as practiced in Larsen & Toubro - L&T Body of Knowledge (L&T BOK) through structured courses in project management.
- Develop and deliver project management cases from projects undertaken by L&T.
- Benchmark global project management practices and incorporate these practices in the curriculum thereby creating a centre of excellence in project management.
- Collaborate with leading institutions of global reputation in project management research for enhancing competencies of project personnel.
- Create a unique body of knowledge - L&T BOK - and document in archival publications and textbooks.
- Develop and nurture a talent pool of project management trainers from the practicing managers as a resource for the organization.



Dear L&T-ites,

Business enterprises are going through transformations in today's turbulent times.

For any growth oriented organization, merely focusing on operations will not lead to either progress or growth.

Progress and growth for business organizations of the 21st century will be through effective and efficient management of projects. Even organizations that are focused on products have realized that today's short product life cycle dictates constant interjection of projects for new product development.

Projects are the engines that drive innovations from idea to commercialization. Projects are also the drivers that make organizations better, stronger, and more efficient.

This is particularly true for organizations like Larsen & Toubro, whose primary focus is on engineering projects.

The term project connotes different meanings to different people, but in general one has to understand that any operation undertaken for the first time is a project.

Research has shown that many great projects fail to produce the expected results or are not completed on time or on budget or achieve the originally conceived objectives.

One may think that projects fail because of poor planning, lack of communication, or inadequate resources; but as the evidence suggests, failure is often found even in well-managed projects that are run by experienced managers and supported by highly regarded organizations.

Most project problems are not technical but managerial in nature especially from a project perspective.

What is not well understood is that project management is more than just scheduling! Certainly, the tools of project management are absolutely necessary for success, but they are not sufficient by themselves.

We, at L&T, have been in the forefront of project management and have created abundant wealth of knowledge in conceiving, planning and executing mega-scale projects.

Our own understanding of engineering, procuring, constructing and managing projects led us to the firm belief that there is a compulsive need for creating a body of knowledge for project management within our fold.

With this view we have conceived the L&T Institute of Project Management (L&T I'PM), an academic body that seamlessly integrates itself with the practicing project manager in creating and disseminating the project management learning for future project managers.

I am particularly pleased to write this foreword due to the fact that the vision of I'PM is directly linked to the vision of L&T to be a global player in the area of projects.

By bringing in globally accepted best practices in project management to the class room for learning, I'PM would render yeomen service to the project management community of L&T and as a consequence will become a centre of excellence in project management practices.

With best wishes,

A. M. Naik

Executive Chairman

Larsen & Toubro (L&T)



Dear L&T-ites,

The concept of project management as a discipline grew during the Second World War in USA. The US armed forces undertook massive projects in the Defense and Infrastructure with very short time lines.

The Programme Evaluation and Review Technique, code named "PERT" was conceived and developed by the US army and was a forerunner among project management tools. The concept of critical path in a project was also conceived at this time.

During the massive reconstruction of Europe in the post war era and the dominance of the American EPC companies in that period, the discipline of Project Management developed rapidly and became a necessary skill for execution of large projects with control on time, cost and quality.

Engineering & Construction (E&C) Division's foray into large projects commenced in the late eighties with the offshore platform project (I-MNTW). We had taken the assistance of John Brown, UK for project management support and had used the planning tool "Arthemis" for project mapping and control.

Since then E&C Division has grown in experience with large and more complex projects. The project management discipline has also been enhanced through the Capability and Leadership Development Programme "CALD".

L&T has now taken the project management capability enhancement to a higher plane with the set up of our own Institute of Project Management (L&T I'PM) at Vadodara with our permanent faculty.

The L&T I'PM at Vadodara is going to be a premier centre for learning in India. I look forward to the growth of this Institute both in its academic content and also in its training of competent project professionals, initially for the L&T family and subsequently also to the project management fraternity in India.

Warm regards,

K. Venkataramanan

Chief Executive Officer & Managing Director
Larsen & Toubro (L&T)



Dear L&T-ites,

Project management, as a discipline is slowly maturing in a country like India.

The rapid pace of globalizations has brought with it global project management practices.

Project owners today are very conscious of scientific principles of project management and insist on all the contracting organizations to follow the current frame works of project management in all their projects.

This is more so in Government controlled projects. L&T has been in the forefront of accepting project management concepts and implementing them in all the projects handled by them. However, it is necessary that we keep ourselves updated and upgraded on the current standards in project management through structured interventions at periodic intervals.

In this respect, I am extremely pleased to learn about the yeoman work done by L&T Institute of Project Management (L&T I'PM) during the past two years in propagating the principles of good project management.

While L&T I'PM has an extraordinary basket of courses delivered at various locations, I am particularly impressed with their long duration courses like L-1, L-2 and L-3. These courses are structured to meet the varying needs of the various levels of an organization like L&T.

These courses also bring with them the experiential wisdom of several years of L&T.

I am sure that all of us in L&T will be benefitted by the courses offered by L&T I'PM.

With best regards,

S. N. Subrahmanyam

Member of the Board & Senior Executive Vice President
L&T Construction



Dear L&T-ites,

I am delighted to be involved in sowing the first seeds for a pioneering effort to set up an Institute of Project Management (I'PM) at Vadodara.

L&T has ambitious growth plans.

The execution capabilities for excellence in project management have to reach the global best standards. We are already reputed in India, and have made an impact in the Gulf. We now have aspirations to excel in Engineering, Procurement and Construction, to reach the best in class of international standards.

We have a great opportunity before us. Executing the projects on time, and ensuring profitability, is a key to our growing reputation as a great Project Management Company.

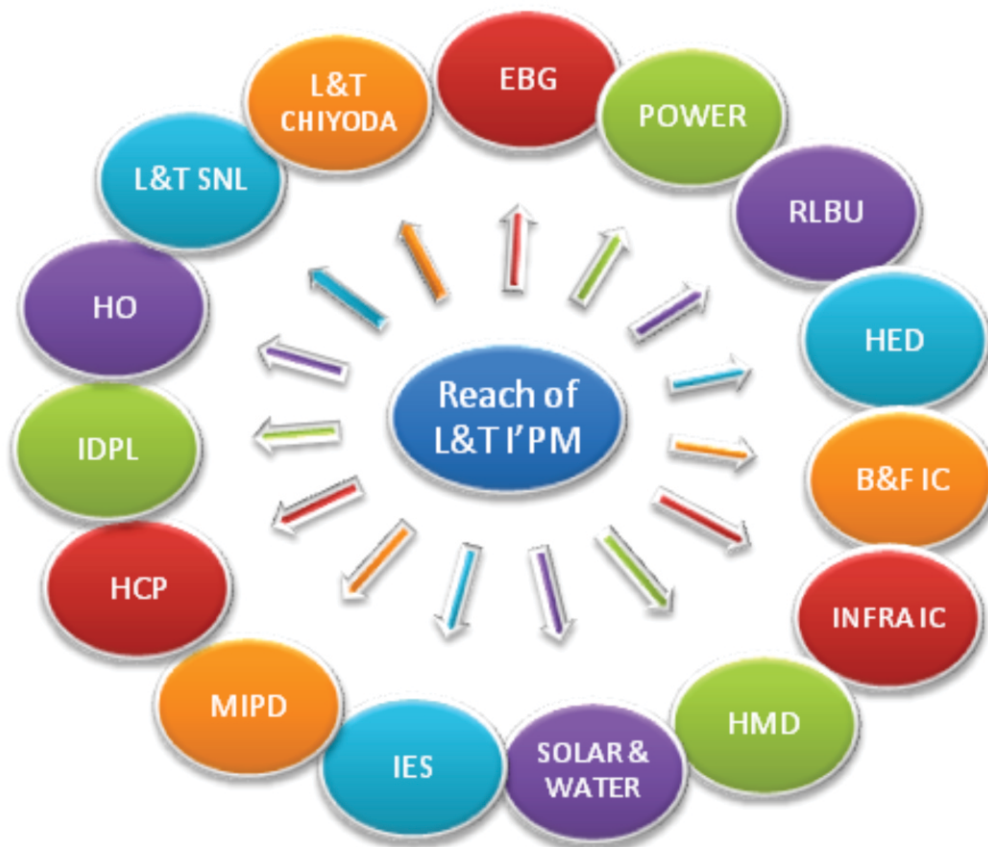
The foundation work done by L&T I'PM in the last 3years in grooming close to 7000 project personnel is really commendable. In order to take the offerings of I'PM to a higher level we are now creating an independent campus for conducting their academic initiatives and research.

