



Walchand College of Engineering

(Government Aided Autonomous Institute)

Credit System for Second Year B. Tech. (Robotics and Automation Engineering)

Applicable from AY 2025-26

Semester III

Sr. No.	Category	Course Code	Course Name	L	T	P	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Ext
Professional Core (Theory)												
01	PCC	1RA201	Mechanics of Materials	2	0	0	2	2	30	20	50	
02	PCC	1RA202	Advanced Materials and Metallurgy	3	0	0	3	3	30	20	50	
03	PCC	1RA203	Manufacturing Technology	3	0	0	3	3	30	20	50	
04	PCC	1RA204	Analog and Digital Electronics	3	0	0	3	3	30	20	50	
Professional Core (Lab)												
05	PCC	1RA251	Metallurgy and Manufacturing Technology Lab	0	0	2	2	1	30	30	40	POE
06	PCC	1RA252	Analog and Digital Electronics Lab	0	0	2	2	1	30	30	40	POE
Mandatory Courses												
07	BSC	1MA201	Applied Mathematics for Robotics	3	0	0	3	3	30	20	50	
08	EEM	7EE201	Understanding Incubation and Entrepreneurship (NPTEL)	3	0	0	3	3	30	20	50	
09	VEC	7VE201	Value Education	2	0	0	2	2	30	20	50	
10	CEP/FP	1CERA251	Techno-Societal Case Study	0	0	2	2	1	30	30	40	
11	VSEC	1VSRA251	Programming and Problem-Solving Lab	0	0	2	2	1	30	30	40	
Total				19	0	8	27	23				

Mr. V. M. Jotrao
Member Secretary, BoS

Dr. S. B. Paramane
HOD / Chairman, BoS

Dr. A.K. Kokane
Dean Academics



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Semester IV

Sr. No.	Category	Course Code	Course Name	L	T	P	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Ext
Professional Core (Theory)												
01	PCC	1RA221	Microcontroller Interfacing and Applications	3	0	0	3	3	30	20	50	
02	PCC	1RA222	Design of Machine Elements	2	1	0	3	3	30	20	50	
03	PCC	1RA223	Robot Drive Systems	3	0	0	3	3	30	20	50	
04	PCC	1RA224	Sensors and Instrumentation	3	0	0	3	3	30	20	50	
Professional Core (Lab)												
05	PCC	1RA271	Microcontroller Interfacing and Applications Lab	0	0	2	2	1	30	30	40	POE
06	PCC	1RA272	Robot Operating System Lab	0	0	2	2	1	30	30	40	POE
Multi-Disciplinary Minor (MDM)												
07	MDM	Refer List	MDM	3	0	0	3	3	30	20	50	
Mandatory Courses												
08	AEC	7AE201	Employability skills	2	0	0	2	2	30	20	50	
09	IKS	Refer List	IKS Elective	2	0	0	2	2	30	20	50	
10	VSEC	1VSRA245	Mini Project-1	0	0	2	2	1	30	30	40	
			Total	18	1	6	25	22				

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