



माधव प्रौद्योगिकी एवं विज्ञान संस्थान, ग्वालियर
MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
Deemed University

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

NAAC ACCREDITED WITH A++ Grade

Gola Ka Mandir, Gwalior (M.P.)- 474005, INDIA

Ph.:+91-751-2409300, E-mail: vicechancellor@mitsgwalior.in, Website: www.mitsgwalior.in



MITS

Centre for IoT

B.Tech. Internet of Things (IoT)

*Curriculum and syllabi
(2026)*



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B.Tech : Internet of Things(IoT)

Semester-Wise General Scheme Structure & Important Guidelines for Flexible Curriculum

(Batch admitted in Academic Session 2026-27 Onwards)

Abbreviations Used

L	Lecture
T	Tutorial
P	Practical
HSMC	Humanities and Social Sciences including Management Courses
BSC	Basic Science Courses
ESC	Engineering Science Courses
DC	Departmental Core
DE	Departmental Elective
OC	Open Category
DLC	Departmental Laboratory Courses
MOOC	Massive Open Online Course
MWS	Mandatory Workshop
SP	Semester Proficiency
SIP	Skill Internship Program
SLP	Self-learning Presentation
PSC	Professional Skills & Competencies
PDC	Professional Development Component
PBL	Project Based Learning
PC	Professional Certification
MAC	Mandatory Audit Course
NEC	Novel Engaging Course
IKS	Indian Knowledge System
UHV	Universal Human Values



Scheme of Evaluation

B. Tech. I Semester (Internet of Things (IoT))

S. No.	Course Code	Category Code	Course Name	Contact Hours per week			Total Credits
				L	T	P	
1.	23261101	DC	Principles of Internet of Things	3	-	-	3
2.	23261102	ESC	Computer Programming	2	-	-	2
3.	23261103	DC	Basics of Embedded Programming	2	1	-	3
4.	23261104	DC	Digital Logic Design	2	1	-	3
5.	23261105	BSC	Linear Algebra and Calculus	3	-	-	3
6.	23261106	DLC	Computer Programming Lab	-	-	2	1
7.	23261107	DLC	Sensors, IoT and Smart Devices	-	-	2	1
8.	23261108	SP	Semester Proficiency ⁵	-	-	2	1
9.	23261109	PBL	Micro Project-I [#]	-	-	2	1
10.	23261110	HSMC	Language Lab	-	-	2	1
Total				12	02	10	19
11.	23261111	MWS	Mandatory Workshop on Open Source Simulation Tools	Interactive			
12.	23261112	MIP	Induction Programme of three weeks (MC): Physical activity, Creative Arts, Universal Human Values, Literary, Proficiency Modules, Lectures by Eminent People, Visits to local Areas, Familiarization to Dept./Branch & Innovations.	Interactive			

Scheme of Evaluation

B. Tech. II Semester Internet of Things (IoT)

S. No.	Course Code	Category Code	Course Name	Contact Hours per week			Total Credits
				L	T	P	
1.	23261201	DC	Sensors and Actuators	3	-	-	3
2.	23261202	DC	Object Oriented Programming	2	1	-	3
3.	23261203	DC	Electronic Systems Thinking and Circuits	3	-	-	3
4.	23261204	DC	Operating Systems	3	-	-	3
5.	23261205	ESC	Basic Electrical & Electronics Engineering	2	-	-	2
6.	23261206	DLC	Sensors and Actuators Lab	-	-	2	1
7.	23261207	DLC	Object Oriented Programming Lab	-	-	2	1
8.	23261208	DLC	Electrical & Electronics Engineering Lab	-	-	2	1
9.	23261209	SP	Semester Proficiency ⁵	-	-	2	1
10.	23261210	PBL	Micro Project-II [#]	-	-	2	1
11.	23251211	UHV	Universal Human Values	-	3	-	3
12.	NECXXXXXX	NEC	Novel Engaging Course (Activity Based Learning)	-	1	-	1
13.	SIP1XXXX	SIP	Skill Internship Program (Soft Skill)	-	-	-	2**
Total				13	2	10	22
14.	23251212	MAC	Sustainability & Environmental Science	Blended			
15.	23251213	MWS	Mandatory Workshop on Career Planning & Goalsetting at Department Level	Interactive			



Scheme of Evaluation

B. Tech. III Semester (Internet of Things (IoT))

S. No.	Course Code	Category Code	Course Name	Contact Hours per week			Total Credits
				L	T	P	
1.	23262101	BSC	Probability and Random Process	3	-	-	3
2.	23262102	DC	Microcontrollers & IoT	2	1	-	3
3.	23262103	DC	Data Structures	2	1	-	3
4.	23262104	DC	IoT Security and Privacy	2	1	-	3
5.	23262105	DC	IoT Architecture and Protocols	3	-	-	3
6.	23262106	DLC	Data Structures Lab	-	-	2	1
7.	23262107	DLC	IoT Architecture and Protocol Lab	-	-	2	1
8.	23262108	DLC	Problem Solving through Python Programming	-	-	2	1
9.	23262109	SP	Semester Proficiency ⁵	-	-	2	1
10.	23262110	PBL	Macro Project-I [#]	-	-	2	1
11.	23262111	SLP	Self-learning/Presentation ^{\$\$\$} (SWAYAM/NPTEL/MOOC)	-	-	2	1
12.	NECXXXXX	NEC	Novel Engaging Course (Activity Based Learning)	-	1	-	1
Total				12	04	12	22
13.	23262112	MAC	Cyber Security	Interactive			
14.	23262113	MWS	Mandatory Workshop on MERN Technology	Interactive			

