M. Tech. and M. Tech-Ph.D. Dual degree
in
Sensors and Internet of Things (SIoT)

Program's Structure

Category	M.Tech Compulsory (MC)	M. Tech Elective (ME)	M. Tech Open (MO)	M. Tech Project (MP)	Total
Credits	19	17	6	16	58

Semester wise distribution of credits

Cat.	Course Title	L-T-P	Cr.	Cat.	Course Title	L-T-P	Cr.
I Semester				**II Semester**			
MC	**Sensors and Measurement**	3-0-0	3	MC	**Data communication and Networking**	3-0-0	3
MC	**Microsystems Fabrication Technology**	3-0-0	3	MC	**Digital and Systems-on-Chip Design**	3-0-0	3
MC	**Analog and Interfacing Circuits**	3-0-0	3	MC	**VLSI Design Lab**	0-0-2	1
MC	**Introduction to Internet of Things**	1-0-0	1	ME	Program Elective-2	3-0-0	3
MC	**Sensors and IoT Lab**	0-0-2	1	ME	Program Elective-3	3-0-0	3
ME	Program Elective-1	3-0-0	3	ME	Program Elective-4	3-0-0	3
NG	Technical Communication	1-0-0	1	NG	Professional Ethics	1-0-0	1
Total (Graded + Non-graded)			15	Total (Graded + Non-graded)			17
Winter Term							
MC	**Winter Internship**		1				
	Total		1				
III Semester				**IV Semester**			
MP	Project-1		5	MP	Project-2		11
ME	Program Elective-5	3-0-0	3	MO	Open Elective-2	3-0-0	3
ME	Program Elective-6	2-0-0	2	NG	IP Management and Exploitation	1-0-0	1
MO	Open Elective-1	3-0-0	3				
NG	Systems Engineering and Project Management	1-0-0	1				
Total (Graded+ Non-graded)			14	Total (Graded+ Non-graded)I			15

Winter Internship is designed for hands-on-exposure in micro-fabrication technology for sensors and actuators

List of Program Electives

Course Title	L-T-P	Credits	Course Title	L-T-P	Credits
First/Third Semester			*Third Semester*		
Flexible and Printed Electronics	3-0-0	3	Advanced Digital Signal Processing	3-0-0	3
Digital VLSI Design	3-0-0	3	Neuromorphic Computing and Design	3-0-0	3
Wireless Communication	3-0-0	3	Fog and Edge Computing	3-0-0	3
Antenna Engineering	3-0-0	3	Vehicular Ad Hoc Networks	3-0-0	3
			Machine Learning 1	3-0-0	3
			Selected Topics in Sensors & IoT I	1-0-0	1
Second Semester			*Fourth Semester*		
Image Sensor Design and Applications	3-0-0	3	Resource Constrained AI	3-0-0	3
RF IC Design	3-0-0	3	Microfluidics Technology	3-0-0	3
Embedded Systems Design	3-0-0	3	Selected Topics in Sensors & IoT II	2-0-0	2
Active Filter Design	3-0-0	3	Selected Topics in Sensors & IoT III	3-0-0	3
Millimeter-wave Technology	3-0-0	3			
Nano Sensors	3-0-0	3			

Open electives: These can be taken from the existing program electives or any other course of same level from the institute