

B.Tech Computer Science & Engineering (Data Science)

Vision Group of Institutions

B.Tech Diploma BBA BCA BSc.(AG)





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Aligarh Campus: Shahpur, Madrak, Aligarh-Agra Highway, Aligarh

Program Overview

The B.Tech Data Science program offered by Vision Institute of Technology is a dynamic and innovative course that blends computer science and engineering with data science. Accredited by the AICTE and affiliated to Dr. A.P.J. Abdul Kalam Technical University, Lucknow, the program provides students with a comprehensive four-year curriculum that covers programming, algorithms, networks, and data science techniques. With practical training in data science tools and technologies, students gain hands-on experience to develop their skills.

Graduates receive a B.Tech degree in Computer Science and Engineering, specialized in Data Science, recognized globally by top employers and academic institutions.



Program Highlights

The B.Tech program in Data Science at Vision Institute of Technology prepares students to excel in the dynamic field. This innovative program equips graduates with in-demand skills, making them highly sought-after by industries. The program's interdisciplinary approach integrates computer science, mathematics, and statistics with practical applications of data science, providing students with a strong foundation. Access to cutting-edge technologies and software tools fosters hands-on experience and project work.

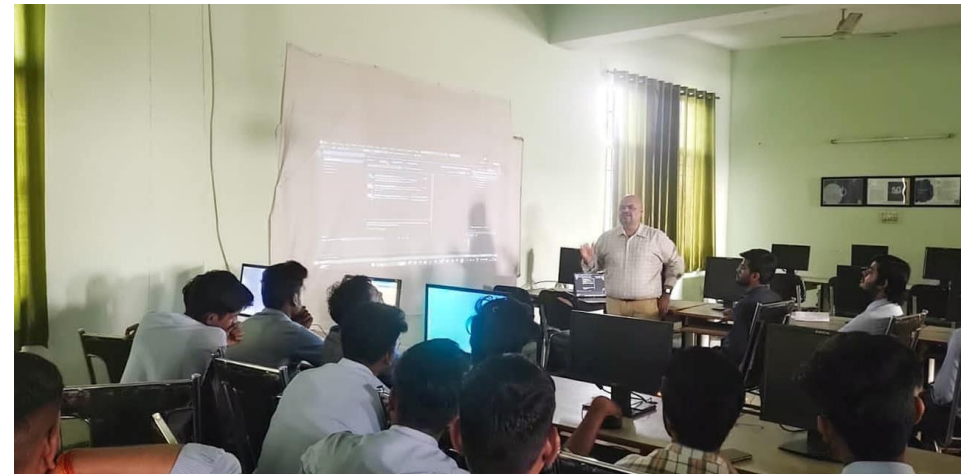
Recognized by prestigious organizations like AICTE and Dr. A.P.J. Abdul Kalam Technical University, the program ensures graduates meet the highest academic and professional standards in the field of Data Science.



What is B.Tech Data Science about?

The B.Tech program in Data Science at Vision Institute of Technology offers a comprehensive four-year undergraduate curriculum that equips students with the skills and knowledge needed to excel in the field. Through practical training and theoretical understanding, students learn to extract, analyze, and interpret data, design intelligent algorithms, and implement data-driven solutions. The program emphasizes computer science, mathematics, and statistics, providing a solid foundation for developing data science algorithms.

Graduates are well-prepared for diverse career opportunities in industries revolutionized by data science, such as healthcare, finance, and technology.





Why study B.Tech Data Science at VIT?

Pursuing a B.Tech in Data Science at Vision Institute of Technology provides students with a future-oriented education that encompasses cutting-edge technologies. The program delves into areas such as AI, cloud computing, AR & VR, blockchain, and Data Science, equipping students with the necessary skills for the digital era. Students also have the opportunity to earn certifications in [Azure](#), [Power Platform](#), and State of App, which are widely recognized in the industry.

With a well-designed curriculum, experienced faculty, strong industry connections, hands-on experience, and state-of-the-art facilities, B.Tech Data Science students at VIT gain a competitive edge in the ever-evolving IT industry.

