

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Department of Electrical Engineering

Course Structure: B. Tech in Internet of Things

For batches admitted in Academic Session 2020-21 Onwards

SEMESTER I	SEMESTER II	SEMESTER III	SEMESTER IV	SEMESTER V	SEMESTER VI	SEMESTER VII	SEMESTER VIII
Introduction to Internet of Things (IoT)	Digital Logic Design	Statistics and Random Processes	Process Measurement Technologies	Ethics, Economics, Entrepreneurship & Management	IoT for smart energy management system	Departmental Elective-3	Departmental Elective-5 *
Introduction to Computer Programming	Linear Algebra and Matrix Analysis	IOT Architecture & Protocols	Power System	Block chain and IoT	Big Data and Cloud Computing	Departmental Elective-4 *	Open Category-4*
Basic Electrical & Electronics Engineering	Sensor Technology	Control Engineering	Power Electronic Devices & Operation	IoT Aided Smart Grid Technologies	Departmental Elective-1	Open Category-2	Open Category-5*
Energy, Environment, Ecology & Society	Data Structures	Electric Circuits and Field theory	Electrical Machines	Industrial Automation and IoT	Departmental Elective-2*	Open Category-3	Internship/Project
Technical Language and Lab	Object Oriented Programming and Methodology	Electronic Devices and Circuits	Microcontrollers and Embedded Systems	Introduction to AI, ML and DL	Open Category-1	Intellectual Property Rights (IPR)	Professional Development [§]
	Sensor Technology & Hardware Lab	IoT Lab	Cyber Security	Minor Project-I**	Disaster Management	Departmental Lab	
		Self-learning/Presentation (through SWAYAM/NPTEL/MOOC)# or Interdisciplinary course from other institutions and platforms with credit transfer	Microcontrollers and Embedded Systems Lab	Summer Internship Project-II (Evaluation)	Minor Project-II**	Summer Internship Project-III (04 weeks)(Evaluation)	
		Summer Internship Project-I (Institute Level) (Evaluation)		Self-learning/Presentation (SWAYAM/NPTEL/MOOC)		Creative Problem Solving (Evaluation)	

Compulsory registration for one online course using SWAYAM/NPTEL/MOOC, evaluation through attendance, assignments and presentations

**The minor project-I will be evaluated by an internal committee for awarding sessional marks

*All of these courses will run through SWAYAM/NPTEL/MOOC platforms with credit transfer

§ Evaluation will be based on participation/laurels brought by the students to the institution in national/state level technical and other events during the complete tenure of the UG program (participation in professional chapter activities, club activities, cultural events, sports, personality development activities, collaborative events and technical events)