



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)**

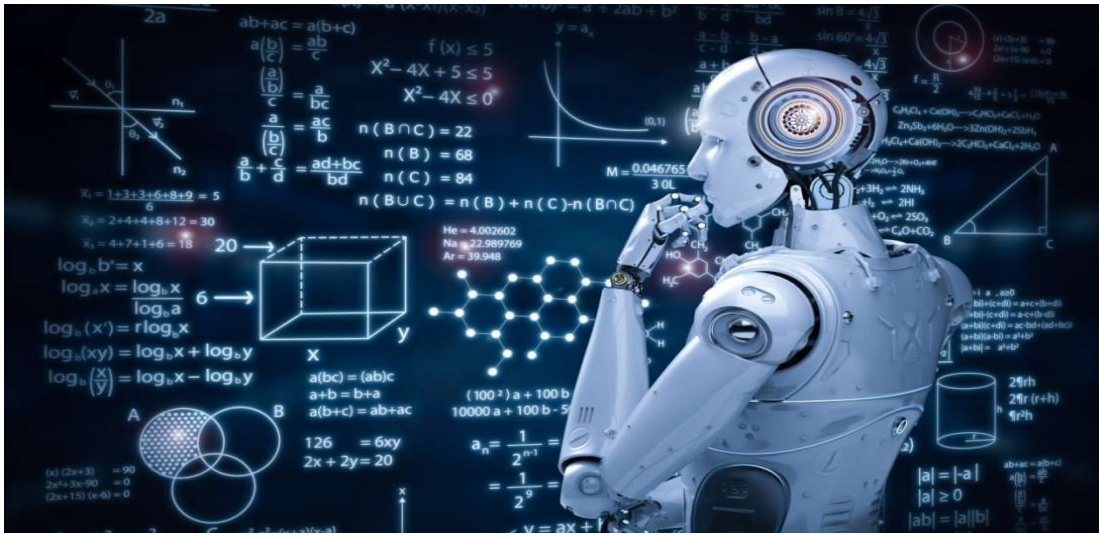
**M.S. (Artificial Intelligence and Data Science)
(Department of Engineering Science)**

**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.S. (Artificial Intelligence and Data Science)



Department of Engineering Sciences



ABV-Indian Institute of Information
Technology & Management Gwalior

SCHEMA

Name of the program: MS (Artificial Intelligence and Data Science)

(Credits: 77)

Name of the Department: Engineering Sciences

SEMESTER-I				
S. No.	Subject Code	Title of the course	L-T-P	Credits
1.	ES511	Fundamentals of Statistics	3-1-0	4
2.	ES512	Computational Linear Algebra	3-0-0	3
3.	ES513	Foundations of Data Science	3-0-0	3
4.	ES514	Machine Learning Techniques	3-0-2	4
5.	ES515	Data Structures and Algorithms	3-0-0	3
6.	ES516	Programming for Data Science	3-0-2	4
			Total credits	21

SEMESTER-II				
S. No.	Subject code	Title of the course	L-T-P	Credits
1.	ES521	Statistical Inference	3-0-0	3
2.	ES522	Artificial Intelligence	3-0-2	4
3.	ES523	System Analysis and Design	3-0-2	4
4.	ES524	Data Mining and Data Warehousing	3-0-0	3
5.	ES525	Engineering Research Methodology	2-1-0	3
6.	ES5XX	Elective-I	3-0-0	3
			Total credits	20

**Summer Project/Internship (Tentative credits: 4)*

EXIT AFTER YEAR-1: Post Graduate Diploma in Artificial Intelligence and Data Science

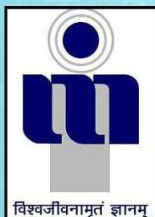
SEMESTER-III				
S. No.	Subject code	Title of the course	L-T-P	Credits
1	ES531	Decision Support and Expert Systems	2-0-2	3
2	ES532	Deep Learning	2-0-2	3
3	ES533	Natural Language Processing	3-0-0	3
4	ES534	Big Data Analytics and Visualization	2-0-2	3
5	ES5XX	Elective-II	3-0-0	3
6	ES5XX	Elective-III/ MOOC	3-0-0	3
			Total credits	18

SEMESTER-IV				
S. No.	Subject Code	Title of the course	L-T-P	Credits
1	ES541	Major Project	0-0-30	15
2	ES5XX	Elective- IV/ MOOC	3-0-0	3
			Total credits	18

SEMESTER-I	SEMESTER-II	SEMESTER-III	SEMESTER-IV	TOTAL CREDITS
21	20	18	18	77

Electives Courses

S. No.	Electives I,II,III, and IV Category: Artificial Intelligence and Data Science
1	Fuzzy Sets and Applications
2	Numerical Methods for Data Science
3	Optimization Methods for Computational Intelligence
4	Modelling and Simulation
5	Cyber Security and Cyber Law
6	Bayesian Data Analysis
7	Business Data Analysis
8	Introduction to Game Theory
9	Data Science for Biology and Medicine
10	Data Visualization and Interpretation
11	Advanced Graph Theory
12	Quantum Computing
13	Time Series and Forecasting Methods
14	Data Analytics for Material Science
15	Information Retrieval and Extraction
16	Innovation and Entrepreneurship
17	Database Management System
18	Software Reliability
19	Digital Forensics



Atal Bihari Vajpayee-

Indian Institute Of Information Technology And Management, Gwalior

(An Institute Of National Importance, Ministry of Education, Govt. Of India)

National Highway 92, Gwalior-474015 (India)

Phone: 91-751-2449720, Fax: 91-751-2460313

Website: www.iiitm.ac.in