

## INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI भारतीय प्रौद्योगिकी संस्थान तिरुपति

Yerpedu-Venkatagiri Road, Yerpedu Post, Tirupati District, Andhra Pradesh - 517 619

1.	Title of the course	Asset Management
2.	Course number	ID505M
3.	Structure of credits (L-T-P-C)	2-0-0-2
4.	New course/modification to	New
5.	To be offered by	Electrical Engineering
6.	Proposed by	Naveen K P
7.	Prerequisite	СоТ
8.	<b>Course Objective(s):</b> To discuss the nuances of assets and introduce systematic approach to asset management, digital assets, eAsset management, International Organization for Standardization (ISO) standards for asset management, Maintenance Repair Overhaul (MRO) and life cycle sustenance support.	
9.	<b>Course Content:</b> Fundamentals of asset and asset management principles; Asset Management Process (AMP): asset forecasting, planning, organizing, maintaining, coordinating, supply chain management, comprehensive approach to asset design and development cycle, practical exercises; Life Cycle Sustenance Support (LCCS) management of assets; Pillars and planning of MRO support; Case studies on effectiveness of LCCS, periodic, preventive, predictive, prescriptive and breakdown maintenance; ISO 55000X and operative global standards for asset management best practices; Next generation technology based digital and eAsset management; concepts of sensors, Internet of Things (IoT), data management approaches to asset management, blockchain in asset management.	
10.	<b>Textbook(s):</b> 1. Srivastava S K, Maintenance Engineering (Principles, Practices and Management), 2nd Edition, S. Chand Edutech Pvt. Ltd. (2022). 2. Barnard I, Engineering Asset Management: An Insurance Perspective, Reliabilityweb.com (2009).	
11.	<b>Reference(s):</b> 1. Kartinen P, Organizational Engineering: Management Is Out! Engineering Is In!, iUniverse (2004). 2. Overman R, Reliability Centered Asset Management, Reliabilityweb.com (2015). 3. Hastings N A J, Physical Asset Management: With an Introduction to the ISO 55000 Series of Standards, Springer (2021).	