

M.Tech. in Systems and Control Engineering

(Department of Electrical Engineering)

Course structure (Applicable from Aug. 2025 onwards)

Semester – I

Course No.	Course Title	Credits
EE5480	Introduction to State Space	1
EE5490	State Estimation	2
EE5817	Random Variables and random processes	3
EE5540	Optimal Control	3
	Department AI elective basket	0-3
	Elective	3
LA5180 (SS)	Communication Skills: Advanced	1
	Total	13-16

Semester – II

Course No.	Course Title	Credits
EE5606	Convex Optimization	3
EE5221	Advanced Control Lab	2
	Department AI Elective basket	0-3
	Electives	4
EE5996	EE Industrial Lecture (Life Skills)	1
	Total	13-10

Semester – III

Course No.	Course Title	Credits
EE6515	M.Tech. Stage-1	12
	Total	12

Semester – IV

Course No.	Course Title	Credits
EE6525	M.Tech. Stage-2	12
	Total	12

Total Credits – 48 + 2

Summary:

Course Type	Credits
Department Core	12
Department Electives	10
Labs	2
Thesis	24

Soft Skills	2
Total	48 + 2

Department AI Elective basket (Students can pick any course or combination to courses to make 3 credits)

EE5610 - Pattern Recognition & Machine learning

EE5609 - Matrix theory

AI5100 - Deep Learning

CS6230 - Optimisation Methods in Machine Learning

CS5500 - Reinforcement Learning (RL)

Any other course having AI/ML-related topics