# **CURRICULUM STRUCTURE OF M Tech (Instrumentation and Control) Specialization: Biomedical Instrumentation**

Effective from Academic year 2015-16

#### **I-Semester**

Sr. No.	Type of Course	Course Name	Teaching Scheme			Credits
			L	Т	Р	
1	OEC	Institute Level Elective Course	3	0	0	3
2	PSMC	Program Specific Maths Course	3	0	0	3
3	PCC	Transducer Design	3	0	0	3
4	PCC	Instrument Design Engineering	3	0	0	3
5	PCC / DEC	Modern Control Theory	3	0	0	3
6	LC	Lab course &/Mini Project &/ Seminar	0	0	6	3
7	MLC I	Research Methodology	1	0	0	1
8	MLC II	Humanities	1	0	0	1
		Total	17	0	6	20

#### **II-Semester**

Sr. No.	Type of Course	Course Name	Teaching Scheme			Credits
			L	T	P	
1	PCC	Embedded Systems	3	0	0	3
2	PCC	Soft Computing	3	0	0	3
3	PCC	Advanced Medical Instrumentation	3	0	0	3
4	DEC	DEC I	3	0	0	3
5	DEC	DEC II	3	0	0	3
6	LC	Lab course &/Mini Project&/ Seminar	0	0	6	3
7	MLC	Intellectual Property Rights	1	0	0	1
8	LLC	Liberal Learning Course	0	0	1	1
		Total	16	0	7	20

#### **Department Electives Course I**

- i. Anatomy and Physiology
- ii. Physiological Modeling
- iii. Clinical Engineering
- iv. Optical Fiber and LASER Technology

#### **Department Electives Course II**

- i. Biomedical Signal Processing
- ii. Medical Imaging Techniques
- iii. Ultrasonic Applications in Bioengineering

# iv. Robotics

# v. Advanced Control System

# **III-Semester**

Sr. No.	Type of Course	Course Name	Teaching Scheme			Credits
			L	Т	Р	
1	LC	Dissertation I	0	0	32	16
		Total	0	0	32	16

### **IV-Semester**

Sr. No.	Course Code	Course Name	Teaching Scheme			Credits
			L	Т	Р	
1	LC	Dissertation II	0	0	36	18
		Total	0	0	36	18