J.B. INSTITUTE OF ENGINEERING & TECHNOLOGY
(UGC AUTONOMOUS)
Accredited by NBA & NAAC
Bhaskar Nagar, Moinabad Mandal, R.R. District, Hyderabad -500075

REPORT ON

MIC-driven Activity "Open-Source AI Frameworks and Datasets for Global Collaborative Research & Innovation"

(Topic: Open-Source AI Frameworks and Datasets for Global Collaborative Research & Innovation)

Technical event Organized By
Department of Computer Science Engineering and Data Science

Date: 28th January 2026

Venue: 101 Lab, AIDS &CSD Block JB Institute of Engineering & Technology

Mode: Offline (J.B. Institute of Engineering & Technology, Hyderabad)

Faculty Co-ordinators: Mr. Satish Kumar & Mr. Chandrashekhar

TABLE OF CONTENTS

1. INTRODUCTION

The seminar on **"Open-Source AI Frameworks and Datasets for Global Collaborative Research & Innovation"** highlights the growing importance of open-source ecosystems in modern Artificial Intelligence research. As AI applications expand across healthcare, climate science, education, robotics, and smart infrastructure, research challenges have become highly data-intensive, compute-heavy, and complex. These challenges can no longer be effectively addressed by isolated institutions or closed research models.

Open-source AI frameworks and publicly available datasets enable researchers worldwide to collaboratively build, validate, and improve AI models. By sharing code, data, and benchmarks, open-source AI promotes transparency, reproducibility, cost efficiency, and scientific trust. This approach accelerates innovation while ensuring ethical and reliable AI development.

The seminar emphasizes the transition of AI research from closed laboratory environments to globally collaborative ecosystems. It provides insights into how open-source tools and datasets support large-scale research, encourage cross-border collaboration, and contribute to impactful, trustworthy, and sustainable AI solutions for global challenges.

2. OBJECTIVES

Objectives:

- To understand what open-source AI frameworks and datasets are.
- To learn why open-source AI is important for modern research and innovation.
- To understand how global collaboration helps in improving AI models.
- To know the importance of sharing data and code for reliable AI research.
- To motivate students to use and contribute to open-source AI projects.

Key Takeaways:

- Open-source AI helps researchers work together across countries.
- Sharing datasets and code makes AI research more transparent and trustworthy.
- Open-source frameworks reduce cost and speed up innovation.
- Global collaboration improves the quality and impact of AI solutions.
- Students can build better projects by using existing open-source tools and datasets.
- Open-source AI supports ethical, reproducible, and sustainable research.

Resource Person: Dr P SrinivasaRao, Professor in CSE & COE, JBIET

3. EVENT REPORT

Report on MIC-driven Activity "Open-Source AI Frameworks and Datasets for Global Collaborative Research & Innovation"

1. Event Overview On January 29, 2026, the Department of CSE (DS) organized a seminar on "***Open-Source AI Frameworks and Datasets for Global Collaborative Research & Innovation***".

- • **The Need for Open-Source AI in Modern Research:**
  The session began by explaining that modern AI problems are highly data-intensive, compute-heavy, and complex. Training large AI models requires massive datasets, powerful computing resources, and continuous experimentation, which cannot be efficiently handled by a single institution or closed research system. This challenge highlights the necessity of open-source AI for scalable and cost-effective innovation.
- • **Understanding Open-Source AI Frameworks:**
  Dr. P. Srinivasa Rao explained open-source AI frameworks as shared software platforms that enable researchers to build, train, test, and improve AI models collaboratively. Popular frameworks such as TensorFlow, PyTorch, and Scikit-learn were discussed, emphasizing their role in ensuring reproducibility, transparency, and global knowledge sharing.
- • **Role of Open Datasets in AI Research:**
  The seminar highlighted datasets as the foundation of AI systems. Open datasets, such as satellite imagery, medical images, and multilingual text corpora, allow multiple researchers to derive diverse research outcomes from the same data, enabling benchmarking, fairness evaluation, and generalization across regions.
- • **Global Collaborative Research Models (Case Studies):**
  Several real-world case studies were presented from domains including agriculture, healthcare, cybersecurity, smart cities, education, energy systems, and robotics. These examples demonstrated how institutions across different countries collaboratively develop, improve, and validate AI models using shared frameworks and datasets.
- • **Reproducibility, Trust, and Ethical AI Development:**
  The speaker emphasized that reproducibility is essential for trustworthy AI research. By sharing code, data, and experimental configurations, open-source AI ensures scientific validation, ethical compliance, and wider acceptance by academia, industry, and government agencies.

