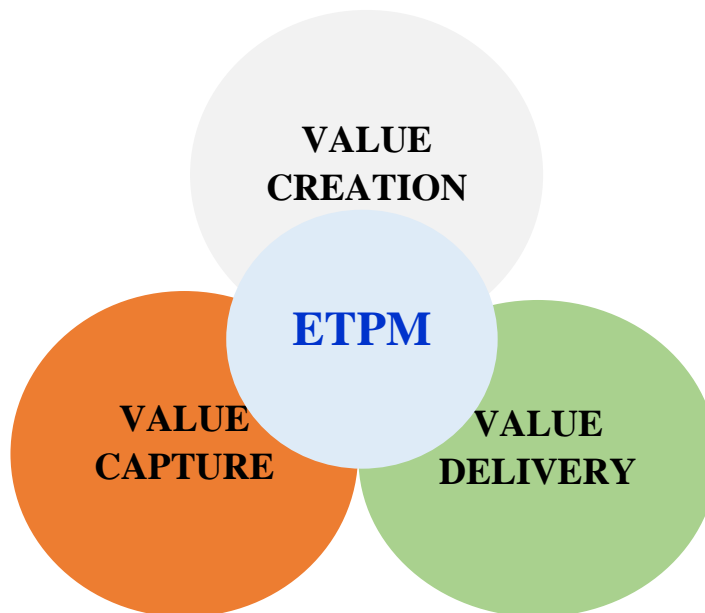# Engineering, Technology and Project Management (ETPM) Area

D-LITE

(D- Digital, L-Leadership, I- Innovation, T- Technology, E-Entrepreneurship)
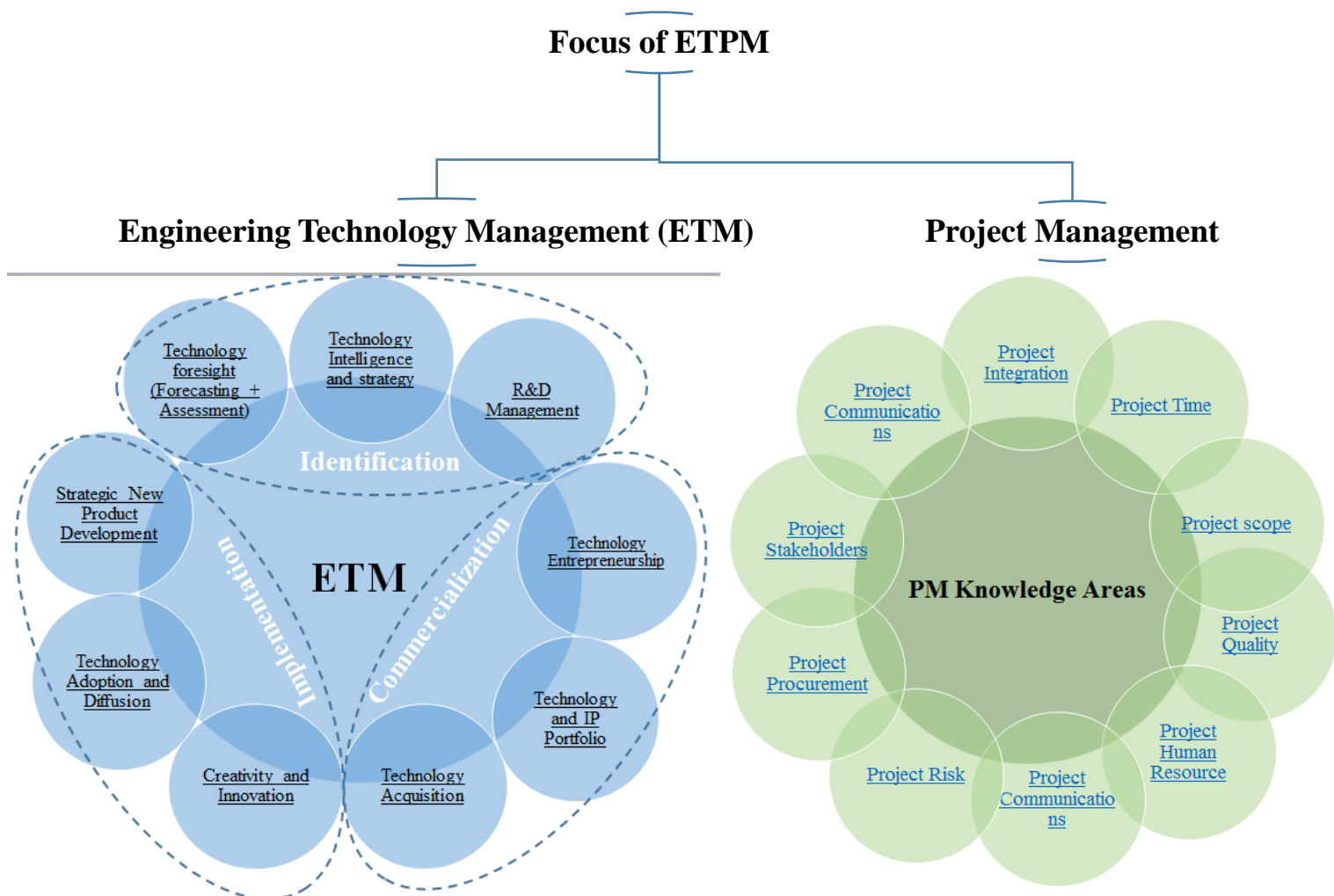
NITIE Via ETPM Area

The success of organizations is increasingly dependent upon their leaders' ability to properly manage resources in a world of rapidly changing technology. Effective systems for managing technology in complex business environments require integrated sets of management tools and processes. In addition, more than 60% of the projects are plagued by time and cost overruns. ETPM deliberate on all three critical value dimensions- **Creating, Capturing, and Delivering value** through technology and project based strategy. ETPM lays emphasis on technology as the core differentiator for the organisation and identifies paths to leverage the knowledge of both intangible and tangible products and processes to improve organisation's performance through building project management capabilities and competencies.

