AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY

VINAYAKA MISSSION'S RESEARCH FOUNDATION

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Summary Report:

Exclusive Interaction Session on Fireducks Python Library

Event Details:

Date: March 18, 2025

Venue: Mini Auditorium, Thiruvalluvar Block, AVIT Campus

Organizer: Department of Computer Science and Engineering, Aarupadai Veedu Institute of Technology (AVIT), Vinayaka Mission's Research Foundation

Collaboration Partner: NEC, Japan

Overview:

The Department of Computer Science and Engineering at AVIT organized an exclusive interaction session on the Fireducks Python library in collaboration with NEC, Japan. The event aimed to introduce students and professionals to advanced data processing technologies and industry-driven innovations in computing. The session attracted a diverse audience, including faculty members, researchers, and students. This initiative was part of AVIT's ongoing efforts to integrate real-world technological advancements into its curriculum and research activities.

Key Highlights:

- **Welcome Address**: Delivered by Dr. S. Balakrishnan, Professor & Head, Department of Computer Science and Engineering, who emphasized the significance of academic-industry collaborations in research and development. He also discussed AVIT's initiatives in fostering such collaborations for the benefit of students and faculty.
- **Presidential Address**: Delivered by Dr. Sangeetha, Vice-Principal (Academics), AVIT, highlighting the need for industry-driven innovations in academia. She elaborated on the importance of keeping pace with evolving technological trends to enhance student employability.

- **Special Address**: Dr. Pradeep Gnanaprakasam, Managing Director, Edulateral Foundation, Bengaluru, provided insights into the growing intersection of technology and academic research. He emphasized how academic institutions can actively contribute to innovation and industry advancements through collaborative projects.
- **Technical Session on Fireducks**: Dr. Kazuhisa Ishizaka, Principal Researcher, NEC, Japan, and Mr. Sourav Saha, Research Engineer, NEC, Japan, conducted an in-depth session on Fireducks, explaining its features, compatibility with Pandas API, and its role in accelerating computations for big data analysis. They demonstrated practical use cases, showing how Fireducks significantly enhances computational efficiency and performance in data processing tasks.
- **Interactive Q&A Session**: The session concluded with an engaging Q&A session, where participants had the opportunity to seek clarifications and gain deeper insights into Fireducks and its real-world applications. The discussion also covered potential areas for future research and implementation.
- **Vote of Thanks**: Delivered by Mr. S. Simonthomas, Assistant Professor, Department of Computer Science and Engineering, AVIT, and Intel-NEC Coordinator, expressing gratitude to the guests and participants. He acknowledged the efforts of AVIT and NEC in bringing this session to fruition and encouraged more such collaborations in the future.

Impact and Takeaways:

This session provided valuable insights into the Fireducks Python library and its applications in big data processing. Participants gained a deeper understanding of compiler-accelerated dataframe libraries and their role in enhancing computational efficiency. The event also highlighted the growing need for specialized data-processing tools in various industries, including finance, healthcare, and artificial intelligence. Additionally, the event served as a platform for networking and knowledge exchange between students, faculty, and industry professionals, fostering a deeper appreciation for research-driven software development.

The knowledge gained from the session is expected to encourage students to explore the field of data science further, especially in optimizing data processing tasks through advanced tools such as Fireducks. Faculty members also expressed their interest in incorporating this

knowledge into academic courses, thereby enriching the curriculum with hands-on exposure to state-of-the-art technologies.

Participants learned how Fireducks streamlines data operations while significantly reducing execution time, making it a preferred choice for handling large-scale datasets. This exposure to high-performance computing principles is especially beneficial for students planning to work on data-intensive research projects or enter fields that demand expertise in big data and machine learning**.**

Cultural Visit:

Following the event, the resource persons, accompanied by the HOD of CSE and other faculty members, visited Mahabalipuram, a UNESCO World Heritage site renowned for its rich cultural and historical significance. This visit provided an opportunity for international guests from NEC, Japan, to experience India's architectural and artistic heritage firsthand. Mahabalipuram, known for its intricately carved rock temples, cave sanctuaries, and monolithic sculptures, offered a fascinating glimpse into India's ancient craftsmanship and storytelling traditions.

The guests explored iconic sites such as the Shore Temple, Arjuna’s Penance, and the Five Rathas, marveling at the skill and precision of the Pallava-era artisans. The visit also facilitated a deeper appreciation of India's cultural diversity and historical achievements, reinforcing the importance of cross-cultural academic exchanges. The serene ambiance and artistic grandeur of Mahabalipuram provided a perfect setting for meaningful discussions on the intersections of technology and history, further strengthening the academic and cultural ties between AVIT and NEC, Japan.

The interaction during this visit fostered a sense of camaraderie among the participants, creating an environment where academic and industrial expertise could be shared in an informal yet intellectually stimulating setting. Such cultural excursions not only enrich professional relationships but also broaden perspectives, encouraging a more holistic approach to education and research collaborations.

Conclusion:

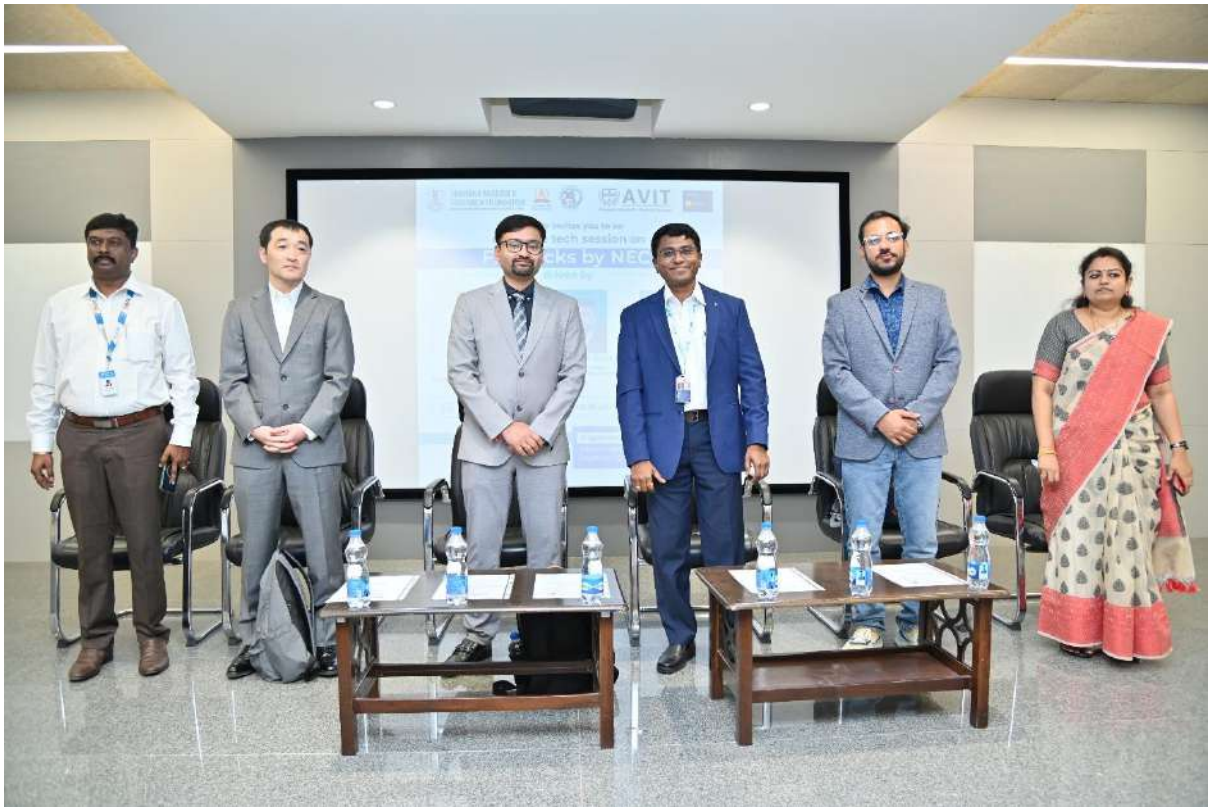
The exclusive interaction session successfully facilitated knowledge sharing between experts

