

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**M.E. INSTRUMENTATION AND CONTROL (Applied Instrumentation)**  
 PROPOSED TEACHING SCHEME

**Semester I**

SR. NO.	SUBJECT	TEACHING SCHEME(HOURS)			CREDITS
		THEORY	TUTORIAL	PRACTICAL	
1	Control Engineering	4	0	0	4
2	Advance Microcontroller	4	0	2	5
3	PID Controller	3	0	0	3
4	Major Elective 1	4	0	2	5
5	Interdisciplinary Elective 1	3	0	2	4
6	Communication and Research Skill	2	2	0	3
7	CAD for Control Systems	0	0	2	1
<b>TOTAL</b>		<b>20</b>	<b>2</b>	<b>8</b>	<b>25</b>

**Semester II**

SR NO	SUBJECT	TEACHING SCHEME(HOURS)			CREDITS
		THEORY	TUTORIAL	PRACTICAL	
1	Digital Control	3	0	0	3
2	Advance Instrumentation	4	0	2	5
3	Major Elective 2	3	0	2	4
4	Major Elective 3	4	0	2	5
5	Interdisciplinary Elective 2	3	0	2	4
6	Principles of Management	3	0	0	3
7	Virtual Instrumentation	0	0	2	1
<b>TOTAL</b>		<b>20</b>	<b>0</b>	<b>10</b>	<b>25</b>

## M.E. INSTRUMENTATION AND CONTROL (Applied Instrumentation)

Interdisciplinary Elective - 1	Interdisciplinary Elective - 2
Programmable Logic Controller	Industrial Measurements
Mechatronics	Microelectromechanical systems

Sr. No.	Major Elective - 1	Major Elective - 2	Major Elective - 3
1	Switch Mode Power Supply	Electromagnetic Compatibility	Industrial Drives and Control
2	Artificial Intelligence	Applied Transducers	Process Control
3	Industrial Data Communication	Embedded System Design	Biomedical Signal Processing