

Event Report: Industrial Visit to C-DAC, Hyderabad

Institution: Amrita Sai Institute of Science & Technology (Autonomous)

Host Organization: Centre for Development of Advanced Computing (C-DAC), Hyderabad

Facilitator & Expert Guide: Mr. Sadhu Sreenivas, R&D Expert, Developer & Trainer (C-DAC)

Objective: Bridging the Gap Between Academic Theory and Enterprise-Level Technological Application

1. Executive Summary

Students from the Amrita Sai Institute of Science & Technology (ASIST) participated in a highly educational and practical industrial visit to the **Centre for Development of Advanced Computing (C-DAC) in Hyderabad**. Facilitated by **Mr. Sadhu Sreenivas**, a distinguished R&D Expert and seasoned trainer at C-DAC, this visit offered students a rare, behind-the-scenes look at India's premier institution for Research and Development in IT, Electronics, and associated domains.

The visit successfully connected classroom concepts with enterprise-scale deployment, offering students critical exposure to software architecture, infrastructure design, advanced manufacturing, and cyber security protocols.



2. Technical Sessions & Key Learnings

A. Enterprise App Development & Performance Optimization

Mr. Sadhu Sreenivas led an intensive half-day technical session that unpacked the development lifecycle of applications built at C-DAC. Students gained deep insights into:

- **Scalability & Architecture:** How C-DAC designs applications meant to serve millions of citizens, ensuring high availability and fault tolerance.
- **Performance Metrics:** The benchmarking, optimization techniques, and testing methodologies required to keep national-level software running efficiently under massive data loads.

B. Cyber Security and Core Defense Frameworks

The primary technical cornerstone of the session was dedicated to **Cyber Security**. With digital threats scaling globally, the C-DAC team briefed students on:

- **Infrastructure Security:** The measures required to secure national databases and public networks.
- **Data Integrity & Privacy:** Real-world examples of encryption, threat monitoring, and the protocols defense and government applications use to prevent unauthorized data access.

C. Professional Pathways: Internships & Certified Courses

Recognizing the students' ambition to enter the tech workforce, Mr. Sreenivas outlined the educational and career pipelines offered by C-DAC, including:

- Highly sought-after **post-graduate diplomas and specialized technical courses**.
- **Internship opportunities** that allow students to work directly on live, government-backed R&D projects, significantly accelerating their industry readiness.

3. Experiential Site Tours

A. 3D Printing & Advanced Prototyping Laboratory

Moving from software to cutting-edge hardware, students were permitted entry into the additive manufacturing area. They observed:

- **Industrial 3D Printing Machines:** The mechanisms behind advanced fabrication and prototyping.
- **Complex Architectural Models:** Real-life models produced by these machines, demonstrating how 3D printing is revolutionizing manufacturing, robotics, and embedded systems engineering.

B. Data Center & Server Room Observation

Students were given the unique privilege of viewing C-DAC's **central server room (database facility)** from the observation area. This external tour provided a real-world perspective on:

- **Data Infrastructure:** The physical layout, specialized cooling environments, cable management, and hardware stacks required to maintain uninterrupted network operations and secure database storage.

4. Institutional Hospitality & Campus Culture

Beyond the rigorous technical training, the students experienced C-DAC's campus environment firsthand. The delegation was provided lunch at the official C-DAC cafeteria, which was highly appreciated by the students for its exceptional food quality and affordability. The subsidized pricing model highlighted C-DAC's student-friendly, community-centric institutional culture.

5. Conclusion and Impact

The industrial visit to C-DAC Hyderabad proved to be a transformative experience for the ASIST student body. By witnessing the intersection of robust data storage, advanced manufacturing, defense-grade cyber security, and enterprise software application design, students returned with a profoundly clearer roadmap for their academic portfolios and future career aspirations. ASIST extends its sincere gratitude to Mr. Sadhu Sreenivas and the entire C-DAC Hyderabad team for hosting this exemplary technical exchange.

Institutional Documentation:

Organizing College: Amrita Sai Institute of Science & Technology (ASIST)

Destination Venue: C-DAC, Hyderabad

Website Reference: www.amritasai.org.in