I am sure that L&T I'PM will make a difference in our journey to be a globally recognized organization in project execution.

Warm Regards,

Yogi Sriram

Senior Vice President
Corporate - Human Resources
Larsen & Toubro (L&T)



From the Dean's Desk



"You cannot teach people anything. You can only help them to discover it within themselves"

..... Galileo Galilei (Italian astronomer and physicist, 1564-1642)

Institutions of the nature of L&T I'PM are set up by visionary leaders to exactly facilitate the discovery of the knowledge by people themselves.

As a one-of-a-kind institution in the corporate sector L&T I'PM has been in the forefront of creation of courses that are relevant and contemporary for the practice of project management.

We started our first steps in December 2008 and migrated to a level of offering structured courses by August of 2009. The past years have been very eventful for us in terms of modeling the courses for academic relevance, delivery, evaluation and global acceptance for accreditation and certification.

There are several international frame works existing in the arena of project management knowledge areas. However, right from inception we have been focused on creating a knowledge frame work that is applicable to the kind of projects and the environment that we are exposed to and operating in developing countries.

We believe that complexities and challenges of executing projects in developing countries are far greater than that of the developed world. The experiential learning in these projects is unique and very valuable for the future.

We would like to term this as L&T Body of Knowledge (L&T BOK). The result has been the creation of courses that are very knowledge intensive with substantial inputs from the experiential domain with adequate theoretical constructs.

Our objective is to create a global project manager with a foundation that is very strong that can stand the test of time in projects.

We, as an educational institution, are constantly challenging ourselves in upgrading the quality of inputs that go into the making of a global project manager. In this process we seek inputs from all the corners of the globe, including international faculty on sabbatical, global project management cases and international project visits and so on.

German poet and novelist Johann Wolfgang von Goethe (1749-1832) said that "what we do not understand we do not possess".

Our mission at I'PM is to make project managers "possess the understanding of scientific project management" for the ultimate success of projects to the satisfaction of all the stake holders.

With best regards,
Krishna Moorthy

Genesis of the Programmes

At L&T I'PM, we believe that courses offered must be relevant and current in terms of their applicability to projects. With this in view all our courses get reviewed on a periodic basis.

Academic inputs are taken from practitioners, academicians and project management consultants to bring in the current levels of thinking in Project Management (PM) concepts.

All the courses are progressively structured and the practitioners are able to upgrade their knowledge levels at periodic intervals.

L&T I'PM Project Management Knowledge Areas



Note: The knowledge areas represented are only indicative. New knowledge areas get added as and when the body of knowledge gets enhanced to become an independent knowledge resource.



HISTORY OF PROJECTS

Project Management started long before King Cheops planned the construction of his pyramid (2589-2566 B.C.). The Great Pyramid of Giza, built in 2560 B.C., is the oldest and largest of the three pyramids in the Giza Necropolis.

At I'PM we have the following Levels of Programmes

- L - 3:** Course designed for project personnel with 20+years of experience.
- L - 2:** Course designed for project personnel with 11-20 years of experience
- L - 1:** Course designed for project personnel with 4-10 years of experience
- L - 0:** Course designed for entry level project personnel with limited experience of 1-3 years

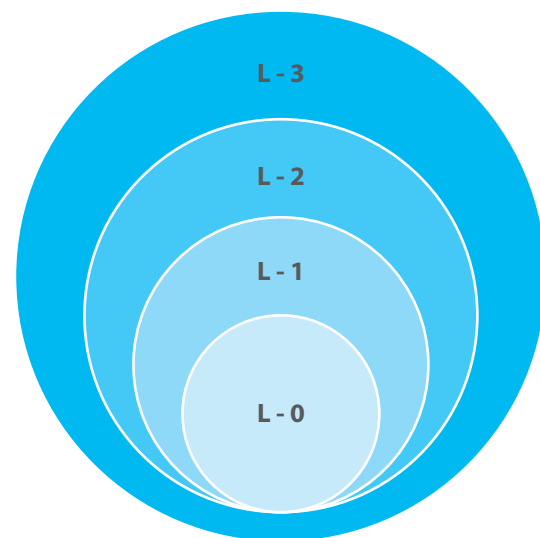
Note: In the intervening years between levels participants are expected to work in projects so that they can be accepted for the higher level of courses. This is termed as years of project experience in the chart.



Evolution of the Courses

The courses evolve from L-0 level and blossom on to L-3. Ideally participant would move from L-0 to L-3. However, in specific cases participants could come in for higher levels depending on the experience and background.

- L - 3:** 5 days of contact in **two sessions** spread over six months along with 60 days of online classes in between the two sessions leading to 70 days with 10 days classroom and 60 days online classes. Experience of 21+ years.
- L - 2:** 6 days contact **every quarter** for one year leading to 24 days of contact in one year. Experience of 11-20 years.
- L - 1:** 6 days of contact **every quarter** for two years leading to 48 days of contact in two years. Experience of 4-10 years.
- L - 0:** 8 days of **one time** contact sessions on entry into the organization. With limited experience of 1-3 years.



Note: Years of experience are indicated for academic relevance and general understanding only. These could overlap in specific situations or suitable exemptions could be made based on the knowledge level of the participant.

HISTORY OF PROJECTS

Ziggurats were a form of temple common to the Sumerians, Babylonians and Assyrians of ancient Mesopotamia. The earliest examples of the ziggurat date from the end of the 3rd millennium BCE (2100 B.C.) and the latest date from the 6th century BCE.



PEDAGOGY

The Pedagogy focuses on the following:

1. Creating the basic foundation for project management
2. Giving theoretical inputs for the concepts
3. Developing the critical thinking process

This is achieved through critical thinking, case analysis, experience sharing, role plays and substantial use of group activities thereby making the participants to think beyond the accepted norms.

The contact sessions comprise of input sessions, proficiency assessment, in-class tests, group presentations and invited presentations.

The course pedagogy also includes use of cases as a learning tool. The cases are generally drawn from L&T, international projects and other real life project situations in and outside the country.

At the end of each module, participants are required to undertake project assignments to enable them to apply their learning to real life case situations and present their analysis and recommendations to the class.

The participants are encouraged to identify guide/supervisor, one each from L&T I'PM and SBU/OD to accomplish project assignment during each module. The assignments are carried out as per the guidance of the resource persons.

Participants are evaluated as per the evaluation process pertaining to course. On successful completion of programme, appropriate certificates are awarded to participants.

L&T I'PM and Project Management Institute (PMI), USA

L&T I'PM is a Registered Educational Provider (R.E.P) of PMI, USA. By virtue of this, all I'PM long duration courses (L-0, L-1, L-2 & L-3), are pre approved courses as the eligible courses for fulfilling the pre requisites for writing the certification examination of PMI. Also specific courses are approved for varying levels of Professional Development Units (PDUs) for validation of current certification. Details of the PDUs are given elsewhere in the brochure.



HISTORY OF PROJECTS

Rajagriha, modern days Rajgir, the capital city of the Legendary empire of Magadha ruled by the semi mythical king Jarasandha was built in northern India during 1700 B.C.

Major Programmes at L&T I'PM

LEVEL - PREP PMP Exam

This programme has been conceived to facilitate practicing managers to take the formal certification examination of Project Management Institute (PMI), USA. Participants get orientation to the various knowledge areas as defined by PMI body of knowledge (PMBOK).

The programme focus is on understanding the terminology of PMI Examination System and answering the questions as required under PMI evaluation methodology.

The programme runs for 5 days and includes a 4 hours "mock test" equivalent to PMP® exam to facilitate understanding the examination system of PMI.

This course is open for all aspiring participants who are ready to take a final PMP test.

