

**Autonomous Program Structure  
Third Year B. Tech. Fifth Semester  
(Instrumentation and Control)  
Academic Year: 2022-2023 Onwards**

Course Code	Course Title	Teaching Scheme Hours /Week			Examination Scheme				Marks	Credit
		Lecture	Tutorial	Practical	In Semester	End Semester	Oral	Practical		
20IN501	Process Loop Components	3	0	0	50	50	0	0	100	3
20IN502	Digital Signal Processing	3	1	0	50	50	0	0	100	4
20IN503	Internet of Things (IoT)	3	1	0	50	50	0	0	100	4
20PEIN501	Programme Elective-I	3	0	0	50	50	0	0	100	3
20PEIN502	Programme Elective-II*	3	0	0	50	50	0	0	100	3
20OEHS501	Open HS Elective -I	3	0	0	50	50	0	0	100	3
20IN501L	Process Loop Components Lab	0	0	2	25	0	0	25	50	1
20IN502L	Digital Signal Processing Lab	0	0	2	25	0	0	25	50	1
20PEIN501L	Programme Elective Lab-I	0	0	2	25	0	25	0	50	1
20AC501	Audit Course	0	0	2	0	0	0	0	0	No Credit
	<b>Total</b>	<b>18</b>	<b>2</b>	<b>8</b>	<b>375</b>	<b>300</b>	<b>25</b>	<b>50</b>	<b>750</b>	<b>23</b>
	<b>Grand Total</b>		<b>28</b>			<b>750</b>			<b>750</b>	<b>23</b>

\* NPTEL/Swayam Course

Department of Instrumentation & Control Engineering

**APPROVED BY**  
Secretary Governing Body  
MKSSS's Cummins College of Engineering  
For Women, Pune-411052



**APPROVED BY**  
Chairman Governing Body  
MKSSS's Cummins College of Engineering  
For Women, Pune-411052

MKSSS's Cummins College of Engineering for Women, Pune  
(An Autonomous Institute Affiliated to SavitribaiPhule Pune University)



**Programme Elective-I**

20PEIN501A Modern Control Theory  
20PEIN501B Biomedical and Analytical Instrumentation  
20PEIN501C Advanced Micro controller Techniques

Open Elective I (Humanities)

Sr. No.	Course Code	Course Title
1	20OEHS501A	Entrepreneurship Development
2	20OEHS501B	Intellectual Property Rights
3	20OEHS501C	Introduction to Digital Marketing
4	20OEHS501D	Law for Engineers
5	20OEHS501E	Organizational Behaviour
6	20OEHS501F	Project Management

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