KIET DEEMED TO BE UNIVERSITY DELHI-NCR, INDIA (Under Section 3 of the UGC Act, 1956) | A+ NAAC GRADE | NIRF NATIONAL INSTITUTIONAL RANKING FRAMEWORK Engineering Rank Band (151-200) Pharmacy Rank - 71 Innovation Rank Band (11-50) | NBA NATIONAL BOARD OF ACCREDITATION All eligible courses are NBA Accredited | DIAMOND QS I-GAUGE INDIAN COLLEGE RATINGS

CENTER FOR SUPERCOMPUTING

Department of CSE(AI) & CSE(AI&ML)

Vision: To emerge as a Center of Excellence using the **NVIDIA DGX A100** to create production-ready ML engineers through hands-on HPC, AI innovation, and real-world problem solving.

Mission Statements:

- Provide hands-on exposure to the **NVIDIA DGX A100** for AI and HPC
- To foster industry-academia collaboration for experiential learning and innovation
- To support student and faculty research, patents, and funded projects using high-performance computing resources

Objectives:

- Enable outcome-based learning through hands-on AI/ML and HPC projects
- Enhance student employability through industry internships and real-world problem solving
- Support faculty research, publications, and patent development
- Contribute to institutional research, innovation, and quality benchmarks

Infrastructure and Resource Utilization

SYSTEM SPECIFICATIONS	
GPUs	8x NVIDIA A100 Tensor Core GPUs
GPU Memory	320 GB total
Performance	5 petaFLOPS AI 10 petaOPS INT8
NVIDIA NVSwitches	6
System Power Usage	6.5kW max
CPU	Dual AMD Rome 7742, 128 cores total, 2.25 GHz (base), 3.4 GHz (max boost)
System Memory	1TB
Networking	8x Single-Port Mellanox ConnectX-6 VPI 200Gb/s HDR InfiniBand 1x Dual-Port Mellanox ConnectX-6 VPI 10/25/50/100/200Gb/s Ethernet
Storage	OS: 2x 1.92TB M.2 NVME drives Internal Storage: 15TB (4x 3.84TB) U.2 NVME drives
Software	Ubuntu Linux OS
System Weight	271 lbs (123 kgs)
Packaged System Weight	315 lbs (143kgs)
System Dimensions	Height: 10.4 in (264.0 mm) Width: 19.0 in (482.3 mm) MAX Length: 35.3 in (897.1 mm) MAX
Operating Temperature Range	5°C to 30°C (41°F to 86°F)

Key Outcomes & Achievements

- Advanced AI/ML, DL, and GenAI research enabled through HPC
- Multiple MoUs signed with leading AI and analytics companies
- Paid and unpaid internship opportunities for students
- Support for patents, funded projects, and applied research
- Contribution to institutional research output, innovation, and accreditation metrics

Industry Projects & Industry Interaction for Students

Industry Partner	Project	Outcome
Epsilon Pvt. Ltd.	Resume Recommender & Student Chatbot	Industry-ready AI solutions
Opinium.ai	NLP-based Knowledge Graph	Advanced analytics & insights
MetaUp Space	AI/ML & HPC Projects	Hands-on industry exposure
ADASLABS	-	GPU Utilization
AI Shala	AI based faculty grader Gradeflow	An AI-based faculty grading system enabling faster, fairer, and consistent evaluations with actionable insights.
GemTech Paras	-	GPU Utilization

Best Student Projects

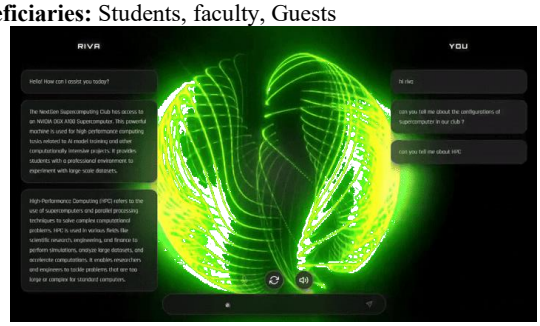
Project Title	Outcome / Skill Gained
Omnitrix	App for Athletes for their correct physical training without human intervention
Neptune Nexus	Ocean data analysis using chatbot
Rockfall prediction	Message alert system for rock fall prediction in hill areas.
CodeGamma	Pashuseva is an AI- and ML-powered web and app platform for managing and monitoring Maximal Residue Limits (MRL) and Antimicrobial Usage (AMU) to support rural development.
TechYodhaas	Digitize and Showcase Monasteries of Sikkim for Tourism and Cultural Preservation
HerbCollectors	Develop a blockchain-based system for botanical traceability of Ayurvedic herbs, including geo-tagging from the point of collection (farmers/wild collectors) to the final Ayurvedic formulation label.
JanMitr	Crowdsourced Civic lssue Reporting and Resolution System
Nivaran	Crowdsourced Civic Issue Reporting and Resolution System

Training, Skill Development & Capacity Building

Title	Duration	Target Audience	Industry Involvement
FDP (System Admin)	18/03/2024	Faculty/ITSS	Global Info ventures
FDP	19–23 March 2024	Faculty Members	Global Info ventures
FDP for Higher Management	30 June 2024	Higher Management	Global Infoventures
FDP on GPU Computing	20-24 August 2024	Faculty Members	NVIDIA Certified Faculty KIET
Workshop on NVIDIA GPU	28 Sep 2024	Students / Faculty	NVIDIA Certified Faculty KIET
FDP on Computer Vision & Gen AI using NVIDIA DGX A100	10-14 Feb 2025	Faculty Members	NVIDIA DGX A100 Platform
Training Program on Generative AI	15-18 April 2025	Students	Industry-oriented GenAI Tools & Use-cases
Training Program on Generative AI	13-16 May 2025	Students	Industry-oriented GenAI Tools & Use-cases
Workshop on NVIDIA DGX	23 Aug 2025	Faculty	NVIDIA DGX A100 Platform
Two days Faculty Bootcamp on AI and Generative Technologies	08-09 January 2025	Faculty Members	Industry-oriented GenAI Tools & Use-cases

Product Developed/ Innovation / Prototypes

Project Developed: **RIVA: Virtual Assistant**
Stage: Prototype / Deployment
Beneficiaries: Students, faculty, Guests



Research Outcomes:

- Faculty Patents - 4
- Faculty SCI Publication- 9
- Faculty Scopus Publication-7
- Faculty Scopus Conference/Book chapter- 22
- Faculty Communicated: SCI-18, Scopus-24, Scopus conference and book chapter- 60
- Student SCI Publication- 2
- Student Conference - Published 12
- Student Conference - Accepted: 32, Communicated: 60

Collaborations, Outreach & Best Practices

- Active MoUs with AI and analytics companies.
- Internships, bootcamps for first year students, and hands-on projects.
- Best practice: Early exposure to supercomputing at UG level.
- Subjects (Intro to AI, MLE, DL, CV, MLT) are aligned with Supercomputer.

Future Plans

- Establish a Student Research Compute Grant Program on DGX A100
- Build an AI benchmarking & optimization hub for real-world workloads