Eligibility Criteria: Open to all with project management fundamentals

Duration: 5 days

LEVEL - 0 INTRODUCTION TO PROJECT MANAGEMENT CONCEPTS

The programme is meant for graduate engineer trainees and others having very limited exposure to projects and who would like to reinforce the foundations before getting involved with major projects. Typically the participants are expected to be of experience between 1 & 3 years.

The programme is generally spread over a period of 8 days and covers basic networking techniques, some fundamentals of finance and introduction to project management concepts.

In specific instances, based on needs of the participating organizations, the programme duration could be either reduced or increased.

Eligibility Criteria: Project professionals with experience between 1 and 3 years

Duration: 8 days

DAY	MODULE DETAILS
1	Introduction to Project Management
2	Work Break Down Structure (WBS), Project Network Techniques, Case studies
3	Resource Allocation, Leveling , Crashing , Optimization Techniques , Case studies
4	Project Feasibility, Working Capital Management, Project Cost Management, Case Studies
5	Project Risk Management, L&T Risk Templates, Case Studies
6	Project Execution, Site Management, Case Studies
7	Primavera for Projects
8	Primavera for Projects

HISTORY OF PROJECTS

Rome is now the capital city of Italy. 2,000 years ago it was the centre of the Roman Empire. Building started in 753 B.C.



LEVEL - 1 CERTIFICATE IN PROJECT MANAGEMENT (L – 1)

The programme is spread over 2 Years with contact sessions of 6 days on quarterly basis, i.e., once in three months leading to 48 days of classroom sessions in a span of 2 years.

This programme is meant for participants who have completed L-0 programme and also for project engineers with 4 to 10 years of experience.

This programme is offered in collaboration with a Leading Management Institution. The academic agreement mandates 50% of the course contents to be delivered by participating management institution and the remaining 50% to be delivered by L&T I'PM.

Eligibility Criteria: Project professionals with experience between 4 and 10 years

Duration: 48 days in a span of 2 years @ 6 days contact every quarter

MODULES	CONTENTS	
Module 1	<ul style="list-style-type: none"> • Programme Inauguration & Briefing • Introduction to Project Management - PMBOK Concepts • Programme & Projects • Project Life Cycle 	<ul style="list-style-type: none"> • Principles of Economics • Introduction to Statistics & Quantitative techniques • Project Organization Structure & Organization Culture
Module 2	<ul style="list-style-type: none"> • Basics of Financial Management for Project Managers • Introduction to project Feasibility • Financial Feasibility & Appraisal • Management of Feasibility Study • Market & Demand Feasibility 	<ul style="list-style-type: none"> • Technical Feasibility • Screening of Project Ideas & Preparation of Business Plan • Project Design • Basics of Risk • Stores & Material Management
Module 3	<ul style="list-style-type: none"> • Work Break Down Structure (WBS) • Network Techniques • Process Flow Analysis • Time Cost Trade Off 	<ul style="list-style-type: none"> • Critical Chain Concepts • GERT & Network Stimulation • Plant Layout & Project Flexibility • Linear Programming & Regression Analysis
Module 4	<ul style="list-style-type: none"> • Pre-bid Risk Assessment • Proposal Engineering & Bidding • Project Negotiations 	<ul style="list-style-type: none"> • Primavera & Applications • Project Cost Management • Risk Management Using Risk Tools
Module 5	<ul style="list-style-type: none"> • Introduction to Linear Programming • Project Monitoring & Control • Assembly Line Balance • Supply Chain Management • Time & Cost Estimation 	<ul style="list-style-type: none"> • Transportation Model • Financial Statement Analysis • Project Resource Management • Assignment Models • Concept of Duality
Module 6	<ul style="list-style-type: none"> • Equipment Planning • Project Execution • Project Site Management 	<ul style="list-style-type: none"> • Sources of Finance /Funds • Project Finance Risk Management • Infrastructure Project Finance



HISTORY OF PROJECTS

Takshashila, the oldest university (Vedic University) in the world (according to some Historian) was built in Indian Subcontinent. As early as 700 B.C., there existed a giant University at Takshashila, located in the northwest region of Bharat (India). Takshashila, flourished from 600 BC to 500 AD, in the kingdom of Gandhar. 68 subjects were taught at this university and the minimum entry age, ancient texts show, was 16.

MODULES	CONTENTS	
Module 7	<ul style="list-style-type: none"> • Effective Communication Skills • Team Building • Managing Conflicts & Diversity • Presentation Skills • Quality Issues in Project • Claims & Contracts Management • Strategic Thinking • Technology Transformation, Adaptability & Management 	<ul style="list-style-type: none"> • Organizational Strategy & Project Selection • Cross Cultural issues • Commercial Aspects in Projects • Taxation Issues • Legal Aspects of Contracts • Organizational Structure and Issues • Project Portfolio Management • Corporate Social Responsibility & Social - Cost Benefit Analysis
	Mid Term Comprehensive Examination	
Module 8	<ul style="list-style-type: none"> • Commissioning & Close Out • Constructability & Issues on Construction • Six Sigma & other Quality Tools • Health, Safety & Environment Issues • Integrated Case Study 	<ul style="list-style-type: none"> • Managing Project Company • International Bidding • Project Insurance • Module Assignment Presentation • Project VIVA

Note: Even though the subjects are listed as distinctive modules under the subject listings, some of the subjects could be combined and delivered for academic delivery reasons & continuity of learning. I'PM and IIM reserve the right to modify/add/delete the contents to suit the academic requirements and also to incorporate currently relevant industry practices.

LEVEL - 2 SENIOR MANAGEMENT PROGRAMME ON PROJECT (L – 2)

This programme is spread over for a period 1 year with contact sessions of 6 days duration every quarter leading to 24 days of contact in 1 year. Ideally participants of this programme should have completed L-0 and L-1 programme.

The focus of this programme is to bring in the strategic perspectives of project management with inputs ranging from fundamentals of project design, risk and strategic project management.

The programme is meant for project professionals with 11-20 years of experience.

Eligibility Criteria: Project professionals with experience between 11 and 20 years

Duration: 24 days in a span 1 year @ 6 days contact every quarter

MODULES	CONTENTS
Module 1	<ul style="list-style-type: none"> • Project Design • Structuring • Estimation • Bidding • Procurement
Module 2	<ul style="list-style-type: none"> • Project Scheduling • Monitoring & Control • Resource Management
Module 3	<ul style="list-style-type: none"> • Project Organization • Execution and Closure
Module 4	<ul style="list-style-type: none"> • Project Quality Environment Health • Safety • Coordination and Integration

HISTORY OF PROJECTS

The Colosseum, or the Coliseum, originally the Flavian Amphitheatre, is an elliptical amphitheatre in the centre of the city of Rome, Italy, and the largest ever built in the Roman Empire. It is considered one of the greatest works of Roman architecture and Roman engineering. It was build between 70 – 80 A.D.



LEVEL - 3 STRATEGIC PROJECT AND PROGRAMME MANAGEMENT (L – 3)

This programme is conceived in two parts (a) 10 days of classroom contacts in a span of 6 months in two sessions of 5 days each with (b) online contact sessions of 60 days in between the sessions leading to total 70 days of contact sessions.

The programme has been conceived and developed with George Washington University (GWU), Washington DC, USA.

Ideally participants of this programme should have completed L-2 programme.

The programme is meant for project professionals with 20+ years of experience and who can typically work on multiple projects to enable them to handle projects and programmes.

L&T I'PM is also in the process of offering the programme in association with various other universities.