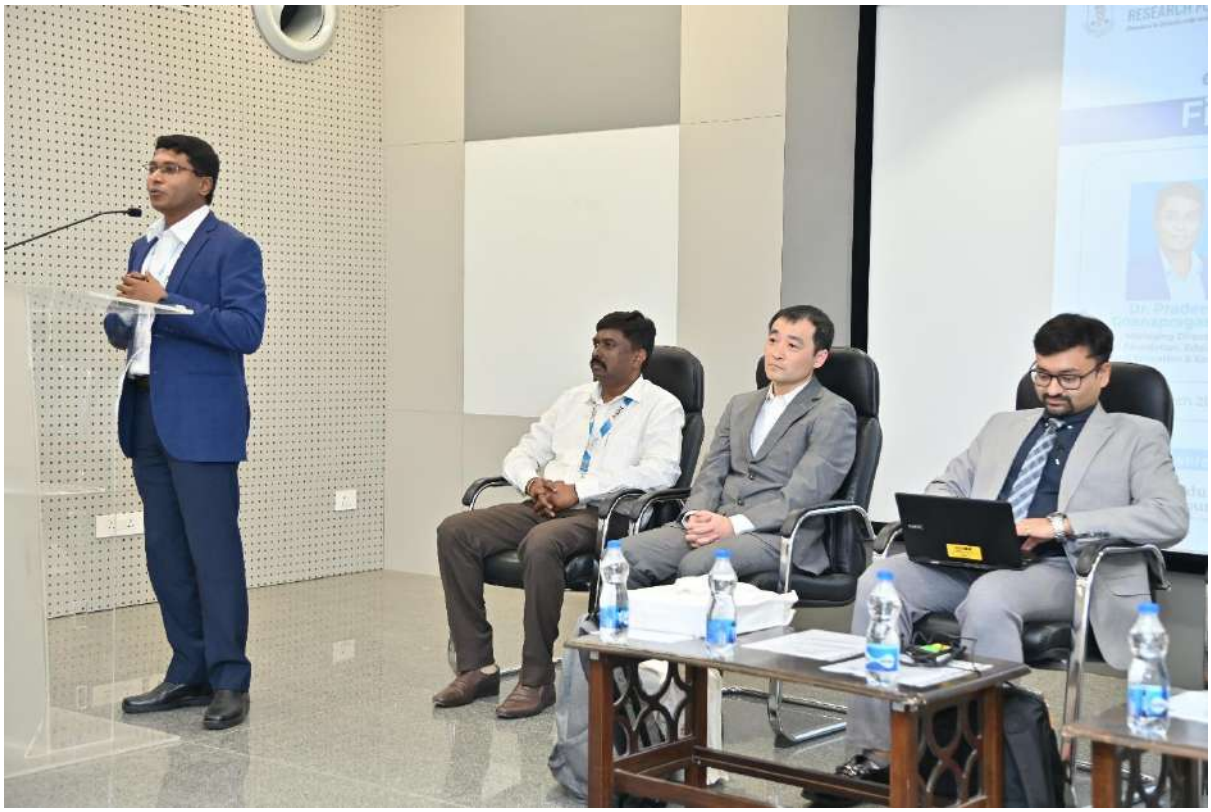
and students, equipping attendees with insights into cutting-edge data processing technologies. Such initiatives continue to bridge the gap between academic learning and industry advancements, paving the way for future research collaborations. AVIT remains committed to hosting more such events that enrich students' learning experiences and prepare them for future technological challenges.

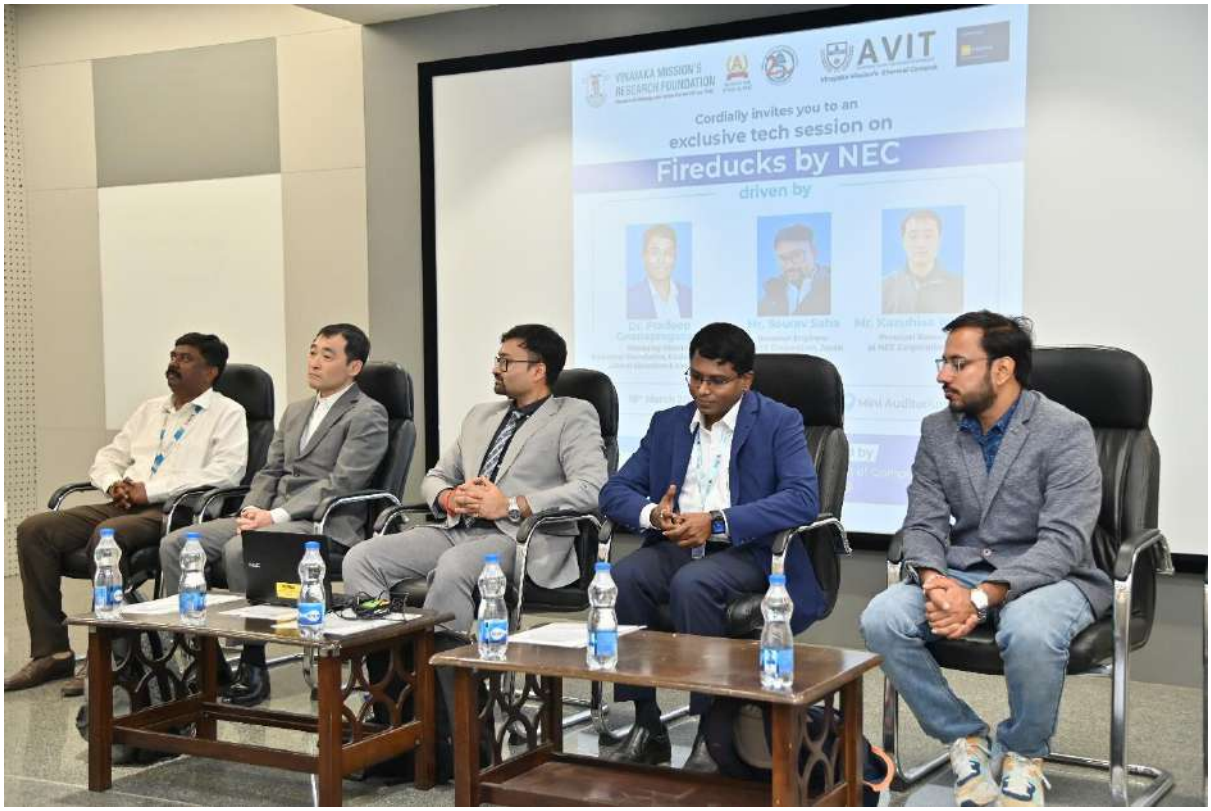
Future Prospects:

As a follow-up to this event, AVIT plans to conduct workshops and hands-on training sessions focused on Fireducks and related technologies. These initiatives will further strengthen students' practical knowledge and equip them with industry-relevant skills. Additionally, potential collaborations between AVIT and NEC are being explored to facilitate research and project-based learning, ensuring that students remain at the forefront of technological innovation. Moving forward, the university aims to integrate Fireducks into relevant coursework, enabling students to experiment with real-world datasets and gain expertise in efficient data handling. Faculty members are also encouraged to engage in further research exploring the applications of Fireducks in various domains, including predictive analytics, AI-driven data insights, and automated data workflows. In conclusion, this session was a significant milestone in AVIT’s journey toward fostering a strong industry-academia relationship. By continually engaging students with emerging technologies, the institution ensures that its graduates are well-prepared to tackle real-world challenges and contribute meaningfully to the evolving digital landscape.

Sample Images:



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Cordially invites you to an
exclusive tech session on
Fireducks by NEC
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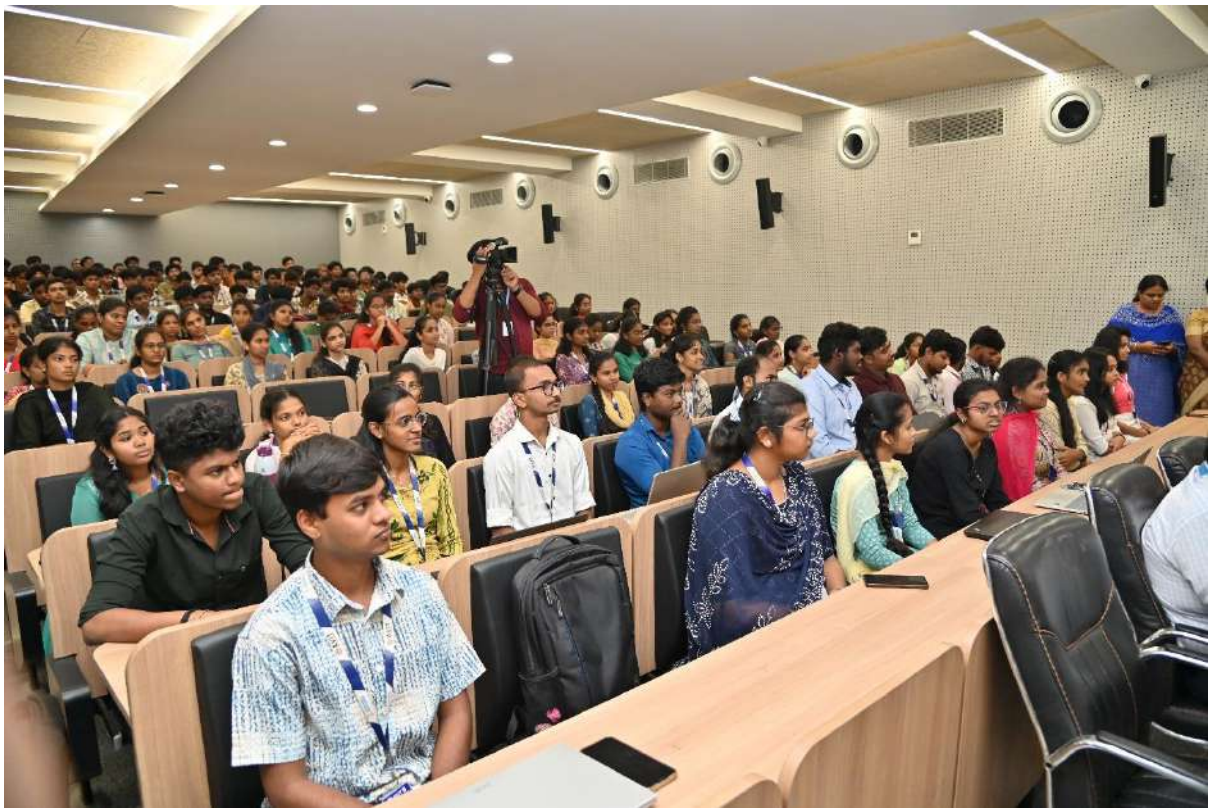
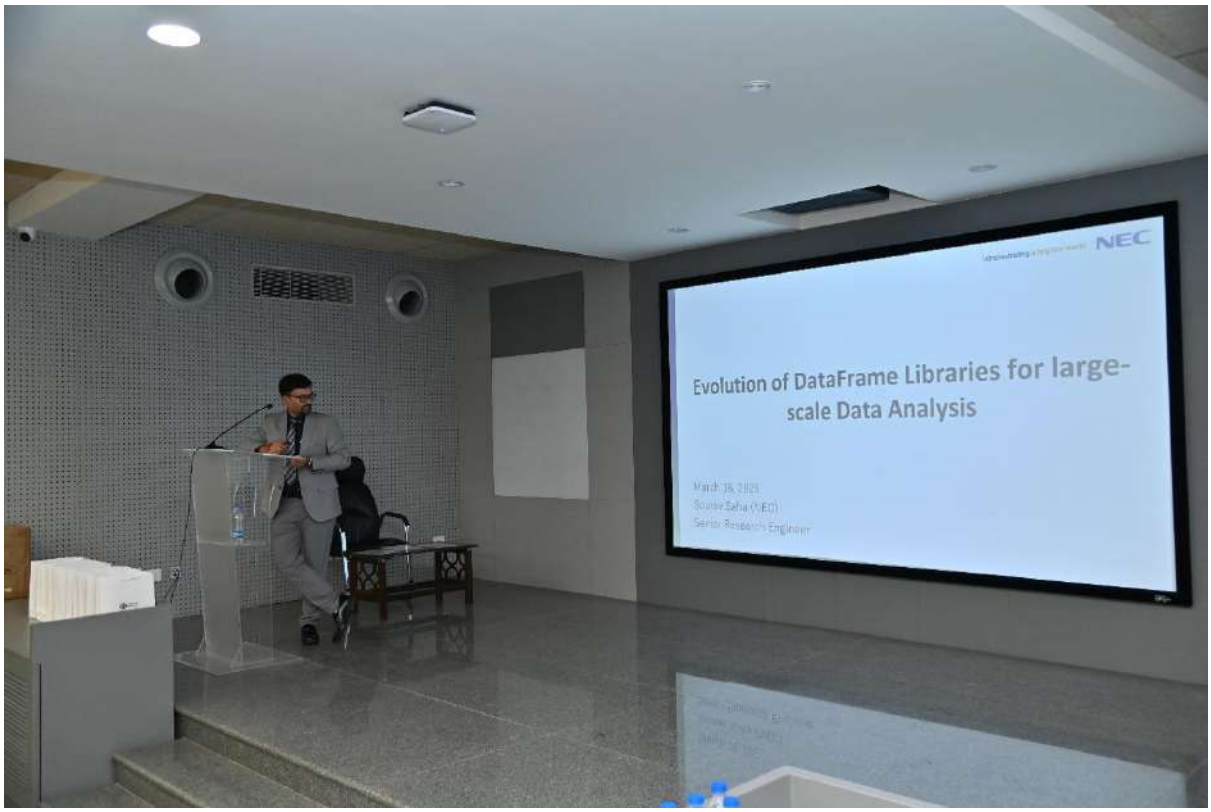
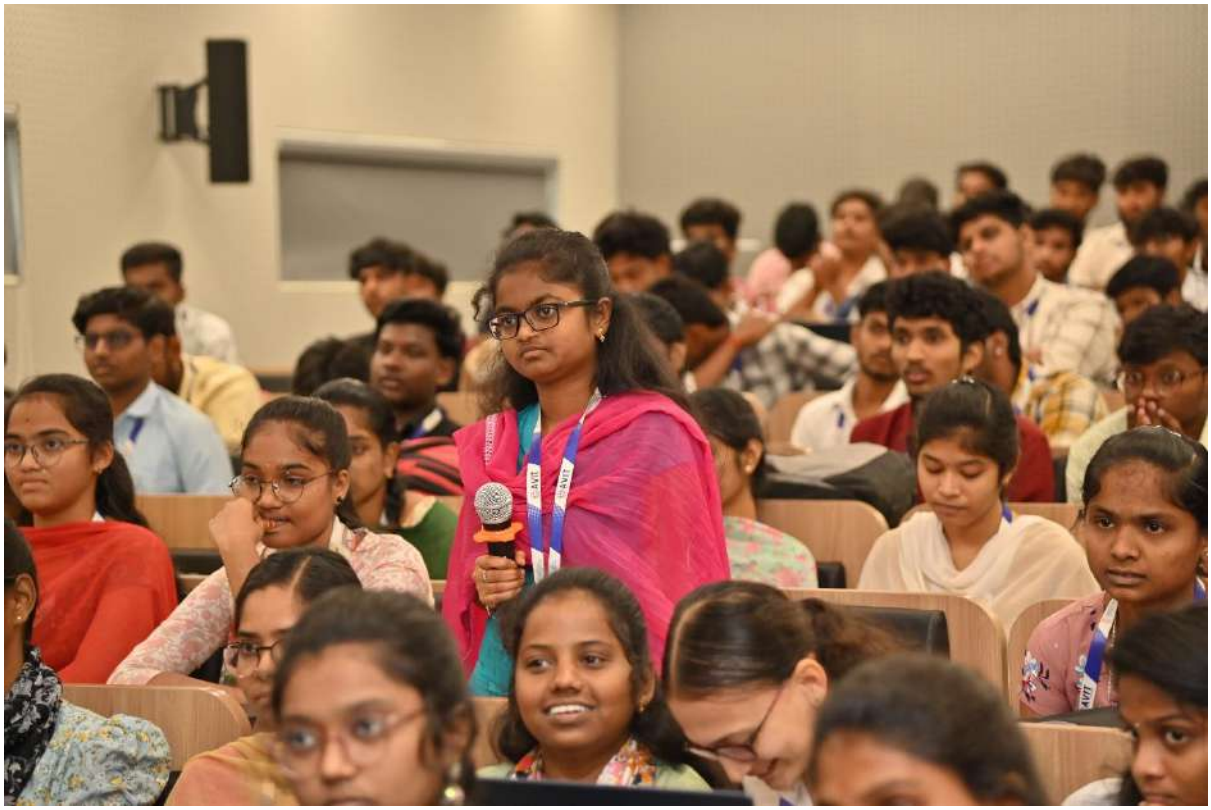
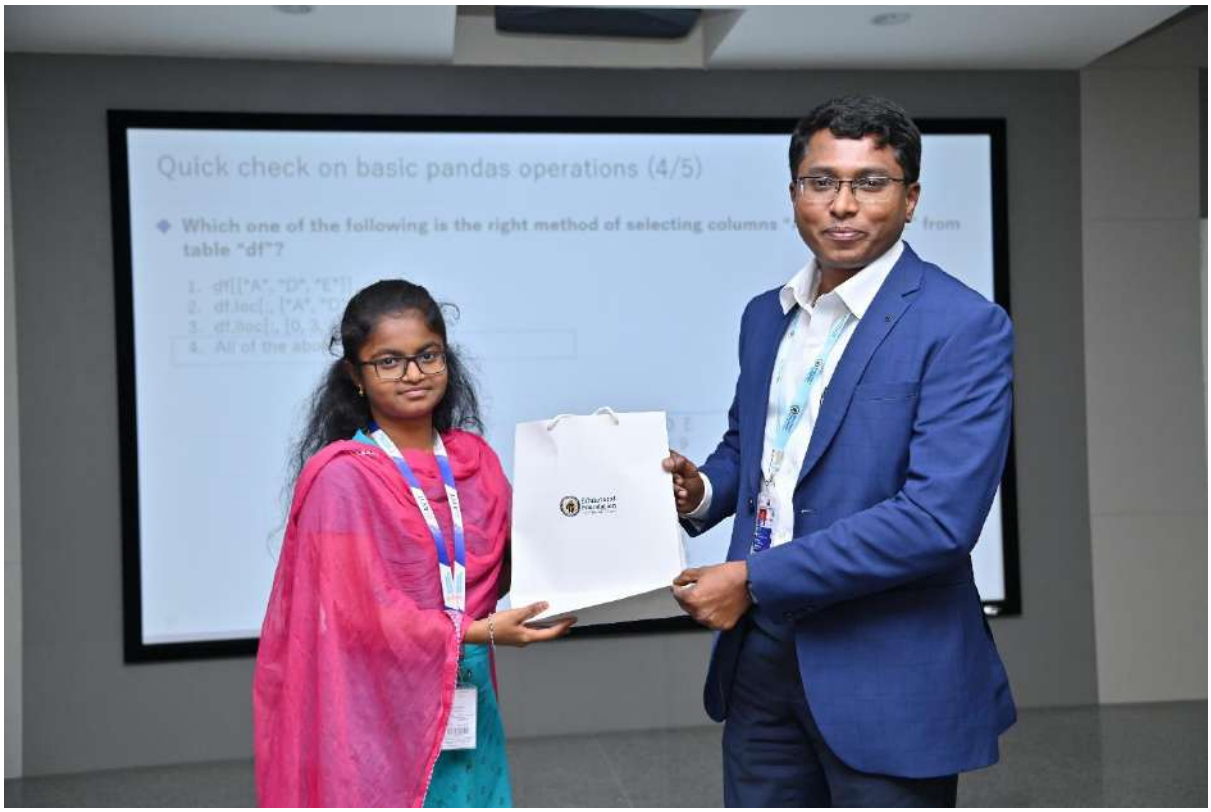
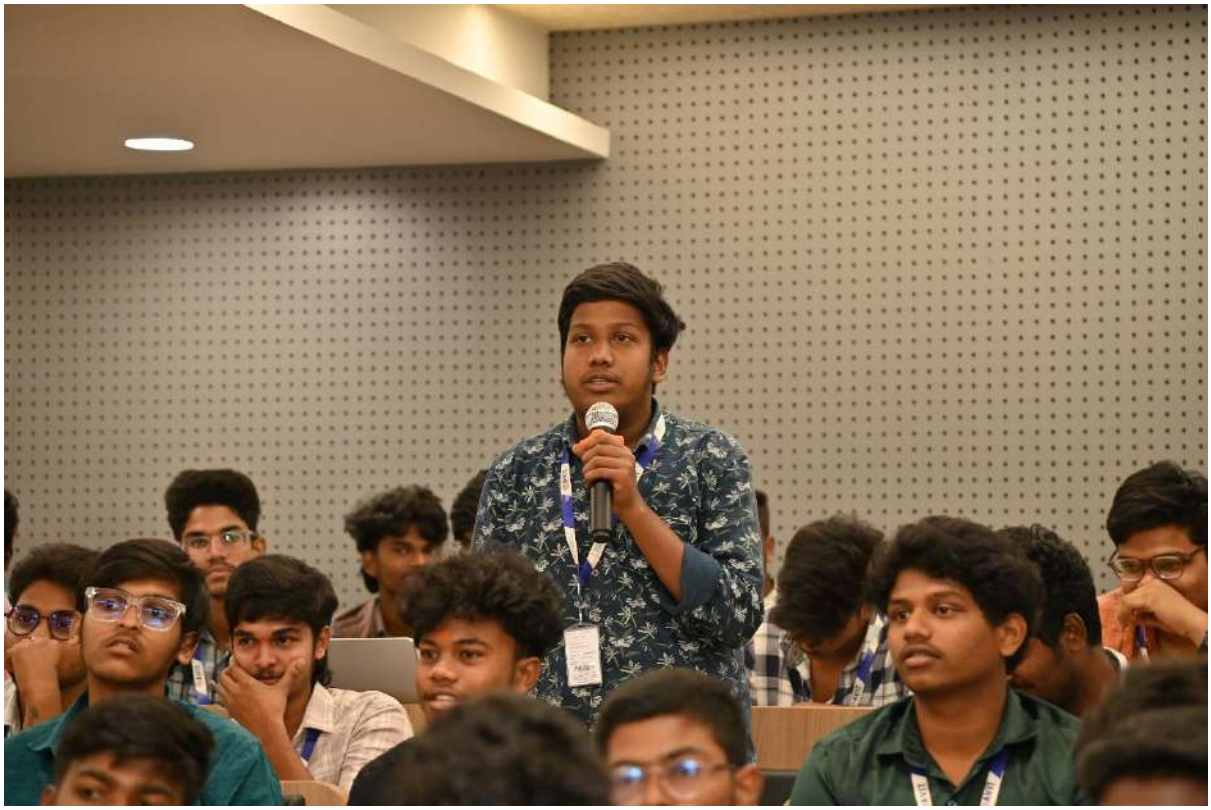
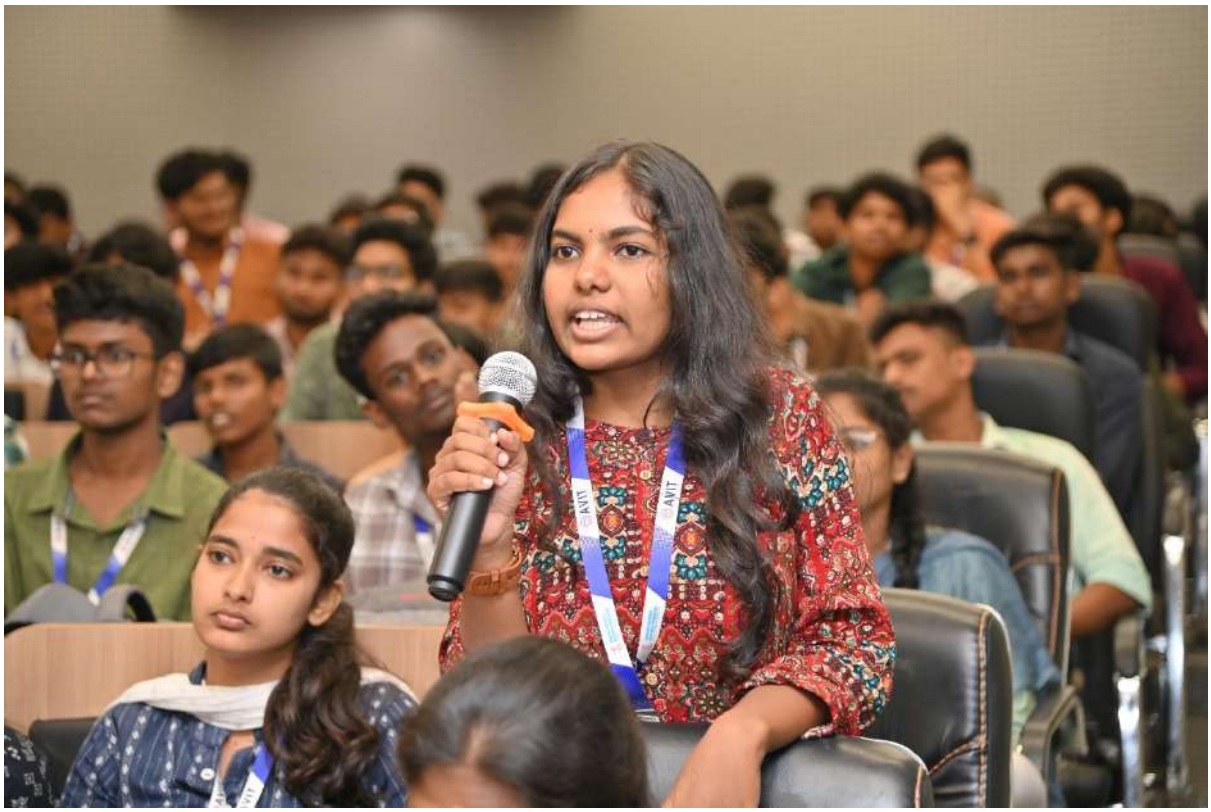



