Course Structure & Curriculum

For
M. Tech. Programme

In

Computer Science & Engineering (Specialization in Artificial Intelligence & Data Science)

Motilal Nehru National Institute of Technology Allahabad, Prayagraj

Motilal Nehru National Institute of Technology Allahabad

Department of Computer Science & Engineering

M.Tech CSE (Specialization in Artificial Intelligence & Data Science)

Proposed Curriculum

I - Semester :

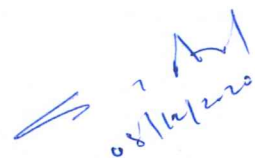| Subject Code	Subject Name	L	T	P	Credits	TA	Mid Sem. Exam.	End Sem. Exam	Total Marks
CS21101	Data Science: Concepts and Methodologies	4			4	20	20	60	100
CS21201	Programming Lab-1			6	4	50	00	50	100
CS21XXX	Elective – I	4			4	20	20	60	100
CS21XXX	Elective – II	4			4	20	20	60	100
CS21XXX	Elective – III	4			4	20	20	60	100

Total Credits = 20

II - Semester :

Subject Code	Subject Name	L	T	P	Credits	TA	Mid Sem. Exam.	End Sem. Exam	Total Marks
CS22201	Machine Learning	4			4	20	20	60	100
CS22103	Programming Lab.-2			6	4	20	20	60	100

CS22XXX	Elective – IV	4			4	20	20	60	100
CS22XXX	Elective – V	4			4	20	20	60	100
CS22XXX	Elective – VI	4			4	20	20	60	100

Total Credits = 20

III – Semester

Subject Code	Subject Name	Credits	Total Marks
CS23601	Thesis/Project	16	100
CS23651	Colloquium/Term Project	4	100

Total Credits = 20

IV – Semester

Subject Code	Subject Name	Credits	Total Marks
CS24601	Thesis/Project	20	100

Total Credits = 20

Note : The distribution of thesis evaluation marks will be as follows :

1. Supervisor(s) evaluation component : 60%

2. Oral Board evaluation component : 40%

List of Electives for
M.Tech. CSE (Specialization in Artificial Intelligence & Data Science)

Elective I

CS21301   Mathematical Foundation of Data science

CS21302   Numerical Optimization

CS21303   Probability and Statistical Models

Elective II

CS21304   Artificial Intelligence

CS21305   Advanced Data Modeling

CS21306   High Performance Computing

CS21307   Data Acquisition and Productization

Elective III

CS21308   Soft Computing Techniques

CS21309   Data Mining

CS21310   Edge and Cloud Computing

Elective IV

CS22301   Medical Image Processing

CS22302   Advanced Algorithms

CS22303   Introduction to Bioinformatics and Genomics

CS22304   Big Data

CS22305   Data Analytics

Elective V

CS22306   Computer Vision

CS22307   Natural Language processing

CS22308   Ethics of Data Science

CS22309   Privacy Preserving Data Mining

CS22310   Data Security and Application Security

CS22311   Visual Cryptography

CS22312   Information Retrieval

Elective VI

CS22313   Advanced Database Systems

CS22314   Deep Learning

CS22315   Data Visualization

CS22316   Digital Ledger Technology

CS22317   Advanced Data Mining