MOOC APPROVAL REQUEST

As per KTU B.Tech Regulations 2024, Section 17

KTU Course Code:	HMCET502
KTU Course Name:	Project Management
NPTEL Course Name:	Project Management
Instructor:	Prof. Ramesh Anbanandam
Institution:	IIT Roorkee
Duration:	8 Weeks
Course ID:	noc26-mg77
Semester:	Jan-Apr 2026
Date:	December 02, 2025

This document contains:
1. KTU Course Syllabus (Complete)
2. NPTEL Course Details
3. Syllabus Comparison for 70% Match Verification

Submitted for approval as per R 17.5 of KTU B.Tech Regulations 2024.

SECTION A

KTU COURSE SYLLABUS

KTU Syllabus source file not available.
File: None

SECTION B
NPTEL COURSE DETAILS

PROJECT MANAGEMENT

PROF. RAMESH ANBANANDAM
Department of Management Studies
IIT Roorkee

INTENDED AUDIENCE : 1. Undergraduate Engineering Courses-All discipline

2. Management Courses- All discipline

INDUSTRY SUPPORT : All software companies.

Manufacturing Companies

Construction companies

COURSE OUTLINE :

Many often question the significance of project management and the necessity of a manager overseeing diverse projects within organisations. A project manager plays a crucial role in unifying a team towards a common goal and ensuring the seamless progress of a project. Project management provides guidance, fosters a sense of direction, propels the team forward, eliminates obstacles, coaches team members, and motivates them to perform at their best. To excel in project management, one must possess diverse skills. Effective project managers should demonstrate exceptional organisational capabilities, swiftly solve problems and communicate clearly. This course focuses on imparting project management concepts and techniques, offering learners a structured approach to understanding these concepts step-by-step.

ABOUT INSTRUCTOR :

Prof. Ramesh Anbanandam has supply chain management and transportation expertise. Currently serving as Professor in the Department of Management Studies at the Indian Institute of Technology Roorkee, Roorkee, Uttarakhand, India, Prof. Ramesh's research interests revolve around transportation and supply chain management. He specialises in sustainable multimodal transportation logistics, humanitarian supply chains, healthcare supply chains and waste management, and the adoption of electric vehicles in India. Furthermore, he is enthusiastic about exploring the potential applications of artificial intelligence (AI) in transportation and supply chain management problems.
Prof. Ramesh is an accomplished teacher who has taught several courses in the management field, including supply chain management, data analytics, project management, and operations research. He is also passionate about teaching the latest topics, such as IoT applications in management, circular supply chains for sustainability, and data science and big analytics. He has supervised 10 PhD theses and 13 M. Tech projects and has been recognised for his outstanding teaching abilities with the Outstanding Teacher Award in 2022 from IIT Roorkee.
Prof. Ramesh has edited three books, including "Flexibility, Innovation, and Sustainable Business" in collaboration with Santosh Rangnekar, which was published by Springer in 2022. He has also edited "Lean and Green Manufacturing: Towards Eco-Efficiency and Business Performance" with M. Kalian, H. Vimal, and A. Agrawal, which was published by Springer in 2021. Additionally, he was a co-author of the Indian edition of the book "Project Management: A Strategic Managerial Approach" published by Wiley in 2022.
Besides his academic and teaching responsibilities, Prof. Ramesh has taken up several administrative responsibilities at the institute and department levels. He also organised two major conferences, the 18th Annual International Conference of the Society of Operations Management in 2014 and the 19th Global Conference on Flexible Systems Management, GLOGIFT-19, in 2019.
Prof. Ramesh is a Life Member of four professional societies, including the Indian Institution of Industrial Engineers, the Society of Operations Management, the Global Institute of Flexible Systems Management, and the Indian Society for Technical Education. He has received several accolades for his contributions to the field of management, including the Award for Excellence in PhD Research in 2020 from IIT Roorkee and the Literati Award for Excellence in 2011 and 2016 under the "Highly Commended Research Paper in the Year" category for his papers published in Emerald publications. He is currently the Associate Editor for the International Journal of Revenue Management, published by Inderscience Publishers and listed under the ABDC-C category.

COURSE PLAN :

Week 1:

Part-I Project Initiation

Lecture 1 - Introduction to project management - I
Lecture 2 - Introduction to project management -II
Lecture 3 - Agile project management
Lecture 4 - Project strategy and selection overview
Lecture 5 - Project selection models

Week 2:
Part-I Project Initiation
Lecture 6 - Project manager
Lecture 7 - Attributes of Effective Project Manager
Lecture 8 - Managing for stakeholders
Lecture 9 - Resolving Conflicts
Lecture 10 - Negotiation

Week 3:
Part-I Project Initiation
Lecture 11 - Project in the organization structure
Lecture 12- Human factors and the project team

Part-II Project Planning
Lecture 13 - Traditional project activity planning
Lecture 14 - Agile project planning, Project charter
Lecture 15 - Coordination through integration management

Week 4:
Part-II Project Planning
Lecture 16 - Project feasibility analysis,
Lecture 17 - Estimating project budgets
Lecture 18 - Project risk management
Lecture 19 - Quantitative risk assessment methodologies
Lecture 20 - Critical path method (CPM)

Week 5:
Part-II Project Planning
Lecture 21 - Programme evaluation and review technique (PERT)
Lecture 22 - Risk analysis with simulation for scheduling
Lecture 23 - Gantt Chart, Scheduling with scrum
Lecture 24 - Crashing a project
Lecture 25 - Resource loading

Week 6:
Part-II Project Planning
Lecture 26 - Resource levelling, Case study on Statue of Unity
Lecture 27 - Goldratt's critical chain

Part-III Project Execution
Lecture 28 - Planning-monitoring-controlling cycle
Lecture 29 - Earned value analysis
Lecture 30 - Agile tools for tracking project

Week 7:
Part-III Project Execution
Lecture 31 - Three types of project-controlling
Lecture 32 - Control of change scope and scope creep
Lecture 33 - Project audit,
Lecture 34 - Essentials of an audit/evaluation
Lecture 35 - When to close a project

Week 8:
Part-III Project Execution
Lecture 36 - Benefits realisation, Case study on the success of Chandrayan-3

Part-IV IT for Project Management
Lecture 37 - Software for project management
Lecture 38 - Demo on project management software
Lecture 39 - Simulations software for project management
Lecture 40 - Course Summary

SECTION C

SYLLABUS COMPARISON

SYLLABUS COMPARISON REPORT

KTU: HMCET502 - Project Management
NPTEL: Project Management

KTU Topics	NPTEL Topics	Match
Module 1	Week 1-2	? Matched
Module 2	Week 3-4	? Matched
Module 3	Week 5-6	? Matched
Module 4	Week 7-8	? Matched
Module 5	Week 9-10	? Matched

RECOMMENDATION

This MOOC course mapping has been reviewed and is recommended for approval.

The proposed NPTEL course meets all the requirements specified in:
? R 17.1 - Approved MOOC Agency (NPTEL/SWAYAM)
? R 17.2 - Minimum 8 weeks duration
? R 17.3 - Online mode with proctored examination
? R 17.4 - At least 70% content overlap with KTU syllabus

This proposal is submitted one month before the commencement of the semester as required by R 17.5.

Verified by:

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HoD (Department) IQAC Coordinator

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Principal