MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

Department of Information Technology

Course Structure: B. Tech in Information Technology (Artificial Intelligence and Robotics)
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 Artificial Intelligence	Digital Logic Design	Statistics and Random Processes	Robot Kinematics and Dynamics	Ethics, Economics, Entrepreneurship & Management	Deep Learning	Departmental Elective-3	Departmental Elective-5 *
Introduction to Computer Programming	Linear Algebra and Matrix Analysis	Data Communication and Computer Networks	Database Management System	Robotics, Sensors, Actuators and Control	Microcontrollers & Embedded Systems	Departmental Elective-4 *	Open Category-4*
Basic Electrical & Electronics Engineering	Sensor Technology	Design and Analysis of Algorithms	Operating System	Algorithms for Intelligent Systems and Robotics	Departmental Elective-1	Open Category-2	Open Category-5*
Energy, Environment, Ecology & Society	Data Structures	Basics of Robotics	Artificial Intelligence & Expert Systems	Computer Graphics and Vision	Departmental Elective-2*	Open Category-3	Internship/Project
Technical Language and Lab	Object Oriented Programming and Methodology	Graph Theory	Data Mining & Analytics	Machine Learning	Open Category-1	Intellectual Property Rights (IPR)	Professional Development $
	Sensor Technology & Hardware Lab	Robotics Simulation 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	Python Programming 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 presentation

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

*All of these courses will run through SWAYAM/NPTEL/ MOOC 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)