Further details about B.Tech Data Science Program

- **Eligibility**

Eligibility is as per the AICTE & university guidelines.

- **Curriculum**

The B.Tech program in Data Science at Vision Institute of Technology offers a well-structured curriculum, aligned with Dr. A.P.J. Abdul Kalam Technical University, Lucknow. This program adheres to industry standards and encompasses essential courses such as Data Structures, Algorithms, and Artificial Intelligence. Students have the flexibility to select elective courses in specialized areas like Natural Language Processing and Robotics, allowing them to develop expertise in their chosen domain. By providing a comprehensive education in computer science, mathematics, and statistics, the program equips students with the necessary skills for various career opportunities in the tech industry and lays a solid foundation for further academic pursuits.



Job Prospects

According to the World Economic Forum's Future of Jobs Report 2023, emerging roles in the field of data science, such as data analysts, data scientists, and digital transformation specialists, are in high demand.

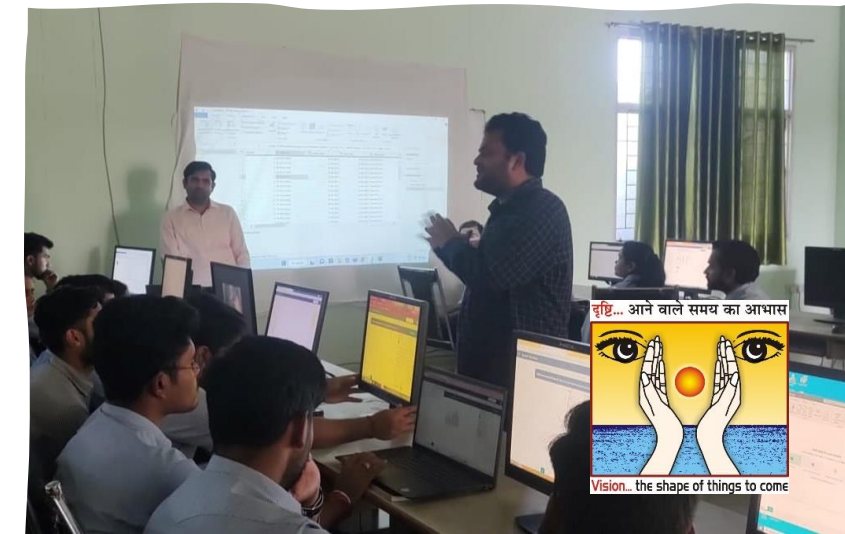
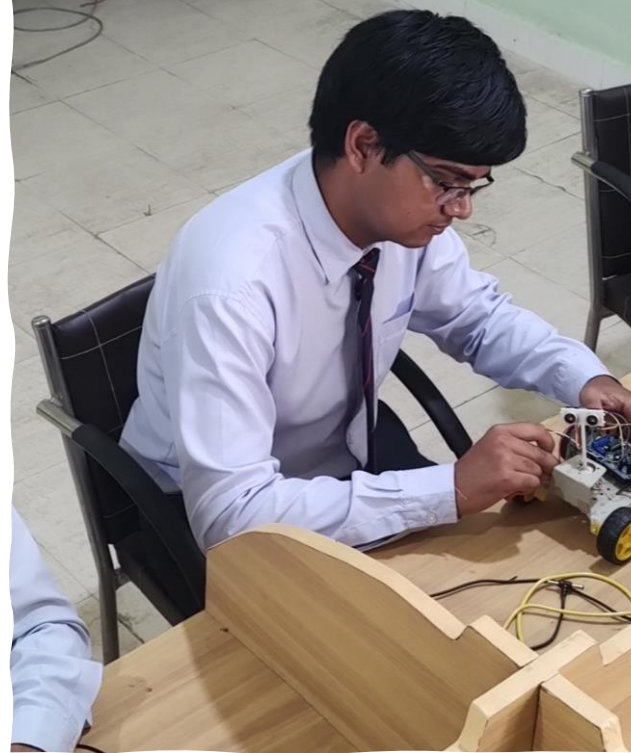
The B.Tech program in Data Science offered by Vision Institute of Technology opens up a wide range of career opportunities in industries such as healthcare, finance, e-commerce, and technology. Graduates can pursue roles such as Data Scientists, Data Analysts, and Data Engineers. The program equips students with the necessary skills and knowledge to excel in this growing field and make a significant impact in the industry of data science.



