



Post Graduates Schema (For batch 2025 onwards)



**M. Tech. (Computer Science and Engineering)
M. Tech. (Information and Cyber Security)
(Department of Computer Science and Engineering)**

**M. Tech. (Information Technology)
M. Tech. (Wireless Networks and Computing)
(Department of Information Technology)**

**M. Tech. (IC Design and Technology)
M. Tech. (Autonomous Systems and Machine Intelligence)
(Department of Electrical and Electronics Engineering)**

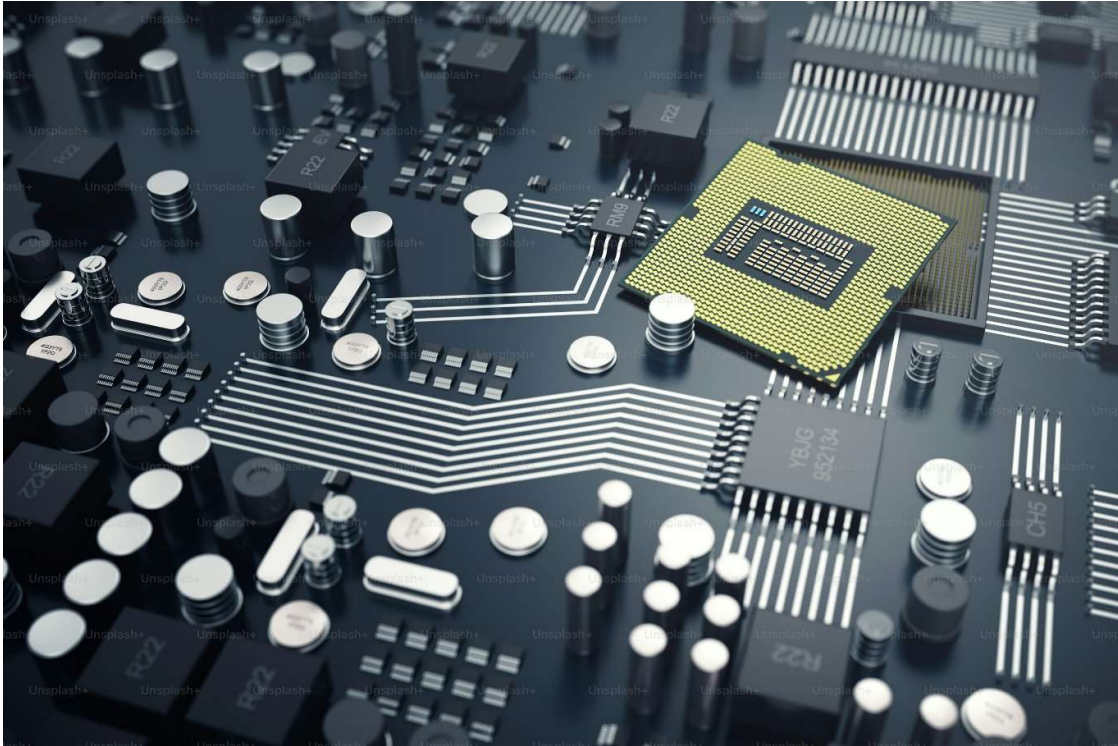
**M.S. (Artificial Intelligence and Data Science)
(Department of Engineering Science)**

**Master of Business Administration
(Department of Management Studies)**

Dual Degree (M.Tech. and PhD)

**ATAL BIHARI VAJPAYEE-
INDIAN INSTITUTE OF INFORMATION TECHNOLOGY AND MANAGEMENT,
GWALIOR (MADHYA PRADESH)
(AN INSTITUTE OF NATIONAL IMPORTANCE, MINISTRY OF EDUCATION, GOVT. OF INDIA)**

Schema M. Tech. (IC Design and Technology)



Electrical and Electronics Engineering Department (EEE)



विश्वजीवनामृतं ज्ञानम्

**ABV-Indian Institute of Information
Technology & Management, Gwalior**

SCHEMA

Name of the program: M. Tech. (IC Design and Technology)

(Credits: 75)

Name of the Department: Electrical and Electronics Engineering

SEMESTER-I				
S. No.	Subject Code	Title of the course	L-T-P	Credits
1.	EE-601	Digital IC Design	3-0-2	4
2.	EE-602	System Design using HDL	3-0-0	3
3.	EE-603	Machine Learning Techniques	3-0-2	4
4.	EE-604	IC Technology	3-0-0	3
5.	EE-605	Device Modelling and Simulation	3-0-0	3
6.	EE-XXX	Elective 1	3-0-0	3
			Total credits	20

SEMESTER-II				
S. No.	Subject code	Title of the course	L-T-P	Credits
1.	EE-607	Analog IC Design	3-0-2	4
2.	EE-608	Design Verification and Testing	3-0-0	3
3.	EE-609	Engineering Research Methodology	2-1-0	3
4.	EE-610	CAD for VLSI	3-0-0	3
5.	EE-XXX	Elective- II	3-0-0	3
6.	EE-XXX	Elective-III/MOOC	3-0-0	3
			Total credits	19

EXIT AFTER YEAR-1: Post Graduate Diploma in IC Design and Technology

SEMESTER-III				
S. No.	Subject code	Title of the course	L-T-P	Credits
1	XXX	Elective-IV/MOOC course	3-0-0	3
2	EE-698	M. Tech Dissertation 1	0-0-30	15
			Total credits	18

SEMESTER-IV				
S. No.	Subject Code	Title of the course	L-T-P	Credits
1	EE-699	M. Tech Dissertation II	0-0-36	18
			Total credits	18

SEMESTER-I	SEMESTER-II	SEMESTER-III	SEMESTER-IV	TOTAL CREDITS
20	19	18	18	75

Electives Courses

S.N.	Code	List of Electives
1	EE-051	Device and Interconnect Modelling
2	EE-052	VLSI Signal Processing
3	EE-053	Low Power VLSI
4	EE-054	Microcontroller and Embedded Systems
5	EE-055	Memory Devices and Circuits
6	EE-056	VLSI Architecture
7	EE-057	Hardware Security
8	EE-058	FPGA-Based System Design
9	EE-059	Quantum Electronics
10	EE-060	RF Circuit Design
11	EE-061	Mixed Signal SoC Design
12	EE-062	AI-Accelerator Design
13	EE-063	System-on-Chip Design
14	EE-064	Embedded Software
15	EE-066	Special Topics in IC Design and Technology
16	EE-068	Network on Chip
17	EE-069	Digital Image Computation
18	EE-070	Audio Signal Processing
19	EE-071	Advanced Digital Signal Processing
20	EE-072	Biomedical Signal Processing
21	EE-074	Computer Vision
22	EE-076	Internet of Bio-Nano Things
23	EE-079	Cyber Security
24	EE-081	Optimization Techniques

25	EE-083	Internet of Things
26	EE-085	Software Defined Radio
27	EE-086	Quantum Communication
28	EE-087	5G and 6G standards
29	EE-088	Smart Antennas
30	EE-089	Advanced Optical Communication
31	EE-092	Data Communication Protocol
32	EE-613	Next-Generation Communication Systems
33	EE-065	High-Performance Computing Systems
34	EE-067	Sensors for Autonomous System
35	EE-073	Data Analytics
36	EE-075	Reinforcement Learning
37	EE-078	Quantum Computing
38	EE-080	Deep Learning for Autonomous Systems
39	EE-082	Advanced Control System
40	EE-093	Drone Technology and Robotics
41	EE-612	Sensors and Actuators
42	EE-615	Autonomous Systems

*Department electives may be added or deleted with the approval of a departmental recommendation by the DoAA.



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