IT - Information Technology Enabled Services (IT-ITeS)

B. Voc. in Artificial Intelligence and Machine Learning

Course Introduction

As per a report published by Gartner, Artificial Intelligence is expected to create a huge job market with around 2.3 million opportunities during 2020-2021. This number gets bigger with each passing day as more and more companies are transforming themselves to harness the power of data lying with them.

"Data is the new oil"; there is a deeper truth to this saying than being mere words. Data has been growing by leaps and bounds like never before. Most industries across the globe, adopted data analytics as one of their chief functions since the last decade. This has fueled the development of Artificial Intelligence (AI) and Machine Learning (ML) as chief disciplines. Data analysis has multi-faceted functions; it has helped businesses attain key goals, decipher actionable insights, formulate critical decisions and generate innovative products and services.

The course brings an overall platter of knowledge and skills, needed to hop on the ML and AI domains. With a diligently crafted course curriculum, students will gain a root-level understanding of concepts driving the ML algorithms. Successful completion of the courses will enable students to take on multiple job roles in the data analytics discipline.

Equal weightage has been given to theory as well as the practical applications with ample hands-on exercise, assignments and full-length projects, which level up with each semester.

Eligibility for Admission

The eligibility for admission to B. Voc. in Artificial Intelligence & Machine Learning shall be 10+2 (Science & Maths) or equivalent, in Information Technology stream.

Career Prospects/Job Roles

Some of the career opportunities in Machine Learning skill are as follows: ***Fresh graduates or those with only one year's experience get an opportunity to become Data Science interns in ML techniques like NLP or Python programming. Skills in ML can also lead to fresh graduates becoming junior data scientists. Graduates with about 3-8 years' experience, can take up the role of a Data Scientist in Deep Learning. Those interested in end-point security can have a career in Automation with ML, for example to recognize file malware threats and deal with them effectively. Many jobs are available as Scientist in Analytics and Machine Intelligence.***

Semester-wise Listing of Courses

SEMESTER I		
Subject Code	**Subject Name**	**Credits**
GE 1.1	Functional English	4
GE 1.2	Communication Skills - I	4
GE 1.3	Computing Skills – I	4
AI 1.1	Foundational course on Artificial Intelligence (AI) and Machine Learning (ML)	2
AI 1.2	Mathematics for Data Science	2
AI 1.3	Programming Concepts and Problem Solving using Python	2
AIVP 1	Vocational Practical	12

SEMESTER II		
Subject Code	**Subject Name**	**Credits**
GE 2.1	Basics of Economics and Markets	4
GE 2.2	Environment Sciences	4
GE 2.3	Ethics and Governance	4
AI 2.1	Fundamental Programming using R	2
AI 2.2.	Statistics for Data Science	2
AI 2.3	Machine Learning Methods using Python and R - I	2
AIVP 2	Vocational Practical	12

SEMESTER III		
Subject Code	**Subject Name**	**Cred-its**
GE 3.1	Communication Skills - II	4
GE 3.2	Financial Literacy	4
GE 3.3	Basics of Legal and HR Policies	4
AI 3.1	Database Management Systems and Data Warehousing	2
AI 3.2	Programming for AI and ML using Python and R	2
AI 3.3	Advance Statistics for Data Science	2
AIVP 3	Vocational Practical	12

SEMESTER IV		
Subject Code	**Subject Name**	**Credits**
GE 4.1	Computing Skills - II	2
GE 4.2	Basics of Accounting	4
GE 4.3	Design Thinking	4
GE 4.4	Organizational Behaviour	2
AI 4.1	Machine Learning Methods using Python and R - II	2
AI 4.2	Big Data and NoSQL	2
AI 4.3	Data Visualization and Story-telling with Tableau	2
AIVP 4	Vocational Practical	12

SEMESTER V		
Subject Code	**Subject Name**	**Credits**
GE 5.1	Digital Literacy	4
GE 5.2	Health and Wellness	4
GE 5.3	Personal Grooming	4
AI 5.1	Natural Language Processing with Machine Learning	2
AI 5.2	Artificial Intelligence and Robotics	2
AI 5.3	Machine Learning for Business Domains - Marketing Analytics	2
AIVP 5	Vocational Practical	12

SEMESTER VI		
Subject Code	**Subject Name**	**Credits**
GE 6.1	Entrepreneurship	4
GE 6.2	Employment Readiness	4
GE 6.3	Effective Workplace Skills & Competencies	4
AI 6.1	Computer Vision using Artificial Intelligence	2
AI 6.2	Machine Learning for Business Domains - HR Analytics	2
AI 6.3	Machine Learning for Business Domains - Finance and Risk Analytics	2
AIVP 6	Vocational Practical	12

Programme fees: (Rs. 60,000/-per annum)
Examination fees: (Rs. 1,600/- per semester and Rs.3200 per annum)
Caution Deposit (Refundable): Rs.5000
Convocation Fees: Rs.2000/- (In absentia Rs.2500/-)
Campus Immersion Expenses: (Travel & Logistics for 7-10 days on Campus) are not part of the fee structure and the expenses will have to be met by the students followed by communication.

Note: Laptop / Desktop is recommended for the program.