Research Opportunities

The B.Tech program in Data Science at Vision Institute of Technology offers students extensive research opportunities in various areas of the field. Through coursework and independent projects, students can engage in cutting-edge research with the guidance of faculty members. Research areas include data mining, predictive analytics, machine learning, and more.

This hands-on experience enhances students' skills and makes them desirable to employers. It also fosters critical thinking and problem-solving abilities. Research experience provides an advantage in the competitive job market and lays a strong foundation for further academic pursuits in the field of Data Science.





What is Artificial Intelligence & Machine Learning?

Artificial Intelligence (AI) is a computer science field that creates machines capable of performing tasks that normally require human intelligence. AI systems use algorithms, statistical models, and machine learning techniques to learn from data and improve their performance over time. AI has various applications and has the potential to transform the way we live and work.

Machine learning is a subset of artificial intelligence that focuses on developing algorithms and models that enable computers to learn from data and make predictions or take actions without being explicitly programmed. It involves training and improving systems through data analysis, allowing them to adapt and improve their performance over time.

Check [Exploring Artificial Intelligence & Machine Learning, Special Resource Material @ VIT](#)



Certification Programs

Vision Group of Institutions conducts a variety of certification programs, including the highly sought-after Microsoft Azure Certification Series (ACS), State of App; which covered techs like API, Serverless, Containers; and Power Platforms: Low Code App Development.

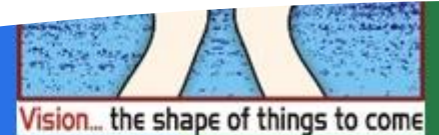
These programs provide our students with valuable exposure and practical skills in cutting-edge technologies, equipping them for success in the dynamic professional landscape.

Few programs conducted in the Academic session 2022-23 were:

- [Microsoft Azure Certification Series \(ACS\)](#)
- [State of App- from Monolithic to Microservices](#)
- [Power Platforms: Low Code App Development](#)

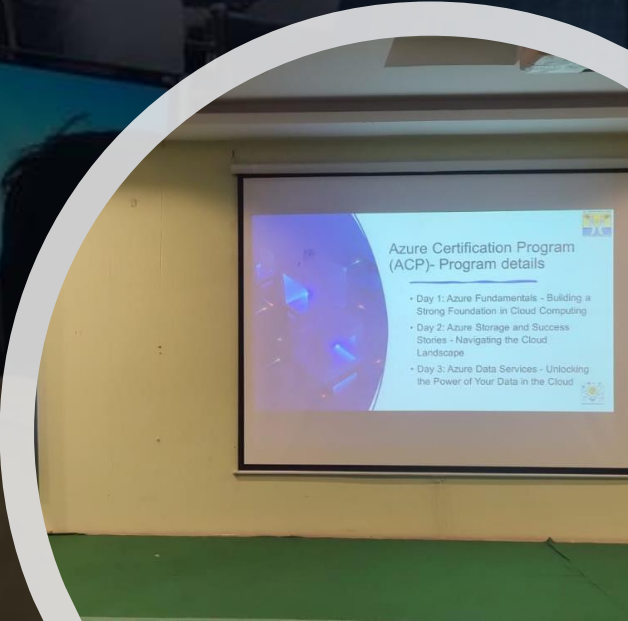
Azure Certification Program

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Vision Group of Institutions





