

Proposed Program Structure for BE Automation and Robotics

Proposed Program Structure for Second Year Automation and Robotics (With Effect from 2023-2024) Scheme for Semester- III

Course code	Course Name	Teaching Scheme (Contact Hours)		
		TH	PR	TU
	Applied Mathematics-III	3	-	1*
	Strength of Material	4	-	
	Electronics Devices and Signal Conditioning	3		
	Digital Electronics	3		
	Transducers	4		
	Transducers-I Lab			2
	Electronics Devices and Signal Conditioning Lab			2
	Digital Electronics - Lab			2
	Object oriented programming Lab	-	3#	
	Mini Project			3\$

\$ indicates work load of Learner (Not Faculty),
for Mini Project # Out of 3 hours, 1 hours theory shall be taught to entire class and 2 hours practical in batches

Scheme for Semester- IV

Course code	Course Name	Teaching Scheme (Contact Hours)		
		TH	PR	TU
	Engineering Mathematics -IV	3		1
	Embedded System	4		
	Feedback Control System	3		
	Fluid Pneumatics and Hydraulics	3		
	Control System Components	4		
	Embedded System - Lab			2
	Fluid Pneumatics and Hydraulics and Control System Components Lab			2
	Feedback Control System - Lab	1		2
	Python Programming-Lab	1		2
	Mini Project			4\$

Proposed Program Structure for Third Year Automation and Robotics (With Effect from 2024-2025)

Scheme for Semester- V

Course code	Course Name	Teaching Scheme (Contact Hours)		
		TH	PR	TU
	Power Electronics and Machines	3		
	Robotic Control system	3		
	Robot Kinematics	3	-	
	Process Instrumentation and Data c	3	-	
	Department Elective-1	3	-	
	Robot Kinematics and Robotic Control Lab			2
	Power Electronics and Machines Lab			2
	Process Instrumentation and Data communication Lab			2
	Professional Communication and Ethics Lab			2*+2
	Mini Project			4\$

* Theory class to be conducted for
full class

\$ indicates workload of Learner (Not
Faculty), for Mini Project

Scheme for Semester- VI

Course code	Course Name	Teaching Scheme (Contact Hours)		
		TH	PR	TU
	Process and Robotic Automation	3		
	Digital Signal Processing	3		
	Machine Learning	3		
	Department Elective-2	3		
	Process and Robotic Automation Lab			2
	Digital Signal Processing and Machine Learning Lab			2
	3D Printing			4#
	Mini Project			4\$

\$ indicates work load of Learner (Not
Faculty),
for Mini Project # Out of 3 hours, 1
hours theory shall be taught to entire
class and 2 hours practical in batches

**Proposed Program Structure for Final Year Automation and Robotics
(With Effect from 2025-2026)**

Scheme for Semester- VII

Course code	Course Name	Teaching Scheme (Contact Hours)		
		TH	PR	TU
	Industrial Process Control	3	-	
	Real Time Operating System	3		
	Image Processing	3	-	
	Department Elective-3	3		
	Institute Elective			
	Industrial Process Control Lab			2
	Real Time Operating System and Image Processing Lab			2
	Department Elective Lab-3			2
	Project-I			

Scheme for Semester- VIII

Course code	Course Name	Teaching Scheme (Contact Hours)		
		TH	PR	TU
	Machine Vision	3	-	
	Mobile Robotics	3	-	
	Department Elective-4	3	-	
	Institute Elective	3		
	Machine Vision Lab			2
	Mobile Robotics Lab			2
	Project-II			2