Scheme of Evaluation

B. Tech. IV Semester (Internet of Things (IoT))

S. No.	Course Code	Category Code	Course Name	Contact Hours per week			Total Credits
				L	T	P	
1.	23262201	BSC/DC	Digital Communication & Signal Processing	3	-	-	3
2.	23262202	DC	Embedded System Design with ARM	2	1	-	3
3.	23262203	DC	Computer Networks and Internet Protocols	2	1	-	3
4.	23262204	DC	Design and Analysis of Algorithms	2	1	-	3
5.	23262205	DC	Data Science	3	-	-	3
6.	23262206	DLC	Data Science Lab	-	-	2	1
7.	23262207	DLC	Embedded System Design Lab	-	-	2	1
8.	23262208	DLC	Competitive Programming	-	-	2	1
9.	23262209	SP	Semester Proficiency ⁵	-	-	2	1
10.	23262210	PBL	Macro Project-II [#]	-	-	2	1
11.	NECXXXXX	NEC	Novel Engaging Course (Activity-Based Learning)	-	-	2	1
12.	SIPXXXXX	SIP	Skill Internship Program	-	1	-	1
13.	23262111	IKS	Indian Knowledge System	-	1	-	1
Total				12	04	12	22
14.	23262112	MAC	Project Management, Economics & Financing	Interactive			
15.	23262113	MWS	Mandatory Workshop as per Annexure at Department Level	Interactive			



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Scheme of Evaluation

B. Tech. V Semester (Internet of Things (IoT))

S. No.	Course Code	Category Code	Course Name	Contact Hours per week			Total Credits
				L	T	P	
1.	23263101	DC	Database Management System	2	1	-	3
2.	23263102	DC	Cloud & Edge Computing	2	1	-	3
3.	23263103	DC	Artificial Intelligence & Machine Learning	2	1	-	3
4.	23263104	DC	IoT System Design	2	1	-	3
5.	232631xx	DE	Departmental Elective* (DE-1)	3	-	-	3
6.	23263105	DLC	IoT System Design Lab	-	-	2	1
7.	23263106	DLC	Artificial Intelligence and Machine Learning Lab	-	-	2	1
8.	23263107	DLC	Embedded AI Vision Lab	-	-	2	1
9.	23263108	SP	Semester Proficiency\$	-	-	2	1
10.	23263109	PBL	Cornerstone Project	-	-	4	2
Total				11	04	12	21
11.	23263110	MAC	Supply Chain Management	Blended			
12.	23263111	MWS	Mandatory Workshop as per Annexure at Department Level	Interactive			

Scheme of Evaluation

B. Tech. VI Semester (Internet of Things (IoT))

S. No.	Course Code	Category Code	Course Name	Contact Hours per week			Total Credits
				L	T	P	
1.	23263201	DC	Industrial IoT and Cyber-Physical Systems	2	1	-	3
2.	23263202	DC	Computer Vision	2	1	-	3
3.	23263203	DC	Software Engineering	3	-	-	3
4.	232632xx	DE	Departmental Elective* (DE-2)	3	-	-	3
5.	23263204	OC	Open Category Course (OC-1)	2	1	-	3
6.	23263205	DLC	Computer Vision Lab	-	-	2	1
7.	23263206	DLC	Software Engineering Lab	-	-	2	1
8.	23263207	SP	Semester Proficiency\$	-	-	2	1
9.	23263208	PC	Professional Certification	-	-	2	1
10.	23263209	PSC	Professional Skills & Competencies	-	-	4	2
11.	23263210	PBL	Capstone Project	-	-	4	2
Total				12	03	16	23
11.	23263110	MAC	Disaster Management and Preparedness	Interactive			
12.	23263111	MWS	Mandatory Workshop as per Annexure at Department Level	Interactive			



Scheme of Evaluation

B. Tech. VII Semester (Internet of Things (IoT))

S. No.	Course Code	Category Code	Course Name	Contact Hours per week			Total Credits
				L	T	P	
1.	23264101	DE	Departmental Elective# (DE-3)	3	-	-	3
2.	23264102	DE	Departmental Elective* (DE-4)	3	-	-	3
3.	23264103	OC	Open Category Course* (OC-2)	3	-	-	3
4.	23264104	SEP	Skill Enhancement Program/Research Internship/ On Job Training	-	-	-	2**
5.	23264105	DLC	Creative Problem Solving	-	-	2	1
Total				09	-	02	12

Scheme of Evaluation

B. Tech. VIII Semester (Internet of Things (IoT))

S. No.	Course Code	Category Code	Course Name	Contact Hours per week			Total Credits
				L	T	P	
1.	23264201	DE	Departmental Elective* (DE-5)	3	-	-	3
2.	23264202	OC	Open Category Course* (OC-3)	2	-	-	2
3.	23264203	PBL	Industry Internship/Research Internship/ Innovation & Start-up	-	-	16	8
4.	23264204	PDC	Professional Development##	-	-	4	2
Total				05	-	20	15

Summer Semester of six-eight-week duration will be conducted to complete any backlog courses.

Additional Course for Honours or Minor Degree: Permitted to opt for maximum two additional courses for the award of Honours or Minor Degree

Suggested topics of MWS	Semester
<p>Minimum one Mandatory Workshop to be conducted in I to VI semester, from the list below:</p> <ul style="list-style-type: none">• Mindfulness and Wellness Program• Writing Research Articles: Idea to Publication• Internships: Explore, Apply and Excel• Placement Readiness: Building Resume and Mastering Interview• Mastering Competitive Success• Intellectual Property Rights <p>OR/And</p> <p>On any discipline specific emerging technological advancements (tools/technology) in the domain.</p> <p><i>MWS should be conducted by either an external or internal resource person, preferably during the regular teaching hours.</i></p>	I semester to VI semester
