

**Maulana Abul Kalam Azad University of Technology, West Bengal**  
*(Formerly West Bengal University of Technology)*  
**Syllabus for B. Tech in CSE(Artificial Intelligence and Machine Learning)**  
(Applicable from the academic session 2020-2021)

3. Idea Incubation: Factors determining competitive advantage, Market segment, blue ocean strategy, Industry and Competitor Analysis (market structure, market size, growth potential), Demand-supply analysis [4L]
4. Entrepreneurial Motivation: Design Thinking - Driven Innovation, TRIZ (Theory of Inventive Problem Solving), Achievement motivation theory of entrepreneurship – Theory of McClelland, Harvesting Strategies [2L]
5. Information: Government incentives for entrepreneurship, Incubation, acceleration. Funding new ventures – bootstrapping, crowd sourcing, angel investors, Government of India’s efforts at promoting entrepreneurship and innovation – SISI, KVIC, DGFT, SIDBI, Defense and Railways [4L]
6. Closing the Window: Sustaining Competitiveness, Maintaining Competitive Advantage, the Changing Role of the Entrepreneur. [2L]
  
7. Applications and Project Reports Preparation [4L]
  
8. PROJECT MANAGEMENT : Definitions of Project and Project Management, Issues and Problems in Project Management, Project Life Cycle - Initiation / Conceptualization Phase, Planning Phase, Implementation / Execution Phase, Closure / Termination Phase [4L]
  
9. Project Feasibility Studies – Pre-Feasibility and Feasibility Studies, Preparation of Detailed Project Report, Technical Appraisal, Economic/Commercial/Financial Appraisal including Capital Budgeting Process, Social Cost Benefit Analysis [2L]
  
10. Project Planning – Importance of Project Planning, Steps of Project Planning, Project Scope, Work Breakdown Structure (WBS) and Organization Breakdown Structure (OBS), Phased Project Planning [2L]
11. Project Scheduling and Costing – Gantt chart, CPM and PERT Analysis, Identification of the Critical Path and its Significance, Calculation of Floats and Slacks, Crashing, Time Cost Trade-off Analysis, Project Cost Reduction Methods. [6L]
  
12. Project Monitoring and Control – Role of Project Manager, MIS in Project Monitoring, Project Audit [2L]
13. Case Studies with Hands-on Training on MS-Project [4L]

### **Text Books and References**

1. Innovision, Chelat, Khanna Publishing House.
2. Innovation and Entrepreneurship by Drucker, P.F.; Harper and Row
3. Business, Entrepreneurship and Management: Rao, V.S.P. ;Vikas
4. Entrepreneurship: Roy Rajeev; OUP.
5. Text Book of Project Management: Gopalkrishnan, P. and Ramamoorthy, V.E.; McMillan
6. Project Management for Engineering, Business and Technology: Nicholas, J.M., and Steyn, H.; PHI
7. Project Management: The Managerial Process: Gray, C.F., Larson, E.W. and Desai, G.V.; MGH

### **Project-I**

**Code:** PROJ-AIML 781

**Contact:** 12P

**Credit-6**

### **Project work I**

The object of Project Work I is to enable

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the student to take up investigative study in the broad field of Electronics & Communication Engineering, either fully theoretical/practical or involving both theoretical and practical work to be assigned by the Department on an individual basis or two/three students in a group, under the guidance of a Supervisor. This is expected to provide a good initiation for the student(s) in R&D work.