M.E. INDUSTRIAL AUTOMATION AND RADIO FREQUENCY ENGINEERING

Scheme of Instruction

Semester I

Subject Code	Name of the Subjects	No. of Hrs / Week				Scheme of Examination				
						Credits				
		L	T	P	Theory hours	Theory	IA	Practical	orals	Total
MEIARF1.1	Electromagnetic Field Theory	4	-	0	3	4	2	--	--	6
MEIARF1 .2	Control System Analysis and Design	4	-	0	3	4	2	--	--	6
MEIARF1.3	Industrial Drives And Control	4	-	0	3	4	2	--	--	6
MEIARF1.4	Radiating Systems	4	-	0	3	4	2	--	--	6
MEIARF1.5	Robotics And Automation	4	-	0	3	4	2	--	--	6
MEIARF1.6	Electromagnetic Field and Radiating Systems Lab	0	-	7	--	--	2	2	-	4
MEIARF1.7	Process Control And Instrumentation Lab	0	-	7	--	--	2	2	-	4
	Total	20	-	14	--	20	14	4		38

IA – Internal Assessment

Semester II

Subject Code	Name of the Subjects	No. of Hrs / Week				Scheme of Examination				
						Credits				
		L	T	P	Theory hours	Theory	IA	Practical	orals	Total
MEIARF 2.1	Embedded System & Parallel Processing	4	-	0	3	4	2	--	--	6
MEIARF 2.2	Industrial Data Networks	4	-	0	3	4	2	--	--	6
MEIARF 2.3	Microwave Engineering	4	-	0	3	4	2	--	--	6
MEIARF 2.4	Microwave Electronics and Semiconductor Devices	4	-	0	3	4	2	--	--	6
MEIARF 2.5	Industrial Management	4	-	0	3	4	2	--	--	6
MEIARF 2.6	Microwave Lab	0	-	7	--	--	2	2	--	4
MEIARF 2.7	Embedded System & Parallel ProcessingLab	0	-	7	--	--	2	2	--	4
	Total	20	-	14	--	20	14	4		38

Semester III

Subject Code	Name of the Subjects	No. of Hrs / Week				Scheme of Examination				
		L	T	P	Theory hours	Credits				
						Theory	IA	Practical	orals	Total
MEIARF 3.1	Elective – I	4	-	0	3	4	2	--	--	6
MEIARF 3.2	Elective – II	4	-	0	3	4	2	--	--	6
MEIARF 3.3	Project	-	-	20	-	-	4	--	8	12
	Total	8	-	20	--	8	8	-	8	24

List of Electives

Elective 1:

- **A) ADVANCED PROCESS CONTROL**
- **B) VIRTUAL INSTRUMENTATION**
- **C) RADAR SYSTEMS ENGINEERING**
- **D) MICROWAVE SOLID STATE DEVICES**
- **E) CHEMICAL PROCESS SYSTEMS**
- **F) BIOPROCESS INSTRUMENTATION & CONTROL**
- **G) LOGIC AND DISTRIBUTED CONTROL SYSTEMS**
- **H) INSTRUMENTATION SYSTEM DESIGN**
- **I) PHARMACEUTICAL BUSINESS MANAGEMENT**
- **J) RF MICROELECTRONIC CHIP DESIGN**
- **K) POWER ELECTRONICS**

Electives 2

- **L) INSTRUMENTATION**
- **M) SENSORS IN INSTRUMENTATION**
- **N) SIMULATION OF CIRCUITS AND DEVICES**
- **O) IMAGE PROCESSING**
- **P) ERROR CORRECTING CODES**
- **Q) ADVANCED ELECTRONIC SYSTEM DESIGN**
- **R) APPLIED INDUSTRIAL INSTRUMENTATION**
- **S) APPLIED BIOMEDICAL INSTRUMENTATION**
- **T) ELECTROMAGNETIC INTERFERENCE AND ELECTROMAGNETIC COMPATIBILITY**
- **U) TELEMETRY**
- **V) PROCESS MODELLING AND SIMULATION**
- **W) ADVANCED OPTICAL COMMUNICATION**

Semester IV

Subject Code	Name of the Subjects	No. of Hrs / Week				Scheme of Examination				
		L	T	P	Theory hours	Credits				
						Theory	IA	Practical	orals	Total
MEIARF 4.1	Dissertation	-	-	28	-	-	6	-	14	20
	Total	-	-	28	-	-	6	-	14	20