Eligibility Criteria: Project professionals with 20+ years of experience

Duration: 10 days classroom and 60 days online teaching leading to 70 days of contact sessions

MODULES	CONTENTS	
Module 1	<ul style="list-style-type: none"> • Project Strategy • Portfolio Management • Contracts Procurement • Project Execution • Project Performance • Project Dispute and Resolution 	<ul style="list-style-type: none"> • Supply Chain Management • Project Organization • Engineering and Systems Integration • Guidelines for L&T case studies preparation: Project Strategy, Contracts & Portfolio Management
Module 2 8 week inter-session and online component	<p style="text-align: center;">Phase A - 6 weeks</p> <p>Guided development of successive sections for L&T case studies on the following topics –</p> <ul style="list-style-type: none"> • Project Strategy • Contracts • Portfolio Management 	<p style="text-align: center;">Phase B - 2 weeks</p> <p>Introduction to and clarifications on case studies on following topics –</p> <ul style="list-style-type: none"> • Leadership • Sustainability • Corporate Social Responsibility (CSR)
Module 3	<ul style="list-style-type: none"> • Teams & Team Management • Leadership in Projects • Corporate Social Responsibility (CSR) • Sustainability • Site Visits 	<ul style="list-style-type: none"> • PMO & Project Knowledge Management • Strategic Project Management Risk • Participant Project Presentations • Debriefings with discussion • Closeout

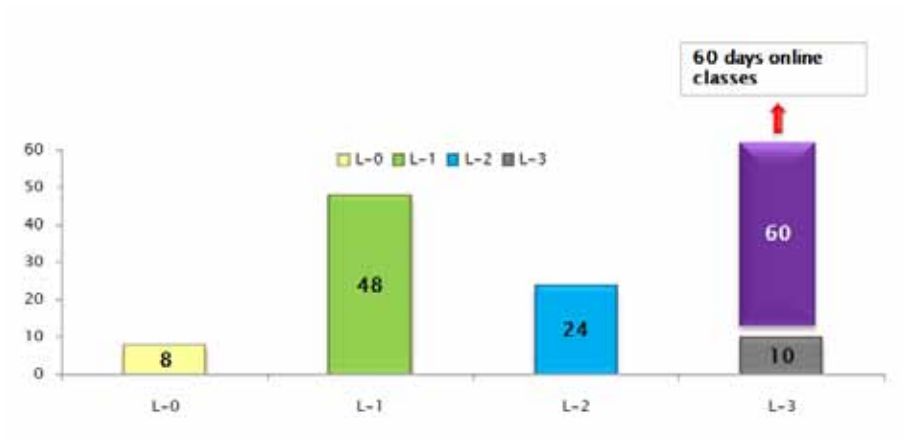


HISTORY OF PROJECTS

Nalanda, arguably the second oldest university in the world was built in Gupta Empire in India i.e. 5th Century (during 300s A.D.). The site of Nalanda is located in the Indian state of Bihar, about 55 miles south east of Patna, and was a Buddhist centre of learning. It has been called "one of the first great universities in recorded history.

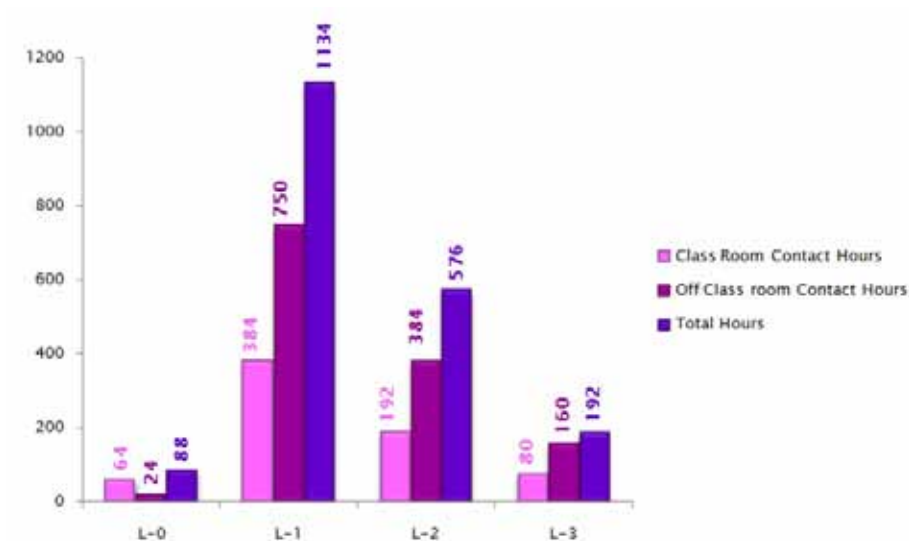
Summary of Duration of Various Courses

Course Level	Total Duration of Study (Days)
L - 0	8
L - 1	48
L - 2	24
L - 3	10



Total Contact Hours for Various Courses

Course Level	Class Room Contact Hours	Off Class Room Self Study Hours	Total Study Hours
L - 0	64	24	88
L - 1	384	750	1134
L - 2	192	384	576
L - 3	80	160	192



HISTORY OF PROJECTS

St Albans Cathedral (1077 – 1893 A.D.), also formerly known as St Albans Abbey & officially The Cathedral and Abbey Church of St Albans, is a Church of England cathedral church at St Albans, England. At 84 metres (276 ft),[1] its nave is the longest of any cathedral in England.



CONTINUING EDUCATION PROGRAMMES (CEPs)

Continuing Education Programmes (CEPs) are a 'curtain raisers' on various knowledge areas of project management and are offered as short duration courses of 2 to 4 days.

These courses are open to all project professionals and the courses are announced at periodic intervals based on the academic calendar and also as per specific requests from business units.

CEPs are conceived and delivered by respective domain specialists and invariably taught with case studies and practical examples.

Of the CEPs listed some are already approved by PMI, USA for PDUs. These details are given along with the course title in parenthesis. Others are in the process of getting approved and suitable communication will be issued once the process of approval is complete.

Eligibility Criteria: Open to all project professionals

Duration: May range from 2 to 4 days depending on the course

1) Project Life Cycle & Feasibility Analysis

"Project Life Cycle" refers to a logical sequence of activities to accomplish the project's goals or objectives. Regardless of scope or complexity, any project goes through a series of stages during its life. It is of great importance to organize project phases into industry-specific project cycles.

The programme looks at the diverse tools and techniques that are to be used in various stages of the life cycle leading to feasibility analysis.

- What is Project & Project Management?
- Programme Vs Project, Operations Vs Project
- Project Life Cycle
- Project Manager
- Feasibility Analysis

2) Scheduling & Network Techniques in Project Management

The Project schedule is the most visible portion of the project management process in most organizations. Participants will learn, in this course, the concepts of scheduling and the prerequisites for creating manageable schedules. Participants will be exposed all the aspects of network techniques. The course will cover:

- Network fundamentals
- Network scheduling with PERT / CPM
- Project time and resource estimating
- Project network development and analysis
- Project acceleration
- Project resource planning and allocation
- Other network scheduling methods such as PDM, GERT
- Using project networks for scheduling under risk and uncertainty conditions



HISTORY OF PROJECTS

Qutub-Minar in red and buff sandstone is the highest tower in India. Built in the 13th century (1190s), the magnificent tower stands in the capital, Delhi. It is an architectural marvel of ancient India. The complex has a number of other important monuments such as the gateway built in 1310 A.D., the Alai Darwaza, Quwwat-ul-Islam Mosque; the tombs of Altamish, Ala-ud-din Khalji and Imam Zamin; the Alai Minar, a 7m high Iron Pillar, etc.

3) Project Resource Management

Project Resource Management has become increasingly more visible as an integrated component of an effective Project Management plan.

For any project to be successful judicious use of resources in terms of Finance, Men, Material and Machinery are mandatory.

This is becoming increasingly important in today's world where resources are scarce and are to be allocated based on scientific basis to derive maximum benefit out of the resource.

The course will cover:

- Introduction to Project Resource Management with definition of project scope and its implication on resources.
- Effective utilization of money as a resource in projects.
- Project human resource management.
- Creating a Responsibility Assignment Matrix.
- Staffing the project
- Developing the project team.
- Performance Measurement.
- Equipment Planning, Productivity and optimization of usage

4) Critical Chain Project Management (CCPM)

CCPM is a probabilistic method conceived by Dr. Eliyahu Goldratt and is an accepted technique in certain specific projects like manufacturing. CCPM eliminates start and stops dates for each task, and consolidates the provision for task duration variation into buffers. The course covers;

- Application of TOC Concept to Project Management
- Critical Chain philosophy - Student Syndrome, Murphy's Law etc
- Concept of Critical Chain including project buffer and feeding buffer
- How to built a CCPM Network and monitor the project through buffer incursions
- Application of critical chain in Multi -Project environment
- Merits and demerits of critical chain

5) Project Cost Management (14 PDUs by PMI)

Project Cost Management has become increasingly more visible as an integrated component of an effective Project Management plan.

