

Cummins College of Engineering for Women
(An autonomous institute affiliated to Savitribai Phule pune university)
Karve Nagar, Pune - 411 052.



Vision

To be globally renowned engineering institute for imparting holistic education and developing professional women leaders in engineering and technology

Structure and Syllabus
of
T. Y. BTech
(Instrumentation and Control Engineering)

2023 Pattern [R0]

List of Abbreviations

Abbreviation	Title
PC	Programme Core Course
BSC	Basic Science Course
ESC	Engineering Science Course
PE	Programme Elective Course
OE	Open Elective
VSEC	Vocational and Skill Enhancement Course
CC	Co-curricular Courses / Liberal Learning Course
IKS	Indian Knowledge System
VEC	Value Education Course
RM	Research Methodology
INTR	Internship
PROJ	Project
CEP	Community Engagement Project
Mm	Multidisciplinary Minor
AEC	Ability Enhancement course

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Curriculum for UG Degree Course in BTech. Instrumentation and Control Engineering (Academic Year: 2025-26 Onwards) Third Year | Semester-V

Sr. No.	Course Code	Course Title	Teaching Scheme (Hours/week)			Credits	Examination Scheme			Total Marks
			L	T	P		ISE	ESE	Pr/Or	
1	23PCIN501	Process Loop Components	3	0	0	3	50	50	0	100
2	23PCIN502	Internet of Things	3	0	0	3	50	50	0	100
3	23PCIN503	Digital Signal Processing	3	1	0	4	50	50	0	100
4	23PCIN504	Analytical Instrumentation	2	0	0	2	25	25	0	50
5	23PEIN501	Programme Elective-I	3	0	0	3	50	50	0	100
6	23MmIN501	Data Science in Sustainability	3	0	0	3	50	50	0	100
7	23PCIN501L	Process Loop Components Lab	0	0	2	1	25	0	25	50
8	23PCIN502L	Internet of Things Lab	0	0	2	1	25	0	25	50
9	23PEIN501L	Programme Elective-I Lab	0	0	2	1	25	0	25	50
10	23MmIN501L	Data Science in Sustainability Lab	0	0	2	1	25	0	25	50
Total =			17	1	8	22	375	275	100	750

L=Lecture, T=Tutorial, P= Practical, Cr= Credits, ISE =In Semester Evaluation, ESE =End Semester Examination, Pr/Or = Practical/Oral

23PEIN501: Programme Elective-I

- A. Modern Control Theory
- B. Biomedical Instrumentation
- C. Advanced Microcontrollers
- D. Introduction to Hydraulic Systems

23PEIN501L: Programme Elective-I Lab

- A. Modern Control Theory
- B. Biomedical Instrumentation
- C. Advanced Microcontrollers
- D. Introduction to Hydraulic Systems

APPROVED BY
Secretary Academic Council
MKSSS's Cummins College of Engineering
For Women, Pune-411052

APPROVED BY
Chairman Academic Council
MKSSS's Cummins College of Engineering
For Women, Pune-411052

Instrumentation and Control Department