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

DEPARTMENT OF ELECTRONICS ENGINEERING (ET)

COURSE STRUCTURE

I SEMESTER	II SEMESTER	III SEMESTER	IV SEMESTER	V SEMESTER	VI SEMESTER	VII SEMESTER	VIII SEMESTER
Measurement and Sensors	Communication Network	Probability and Random Process	Linear Control Theory	Digital Signal Processing	Mobile Communication and 5G Networks	Departmental Elective (DE-3)	Departmental Elective* (DE-5)
Computer Programming	Electronic Circuits	Data Structures	Microprocessor and Interfacing	Embedded System	Artificial Intelligence & Machine Learning	Departmental Elective* (DE-4)	Open Category Course* (OC-3)
Electronic Devices	Signals and Systems	Analog Communication	Digital Communication	Data Science	Departmental Elective* (DE-2)	Open Category Course (OC-2)	Industry Internship/ Research Internship/ Innovation & Start-up
Network Theory	Digital Circuits and Systems	Analog Integrated Circuit	Electromagnetic Fields	Departmental Elective* (DE-1)	Open Category Course (OC-1)	Specialization Course (SPC-3)	Professional Development
Basic Electrical & Electronics Engineering	Linear Algebra and Differential Equation	Data Communication	VLSI Design	Specialization Course (SPC-1)	Specialization Course (SPC-2)	Creative Problem Solving	**Honours or Minor Degree (Optional)**
Computer Programming Lab	Digital Logic Design Lab	Analog Communication Lab	Microprocessor and Interfacing Lab	Digital Signal Processing Lab	Embedded System Lab	**Honours or Minor Degree (Optional)**	
Electrical & Electronics Engineering Lab	Problem Solving through Python Programming	Analog Integrated Circuit Lab	Digital Communication Lab	Data Science Lab	Artificial Intelligence & Machine Learning Lab		
Engineering Physics/Engineering Chemistry Lab	Engineering Physics/Engineering Chemistry Lab	Self-learning/ Presentation (SWAYAM/NPTEL/ **MOOC**	VLSI Design Lab	Cornerstone Project	Capstone Project		
Novel Engaging Course	Novel Engaging Course	Novel Engaging Course	Novel Engaging Course	Supply Chain Management	Disaster Management		
Micro Project-I	Micro Project-II	Macro Project-I	Macro Project-II	**Honours or Minor Degree (Optional)**	**Honours or Minor Degree (Optional)**		
Universal Human Values & Professional Ethics (UHVPE)	Sustainability & Environmental Science	Cyber Security	Project Management, Economics & Financing				
	Soft Skill Internship		Skill Internship Project				
			Honours or Minor Degree Optional)				

	Departmental Core Courses
	Basic Science Courses
	Engineering Science Courses
	Mandatory Audit Courses
	Department Elective Courses
	Open Course
	Department Lab Course
	Project Based Learning

Mandatory Workshops in each semester at Department Level (Duration: Two Days)

Departmental Elective Courses	
EC	**ET**
Electromagnetic Waves and Guided and Wireless Media	Electromagnetic Waves and Guided and Wireless Media
Fuzzy Sets, Logic System and & Applications	Principles of Modern CDMA/MIMO/OFDM Wireless Communication
Digital IC Design	Fuzzy Sets, Logic System and & Applications
Introduction to Information Theory	Introduction to Information Theory
Introduction to Internet of Things	Introduction to Internet of Things
Signal Processing Techniques and its Applications	Photonics Integrated Circuit
Robotics and Control	Robotics and Control
Satellite and RADAR Communication	Satellite and RADAR Communication
Antenna and Wave Propagation	Discrete Control System
Fundamental of Wireless Communication	Optimization Theory and Algorithms
Fiber Optic Communication Technology	Fiber Optic Communication Technology
Pattern Recognition and Applications	Pattern Recognition and Applications
Spread Spectrum Communications and Jamming	Spread Spectrum Communications and Jamming
Computer vision and image processing- Fundamentals and Applications	Computer vision and image processing- Fundamentals and Applications
Cloud Computing	Introduction: Wireless Adhoc and Sensor Network Part-I
Open Category Courses	
Consumer Electronics	Consumer Electronics
Intelligent Control	Intelligent Control
Mobile Communication	Mobile Communication
MEMS and Mechatronics	Communication Theory
Healthcare Engineering	MEMS and Mechatronics
Communication Theory	Healthcare Engineering
Linear Dynamics System	Linear Dynamics System
Sensors and Actuators	Sensors and Actuators
Optical Fiber Sensors	Optical Fiber Sensors

Specialization Courses		
Specialization in VLSI Design	**Specialization in Signal Processing**	**Specialization in Wireless Communication**
Mixed Analog VLSI Design	Signal Processing for Communication	Smart Antennas
Semiconductor IC Technology	Statistical Signal Processing	Adhoc Networks
EDA Tools for IC design	Mathematical methods in Signal Processing	Optical Wireless Communication
Design for Testability	Wavelet Transform for Signal and Image Processing	Next Generation Wireless LAN