MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

Deemed University
Centre for IoT

Admitted Batch: 2025

Tentative Course Structure of B.Tech : Internet of Things(IoT)

S.No.	SEMESTER I	SEMESTER II	SEMESTER III	SEMESTER IV	SEMESTER V	SEMESTER VI	SEMESTER VII	SEMESTER VIII
	I Year		II Year		III Year		IV Year	
1.	Principles of Internet of Things	Object-Oriented Programming	Probability and Statistics	Data Science	Database Management System	Embedded System Design with ARM	Departmental Elective# (DE-3)	Departmental Elective* (DE-5)
2.	Computer Programming	Sensors and Actuators	Microcontrollers & IoT	Introduction to VLSI	Embedded Control of Electric Motors	IoT System Design	Departmental Elective* (DE-4)	Open Category Course* (OC-3)
3.	Introduction to Embedded Programming	Fundamentals of Signal and Systems	Data Structures	Design and Analysis of Algorithms	Artificial Intelligence & Machine Learning	Departmental Elective* (DE-2)	Open Category Course *(OC-2)	Industry Internship/ Research Internship/ Innovation & Start-up
4.	Digital Logic Design	Operating Systems	Electronic Devices and Circuits	IoT Cloud Security	Computer Vision and Image Processing	Open Category Course (OC-1)	Skill Enhancement Program/Research Internship/ On Job Training	Professional Development
5.	Linear Algebra and Calculus	Basic Electrical and Electronics Engineering	IoT Architecture and Protocol	Wireless Technologies for IoT	Departmental Elective* (DE-1)	Software Engineering	Creative Problem Solving	
6.	Computer Programming Lab	Object-Oriented Programming Lab	Problem Solving through Python Programming	Data Science Lab	Database Management System Lab	IoT System Design Lab		
7.	Internet of Things Lab	Sensors and Actuators Lab	Data Structures Lab	Design and Analysis of Algorithms Lab	Artificial Intelligence & Machine Learning Lab	Embedded System Design Lab		
8.	Semester Proficiency$	Electrical and Electronics Engineering Lab	IoT Architecture and Protocol Lab	Competitive Programming Lab	Semester Proficiency$	Semester Proficiency$		
9.	Micro Project-I#	Semester Proficiency$	Semester Proficiency	Semester Proficiency$	Cornerstone Project	Capstone Project		
10.	Language Lab	Micro Project-II#	Macro Project-I	Macro Project-II#	MAC: Supply Chain Management	MAC: Disaster Management		
11.	MAC: Universal Human Values & Professional Ethics	NEC: (Activity Based Learning)	MAC: Cyber Security	MAC: Project Management, Economics & Financing	Professional Skills &Competencies - I	Professional Certification		
12.	---	MAC: Sustainability & Environmental Science	Self-learning (SWAYAM/NPTEL/MOOC)	Competitive Programming Lab		Professional Skills & Competencies - II		
13.	---	Skill Internship Program(Soft Skill)	NEC (Activity Based Learning)	NEC (Activity Based Learning)				
14.	---	---	---	Skill Internship Program				
13.	Mandatory Workshop: Report Writing & ICCV	Mandatory Workshop: Indian Knowledge System and Career Planning	Mandatory Workshop: Mastering Competitive Success	Mandatory Workshop: Writing Research and IPR	Mandatory Workshop: Internships: Explore, Apply and Excel	Mandatory Workshop: Placement Readiness		
Credits	20	22	22	24	20	20	14	18