4. Challenges Addressed:

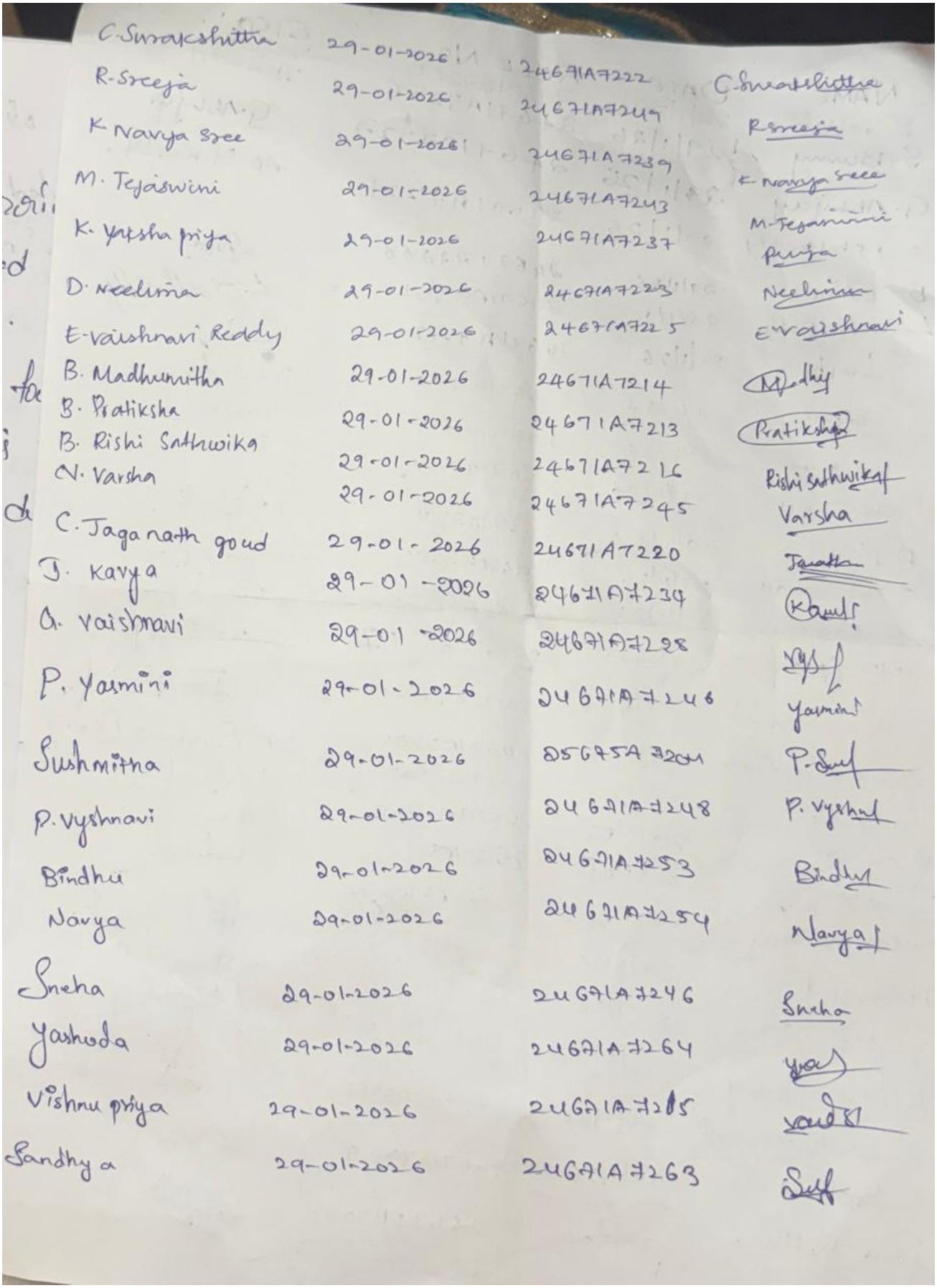
The speaker openly discussed key challenges in open-source AI and global collaborative research, such as **information asymmetry**, where researchers have unequal access to datasets, computational resources, and technical expertise, and the **digital divide**, which limits participation from institutions with inadequate infrastructure. To overcome these challenges, a **hybrid collaborative approach** was proposed, combining open-source AI frameworks and shared datasets with cloud-based platforms, federated learning, and capacity-building initiatives to ensure inclusive, ethical, and globally accessible AI research.