Few glimpses from our Certification Programs





Azure Certification Program (ACP) – Program details

- Day 1: Azure Fundamentals - Building a Strong Foundation in Cloud Computing
- Day 2: Azure Storage and Success Stories - Navigating the Cloud Landscape
- Day 3: Azure Data Services - Unlocking the Power of Your Data in the Cloud



Storage Services Navigating the Cloud Landscape

Cloud Success Stories

Introduction to Azure Storage

Hands-on lab session- Azure Storage Lab



Day 3: Azure Data Services Unlocking the Power of Your Data in the Cloud

- Introduction to Azure Data Services
- Azure SQL- First Look:
- Hands-on lab session- Azure Storage Lab



Day 1: Azure Fundamentals - Building a Strong Foundation in Cloud Computing

- Introduction to cloud computing
- Overview of Microsoft Azure
- Azure Services and Solutions
- Hands-on lab session- Azure Portal: First Look; Resources & Popular Services



Azure Virtual Machines

Azure Virtual Machines is a fully customizable infrastructure-as-a-service (IaaS) solution that allows users to deploy and manage virtual machines in the cloud. It provides users with complete control over the virtual machines and the operating systems they run.



Tech covered under Azure Certification Program

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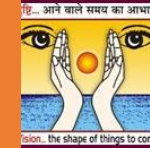


Serverless Event-driven Cloud Functions

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Containers- the
future of App
deployment



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Institutions



Vision Group of Institutions
presents

Application
Programming
Interface
(API)



Tech covered under
'State of App'
Certification Program

Learning Outcomes

Power Platform Developer Certification

Develop	Develop solutions, Power Apps, Power Automate, Power Virtual Agents, Power BI, and Power Pages.
Understand	Understand the user interface and navigation of the Power Platform.
Create	Create Flows, build Power Apps, and create Power Pages.
Apply	Apply best practices for security, scalability, and performance.
Integrate	Integrate AI capabilities and automate processes.
Merge	Merge data from different sources into a single view.
Visualize	Visualize data using Power BI reports and dashboards.
Solve	Solve real-world business problems using the Power Platform.

Introduction to low-code development, Power Platform suite, Your 1st flow using Power Automate

Microsoft Power Platform

The low code platform that spans Microsoft 365, Azure, Dynamics 365, and standalone apps.

Power BI Business analytics | Power Apps App development | Power Automate Process automation | Power Virtual Agents Intelligent virtual agents | Power Pages Landing pages

Day 1: Power Platform Developer Certification

Let's Make Some Connections

Power BI; data-driven future

OpenAI & Power Platform

Zero to Hero! Develop Apps

Vision Group of Institutions | Power Platform Developer Certification

Hands on Labs

Power Platform Developer Certification

- The lab work in the Power Platform Developer Certification program reinforces concepts covered in each session.
- Participants will engage in hands-on activities throughout the program to gain practical experience using the Microsoft Power Platform.
- Participants will learn to create Flows using Power Automate, customize Canvas Apps, build Power BI reports and dashboards, and more.
- The lab work is designed to equip participants with the necessary skills to develop solutions using the Power Platform that can solve real-world business problems.

Low Code Developments, Reports and Dashboards

Power Platform Developer Certification

Power BI; data-driven future

OpenAI & Power Platform

Zero to Hero! Develop Apps

Vision Group of Institutions | Power Platform Developer Certification

Low Code Developer Stories

Power BI- Data Sources, Visualization and Interaction
Data modeling in Power BI

Day 3: Power Platform Developer Certification

Microsoft Power Platform

Power Automate Process automation | Power Virtual Agents Intelligent virtual agents | Power Apps Application development | Power BI Business analytics

Power Platform Developer Certification

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Technologies covered under Power Platform Certification

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वृष्टि... आने वाले समय का आभास
Vision... the shape of things to come



