Department of Computer Science and Engineering



National Institute of Technology Delhi



VISION & MISSION



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.





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

Lab Coordinator : Prof. (Dr.) Geeta Sikka

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

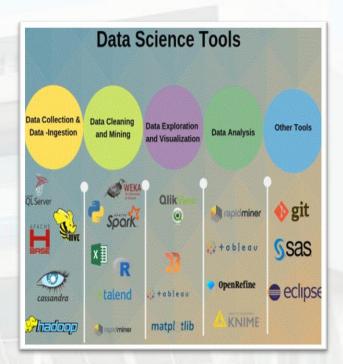




Artificial Intelligence & Data Science Lab (GF Lab No. 9)

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

- Box Office Prediction
- Gaming







- Drug Discovery
- Healthcare Management

Finance

- · Risk Assessment
- · Algorithmic Trading
- · Financial Forecasting

Manufacturing

- Predictive Maintenance
- · Quality Control
- Supply Chain Management

Entertainment

- Content Recommendation



Transportation

- · Route Optimization
- · Demand Forecasting
- Fleet Management





राष्ट्रीय प्रौद्योगिकी संस्थान दिल्ली NATIONAL INSTITUTE OF TECHNOLOGY DELHI

धन्यवाद | THANK YOU

कंप्यूटर विज्ञानं एवं अभियांत्रिकी विभाग

Department of Computer Science and Engineering