ETPM Focus at NITIE

ETPM is an emerging area in India that provides a synergistic interdisciplinary environment to study innovation, technology and project systems at macro (the nation, sector), meso (industry, firm) and micro level. The area aspires to partner in the manufacturing renaissance of the nation by bridging "engineering" and "management" through directed courses and industry inspired research. ETPM focuses on creating techno managers and providing expertise to design strategy to identify, plan and manage technologies, infrastructure and complex projects in dynamic environment.

Focus of ETPM

Engineering Technology Management (ETM)

Project Management

ETPM Goals at NITIE

1. Be recognised in India as the knowledge hub for studying and researching contemporary issues in the areas of engineering, technology and project management.

2. To provide a platform to identify, create and implement strategies that enable technologies to reach its potential.

3. To build capability in engineering managers for resolving business problems through effective project management in an integrated way of engineering, technology and business functions.

ETPM Faculty at NITIE

The ETPM area has a combined experience across a broad range of industry that includes Auto, Renewable Energy, Telecommunications and Networks, Electronics, Information Technology, Manufacturing and Government Entities.

FACULTY SPECIFIC RESEARCH AND TEACHING AREAS	AREAS OF ETPM														
	Technology Management					IP Management	Innovation Management			Project Management					
	Tech. Intelligence and Strategy	Tech. Forecasting Foresight and Roadmaps	R&D Management	Tech Acquisition. Transfer, Evaluation and Commercialization	Tech. Adoption and Diffusion strategy	IP Management	Creativity and Innovation	New product Development	Technology Entrepreneurship	Complex products and system design	Program and Portfolio Management	Project Risk Management	Project Appraisal and Feasibility Studies	Quantitative modelling and Data Analytics	Project planning and Scheduling
Prof. B. Koteswara Rao Naik		√		√		√	√	√	√						
Prof. Kanchan Joshi												√		√	√
Prof. Karuna Jain	√	√	√	√	√	√								√	√
Prof. Mukundan R.	√	√	√			√		√	√	√					
Prof. Ruchita Gupta	√	√	√	√	√				√						
Prof. Vijaya Dixit												√		√	√
Prof. Vivekanand B Khanapuri											√	√	√		

ETPM Research at NITIE

ETPM faculty and fellow researchers are involved in multiple interdisciplinary research activities. Some of the research areas/topics undertaken by the researchers are:

Strategic Technology Management:

1. Adoption and Diffusion of Information and communication technologies (Mobile telephony, Mobile value added services, Cloud computing).
2. Technology commercialization in Indian context.
3. Telecommunication Standards

IP Management:

4. Patent quality to forefront of IP strategy

Innovation Management:

5. Open Innovation and IP
6. Frugal Innovation through value engineering
7. A strategic analysis of Indian approaches approach towards high technology entrepreneurship

Project Management:

8. Project based supply chain management.
9. Project leadership
10. Project planning and scheduling with learning curve effect.
11. Project risk management.
12. Complexity of high tech products and projects – system models

ETPM Courses at NITIE

The ETPM area courses are designed and developed with an emphasis on:

➢ Design the strategy to own appropriate core and emerging technologies – through R&D, Acquisitions or licensing.
➢ Dynamic capabilities, innovation frameworks and appropriation mechanisms that enables organisations to manage both established and emerging technologies as a source of competitive advantage.
➢ 'Functional Development', 'Skill Development' and 'Perspective Development' on entire life cycle of projects with focus on Initiation, Planning & Execution, Contract Management and Project Finance & Risk Management.

The ETPM area has specific courses for fellow researchers that provide the strong fundamentals. These courses are designed to cater to the complete technology, product and project lifecycle. The course list is as follows:

ETM courses	PM courses
1. Management of technology and innovation	Plant Design And Layout
2. Management of tech transfer and acquisition	Project Appraisal And Feasibility Analysis
3. Strategic new product development	Project Cost Estimation
4. Creativity and Innovation	Project Execution Management
5. Management of Intellectual Property	Project Finance And Portfolio Management
6. Managing complex products and systems	Project Planning And Control
7. Complex products and systems design	Strategic Management
8. Managing R&D projects	Large Engineering Project Management
9. Foundations in MoT	Infrastructure Finance And Project Management
10. Foundations in IP	Project Risk Management
	Project Negotiations Management
	Project Procurement and Contracts
	Quantitative Modelling Approaches for Project Management

ETPM- Management Development Programmes (MDP) at NITIE

Faculty in ETPM area runs MDP that provide the strategic frameworks, techniques and perspectives to effectively manage technology and projects in an organisation and leverage its benefits. Some of the MDP are as follows:

- Creativity and New Product Development
- A Toolkit to Manage Technology for Business Excellence
- Choices of Plenty-Choosing the Right Innovation Strategy for Growth
- Planning and Control of Engineering Procurement Construction (EPC) Projects
- Developing a Strategic Technology Management Toolkit for Global Product Development
- Project Procurement and Contract Management
- Technology Transfer and IP Analytics - A Strategic Advantage

ETPM area faculty also conducts customized programmes for organizations in the areas of

1) Technology Management
2) IP Management
3) Innovation Management
4) Project Management

The ETPM area would be happy to connect and engage further. Please drop in a line to the Area Co-ordinator – ruchitagupta[at]nitie.ac.in for any further clarification!