

**Kaveri University**  
**B. Tech. Robotics & Automation**  
**Course Structure**  
**Applicable from Academic Year 2026-2027**

**I Year**

<b>SEMESTER-I</b>						
Sl. No.	Course Code	Course	L	T	P	Credits
<b>3 WEEKS COMPULSORY INDUCTION PROGRAM</b>						
1	26MA101BS	Mathematics–I(Calculus & Linear Algebra)	3	1	0	4
2	26PH102BS	Applied Physics	3	0	0	3
3	26CS103ES	Programming for Problem Solving	3	0	0	3
4	26ME104ES	Computer Aided Engineering Graphics	1	0	4	3
5	26EE105ES	Basic Electrical Engineering	2	0	0	2
6	26PH106BS	Applied Physics Lab	0	0	2	1
7	26CS107ES	Programming for Problem Solving Lab using C	0	0	2	1
8	26ME108ES	Engineering Workshop/Maker Lab	1	0	2	2
9	26EE109ES	Basic Electrical Engineering Lab	0	0	2	1
10	26PE01AU	Sports and Yoga	3 <sup>^</sup>	0	0	0
<b>Total</b>			<b>13+3<sup>^</sup></b>	<b>1</b>	<b>12</b>	<b>20</b>

<sup>^</sup>represents related to Audit Course.

<b>SEMESTER-II</b>						
Sl. No.	Course Code	Course	L	T	P	Credits
1	26MA201BS	Mathematics–II(Ordinary Differential Equations and Vector Calculus)	3	1	0	4
2	26CH202BS	Engineering Chemistry	3	0	0	3
3	26EC203ES	Electronic Devices and Circuits	2	0	0	2
4	26CS204ES	Data Structures and Algorithms	3	0	0	3
5	26EN205HS	Communication Skills	2	0	0	2
6	26ME206PC	Engineering Mechanics	3	0	0	3
7	26CH207BS	Engineering Chemistry Lab	0	0	2	1
8	26CS208ES	Data Structures and Algorithms Lab	0	0	2	1
9	26EN209HS	Communication Skills Lab	0	0	2	1
10	26MS210HS	Design Thinking	0	1	2	2
<b>Total</b>			<b>16</b>	<b>2</b>	<b>8</b>	<b>22</b>

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**II Year**

<b>SEMESTER-III</b>						
<b>Sl. No.</b>	<b>Course Code</b>	<b>Course</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
1.	26ME301PC	Mechanics of Solids	3	0	0	3
2.	26EC302ES	Analog & Digital Electronics	3	0	0	3
3.	26CS303ES	Fundamentals of Python Programming	3	0	0	3
4.	26EC304PC	Digital Logic Design	3	0	0	3
5.	26EC305PC	Signals & Sensor Processing	3	0	0	3
6.	26MA306BS	Mathematics-III(Probability & Statistics)	3	1	0	4
7.	26EC307ES	Analog & Digital Electronics Lab	0	0	2	1
8.	26CS308ES	Fundamentals Python Programming Lab	0	0	2	1
9.	26CH02AU	Environmental Science	2 <sup>^</sup>	0	0	0
<b>Total</b>			<b>18+2<sup>^</sup></b>	<b>1</b>	<b>4</b>	<b>21</b>

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<b>SEMESTER-IV</b>						
<b>Sl. No.</b>	<b>Course Code</b>	<b>Course</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
1.	26EC401PC	Control System Engineering	3	0	0	3
2.	26MT402PC	Fluid Power Systems (Pneumatics & Hydraulics)	3	0	0	3
3.	26EC403PC	Embedded Systems	3	0	0	3
4.	26EC404PC	Microcontrollers and Interfacing	3	0	0	3
5.	26RA405PC	Machine Learning for Robotics	3	0	0	3
6.	26EC406PC	Control Systems Lab	0	0	2	1
7.	26EC407PC	Microcontroller and Embedded Systems Lab	0	0	2	1
8.	26RA408PC	Machine Learning for Robotics Lab	0	0	2	1
9.	26RA409EEC	Minor Project	0	0	6	3
<b>Total</b>			<b>15</b>	<b>0</b>	<b>12</b>	<b>21</b>

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**III Year**

<b>SEMESTER-V</b>						
<b>Sl. No.</b>	<b>Course Code</b>	<b>Course</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
1.	26EE501ES	Electrical Machines & Drives	3	0	0	3
2.	26ME502PC	Machine Design	3	0	0	3
3.	26ME503PC	Manufacturing & CNC Technology	3	0	0	3
4.	26ME504PC	Motion Control & Drives	3	0	0	3
5.	26MT505PC	Kinematics and Dynamics of Machines	3	0	0	3
6.	26CS506PC	Real Time Operating Systems	3	0	0	3
7.	26MT507PC	CNC / 3D Printing Lab	0	0	2	1
8.	26EE508PC	Electrical Machines Lab	0	0	2	1
9.	26EN509HS	Professional Practice, Law & Ethics	0	0	4	2
10.	26EN03AU	Constitution of India	2 <sup>^</sup>	0	0	0
<b>Total</b>			<b>18+2<sup>^</sup></b>	<b>0</b>	<b>8</b>	<b>22</b>

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<b>SEMESTER-VI</b>						
<b>Sl. No.</b>	<b>Course Code</b>	<b>Course</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
1.	26RA601PC	Robotics Engineering and ROS	3	0	0	3
2.	26MT602PC	Industrial IoT (IIoT)	3	0	0	3
3.	26RA61XPE	Professional Elective – I	3	0	0	3
4.	26RA61XOE	Open Elective – I	3	0	0	3
5.	26RA603PC	Robotics and IoT Lab	0	0	2	1
6.	26RA604EEC	Industry Internship	0	0	12	6
<b>Total</b>			<b>12</b>	<b>0</b>	<b>14</b>	<b>19</b>

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**IV Year**

<b>SEMESTER-VII</b>						
<b>Sl. No.</b>	<b>Course Code</b>	<b>Course</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
1.	26MT701PC	Mechatronic System Design	3	0	0	3
2.	26RA702PC	Human–Robot Interaction	3	0	0	3
3.	26MS703HS	Engineering Economics	3	0	0	3
4.	26RA72XPE	Professional Elective – II	3	0	0	3
5.	26RA72XOE	Open Elective – II	3	0	0	3
6.	26RA704PC	Computer Vision	2	0	0	2
7.	26CS705PC	Computer Vision Lab	0	0	2	1
8.	26RA706EEC	Capstone Project Phase – I and Seminar	0	0	4	2
9.	26EC05AU	Digital Twin & Simulation	1 <sup>^</sup>	0	2 <sup>^</sup>	0
<b>Total</b>			<b>17+1<sup>^</sup></b>	<b>0</b>	<b>6+2<sup>^</sup></b>	<b>20</b>

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<b>SEMESTER-VIII</b>						
<b>Sl. No.</b>	<b>Course Code</b>	<b>Course</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
1.	26RA83XPE	Professional Elective – III	3	0	0	3
2.	26RA84XPE	Professional Elective – IV	3	0	0	3
3.	26RA83XOE	Open Elective – III	3	0	0	3
4.	26RA801EEC	Capstone Project Phase – II	0	0	20	10
<b>Total</b>			<b>9+3<sup>^</sup></b>	<b>0</b>	<b>20</b>	<b>19</b>

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