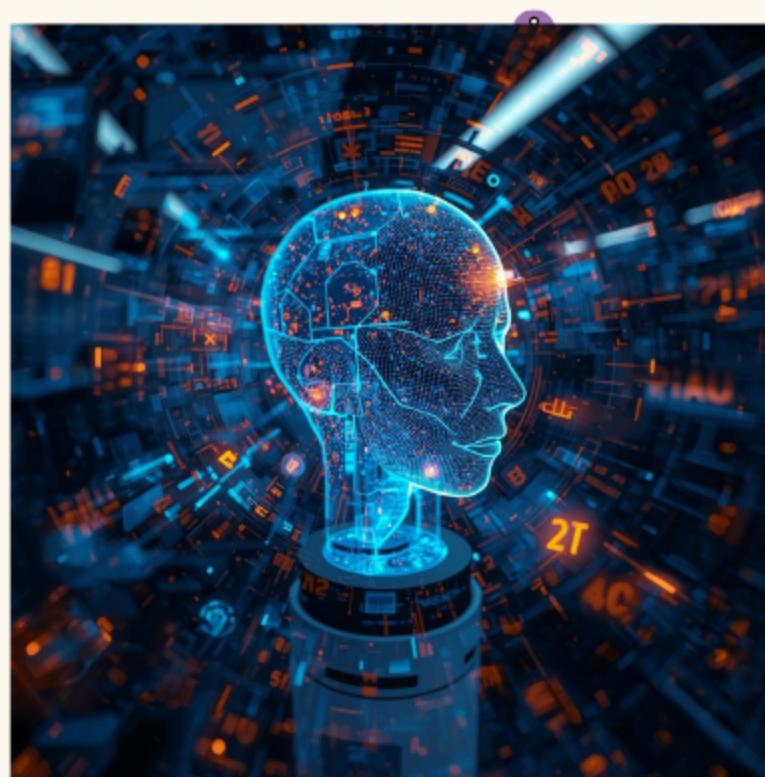




The IndiaAI Laboratory is designed to provide foundational and practical exposure to AI, ML, and Data-Driven Technologies.

1 SOFTWARE

IndiaAI Lab leverages advanced AI/ML software such as Python with Tensor-Flow, PyTorch, and Scikit-learn for model development. Jupyter Notebook and Google Colab are used for experimentation, while cloud platforms enable scalable training and deployment of AI solutions.



4 NETWORKING SWITCH

The laboratory networking infrastructure includes a D-Link DGS-1210-52 Port Gigabit Smart Managed Switch with 48x Gigabit Ethernet (10/100/1000 Mbps) RJ-45 ports and 4x SFP uplink slots. It supports 802.1Q VLAN (up to 4096 VLAN IDs), L2/L3/L4 QoS with traffic prioritization, 802.1X authentication, MAC-based port security, and delivers 100 Gbps switching capacity with a 74.4 Mpps forwarding rate in a rack-mountable 1U design.



2 WORKSTATIONS

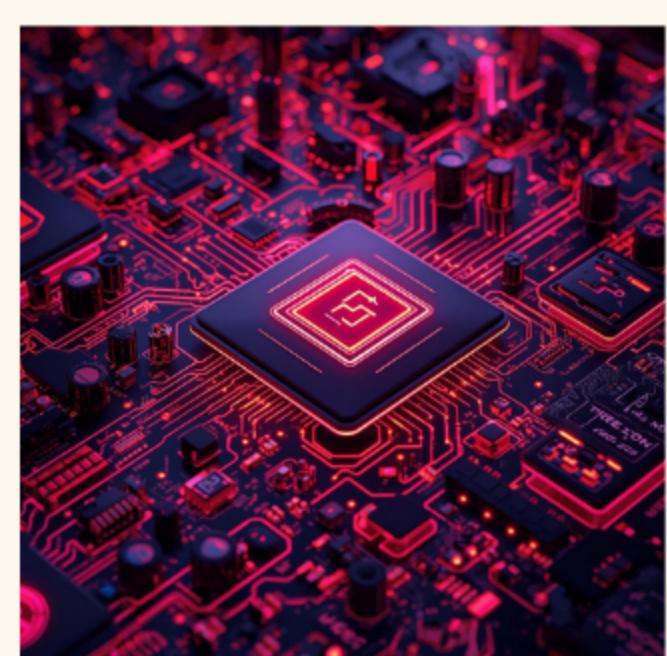
The laboratory is equipped with 2 HP Z2 Tower G9 workstations, each powered by an Intel® Core™ i7-14700K processor (3.40 GHz), 32 GB RAM, and a 12 GB dedicated graphics card. Each workstation features 2 TB internal storage and runs a 64-bit Windows operating system, supporting high-performance computational and professional laboratory workloads.

5 AI COURSES

IndiaAI Lab offers courses on Data Curation using Python, focusing on data cleaning, preprocessing, and management for AI/ML applications. Specialized training in Data Annotation equips learners with skills for labeling text, image, and video data to build high-quality datasets for model training.

3 HARDWARE

The laboratory hardware includes 30 computer systems configured with AMD Ryzen™ 5 8500G processors (up to 3.55 GHz), 16 GB RAM, and 64-bit Windows operating systems, along with a smart TV, projector, amplifier, and speakers, providing a well-suited environment for lectures, practical sessions, and project-based learning.



6 POWER BACKUP

The AI Lab is equipped with power backup systems that provide uninterrupted power supply for up to 1 hour. This ensures safe operation of servers, networking equipment, and ongoing AI/ML tasks during power outages.