Through this programme, participants learn about different aspects of Project Cost Management such as Fundamentals of Cost Management, Resource Planning, Cost Estimation, and Cost Budgeting & Control etc.

HISTORY OF PROJECTS

Cologne Cathedral is a Roman Catholic Church in Cologne, Germany. It is renowned as a monument of Christianity, of German Catholicism in particular, of Gothic architecture. Construction of Cologne Cathedral began in 1248 A.D. and took, with interruptions, until 1880 A.D. to complete. It is 144.5 metres (474 ft) long, 86.5 m (284 ft) wide and its towers are approximately 157 m (515 ft) tall.[3] The cathedral is one of the world's largest churches and the largest Gothic church in Northern Europe.



6) Proposal Engineering and Analytical Hierarchy Process (AHP)

Proposal Engineering & Project bidding have gradually become very decisive.

In today's competitive scenario, it requires special attention and thorough expertise in the field of proposal preparation.

Through this Programme, participants learn about different aspects of Project Proposal & Bidding such as Fundamentals of proposal engineering, proposal preparation, what to bid, when to bid, Developing an Optimal Bidding, Validation & Suitability in Practice of a Competitive Bidding Model etc.

The course will cover the use of Analytical Hierarchy Process (AHP) tool – Expert Choice-developed by Dr. Ernest Forman based on Dr. Thomas Saaty's concept of AHP and Eigen vectors.

- Introduction to Project Proposal
- Phases in Project Proposal
- Conceptualizing & Detailing into sub-systems
- Option Evaluation
- Cost Estimation / Time Estimation
- Bidding
- Different Techniques of bidding and Rules, Strategies, Pay offs, and Equilibrium
- Competitive Bidding
- Bidding Models
- Developing an Optimal Bidding
- Validation & Suitability in Practice of a Competitive Bidding Model
- Competitive Bidding Strategy Model & Software System for Bid Preparation
- AHP Introduction
- Application of AHP in bidding process

7) Project Risk Management and Risk Tools (21 PDUs by PMI)

The programme covers the fundamentals of risks as applied to projects.

Course will cover theoretical foundations of risk management.

Risk management tools and techniques are covered in detail before going into the use of commercially available tools.

Subsequent to the theoretical inputs practical problems are solved using @ Risk Tools.

The course will cover the use of tools & applications like 1. @Risk for Excel 2. Precision Tree 3. @ Risk for Project for schedule risk analysis 4. Risk Optimizer 5. Monte Carlo Simulation



HISTORY OF PROJECTS

The Doge's Palace (Italian: Palazzo Ducale) is a Gothic palace in Venice, Northern Italy. The current palace was largely constructed from 1309 A.D. to 1424 A.D., designed perhaps by Filippo Calendario.

8) Project Finance

Project finance is used on a global basis to finance over US \$1 trillion of capital intensive projects annually in industries such as Power, Transportation, Oil & Gas, and Telecommunication etc.

The objective of the Programme is to understand what is a project finance concept its necessary elements, why it is used, how it is used, its advantages and its disadvantages.

At the end of the Programme, participants should be able to identify projects that meet the essential criteria for a project financing and know how to create the structure for a basic project financing.

- Basic financial statement analysis
- Understanding funds flow statements
- Working capital management
- Managing cash flows in projects
- Impact of project schedules on project cash flows
- Economic project selection criteria
- Capital budgeting
- Time value of money
- Understanding NPV, IRR, and payback methods and application
- EVA, ROCE and other relevant measures
- Financial risk analysis
- Hedging techniques
- Capital rationing
- Forex management tools like commodity hedging, forex hedging
- Multi currency management
- Bank guarantees, LCs and types, etc
- Methods for financial structuring of projects
- Mobilizing financial resources for projects from various sources
- Financing models of projects
- Financial structuring methods in public private partnership projects such as BOO, BOOT, etc

HISTORY OF PROJECTS

The Forbidden City was the Chinese imperial palace from the Ming Dynasty to the end of the Qing Dynasty. It is located in the middle of Beijing, China, and now houses the Palace Museum. Built during 1406 A.D. to 1420 A.D., the complex consists of 980 buildings with 8,707 bays of rooms[1] and covers 720,000 m² (7,800,000 sq ft).



9) Project Monitoring and Control by incorporating Earned Value Management (EVM)

This programme provides the skills to Monitor and Control resources in Project Development and Implementation

- Understanding project control
- Project time monitoring and control
- Milestone monitoring
- Project accounting system for cost monitoring and control
- Earned value measurement system
- Understanding project variances and overruns in costs and schedules
- Setting baseline schedules for monitoring and control
- Use of S curves, Line of Balance methods for project progress monitoring and control
- Multi site project monitoring
- Multi project multi site project monitoring
- Forecasting project time, cost at completion
- Contingency & corrective actions
- Project reporting system
- Catch up plan
- Look ahead schedule

10) Project Materials & Procurement Management

“Procurement & Management” of Materials has significant impact on the performance of projects. Timely procurement of materials of desirable quality at appropriate cost is a key to success of any project. Integration of the procurement of materials functions with the project plays an important role in the success of project.

The objective of the programme is to focus on the critical dimensions of management and governance of materials in projects as opposed to ongoing operations.

- Project materials requirement planning
- Vendor development and evaluation
- Project procurement management
- Materials receipt, handling, storage, issues, bills payment
- Inventory management
- Interfacing materials plan with project schedules
- Order placement and follow up
- Contingency planning



HISTORY OF PROJECTS

The Willis Tower formerly named, and still commonly referred to as the Sears Tower is a 108-storey, 1451 ft (442 m) skyscraper in Chicago, Illinois. It was designed by Bruce Graham and Fazlur Khan. The Willis Tower is the tallest building in the United States and the fifth-tallest freestanding structure in the world.

11) Computer - based Project Management - Ms - Project or Primavera

In today's world several tools are used in handling projects. This programme is for an in depth understanding of the tools that are used in project management with hands on practice of the tool Specific focus on the specified tool

- Developing project networks using computer
- Project network analysis through PERT / CPM
- Using MSP for computerized project management
- Using Primavera for computerized project management
- Using SAP for computerized project management
- Multi functional, multi location, multi party coordination using computerized project management
- Developing Project Information system using computerized project management
- Computer based software for project risk and hazard analysis

12) Health, Safety & Environment issues in Projects

The programme is designed to emphasis on Health, Safety & Environment issues in Projects, HSE Management principles, HSE Plan & Risk Management, case studies

- Importance of safety, health and Environment management in projects
- Financial implications
- Setting HSE objectives and policy
- Linkages between risks and HSE plan
- Building career in HSSE
- Link with work methods and emergency response plan
- HSE considerations during design and pre execution phases
- Sustainable project design and management
- Accident prevention, safety in P & M operations
- Occupational health, safety in hazardous operations
- Pollution control. Environmental Impact Assessment (EIA) of projects
- Implementing IOSH, ISO 14000 and ISO 18000 standards in projects
- Legislation and Company policy

HISTORY OF PROJECTS

The original World Trade Centre was a complex of seven buildings featuring landmark twin towers in Lower Manhattan, New York City. The complex opened on April 4, 1973. It was designed by Minoru Yamasaki. It was destroyed in 2001 during the September 11 attacks. The site is being rebuilt with five new skyscrapers and a memorial to the casualties of the attacks.



13) Project Site Management

One of the principal ways in which modern societies generate new value is through projects which create physical assets that can then be exploited to achieve social & economic ends – factories for manufacturing goods, offices and shops for delivering services, hospitals for health care, and tunnels for transport.

In a typical modern society, around a half of physical asset creation is the responsibility of the construction industry, thereby generating the national wealth. The creation of these assets is the principal force in the dynamics of cities and change in the built environment and, therefore, one of the major sources of social and economic change.

This programme is about how such assets are created effectively and efficiently so that they meet the needs of the clients which make the investments, thereby providing a net gain to the economy and society for which they are created.

