

COEP Technological University, Pune

(A Unitary Public University of Govt. of Maharashtra)

NEP 2020 Compliant

Curriculum Structure

M. Tech
IoT and Sensor Systems

(Effective from: A.Y. 2026-27)

PG Program [M. Tech. E &Tc – IoT and Sensor]

Proposed Curriculum Structure

w. e. f AY 2026-27

List of Abbreviations

Abbreviation	Title	No of courses	Credits	% of Credits
PSMC	Program Specific Mathematics Course	1	4	5
PSBC	Program Specific Bridge Course	1	3	3.75
PCC	Program Core Course	6	24	30
PEC	Program Specific Elective Course	3	9	11.25
MLC	Mandatory Learning Course	2	5	6.25
OE	Open Elective	1	3	3.75
SLC	Self-Learning Course	2	6	7.5
LLC	Liberal Learning Course	1	1	1.25
OJT	Internship	1	3	3.75
VSEC	Vocational and Skill Enhancement Course (Project)	2	22	27.5
Total		20	80	100%

Curriculum Structure for M. Tech – IoT and Sensor Systems

Semester I

Sr. No.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightages in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
1.	PSMC	PSMC01	Applied Mathematics for IOT and Sensor	3	1	-	1	4	30	20	50	-	-
2.	PSBC	PSBC01	Sensor technologies and measurement System	2	-	2	1	3	30	20	50	50	50
3.	PCC	PCC-01	Internet of Things Architecture and Applications	3	-	2	1	4	30	20	50	50	50
4.	PCC	PCC-02	Embedded System and RTOS	3	-	2	1	4	30	20	50	50	50
5.	PCC	PCC-03	Real-Time Sensor Signal Processing	3	-	2	1	4	30	20	50	50	50
6.	PEC-1	PEC-01	Program Specific Elective –I a) Radar and satellite communications b) Biomedical Edge Devices c) Intelligent Sensor System and Adoptive control for IIOT	3	-	-	1	3	30	20	50	-	-
7.	MLC	SET-25002	Technical Communication Skills	1	-	2	1	2	50	50	-	100	
Total Credits				24									

Semester II

Sr. No.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightages in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
1.	OE	OE-01	Open Elective – Beyond IOT and Sensor	3	-	-	1	3	30	20	50	-	-
2.	PCC	PCC-04	Data Analytics for IoT Applications	3	-	2	1	4	30	20	50	50	50
3.	PCC	PCC-05	Connected systems & Cloud Computing	3	-	2	1	4	30	20	50	50	50
4.	PCC	PCC-06	AI-ML For Edge Communication	3	-	2	1	4	30	20	50	50	50
5.	PEC-2	PEC- 02	Program Specific Elective –II a) Cognitive connectivity using wireless sensors b) Robotics & Humanoids c) Advanced IoT Networking and Secure Communication	3	-	-	1	3	30	20	50	-	-
6.	PEC-3	PEC-03	Program Specific Elective –III a) IOT- Non-Terrestrial Network b) Green IOT c) Vision and Intelligent System	3	-	-	1	3	30	20	50	-	-
7.	MLC	SET-25001	Research Methodology	2	1	-	1	3	30	20	50	-	-
8.	LLC		Liberal Learning Course	-	-	2	2	1	-	-	-	100	-
Total Credits				25									

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Semester III

Sr. No.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightages in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
1	SLC	SLC-01	MOOC -1	3	-	-	1	3	-	-	100	-	-
2	SLC	SLC-02	MOOC -2	3	-	-	1	3	-	-	100	-	-
3	OJT	<tbd>	Internship	-	-	-	-	3	-	-	100	-	-
4	Project	VSEC01	Dissertation Phase – I	-	-	22	12	11	-	-	-	60	40
Total Credits				20									

Semester IV

Sr. No.	Course Type	Course Code	Course Name	L	T	P	S	Cr	Evaluation Scheme (Weightages in %)				
									Theory			Laboratory	
									MSE	TA	ESE	ISE	ESE
1	Project	VSEC02	Dissertation Phase – II	-	-	22	12	11	-	-	-	60	40
Total Credits				11									

➤ **MOOC Courses Identified:**

1. ML & Deep Learning
2. Introduction to Industry 4.0 & IIoT.