



माधव प्रौद्योगिकी एवं विज्ञान संस्थान, ग्वालियर (म.प्र.), भारत

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR (M.P.), INDIA

Deemed University

(Declared under Distinct Category by Ministry of Education, Government of India)

NAAC ACCREDITED WITH A++ GRADE

Centre for IoT

Innovate | Connect | Automate

Curriculum Matrix

Admitted Batch : 2026

B.Tech Internet of Things

Centre for IoT, MITS-DU

Tentative Scheme 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	Sensors and Actuators	Probability and Random Process	Digital Communication & Signal Processing	Database Management System	Industrial IoT and Cyber-Physical Systems	Departmental Elective* (DE-3)-MITS MOOCS	Departmental Elective* (DE-5)-NPTEL
2.	Computer Programming	Object Oriented Programming	Microcontrollers & IoT	Embedded System Design with ARM	Cloud & Edge Computing	Computer Vision	Departmental Elective* (DE-4)-NPTEL	Open Category Course* (OC-3)-NPTEL
3.	Basics of Embedded Programming	Electronic Systems Thinking and Circuits	Data Structures	Computer Networks and Internet Protocols	Artificial Intelligence & Machine Learning	Software Engineering	Open Category Course *(OC-2)-NPTEL	Industry Internship/ Research Internship/ Innovation & Start-up
4.	Digital Logic Design	Operating Systems	IoT Security and Privacy	Design and Analysis of Algorithms	IoT System Design	Departmental Elective* (DE-2)	Skill Enhancement Program/Research Internship/ On Job Training	Professional Development
5.	Linear Algebra and Calculus	Basic Electrical & Electronics Engineering	IoT Architecture and Protocols	Data Science	Departmental Elective* (DE-1)	Open Category Course (OC-1)	Creative Problem Solving	
6.	Computer Programming Lab	Sensors and Actuators Lab	Data Structures Lab	Data Science Lab	IoT System Design Lab	Computer Vision Lab		
7.	Sensors, IoT and Smart Devices	Object Oriented Programming Lab	IoT Architecture and Protocol Lab	Embedded System Design Lab	Artificial Intelligence and Machine Learning Lab	Software Engineering Lab		
8.	Semester Proficiency [§]	Electrical & Electronics Engineering Lab	Problem Solving through Python Programming	Competitive Programming	Embedded AI Vision Lab	Semester Proficiency [§]		
9.	Micro Project-I [#]	Semester Proficiency [§]	Semester Proficiency [§]	Semester Proficiency [§]	Semester Proficiency [§]	Capstone Project		
10.	Language Lab	Micro Project-II [#]	Macro Project-I [#]	Macro Project-II [#]	Cornerstone Project	MAC: Disaster Management and Preparedness		
11.		Universal Human Values	Self-learning/Presentation ^{\$\$\$} (SWAYAM/NPTEL/MOOC)	Novel Engaging Course (Activity-Based Learning)	Supply Chain Management	Professional Certification		
12.	---	Novel Engaging Course (Activity Based Learning)	Novel Engaging Course (Activity Based Learning)	Skill Internship Program	Mandatory Workshop as per Annexure at Department Level	Professional Skills & Competencies - I		
13.	---	Skill Internship Program(Soft Skill)	Cyber Security	Indian Knowledge System				
14.	Mandatory Workshop on Open Source Simulation Tools	Sustainability & Environmental Science	Mandatory Workshop as per Annexure at Department Level	Project Management, Economics & Financing				
13.	Induction programme of three weeks (MC):	Mandatory Workshop on Career Planning & Goalsetting at Department Level		Mandatory Workshop as per Annexure at Department Level		Mandatory Workshop: Mandatory Workshop as per Annexure at Department level		
Credits	19	22	22	22	21	23	12	15