- Project site preparation
- Organizing site office
- Construction of temporary site facilities
- Project sub contractor management
- Implementing Lean Construction Techniques, modularization
- Work study and time study techniques for productivity improvement
- Organizing material handling system, logistics, and transportation at site
- Site installation and erection of equipment, piping, instrumentation, testing, etc
- Special types of erection techniques
- Site construction management
- Site documentation
- Site coordination with various local agencies
- Project time, quality, cost and progress control at site
- Trouble shooting
- Materials storage and inventory management
- Project commissioning, testing and close out

14) Total Quality Management & Project Management

One of the major causes for project management failure is poor quality management. Quality is generally defined by the project sponsor and by the client. What, as a project manager, one considers to be a flawlessly executed project may not be a success if it doesn't meet the client's needs. This programme focuses on the definition of quality plans and tools at the beginning of the project and the process of periodic reviews and checks and balances for quality.

- Quality definitions and concepts appropriate to projects
- Quality leadership, roles and responsibilities
- ISO 9000 requirements for projects
- Cost of quality in projects
- Setting quality specifications, targets and quality system deployment in projects
- Setting quality test systems, equipment, methods and procedures
- Acceptance sampling, process capability and QC charts in project activities.
- Using 7 QC tools in projects
- Vendor and Sub Contractor quality assessment
- Quality assessment of project equipment, materials and manpower resources
- Quality assessment of logistics and transportation system in projects
- Stage wise quality assessment during project implementation
- Final project quality assessment
- Customer satisfaction and delight in projects
- Implementing and fool proofing
- Project Quality Assurance and Reporting System
- TQM, Six sigma and Lean management practices in projects
- Standard Operating Procedures
- Version control



HISTORY OF PROJECTS

Sagrada Família, is a large Roman Catholic church in Barcelona, Catalonia, Spain, designed by Catalan architect Antoni Gaudí (1852–1926). The project is still under construction... and is expected to be completed 2028. Although incomplete, the church is a UNESCO World Heritage Site and in November 2010 was consecrated and proclaimed a minor basilica by Pope Benedict XVI.

15) Managing EPC Projects

The objective of the programme is to develop and enrich various techniques for successfully managing EPC Projects

- Managing project oriented company
- Modeling large projects
- Project technology, design and requirements management in large complex projects
- Project management business models such as EPC, EPCM, E & P, Cost +, Hybrid EPC, etc
- Managing NGOs
- Offshore project management
- Pre qualification process relevant for international projects
- Simultaneous management of multiple large complex on shore projects International project management
- Global project opportunity assessment
- International project culture
- Multicultural project management
- Multicultural / global project teams
- Managing Projects under Public Private Partnerships
- Managing projects under joint ventures, strategic alliances
- Cases in complex project management in oil & gas, chemical engineering plants, power, roads and highways, manufacturing, civil aviation, ports, logistic activities, other areas of infrastructure

16) Project Claims & Contracts Management

Claims & Contracts Management has become increasingly more visible as an integrated component of an effective Project Management. Through this programme, participants learn about different aspects of Claims Management.

The objective of the programme is to understand and analyze various legal issues in Project Management

- Contract definition
- Types and choice of contracts
- General and particular conditions of contract
- Model contract documents of national agencies
- FIDIC conditions, INCOTERMS
- Comparison of FIDIC contract modes for design, turnkey, item rate etc.
- Subcontracting and conditions of subcontracts
- Roles of lender's and owner's engineer, contractor, owner
- Constituents of contracts
- Quantity surveying and billing procedures
- Contract negotiations
- Contract administration
- Dispute resolution
- Interpretation of contract clauses and conditions
- Indemnity and insurance
- Interpretation of contract clauses and conditions
- Variations and instructions
- Guarantees, bonds, insolvency
- Monitoring delay and disruption claims
- Formulation and presentation of claims
- Extension of time claims
- Delays after contract completion dates
- Prolongation claims, Loss of productivity claims
- Claims for acceleration, variation, additions, cost escalation
- Response to claims – counter claims
- Resolution and settlement of disputes
- Arbitration, Liquidated damages
- Warranty management with dispatch
- Outputs of Performance Management
- Explain the usage of dashboard

HISTORY OF PROJECTS

Sir Christopher Wren (20 October 1632 – 25 February 1723) is one of the most highly acclaimed English architects in history. He was responsible for rebuilding 51 churches in the City of London after the Great Fire in 1666 A.D., including his masterpiece, St. Paul's Cathedral, on Ludgate Hill, completed in 1710 A.D..



17) Project Close Out & Knowledge Management

This programme provides complete insight of Project Close out and its learning

- 'As-built' project documentation
- Hand over documents
- Acceptance certificate
- Assigning weight-age to commissioning
- Detailing closure activities
- Fast tracking closure activities

18) Project Portfolio Management

Project portfolio management is essential in bridging the gap between business (operational) objectives and project objectives. The course gives an overview of the project portfolio management techniques.

- Conditions for Successful Portfolio Management
- Describe benefits of portfolio management
- Describe the six components of effective portfolio management
- Explain the role of leadership in portfolio management
- Monitoring Portfolio Performance
- Identify quantitative and qualitative metrics used to monitor performance
- Describe methods of gathering needed data
- Identify and describe various tools for portfolio projects

19) International Projects & Cross – Cultural Issues

This programme provides is to focus on various Cross – Cultural Issues in International Projects

- Managing project oriented company
- Modeling large projects
- Project technology, design and requirements management in large
- Complex projects Project management business models such as EPC, EPCM, E & P, Cost +, Hybrid EPC, etc
- Managing NGOs
- Offshore project management
- Pre qualification process relevant for international projects
- Simultaneous management of multiple large complex on shore projects
- International project management
- Global project opportunity assessment
- International project culture
- Multicultural project management
- Multicultural / global project teams
- Managing Projects under Public Private Partnerships
- Managing projects under joint ventures, strategic alliances
- Cases in complex project management in oil & gas, chemical engineering plants,
- Power, roads and highways, manufacturing, civil aviation, ports, logistic activities, other areas of infrastructure



HISTORY OF PROJECTS

Thomas Telford FRS, FRSE (1757 –1834) was a Scottish civil engineer, architect and stonemason, and a noted road, bridge and canal builder. His significant projects: Caledonian Canal, Göta Canal, Ellesmere Canal, Pontcysyllte Aqueduct, Shrewsbury Canal, Menai suspension bridge and A5 road.

20) Technology Management

Technology management is a key issue in large gestation projects due to the dynamic nature of technological change and acceptability of technology.

The programme focuses on the need for considering technology as a resource in projects and the need for forecasting and optimization of technology.

21) Scenario Forecasting

In managing projects, it is very critical for the project managers to have an understanding of the scenarios that are emerging in the environment to plan and re-plan project implementation. The programme gives an overview of scenario forecasting techniques and applicability of these techniques in project planning.

22) Strategic Thinking in Project Management

- Economic environment of project business
- Linking corporate strategy to project strategy
- Strategic Business management through multiple projects
- Industry specific characteristics of project business
- Industry standards applicable to projects
- Project portfolio selection and management
- Project stakeholder management
- Moving from Project to Program management
- Global project practices
- Benchmarking best practices in projects
- Long Term SWOT analysis
- Long term trend analysis in project markets
- Developing competitive growth strategies for project markets
- Enhancing project capability maturity using PMM Model
- Defining project business mission
- Enhancing project business market share, size and profitability
- Attaining business excellence and world class in projects
- Managing JVs, strategic alliances, mergers and acquisitions for project
- Business growth
- Working in a consortium
- Learning from project success and failure
- Corporate social responsibility (CSR) studies

23) Special Workshops/Seminars With International Faculty

L&T I'PM also conducts various theme based special workshops or seminars on project management with international Faculty who are from recognized International Universities or Multinational Project Companies.

HISTORY OF PROJECTS

Isambard Kingdom Brunel, FRS (9 April 1806 – 15 September 1859), was a British civil engineer who built bridges and dockyards including the construction of the first major British railway, the Great Western Railway; a series of steamships, including the first propeller-driven transatlantic steamship; and numerous important bridges and tunnels. His designs revolutionized public transport and modern engineering.



Domain Specific Programmes

These programmes are specially designed and delivered by L&T I'PM based on the specific domain areas of different L&T Business Units

Project Management For Integrated Engineering Services (IES course)

The aim of this programme is to provide a coherent, integrated and in-depth framework for managing integrated engineering services projects.

