

Department of Computer Science and Engineering



National Institute of Technology Delhi



VISION & MISSION



VISION

To communicate quality Computer Science Education for producing globally identifiable technocrats and entrepreneurs upholding sound ethics, profound knowledge, and innovative ideas to meet industrial and societal expectations.

1. To impart value-based technical knowledge and skill relevant to Computer Science and Engineering through effective pedagogies and hands-on experience on the latest tools and technologies to maximize employability.
2. To strengthen multifaceted competence, nurture creativity and innovation and create entrepreneurial environment for an ever-changing technological scenario requiring communally cognizant solutions.
3. To create an appetite for research and higher education in contemporary and emerging areas of Computer Science.
4. To inculcate the moral, ethical, and social ideals essential for prosperous nation-building.



MISSION



Artificial Intelligence & Data Science Lab (GF Lab No. 9)

Lab Coordinator :Prof. (Dr.) Geeta Sikka

Lab Co-Coordinator :Dr. Gautam

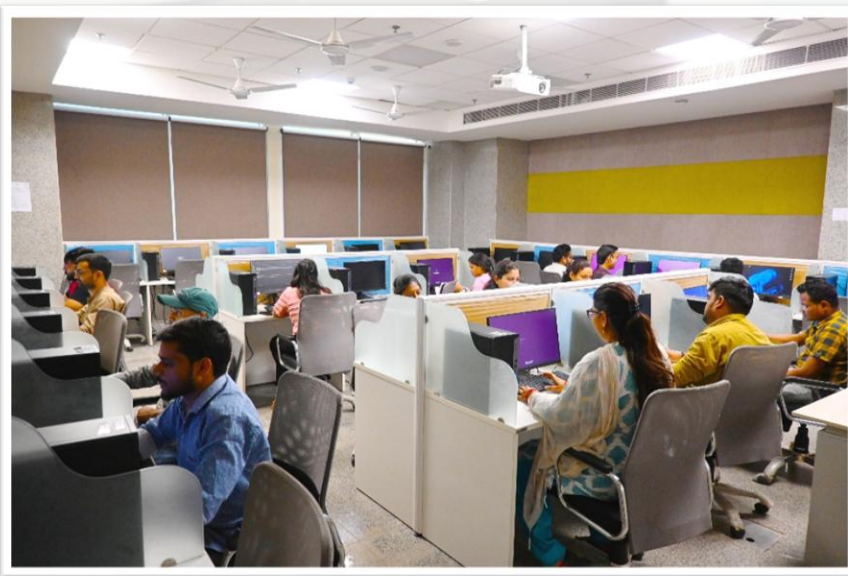
Technical Staff :Mr. Sanjeev Kumar

Lab Objectives:

- Explore the fundamental concepts of data science and shaping them into skilled data scientists and analysts
- Understand data analysis techniques for applications handling large data. Understand various machine learning algorithms used in data science process Visualize and present the inference using various tools.
- Learn to think through the ethics surrounding privacy, data sharing and algorithmic decision-making

Hardware Details:

- Lab Capacity : 31
- HP Desktop with i7 12th Gen,
 - 512GB NVMe SSD, 1 TB HDD
 - 16 GB RAM
 - Windows 11, Ubuntu 20.04 LTS



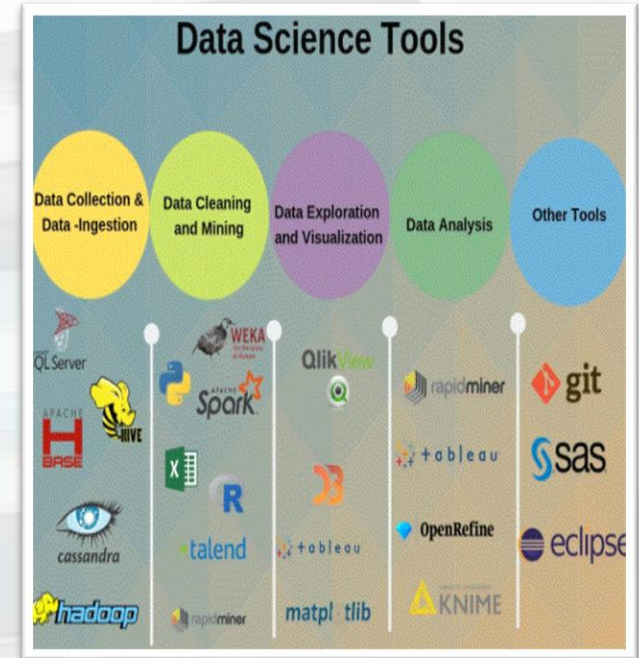


Artificial Intelligence & Data Science Lab

(GF Lab No. 9)

Following the FOSS (Free and Open Source Software) Ideology:

- **Collaborative Learning:** FOSS encourages collaboration and knowledge sharing among students, it cultivates a culture of collaboration and peer learning within computer labs.
- **Empowerment and Skill Development:** Working with FOSS empowers students by providing hands-on experience with real-world software development practices. This not only enhances technical skills but also fosters critical thinking, problem-solving, and teamwork abilities—valuable assets in today's technology-driven society.
- **Ethical and Social Responsibility:** FOSS embodies principles of openness, transparency, and community collaboration, aligning with ethical and social responsibilities. By promoting these values, computer labs can instill a sense of ethical awareness and social responsibility in students, preparing them to be responsible digital citizens.





Artificial Intelligence & Data Science Lab

(GF Lab No. 9)

Most Common Applications of Data Science

Business Analytics

- Customer Analytics
- Market Segmentation
- Churn Prediction

Social Media

- User Behavior Analysis
- Sentiment Analysis
- Content Personalization

E-commerce

- Recommendation Systems
- Supply Chain Optimization
- Price Optimization

Entertainment

- Content Recommendation
- Box Office Prediction
- Gaming

Healthcare

- Disease Prediction
- Drug Discovery
- Healthcare Management

Finance

- Risk Assessment
- Algorithmic Trading
- Financial Forecasting

Manufacturing

- Predictive Maintenance
- Quality Control
- Supply Chain Management

Transportation

- Route Optimization
- Demand Forecasting
- Fleet Management



राष्ट्रीय प्रौद्योगिकी संस्थान दिल्ली
NATIONAL INSTITUTE OF TECHNOLOGY DELHI

धन्यवाद | THANK YOU

कंप्यूटर विज्ञान एवं अभियांत्रिकी विभाग

Department of Computer Science and Engineering