

IT - Information Technology Enabled Services

Introduction of the Sector

In today's digital era Information and Communication Technology have become one of the basic requirements of society. It is difficult to think of any event without the use of digital devices. ITeS sector includes IT services, engineering design, R & D services and BPO services.

IT includes a wide variety of operations that uses information technology to improve the efficiency of any organization. ITeS services are delivered over telecom or data network to a range of external business areas. The changing economic and business conditions, rapid technological innovation, the proliferation of the internet and globalization are creating an increasingly competitive environment.

The role of technology has evolved from supporting corporations to transforming them. All these factors have made IT-ITeS a competent vertical among others.

B. Voc. in Machine Learning and Artificial Intelligence

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 condition for admission to B. Voc. in Machine Learning & Artificial Intelligence shall be 10+2 or equivalent, in Information Technology stream.

Career Prospects

The field of Artificial Intelligence and Machine learning are exploding, with smart algorithms being used everywhere from email to smartphone apps to marketing campaigns. So if one is looking for an in-demand career, the skills to work with smart machines/artificial intelligence

are a great advantage. The student is able to articulate a business problem into a mathematical machine learning problem and bring value at the end.

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	Subject Code	Subject Name	Credits
I	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
	VE P 1	Vocational Practical	12
II	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
	VE P 2	Vocational Practical	12
III	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
	VE P 3	Vocational Practical	12
IV	GE 4.1	Computing Skills - II	4
	GE 4.2	Basics of Accounting	4
	GE 4.3	Design Thinking	4
	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 Storytelling with Tableau	2
	VE P 4	Vocational Practical	12
V	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
	VE P 5	Vocational Practical	12
VI	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
	VE P 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