NEC
Evolution of DataFrame Libraries for large-scale Data Analysis




Quick check on basic pandas operations (4/5)
Which one of the following is the right method of selecting columns
table "df"?

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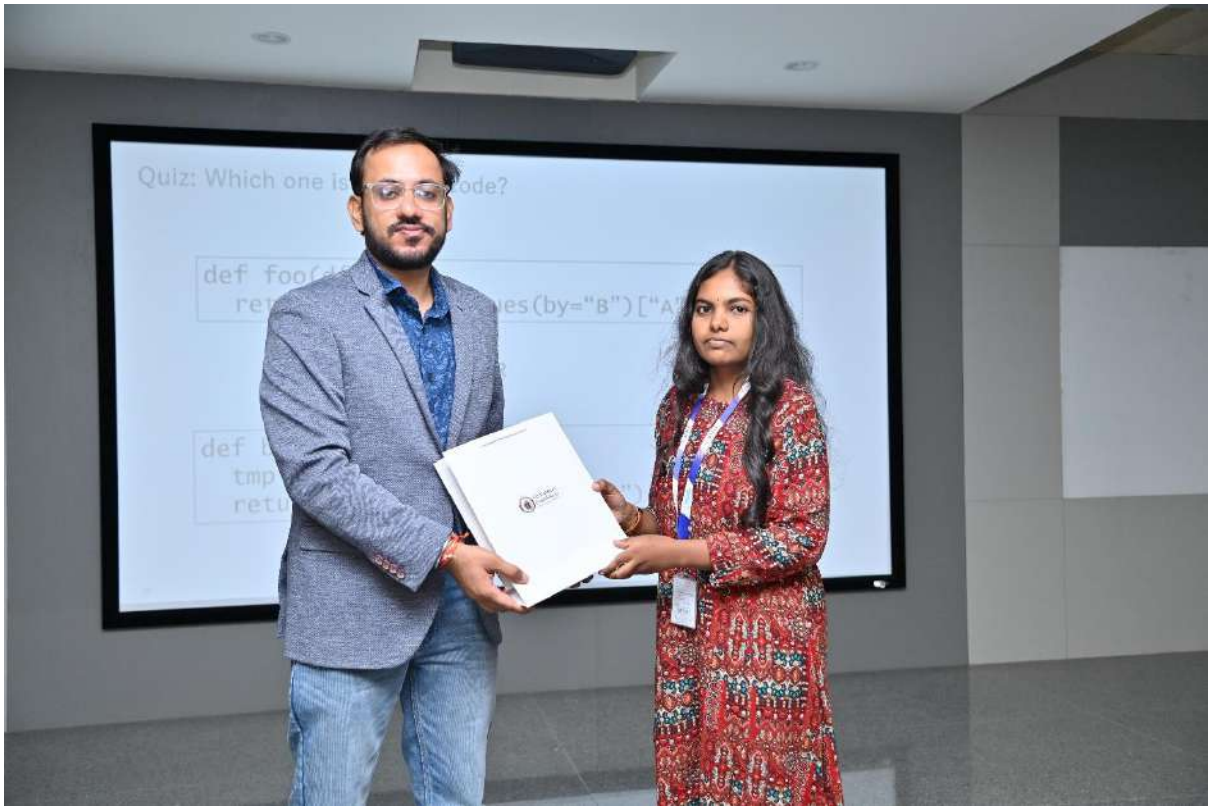