Faculty Coordinators: V.Eswari

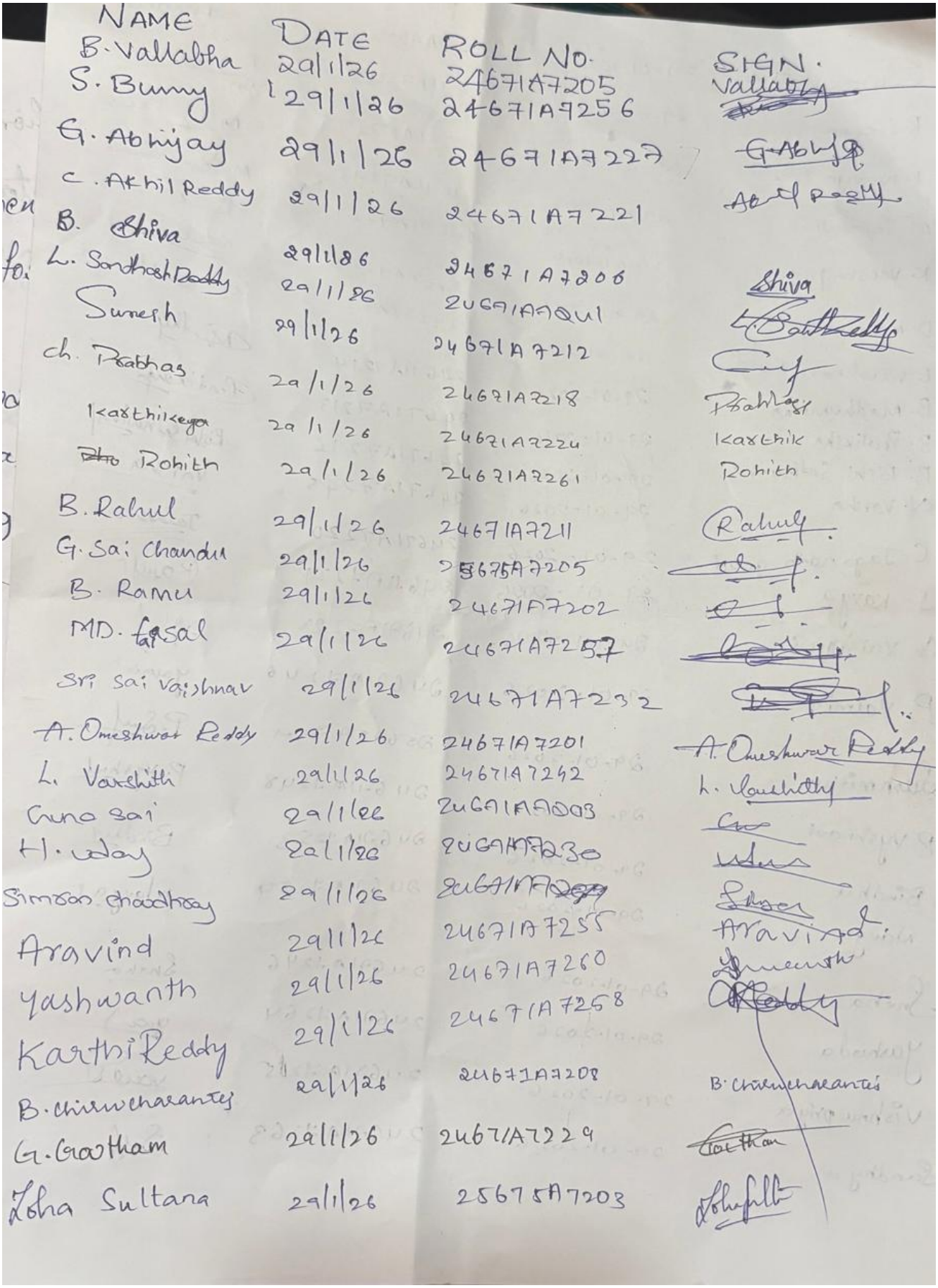
SPEAKER PROFILE

Dr. P. Srinivasa Rao
Professor, Department of Computer Science & Engineering (CSE) and Centre ofExcellence(COE)
J.B. Institute of Engineering and Technology (JBIET), Telangana, India

