

M.Tech. in Robotics and AI

(2025 onwards)

FIRST SEMESTER

S. No.	Course Code	Course Title	L	T	P	Total	Credit
1	25M31EC111	Introduction to Robots	3	-	-	3	3
2	25M31EC112	Robotic Control System	3	-	-	3	3
3	18M11GE111	Research Methodology and Intellectual Property Rights	2	-	-	2	2
4		DE-I	3	-	-	3	3
5		DE-II	3	-	-	3	3
6	25M35EC111	Robotics Lab	-	-	2	2	1
7	25M35EC112	Robot Design and Modelling Lab	-	-	2	2	1
8	25M35EC113	AI and Machine Learning for Robotics Lab	-	-	2	2	1
		Total	14	-	6	20	17

SECOND SEMESTER

S. No.	Course Code	Course Title	L	T	P	Total	Credit
1	25M31EC113	Sensors and Actuators for Robotics	3	-	-	3	3
2	25M31EC114	Robotic Operating System	3	-	-	3	3
3		DE-III	3	-	-	3	3
4		DE-IV	3	-	-	3	3
5		DE-V	3	-	-	3	3
6		Audit-I	2	-	-	2	Qualifying
7	25M35EC114	Advanced Mechatronics and Automation Lab	-	-	4	4	2
8	25M35EC115	Humanoid and Quadruped Robotics Lab	-	-	2	2	1
9	17M11EC120	Mini Project with Seminar, PBL-I	-	-	4	4	2
		Total	17	-	10	27	20

THIRD SEMESTER

S. No.	Course Code	Course Title	L	T	P	Total	Credit
1	17M17EC218	Seminar & Term Paper OR Earn credits by transfer e.g. MOOCs, Course Work at another Institute, Supervised Study	-	-	4	4	4
2		Open Elective	3	-	-	3	3
3		Audit-II	2	-	-	2	Qualifying
4	25M15EC211	Mini Project with Seminar, PBL-II	-	-	-	8	4
5	17M17EC219/ 17M17EC220/ 17M17EC221	Dissertation /Industrial Project/ Entrepreneurial Project	-	-	-	8	4
		Total	5	0	4	25	15

FOURTH SEMESTER

S. No.	Course Code	Course Title	L	T	P	Total	Credit
1	17M17EC222/ 17M17EC223/ 17M17EC224	Dissertation /Industrial Project/ Entrepreneurial Project				32	16
		Total				32	16

TOTAL CREDITS: 68

DE-I

1. AI and Machine Learning for Robotics (25M32EC111)
2. Deep Learning
3. Data Analytics for Automation
4. Speech Processing

DE -II

1. Embedded System Design (25M32EC112)
2. FPGA based System Design
3. PLC based Systems Design

DE -III

1. Process Control and Instrumentation (25M32EC113)
2. Industry 5.0 (25M32EC114)

DE -IV

1. Computer vision for Robotics (25M32EC115)
2. Human Language Computing (25M32EC116)

DE -V

1. Humanoid & Quadruped Robots (25M32EC117)
2. Drone Technology (25M32EC118)

Audit-I

1. English for Research Paper Writing (19M11HS113)

Audit-II

1. Ethics and Safety in Robotics
2. Ethical Challenges in AI