Quiz: Which one is
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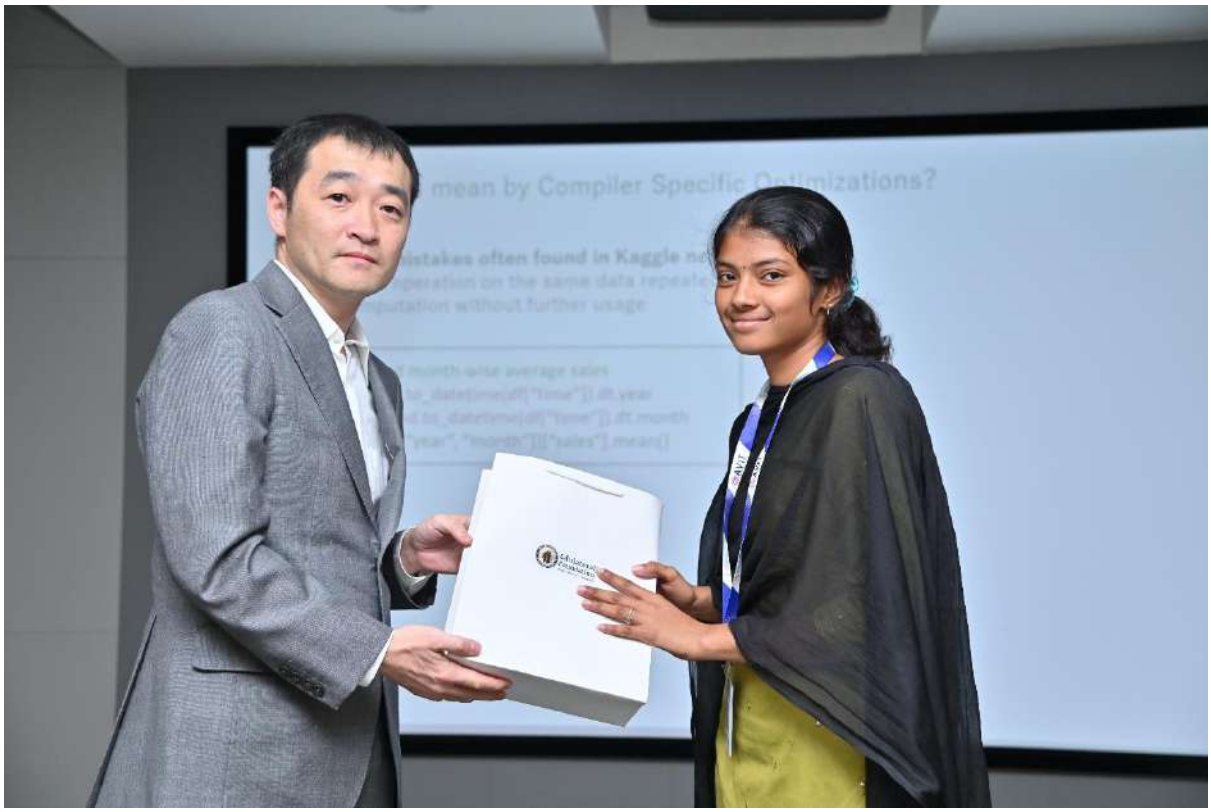
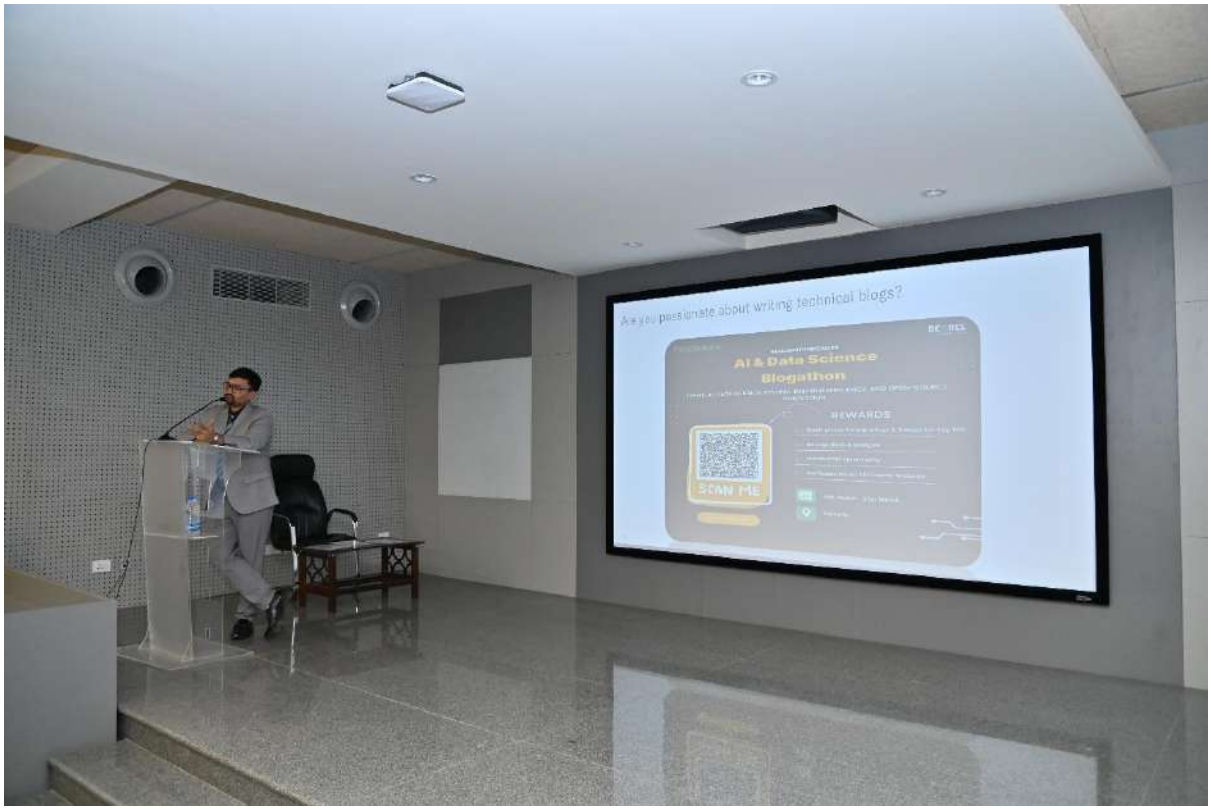
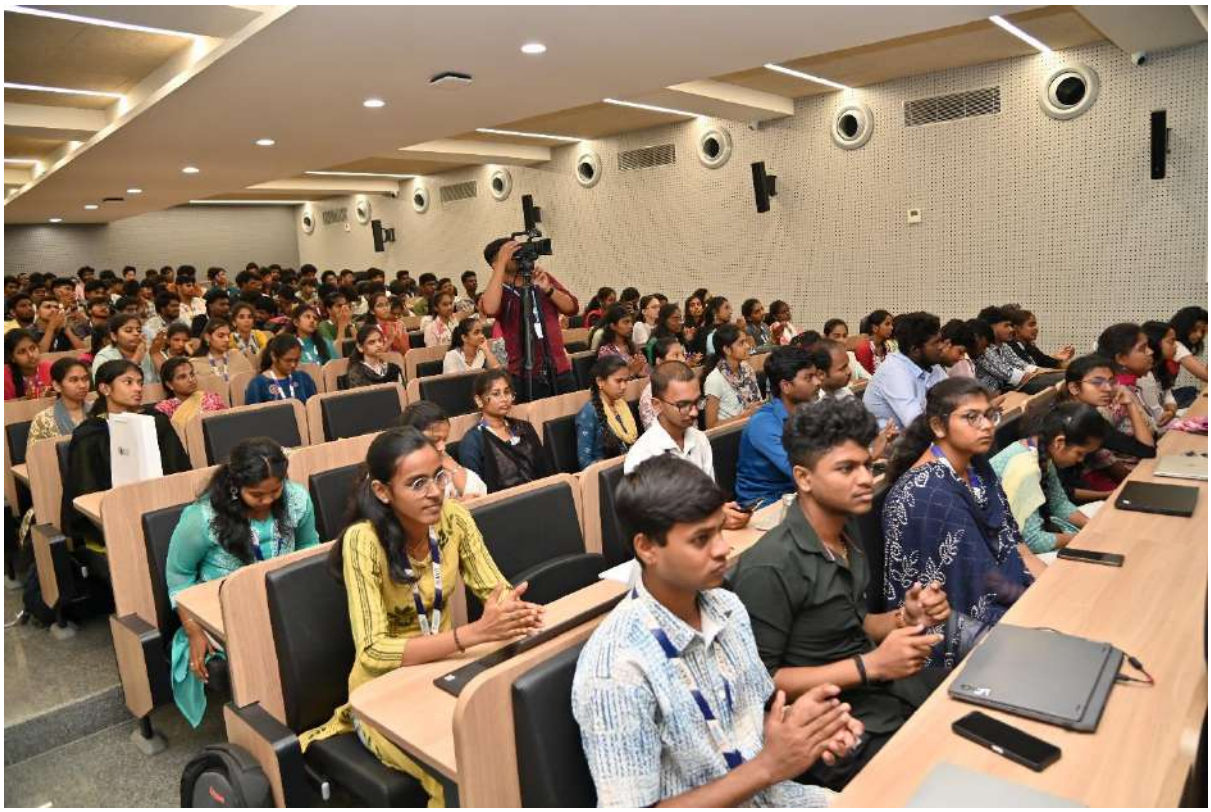
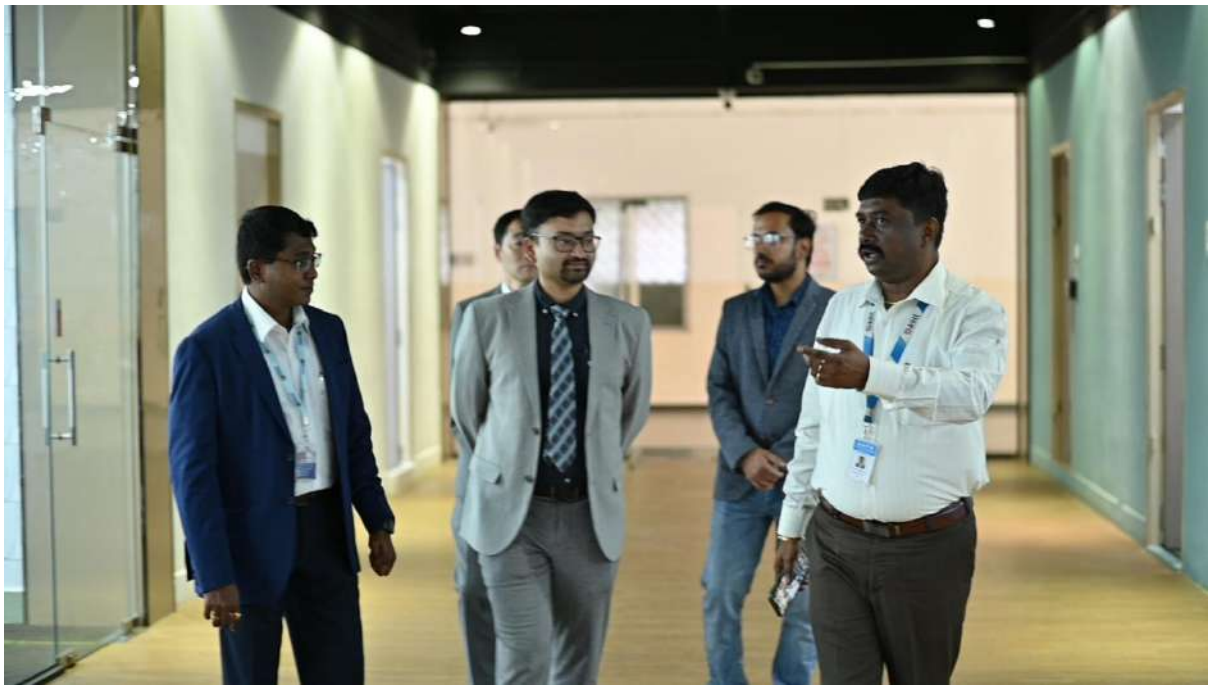
es(by="B")["A