This programme will provide participants with the rudimentary knowledge and skills in different aspects of project management. The duration of this programme is of 8 days.

Eligibility Criteria: Project professionals from IES field between 4 and 10 years of experience

Duration: 8 days

DAY	MODULE DETAILS
1	PMBOK Concepts, Project Life Cycle & Case study
2	Fundamentals of Project Finance, Financial Statement Analysis, Project Cost Estimation, Budgeting & Case Study
3	Project Cost Control – EVM, Work Breakdown Structure & Case Study
4	Network Techniques, Resource Planning, Allocation & Crashing and Case Study
5	MS Project
6	Engineering Management for process & product cluster, IEEE Standards & similar standards, Project Metrics & Measurements, Project Proposal & Marketing & Account Management, Global Project Management & Project Closure
7	Project Risk as per PMBOK and Case Study on Risk Management
8	Engineering Activities in Project Life Cycle, Requirements Gathering, Analysis & Management Scope Change Management – I, Scope Change Management, Human Resource Management in IT & ITES, People Management & Communication, Conflict Management

PROJECT MANAGEMENT FOR EMBEDDED SYSTEMS (ES COURSE)

Embedded system is an area that in actual practice requires application of well defined Project Management principles and discipline.

This program has been conceived with a specific focus on Project Management of Complex and Embedded systems. The programme will also focus on the application of tools & techniques of Project Management for Embedded system projects and managing the projects on defined project management framework.

Eligibility Criteria: Project professionals from Embedded Systems domain between 4 and 10 years of experience

Duration: 7 days

DAY	MODULE DETAILS
1	Introduction to PMBOK Concepts and Case Study
2	Project Integration, Project Scope, Interpersonal Relationship, Stimulation Workshop and Case Study
3	Agile Scrum, Scope with Agile Scrum
4	Work Breakdown Structure, Project Networking Techniques, Resource Allocation and Case Study
5	Fundamentals of Project Finance, Project Cost Estimation and Budgeting, Project Cost Control & Case Study
6	Risk Management, Fundamentals of Risk Management in Product Development, Categories – Technology, Feasibility Management and Case Study
7	Project Closure Admin/Contract, Learning Feedback, Framework & Case study



HISTORY OF PROJECTS

Gantt (Henry L. Gantt, 1861 - 1919) added an important visualization tool around 1917 with the Gantt Chart dramatically advancing the science of project management.

NOTES:

1. Even though courses are listed as distinctive modules under the course listings for academic continuity and course delivery reasons some of the modules may be combined and delivered. Specific details pertaining to individual course including the session plan will be available to all participants.
2. All course modules get continually updated based on the feedback from the Participants, Project Managers and Practitioners. Therefore, it is most likely that there will be some changes in the course outline at the time of actual delivery of course.
3. Courses are announced and conducted throughout the year based on academic calendar of the institution. Details are available from the office of I'PM and also available on website - www.Lntipm.org.
4. Continuing Education Programmes (CEPs) are normally non-residential courses and are held closer to the location of the participants - subject to minimum number of registration from the location and availability of necessary infrastructure.
5. Long duration courses like L-1, L-2, L-3 and GET courses are residential courses and are held at various residential facilities of L&T and collaborating institutions (if any).
6. Experienced faculty from internal sources and from I'PM will conduct all courses. At appropriate times, suitable outside faculty would supplement the teaching & learning process.
7. Programmes will be supported by the learning resources with database, study reports, study kit etc.
8. New programmes will be announced at periodic intervals.
9. For further query on eligibility criteria for the courses kindly contact us at: info@Lntipm.org.
10. The institute reserves the right to modify, add or subtract the course and course contents. Published information in this brochure is just for the reference purpose.
11. In case of any ambiguity decision of the Dean shall be final and binding.

HISTORY OF PROJECTS

In the late 1950s, Admiral Raborn of the U.S. Navy needed the Polaris missile program up and flying as quickly as possible due to the perceived threat of a "missile gap" between the U.S. and Russia. Traditional project management wasn't enough to ensure the safety of the nation. The problem was solved with the help of Willard Fazar's PERT (Program Evaluation and Review Technique). PERT became the mandatory requirement of all US Navy projects.



General Information

COURSE EQUIVALENCE & CREDENTIALS

L&T I'PM Courses have been designed for giving a strong foundation into the theoretical and practical aspects of project management.

The course contents and assessment processes are very rigors and meet or exceed various international certification requirements like PMI, IPMA, PRINCE-2 etc..

Within the organization L&T I'PM certification is considered a shade above the certificates given by other professional bodies because of the course content, delivery process and assessment methods. However, in the interest of satisfying the need of understanding the certification process we have compared the currently popular credentials offered by PMI and IPMA with the courses offered by L&T I'PM.

The table given below denotes the equivalence that emerged out of the study of comparative course contents and examination. The comparisons are given for general understanding and do not exactly follow any scientific equivalence study.

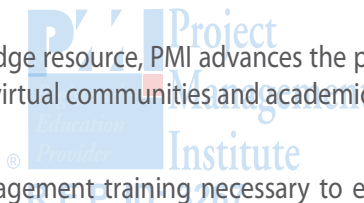
L&T I'PM	IPMA	PMI
L - 0	Level D / Level C	CAPM / SP
CEP - Risk	N. A.	RMP
L - 1 / L - 2	Level B	PMP
L - 3	Level A	PgMP

REP AND PDUs WITH PMI

Project Management Institute (PMI), USA, is the world's largest project management member association, representing more than half a million practitioners in over 185 countries.

As a global thought leader and knowledge resource, PMI advances the profession through its global standards and credentials, collaborative chapters and virtual communities and academic research.

Apart from providing the project management training necessary to earn and to maintain Project Management Professional (PMP)[®], Program Management Professional (PgMP)[®] and other PMI professional credentials; we also have some of our courses approved for PDUs from PMI.



HISTORY OF PROJECTS

In 1997, Dr. Eli Goldratt (famous for 'The Goal', a world-wide best seller on the Theory of Constraints, TOC) finally took time out from his busy schedule of helping organizations improve their profitability and productivity, to write a book about what he had accomplished and a new way of looking at Project Management through TOC: Critical Chain.

The table given below show the courses approved for PDUs:

SL NO	PROGRAMME NAMES	PMI APPROVED COURSE CODE	PDUs	NO. OF DAYS
1	Project Risk Management	L&TIPM/CEP/026	21	3
2	Project Finance Management	L&TIPM/CEP/025	14	2
3	Project Cost Management	L&TIPM/CEP/003	14	2
4	Project Management for Information Technology Professionals	L&TIPM/CEP/039	35	5
5	Project Feasibility	L&TIPM/CEP/024	21	3
6	Financial Risk Management	L&TIPM/CEP/029	14	2
7	Hedging in Projects	L&TIPM/CEP/015	14	2
8	Infrastructure Project Finance	L&TIPM/CEP/033	14	2
9	Working Capital Management in Projects	L&TIPM/CEP/045	14	2
10	Project Site Management	L&TIPM/CEP/022	21	3
11	Primavera (P6) for Project management-Beginners Level	L&TIPM/CEP/018	21	3
12	Project Quality management	L&TIPM/CEP/017	21	3
13	Project Cash Management	L&TIPM/CEP/002	14	2
14	Project Equipment Planning and Productivity	L&TIPM/CEP/046	14	2
15	MS office Project for Project management	L&TIPM/CEP/001	21	3
16	Work Break down Structures for Various Projects	L&TIPM/CEP/049	7	1
17	Network Techniques for Various Projects	L&TIPM/CEP/048	14	2
18	Optimisation Techniques for Projects	L&TIPM/CEP/047	14	2
19	Delay in Construction Projects	L&TIPM/CEP/050	14	2

Note: I'PM is constantly getting other courses accredited for PDUs with PMI. For additional information and current status, please contact: info@Lntipm.org.

PROGRAMME REGISTRATION

All L&T I'PM programmes are announced on regular basis through internal communication, newsletters and systems like

- ENC daily news bulletin
- ECC Broadcast E-Zine
- SAP
- Direct mail to all the HR Heads, Training Coordinators of all the business units
- Website – www.Lntipm.org and portal of I'PM

Those who are interested in participating can register themselves thru SAP or by mailing us at: info@Lntipm.org.