5. PARTICIPANTS



C. Suraksshitha	29-01-2026	246911A7222	C. Suraksshitha
R. Sreeja	29-01-2026	246711A7249	R. Sreeja
K. Navya Sree	29-01-2026	246711A7239	K. Navya Sree
M. Tejaswini	29-01-2026	246711A7243	M. Tejaswini
K. Yatsha priya	29-01-2026	246711A7237	Priya
D. Neelima	29-01-2026	246711A7223	Neelima
E. vaishnavi Reddy	29-01-2026	246711A7225	E. Vaishnavi
B. Madhumitha	29-01-2026	246711A7214	Madhu
B. Pratiksha	29-01-2026	246711A7213	Pratiksha
B. Rishi Sathwika	29-01-2026	246711A7216	Rishi Sathwika
V. Varsha	29-01-2026	246711A7245	Varsha
C. Jaganath goud	29-01-2026	246711A7220	Jaganath
J. Kavya	29-01-2026	246711A7234	Kavya
G. Vaishnavi	29-01-2026	246711A7228	Vaishnavi
P. Yasmini	29-01-2026	246711A7246	Yasmini
Sushmitha	29-01-2026	246711A7241	P. Sushmitha
P. Vyshnavi	29-01-2026	246711A7248	P. Vyshnavi
Bindhu	29-01-2026	246711A7253	Bindhu
Navya	29-01-2026	246711A7254	Navya
Sneha	29-01-2026	246711A7246	Sneha
Yashoda	29-01-2026	246711A7264	Yashoda
Vishnu priya	29-01-2026	246711A7265	Vishnu priya
Sandhya	29-01-2026	246711A7263	Sandhya



NAME	DATE	ROLL NO.	SIGN.
B. Vallabha	29/1/26	24671A7205	Vallabha
S. Bunny	29/1/26	24671A7256	
G. Abhijay	29/1/26	24671A7227	G. Abhijay
C. Akhil Reddy	29/1/26	24671A7221	
B. Shiva	29/1/26	24671A7206	Shiva
L. Santhosh Reddy	29/1/26	24671A7211	
Suresh	29/1/26	24671A7212	
Ch. Prabhas	29/1/26	24671A7218	Prabhas
Karthikeya	29/1/26	24671A7224	Karthik
Rohith	29/1/26	24671A7261	Rohith
B. Rahul	29/1/26	24671A7211	Rahul
G. Sai Chandu	29/1/26	25675A7205	
B. Ramu	29/1/26	24671A7202	
MD. Faisal	29/1/26	24671A7257	
Sri Sai Vaishnav	29/1/26	24671A7232	
A. Omeshwar Reddy	29/1/26	24671A7201	A. Omeshwar Reddy
L. Varshith	29/1/26	24671A7242	L. Varshith
Guna Sai	29/1/26	24671A7203	
H. Vijay	29/1/26	24671A7230	
Simson Chaudhary	29/1/26	24671A7255	
Aravind	29/1/26	24671A7260	Aravind
Yashwanth	29/1/26	24671A7258	
Karthi Reddy	29/1/26	24671A7208	
B. Chiranjeevi	29/1/26	24671A7229	B. Chiranjeevi
G. Gautham	29/1/26	25675A7203	
Zoha Sultana	29/1/26		

Fig: List of students participating in Battle Quiz 2025.

6. OUTCOMES & KEY HIGHLIGHTS

OUTCOMES & KEY HIGHLIGHTS

- Students gained awareness of open-source AI frameworks and datasets.
- Improved understanding of global collaborative research practices.
- Motivation to contribute to open-source AI projects and communities.

STUDENT FEEDBACK

• The seminar enhanced our understanding of open-source AI tools and their applications.
• Real-world examples of datasets made the session very informative.
• The lecture encouraged students to participate in global research communities.
• The session was clear, interactive, and highly motivating.