Are you passionate about writing technical blogs?
AI & Data Science
Blogathon
REWARDS
SCAN ME



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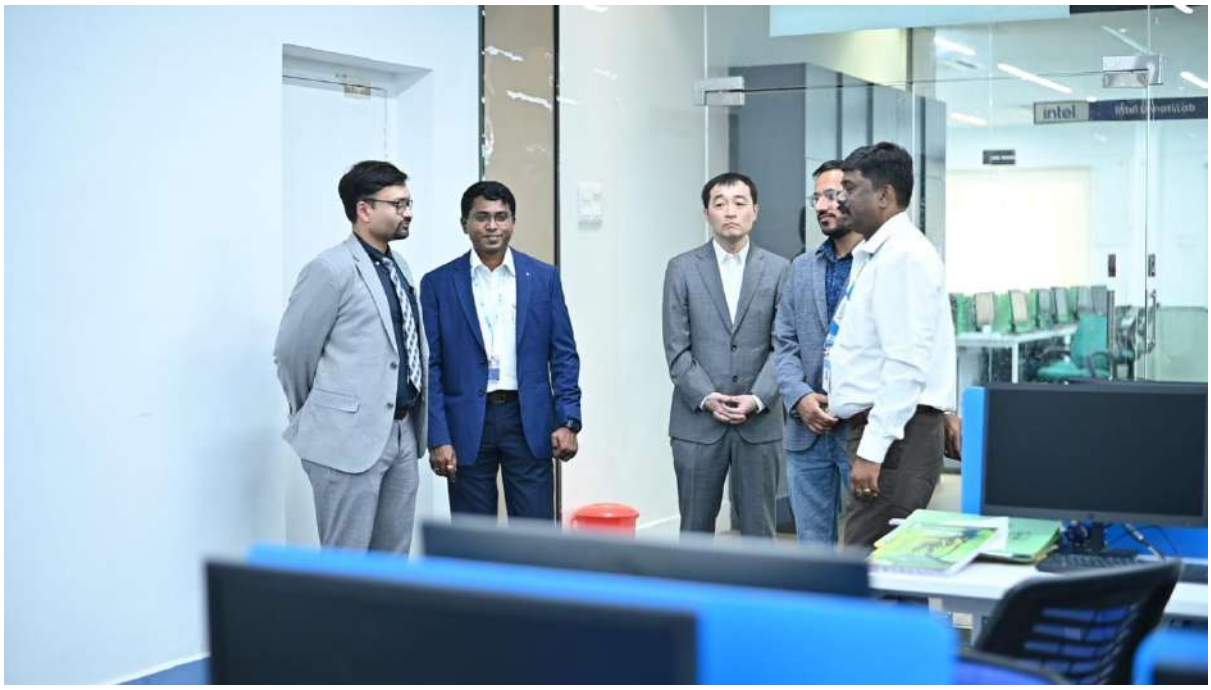
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