HISTORY OF PRO.
Larsen & Toubro Limited (L&T) (NSE: LT, BSE: 500510) is an Indian multinational conglomerate company headquartered in Mumbai, India. The Company was founded in Mumbai in 1938 by two Danish engineers, Henning Holck-Larsen and Søren Kristian Toubro. The Company began as a representative of Danish manufacturers of dairy equipment.



Infrastructure

LIBRARY

Our Library represents a comprehensive collection of reference books as well as technical and professionals periodicals, both general and special functional areas.

Library has also taken institutional library membership with renowned libraries such as Indian Institute of Management - Ahmedabad; NICMAR Library - Pune; British Council Library - Ahmedabad and Smt. Hansa Mehta Library of M. S. University – Vadodara; as well as PMI – REP Membership for online access to PMI resources and procurement of their publications.

The L&T I'PM Library offers the following Services:

- Reading Facilities
- Reference
- Reprographic
- Circulation
- Inter-library loan through Institutional Membership
- Reference and bibliographic Information search
- Online Public Access Catalogue
- Online renewals and online reservation to the registered library members.
- CAS & SDI Services
- Access to Online Database
- Special Collection of IPM Study Materials
- High end workstation with Internet facility
- Online Public Access Catalogue Link: (OPAC Link): <http://192.168.155.157:8280/liberty/libraryHome.do>



Subscription of Online Databases: We have subscribed to the following digital resources/online database for doing extensive research and teaching on project management.

1. **ABI / Inform Complete - Proquest Database:** <http://search.proquest.com/business/index> (Access to 6485 Publications: Scholarly Journals:2280, Trade Journals:2201, Reports:1586, Magazines:329, Newspapers:89)
2. **Emerald Insight Database:** <http://www.emeraldinsight.com/> (Full Text Access to 225 Journals)
3. **ASCE Online Journals – American Society of Civil Engineering Journals:** <http://www.ascelibrary.org> (Full Text Access to 33 Journals)
4. **DVDs on Mega Projects:** Library has a huge collection of special DVDs on worldwide mega projects. Please check details at - <http://192.168.155.157:8280/liberty/libraryHome.do>
5. **DVDs on Leadership:** Library has a collection of leadership movies as recommended by Deans of 30 top US Universities. Please check details at - <http://192.168.155.157:8280/liberty/libraryHome.do>

HISTORY OF PROJECTS

In 1944, ECC was incorporated by the partners; the company at this time was focused on construction projects (Presently, ECC is the construction division of L&T). L&T decided to build a portfolio of foreign collaborations.



CLASSROOMS

I'PM has well equipped classrooms with related projection and audio – video facilities located at the ground floor of Corporate Block in L&T Knowledge City.

- Classroom 1 'Narmada' – 60 seater
- Classroom 2 'Tapti' – 35 seater
- Classroom 3 'Mahi' – 24 seater
- Classroom 4 'Sabarmati' – 24 seater

These classrooms are state-of-the-art computer labs with individual workstations, to enhance technical/project skills of L&T-ites.

The workstations are installed with the following software:

- Primavera – P6
- MS Project 2007/10
- Pallisade – @ Risk Suite
- Expert Choice – AHP Tool
- Catia
- Unigraphics
- IDEAS
- Ansys

New tools are also getting added on regular basis to aid the learning process.



GROUP DISCUSSION ROOMS

There are 3 group discussion (GD) rooms located on the first floor of Corporate Block in L&T Knowledge City.

And all the rooms are well-equipped with display and computer systems accommodating up to 8 persons named after great project management thinkers: William Edward Deming, Joseph Juran and Henry Laurence Gantt.



HISTORY OF PROJECTS

Bahāī Lotus shaped temple in New Delhi, a marvellous architectural landmark was constructed by L&T. It was completed in 1986 and serves as the Mother Temple of the Indian subcontinent. It has won numerous architectural awards and been featured in hundreds of newspaper and magazine articles.



VIDEO CONFERENCING ROOM



The video conferencing room Eliyahu - Vilfredo (EV) located on the first floor of Corporate Block and is well operational with all the necessary equipment.

L&T I'PM CHENNAI CAMPUS

L&T I'PM started Chennai Centre in January 2012 at following location: Training Centre Building, Opposite TC – II Building at ECC campus, Manapakkam, Chennai.

This centre caters to the need of training program primarily from the southern region. This centre offers all the programmes of I'PM.



L&T I'PM VADODARA NEW CAMPUS



L&T I'PM has started the work on a state-of-the-art centre for Project Management education at Vadodara. This facility will be exclusive academic facility for L&T I'PM with usable area of 6000 sq. meters. The centre will be fully equipped with current technology for teaching & learning, including distance learning through ICT.



HISTORY OF PROJECTS

State-of-the-art bridges built by L&T include Halladi Bridge and Panval Nadi Viaduct on the Konkan Railway which was completed and was on use in year 1994. L&T has also constructed the Jhajjar-Khad Bridge, which is Asia's tallest and longest span railway bridge with steel girders executed under very adverse site conditions.

Few landmarks created by L&T

Delhi International Airport - Terminal 3

Delhi airport located in the National Capital Region (NCR) is known as Indira Gandhi International Airport (IGIA). In May 2006, the management of the airport was passed over to Delhi International Airport Limited (DIAL), a joint venture led by the GMR Group, which also has the responsibility for the airport's ongoing expansion and modernization.

Terminal three which will have a floor space of 480,000m² was designed by HOK in consultation with Mott McDonald and was constructed by Larsen and Toubro, Meinhardt Engineering and Airbiz of Australia (airport planner) with project management by Parsons Brinckerhoff International Inc.

This project execution was fast-tracked after resolving many complications, L&T successfully completed this project within 3.5 years and the terminal was inaugurated on 21st August 2010. In order to execute this project the entire project team including the design team moved to the site.



DELHI METRO, INDIA

L&T has contributed significantly to the successful implementation of Phase-I of Delhi Metro project by DMRC. As a consortium partner, L&T executed a major contract for construction of underground corridor from Kashmere Gate to Central Secretariat.

This involved all types of underground construction methods, viz., cut & cover construction, NATM technique and tunnel boring technology. A novel technique was adopted for construction of Cut and Cover structure between Mandi House underground Station & ramp on extension of Barakhamba Road - Dwarka Metro corridor towards Pragati Maidan.

L&T is also involved in construction of an underground corridor between Greenpark and Saket in Phase-2 of Delhi Metro Project.



HISTORY OF PROJECTS

IOCL Panipat refinery project was completed by L&T in 24 months by adopting innovative concepts during all stages of the project execution including the state-of-art IT-enabled systems. The project was completed in 2005.



MONO RAIL SYSTEM

A consortium led by L&T with Scmi Engineering Bhd, Malaysia is executing the straddle type monorail system in Mumbai. This ₹ 24.6 billion (₹ 2460 crore) project is the country's first Monorail System being set up for the Mumbai Metropolitan Region Development Authority.

The project involves designing, constructing, installation, testing; commissioning and integrated testing including train trial with initial Operation & Maintenance from Gadge Maharaj Chowk (Jacob Circle) to Wadala (approx. 11 kms) and Wadala to Chembur via Mahul (approx 9 km) corridor on a Lump Sum Turnkey (LSTK) basis. The Monorail will have 18 stations enroute. The project is to be completed in a tight schedule of 30 months.



HISTORY OF PROJECTS

The Hyderabad International Airport construction began in September 2005 and the airport was opened in March 2008. It is being developed in three phases, and when completed it will provide infrastructure for 40 million passengers annually.



L&T I'PM New Campus

For additional information on courses & course schedule please contact:

dean@Lntipm.org | info@Lntipm.org



Looking Ahead
www.Lntipm.org

L&T Institute of Project Management

1st Floor, Corporate Block, L&T Knowledge City
Waghodia, Vadodara - 390019 (Gujarat), INDIA

Phone: 0265 245-4000 Fax: 0265 245-4058

Email: info@Lntipm.org

www.Lntipm.org

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