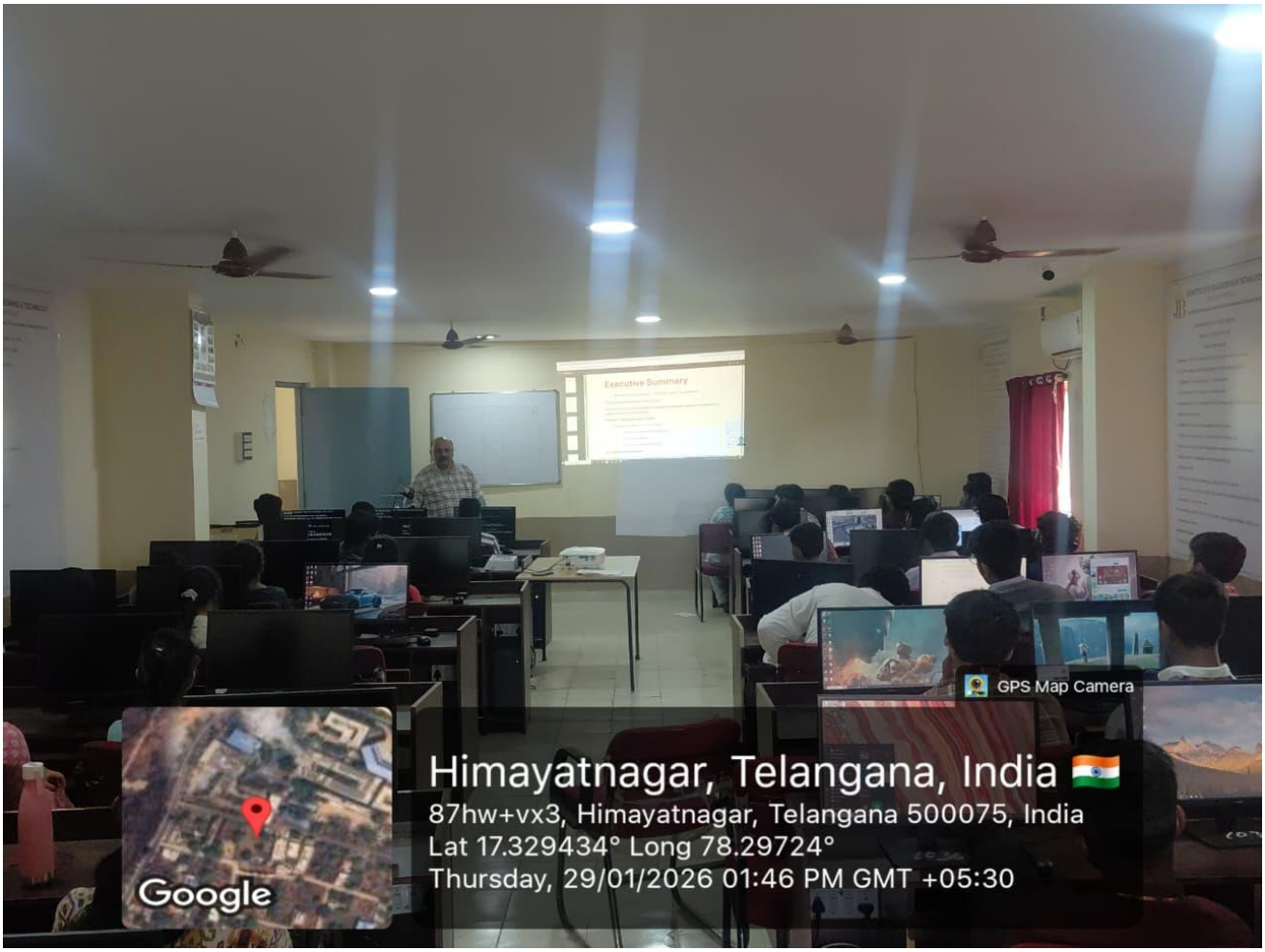
CONCLUSION

The seminar successfully emphasized the role of open-source AI frameworks and datasets in driving global collaborative research and innovation. The session inspired students to adopt open-source practices and actively engage in knowledge sharing for future academic and professional growth.

7. EVENT PHOTO GALLERY


GPS Map Camera
Himayatnagar, Telangana, India
87hw+vx3, Himayatnagar, Telangana 500075, India
Lat 17.329374° Long 78.297375°
Thursday, 29/01/2026 01:51 PM GMT +05:30
Google


GPS Map Camera
Himayatnagar, Telangana, India
87hw+vx3, Himayatnagar, Telangana 500075, India
Lat 17.329372° Long 78.297384°
Thursday, 29/01/2026 01:51 PM GMT +05:30
Google


Executive Summary
GPS Map Camera
Himayatnagar, Telangana, India 🇮🇳
87hw+vx3, Himayatnagar, Telangana 500075, India
Lat 17.329434° Long 78.29724°
Thursday, 29/01/2026 01:46 PM GMT +05:30
Google


GPS Map Camera
Himayatnagar, Telangana, India
87hw+vx3, Himayatnagar, Telangana 500075, India
Lat 17.329374° Long 78.297374°
Thursday, 29/01/2026 01:51 PM GMT +05:30
Google