



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

Deemed University

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

NAAC Accredited with A++ Grade



CO Attainment Levels for July-Dec 2023 Semester Internet of Things (IoT)

Subject Name & Code	COs	Direct Attainment	Indirect Attainment	Overall CO Attainment	Target	Gap	Status
Software Testing 910204	CO1	3	3	3	2.5	-0.5	Attained
	CO2	3	3	3	2.5	-0.5	Attained
	CO3	3	3	3	2.5	-0.5	Attained
	CO4	3	3	3	2.5	-0.5	Attained
	CO5	2.6	3	2.6	2.5	-0.1	Attained
	CO6	2.7	3	2.7	2.5	-0.2	Attained
Embedded Systems &IoT 230504	CO1	2.9	3	2.9	2.5	-0.4	Attained
	CO2	2.3	3	2.5	2	-0.5	Attained
	CO3	2.2	3	2.4	2	-0.4	Attained
	CO4	2.1	3	2.2	2	-0.2	Attained
	CO5	2.7	3	2.8	2.5	-0.3	Attained
	CO6	3	3	3	2.5	-0.5	Attained
Embedded Systems &IoT Lab 230504	CO1	3	3	3	2.5	-0.5	Attained
	CO2	3	3	3	2.5	-0.5	Attained
	CO3	3	3	3	2.5	-0.5	Attained
	CO4	3	3	3	2.5	-0.5	Attained
	CO5	3	3	3	2.5	-0.5	Attained
	CO6	3	3	3	2.5	-0.5	Attained
Design & Thinking Lab 2230325	CO1	3	3	3	2.5	-0.5	Attained
	CO2	3	3	3	2.5	-0.5	Attained
	CO3	3	3	3	2.5	-0.5	Attained
	CO4	3	3	3	2.5	-0.5	Attained
Basic Electrical and Electronics Engineering Lab 43100022	CO1	3	3	3	3	0	Attained
	CO2	3	3	3	3	0	Attained
	CO3	3	3	3	3	0	Attained
	CO4	3	3	3	3	0	Attained
Basic Electrical and Electronics Engineering 43100023	CO1	2.9	3	2.9	2	-0.9	Attained
	CO2	2.2	3	2.4	2	-0.4	Attained
	CO3	2.2	3	2.4	2	-0.4	Attained
	CO4	2.5	3	2.6	2	-0.6	Attained
	CO5	2.6	3	2.7	2	-0.7	Attained
	CO6	2	3	2.2	2	-0.2	Attained
Data Science in IOT 230502	CO1	3	3	3	3	0	Attained
	CO2	3	3	3	3	0	Attained
	CO3	3	3	3	3	0	Attained
	CO4	3	3	3	3	0	Attained
	CO5	3	3	3	3	0	Attained
	CO6	3	3	3	3	0	Attained
	CO1	3	3	3	3	0	Attained



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

Deemed University

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

NAAC Accredited with A++ Grade



Data Science in IOT Lab 230502	CO2	3	3	3	3	0	Attained
	CO3	3	3	3	3	0	Attained
	CO4	3	3	3	3	0	Attained
Computer Graphics & Multimedia 2230323	CO1	2.6	3	2.7	2.5	-0.2	Attained
	CO2	3	3	3	2.5	-0.5	Attained
	CO3	2.2	3	2.3	2.3	0	Attained
	CO4	2.9	3	2.9	2.5	-0.4	Attained
	CO5	1.4	3	1.7	2.5	0.8	Not Attained
	CO6	2.5	3	2.6	2.5	-0.1	Attained
Computer Graphics & Multimedia Lab 2230324	CO1	3	3	3	2.5	-0.5	Attained
	CO2	3	3	3	2.5	-0.5	Attained
	CO3	3	3	3	2.5	-0.5	Attained
	CO4	3	3	3	2.5	-0.5	Attained
	CO5	3	3	3	2.5	-0.5	Attained
	CO6	3	3	3	2.5	-0.5	Attained
Discrete Structures 2230324	CO1	2.4	3	2	2	0	Attained
	CO2	2.6	3	2.6	2	-0.6	Attained
	CO3	2.4	3	2.5	2	-0.5	Attained
	CO4	2.2	3	2.3	2	-0.3	Attained
	CO5	2.1	3	2.2	2	-0.2	Attained
	CO6	2	3	2.2	2	-0.2	Attained
Digital Logic Design 3230123	CO1	3	3	3	2.5	-0.5	Attained
	CO2	3	3	3	2.5	-0.5	Attained
	CO3	2.9	3	3	2.5	-0.5	Attained
	CO4	3	3	3	2.5	-0.5	Attained
	CO5	2.5	3	2.6	2.5	-0.1	Attained
	CO6	3	3	3	2.5	-0.5	Attained
Theory of Computation 230503	CO1	3	3	3	3	0	Attained
	CO2	3	3	3	3	0	Attained
	CO3	3	3	3	3	0	Attained
	CO4	3	3	3	3	0	Attained
	CO5	3	3	3	3	0	Attained
	CO6	3	3	3	3	0	Attained
Computer Programming 230122	CO1	1.8	3	2	2	0	Attained
	CO2	2	3	2.2	2	-0.2	Attained
	CO3	1.9	3	2.1	2	-0.1	Attained
	CO4	2.1	3	2.2	2	-0.2	Attained
	CO5	2	3	2.2	2	-0.2	Attained
	CO6	1.9	3	2.1	2	-0.1	Attained
Computer Network & Protocol 2230321	CO1	3	3	3	2.5	-0.5	Attained
	CO2	2.4	3	2.5	2.5	0	Attained
	CO3	3	3	3	2.5	-0.5	Attained
	CO4	3	2.2	2.8	2.5	-0.3	Attained



