Instrumentation

Instrumentation is a branch of physics which deals with the measuring and controlling variables, the instruments related to the process variables and its calibration. It is also known as"the art and science of measurement and control". In the present era of automation, instrumentation has become an inevitable part of any industry or research laboratory. The field encompasses all the electronic instrumentation starting from power supplies to the computerized control of equipment and processes at large. The syllabi includes applications of the basic concepts of process and control instrumentation related to electronic instrumentation, microprocessors, Programmable Logic Controllers(PLC), Distributed Control System(DCS), Supervisory Control And Data Acquisition (SCADA) systems, certain types of measurements like pressure, flow, ievel, temperature, etc. After graduation students can pursue Masters in Robotics, Bio-medical Instrumentation, Electronics etc, or can go for a host of other professiona courses like VLSI, Embedded System Design, etc in and outside the country.

[Second Year]

Semester- 3

Core Courses		
Instrumentation	1.	Measurements and Indicators
	2.	Basic Instrumentation and LASERS
	3.	Practicals
Electronics	1.	Electronic Devices
	2.	Instrumentation and Digital Electronics
	3.	Practicals
Elective Courses		
Elective	1.	Elective
	2.	Elective
Foundation Course		
	1.	Functional English

Semester- 4

Core Courses		
Instrumentation	1.	Signal Conditioning Systems
	2.	Calibration, Recorders, Signal Analysers and Optical Fibre
	3.	Practicals
Electronics	1.	Electronic Devices and Application
	2.	Instrumentation and Digital Electronics
	3.	Practicals
Elective Courses		
Elective	1.	Elective
	2.	Elective
Foundation Course		
	1.	Functional English

[Third Year]

Semester- 5

Core Courses		
Instrumentation	1.	8085 Microprocessor and Architecture Programming-I
	2.	Process Measurement Technique-1
	3.	Introduction to Control System
	4.	Programmable Logic Controller (PLC)-1
	5.	Industrial Electronics-1
	6.	Analytical Instrumentation
	7.	Practicals
	8.	Practicals
	9.	Project work based on theory papers

Semester- 6

Core Courses		
Instrumentation	1.	8085 Microprocessor and Architecture Programming-I
	2.	Process Measurement Technique-II
	3.	Advanced Control System
	4.	Programmable Logic Controller (PLC)-2
	5.	Industrial Electronics-I!
	6.	Analytical and Biomedical Instrumentation
	7.	Practicals
	8.	Practical
	9.	Project work based on theory papers