Advantages @ VIT

 **Academics**

 **Certification Programs**

 **Center of Excellence(CoE)**

 **Student Development Activities**

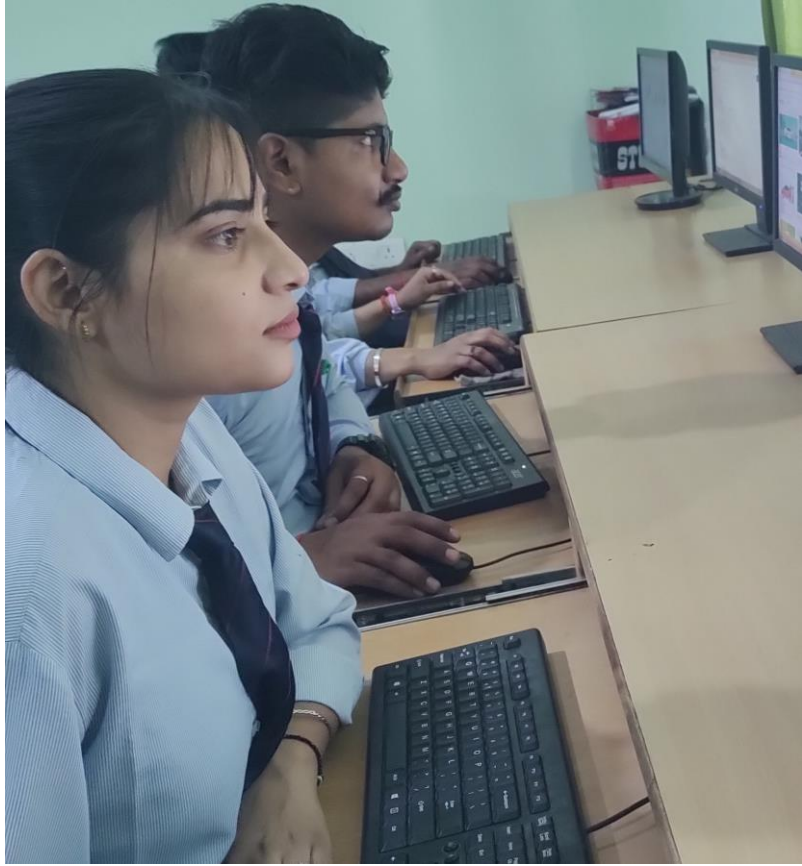
 **Placement & Pre-Placement Activities**

Advantages @ Vision Group of Institutions

Vision Group of Institutions offers number of unique advantages including academics, student development programs, placement & results, and facilities. From Advance Labs, Centre of Excellences, to numerous Student Activities; let college leave a lifelong cherished memory.

 Industry Visits & Surveys	 World Class Facilities	 Academic Records & Merit Holders	 750+ Placements in Reputed Companies Training & Placement Cell	 Hobby Clubs	 Projects & Lab Work	
 Hostel Life @ VIT	 Guest Lectures & Workshops	 Innovation & Research Centre	 Entrepreneurship & Start-up Cell	 Alumni Success Stories	 Academics	 Centre for Character and Leadership Development (CCLD)

ALIGARH CAMPUS: SHAHPUR MADRAK, ON ALIGARH-AGRA HIGHWAY, APPROX 10KM FROM SASNI GATE, ALIGARH



Life @ Vision

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Vision Group of Institutions



Engineering Programs at VIT

Vision Institute of Technology offers B.Tech. Degree Programs in following Core Branches:

- Agriculture Engineering
- Civil Engineering
- Electrical & Electronics Engineering
- Electronics & Communication Engineering &
- Mechanical Engineering

VIT offers B.Tech Program in the following Emerging Areas, which fall under Computer Science & Engineering:

- B.Tech Computer Science & Engineering
- B.Tech (Artificial Intelligence & Machine Learning)
- B.Tech (Data Science)

B.Tech Programs at VIT

B.Tech in CS & Emerging Tech

- B.Tech Computer Science & Engineering
- B.Tech (Artificial Intelligence & Machine Learning)
- B.Tech (Data Science)

B.Tech in other Core Branches

- Agriculture Engineering,
- Civil Engineering,
- Electrical & Electronics Engineering,
- Electronics & Communication Engineering, &
- Mechanical Engineering



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