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

Deemed University

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

NAAC Accredited with A++ Grade



Computer Architecture and Microprocessor 230401	CO5	3	2.5	2.9	2.5	-0.4	Attained
	CO6	3	1.9	2.8	2.5	-0.3	Attained
	CO1	3	3	3	2.5	-0.5	Attained
	CO2	2.4	3	2.5	2	-0.5	Attained
	CO3	3	2.8	3	2.5	-0.5	Attained
	CO4	3	2.9	3	2.5	-0.5	Attained
	CO5	3	2.8	3	2.5	-0.5	Attained
	CO6	3	3	3	2.5	-0.5	Attained

Total No of courses	Total No of COs	No of COs not attained	Percentage of COs not attained
16	90	1	1.11%

Action Taken by the faculty

- Beyond the syllabus, some practical problem will provide to students during class session and discuss important facts related to a particular topic.
- Remedial classes to be conducted
- More assignment & tutorial classes
- Practical exposure through industrial visit, and expert talk for problem solving.
- More interaction with the students.
- Extra time will be given on important topics.



CO Attainment Levels for Jan-June 2024 Semester
Internet of Things (IoT)

Course	CO	Direct % Attainment	Indirect % Attainment	Total % Attainment	Target	Status
Operating System (3230221)	CO1	3.0	3.0	3.0	2.5	Attained
	CO2	3.0	3.0	3.0	2.5	Attained
	CO3	3.0	3.0	3.0	2.5	Attained
	CO4	3.0	3.0	3.0	2.5	Attained
	CO5	3.0	3.0	3.0	2.5	Attained
Sensor Technology (3230222)	CO1	3.0	3.0	3.0	2.5	Attained
	CO2	3.0	3.0	3.0	2.5	Attained
	CO3	2.8	3.0	2.8	2.5	Attained
	CO4	3.0	3.0	3.0	2.5	Attained
	CO5	3.0	3.0	3.0	2.5	Attained
Sensor Technology Lab (3230222)	CO1	2.8	3.0	2.9	2.5	Attained
	CO2	2.8	3.0	2.9	2.5	Attained
	CO3	3.0	3.0	3.0	2.5	Attained
	CO4	3.0	3.0	3.0	2.5	Attained
Data Structure (3230223)	CO1	3.0	3.0	3.0	2.5	Attained
	CO2	3.0	3.0	3.0	2.5	Attained
	CO3	3.0	3.0	3.0	2.5	Attained
	CO4	3.0	3.0	3.0	2.5	Attained
	CO5	2.9	3.0	2.9	2.5	Attained
	CO6	3.0	3.0	3.0	2.5	Attained
Data Structure Lab (3230223)	CO1	3.0	3.0	3.0	2.5	Attained
	CO2	3.0	3.0	3.0	2.5	Attained
	CO3	3.0	3.0	3.0	2.5	Attained
	CO4	3.0	3.0	3.0	2.5	Attained
	CO5	3.0	3.0	3.0	2.5	Attained
	CO6	3.0	3.0	3.0	2.5	Attained
Python Programming (3230224)	CO1	3.0	3.0	3.0	2.5	Attained
	CO2	3.0	3.0	3.0	2.5	Attained
	CO3	3.0	3.0	3.0	2.5	Attained
	CO4	3.0	3.0	3.0	2.5	Attained
	CO5	2.7	3.0	2.8	2.5	Attained
	CO6	3.0	3.0	3.0	2.5	Attained
Python Programming	CO1	2.9	3.0	2.9	2.5	Attained
	CO2	2.9	3.0	2.9	2.5	Attained



