

INSTRUMENTATION ENGINEERING

3rd SEMESTER

Sl. No.	Code	Subjects	Contacts (periods per week)				Credit points
			L	T	P	Total	
1.	EC301	Electronic Devices and Circuits	3	1	0	4	4
2.	IE303	Electrical Engineering Materials & Devices	3	1	0	4	4
3.	MA301	Mathematics-III	3	1	0	4	4
4.	IE301	Network Theory	3	1	0	4	4
5.	IE302	Fundamentals of Instrumentation	3	1	0	4	4
6.	ME301	Basic Thermodynamics	3	1	0	4	4
7.	EC371	Electronic Circuit & Devices Lab	0	0	3	3	2
8.	IE371	Circuit Simulation Lab	0	0	3	3	2
9.	HU371	Language Lab	0	0	3	3	2
Total Credits							30

4th SEMESTER

Sl. No.	Code	Subjects	Contacts (periods per week)				Credit points
			L	T	P	Total	
1.	HU401	Engineering Economics	3	0	0	3	3
2.	EC401	Digital Electronics	3	1	0	4	4
3.	IE401	Electrical Machines	3	1	0	4	4
4.	IE402	Electrical Measurements and Instruments	3	0	0	3	3
5.	IE403	Linear Systems and Signals	3	1	0	4	4
6.	MA401	Numerical Methods & Computer Programming	3	1	0	4	4
7.	IE471	Electrical Machines Lab	0	0	3	3	2
8.	IE472	Instrumentation and Measurement Lab	0	0	3	3	2
9.	EC471	Digital Electronics Lab	0	0	3	3	2
10.	MA471	NMCP Lab	0	0	3	3	2
Total Credits							30

5th SEMESTER

Sl. No.	Code	Subjects	Contacts (periods per week)				Credit points
			L	T	P	Total	
1.	HU501	Industrial Management and Entrepreneurship	3	0	0	3	3
2.	IE501	Microprocessor and Microcontroller	3	1	0	4	4
3.	IE502	Transducer Engineering	3	1	0	4	4
4.	IE503	Control System-I	3	1	0	4	4
5.	IE504	Electronic Instrumentation	3	1	0	4	4
6.	IE505	Analytical Instrumentation	3	1	0	4	4
7.	IE571	Microprocessor Lab	0	0	3	3	2
8.	IE573	Control Systems Lab	0	0	3	3	2
9.	IE574	Electronic Instrumentation lab	0	0	3	3	2
Total Credits							29

6th SEMESTER

Sl. No.	Code	Subjects	Contacts (periods per week)				Credit points
			L	T	P	Total	
1.	HU601	Professional Communication	2	0	0	2	2
2.	IE601	Process Control	3	1	0	4	4
3.	IE602	Power Electronics	3	1	0	4	4
4.	IE603	Communication Engineering	3	1	0	4	4
5.	EC603	Digital Signal Processing	3	1	0	4	4
6.	IE604	Control System-II	3	0	0	3	3
7.	IE671	Process Control Lab	0	0	3	3	2
8.	IE672	Power Electronics Lab	0	0	3	3	2
9.	EC673	Digital Signal Processing Lab	0	0	3	3	2
Total Credits							27

7th SEMESTER

Sl. No.	Code	Subjects	Contacts (periods per week)				Credit points
			L	T	P	Total	
1.	IE701	Industrial Instrumentation	3	1	0	4	4
2.	IE702	Instrumentation System Components	3	1	0	4	4
3.	IE703	Fiber Optic and Laser Instruments	3	1	0	4	4
4.	IE71*	Elective-I	3	0	0	3	3
5.	IE71*	Elective-II	3	0	0	3	3
6.	IE791	Major Project –I	0	0	12	12	8
7.	IE792	Report and Presentation on Practical Training – II	-	-	-	-	3
8.	IE793	Seminar	0	0	3	3	2
Total Credits							31

8th SEMESTER

Sl. No.	Code	Subjects	Contacts (periods per week)				Credit points
			L	T	P	Total	
1.	IE801	Biomedical Instrumentation	3	0	0	3	3
2.	IE81*	Elective	3	0	0	3	3
3.	IE81*	Elective	3	0	0	3	3
4.	IE891	Major Project -II	0	0	18	18	12
5.	IE892	Project Defense	-	-	-	-	4
6.	IE893	Comprehensive Viva Voce	-	-	-	-	8
Total Credits							33

List of Elective Courses for Instrumentation Engineering:

1. **IE711:** Fluidic Power and Control ;
2. **IE712:** Computer Control of Process ;
3. **IE713:** Digital Image Processing
4. **IE710:** Instrumentation in Petrochemical Industries ;
5. **IE810:** Virtual Instrumentation
6. **IE811:** Operational Research;
7. **IE812:** Instrumentation & Control in Paper Industry; 8. **IE813:** Instrumentation in Aerospace & Navigation