1.	Title of the course	Multivariable Feedback Control
2.	Course number	EE512L
3.	Structure of credits	3-0-0-3
4.	Offered to	PG
5.	New course/modification to	Modification To EE5026/05
6.	To be offered by	Department of Electrical Engineering
7.	To take effect from	July 2022
8.	Prerequisite	Nil
9.	**Course Objective(s):** This course deals with the design and analysis of Multivariable control systems in a linear setting. This course introduces frequency domain method and discusses the controllability and limitations of control in real scenarios. It also brings in simulation aspects in designing control systems.	
10.	**Course Content:** Classical frequency domain methods; Analysis of directions in multivariable systems using singular value decomposition; Input output controllability; Inherent control limitations in the plant; Model uncertainty and robustness; Performance requirements; Methods for controller design and model reduction; Control structure selection and decentralized control; Practical examples and simulations in Matlab/LabView.	
11.	**Textbook(s):** 1. Sigurd Skogestad and Ian Postlethwaite, *Multivariable feedback control analysis and design*, John Wiley and Sons (2005).	
12.	**Reference(s):** 1. Joao P Hespanha, *Linear Systems Theory*, Princeton University Press (2018).	