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

Deemed University

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

NAAC Accredited with A++ Grade



	CO3	2.9	3.0	2.9	2.5	Attained
	CO4	2.9	3.0	2.9	2.5	Attained
	CO5	2.9	3.0	2.9	2.5	Attained
	CO6	2.9	3.0	2.9	2.5	Attained
Computer Architecture & Microprocessor (2230421)	CO1	3.0	3.0	3.0	2.5	Attained
	CO2	3.0	3.0	3.0	2.5	Attained
	CO3	3.0	3.0	3.0	2.5	Attained
	CO4	2.6	3.0	2.6	2.5	Attained
	CO5	2.8	3.0	2.8	2.5	Attained
IoT Embedded Systems Design (2230422)	CO1	3.0	3.0	3.0	2.5	Attained
	CO2	3.0	3.0	3.0	2.5	Attained
	CO3	3.0	3.0	3.0	2.5	Attained
	CO4	3.0	3.0	3.0	2.5	Attained
	CO5	3.0	3.0	3.0	2.5	Attained
	CO6	3.0	3.0	3.0	2.5	Attained
IoT Embedded Systems Design Lab (2230422)	CO1	3.0	3.0	3.0	2.5	Attained
	CO2	3.0	3.0	3.0	2.5	Attained
	CO3	3.0	3.0	3.0	2.5	Attained
	CO4	3.0	3.0	3.0	2.5	Attained
	CO5	3.0	3.0	3.0	2.5	Attained
	CO6	3.0	3.0	3.0	2.5	Attained
Software Engineering (2230423)	CO1	3.0	3.0	3.0	2.5	Attained
	CO2	3.0	3.0	3.0	2.5	Attained
	CO3	3.0	3.0	3.0	2.5	Attained
	CO4	3.0	3.0	3.0	2.5	Attained
	CO5	3.0	3.0	3.0	2.5	Attained
Software Engineering Lab (2230423)	CO1	3.0	3.0	3.0	2.5	Attained
	CO2	3.0	3.0	3.0	2.5	Attained
	CO3	3.0	3.0	3.0	2.5	Attained
IoT Architecture and Protocols (2230424)	CO1	3.0	3.0	3.0	2.5	Attained
	CO2	3.0	3.0	3.0	2.5	Attained
	CO3	3.0	3.0	3.0	2.5	Attained
	CO4	3.0	3.0	3.0	2.5	Attained
	CO5	3.0	3.0	3.0	2.5	Attained
Network & Web Security (2230425)	CO1	3.0	3.0	3.0	2.5	Attained
	CO2	3.0	3.0	3.0	2.5	Attained
	CO3	3.0	3.0	3.0	2.5	Attained
	CO4	3.0	3.0	3.0	2.5	Attained
	CO5	3.0	3.0	3.0	2.5	Attained



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

Deemed University

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

NAAC Accredited with A++ Grade



Compiler Design (230601)	CO6	3.0	3.0	3.0	2.5	Attained
	CO1	3.0	3.0	3.0	2.5	Attained
	CO2	3.0	3.0	3.0	2.5	Attained
	CO3	3.0	3.0	3.0	2.5	Attained
	CO4	3.0	3.0	3.0	2.5	Attained
	CO5	3.0	3.0	3.0	2.5	Attained
	CO6	3.0	3.0	3.0	2.5	Attained
Compiler Design Lab (230601)	CO1	3.0	3.0	3.0	2.5	Attained
	CO2	3.0	3.0	3.0	2.5	Attained
	CO3	3.0	3.0	3.0	2.5	Attained
	CO4	3.0	3.0	3.0	2.5	Attained
	CO5	3.0	3.0	3.0	2.5	Attained
	CO6	3.0	3.0	3.0	2.5	Attained
Minor Project-II (230604)	CO1	3.0	3.0	3.0	2.5	Attained
	CO2	3.0	3.0	3.0	2.5	Attained
	CO3	3.0	3.0	3.0	2.5	Attained
	CO4	3.0	3.0	3.0	2.5	Attained

Total No of courses	Total No of COs	No of COs not attained	Percentage of COs not attained
17	90	0	0%

Action Taken by the faculty

- Practical problems will be presented to students during class sessions, followed by discussions on key concepts related to the topic at hand.
- Remedial classes will be organized to address areas where students need additional support.
- Increased focus on assignments and tutorial sessions will be provided to enhance understanding.