



Ghouisia College of Engineering, Ramanagara
Department of Computer Science & Engineering

Industrial Visit to C-DAC

Date: 23-11-2022

Year: Final Year Students of B. Tech Computer Science and Engineering

Number of students: 60

Faculties: Dr. Dilshad Begum (HoD CSE), Mr. M F Elahi, Mr. Ishaq Ali Hussaini, Dr. Salma Jabeen and Dr. Sameena Bano



Centre for Development of Advanced Computing (C-DAC) is the premier R&D organization of the Ministry of Electronics and Information Technology (MeitY) for carrying out R&D in IT, Electronics and associated areas. Different areas of C-DAC, had originated at different times, many of which came out as a result of identification of opportunities.

- The setting up of C-DAC in 1988 itself was to build Supercomputers in context of denial of import of Supercomputers by USA. Since then, C-DAC has been undertaking building of multiple generations of Supercomputer starting from PARAM with 1 GF in 1988.
- Almost at the same time, C-DAC started building Indian Language Computing Solutions with setting up of GIST group (Graphics and Intelligence based Script Technology); National Centre for Software Technology (NCST) set up in 1985 had also initiated work in Indian Language Computing around the same period.
- Electronic Research and Development Centre of India (ER&DCI) with various constituents starting as adjunct entities of various State Electronic Corporations, had been brought under the hold of Department of Electronics and Telecommunications (now MeitY) in around 1988. They were focusing on various aspects of applied electronics, technology and applications.
- With the passage of time as a result of creative ecosystem that got set up in C-DAC, more areas such as Health Informatics, etc., got created; while right from the beginning the focus of NCST was on Software Technologies; similarly, C-DAC started its education & training activities in 1994 as a spin-off with the passage of time, it grew to a large effort to meet the growing needs of Indian Industry for finishing schools.

C-DAC has today emerged as a premier R&D organization in IT&E (Information Technologies and Electronics) in the country working on strengthening national technological capabilities in the context of global developments in the field and responding to change in the market need in selected foundation areas. In that process, C-DAC represents a unique facet working in close junction with MeitY to realize nation's policy and pragmatic interventions and initiatives in Information Technology. As an institution for high-end Research and Development (R&D), C-DAC has been at the forefront of the Information Technology (IT) revolution, constantly building capacities in emerging/enabling technologies and innovating and leveraging its expertise, caliber, skill sets to develop and deploy IT products and solutions for different sectors of the economy, as per the mandate of its parent, the Ministry of Electronics and Information Technology, Ministry of Communications and Information

Technology, Government of India and other stakeholders including funding agencies, collaborators, users and the market-place.

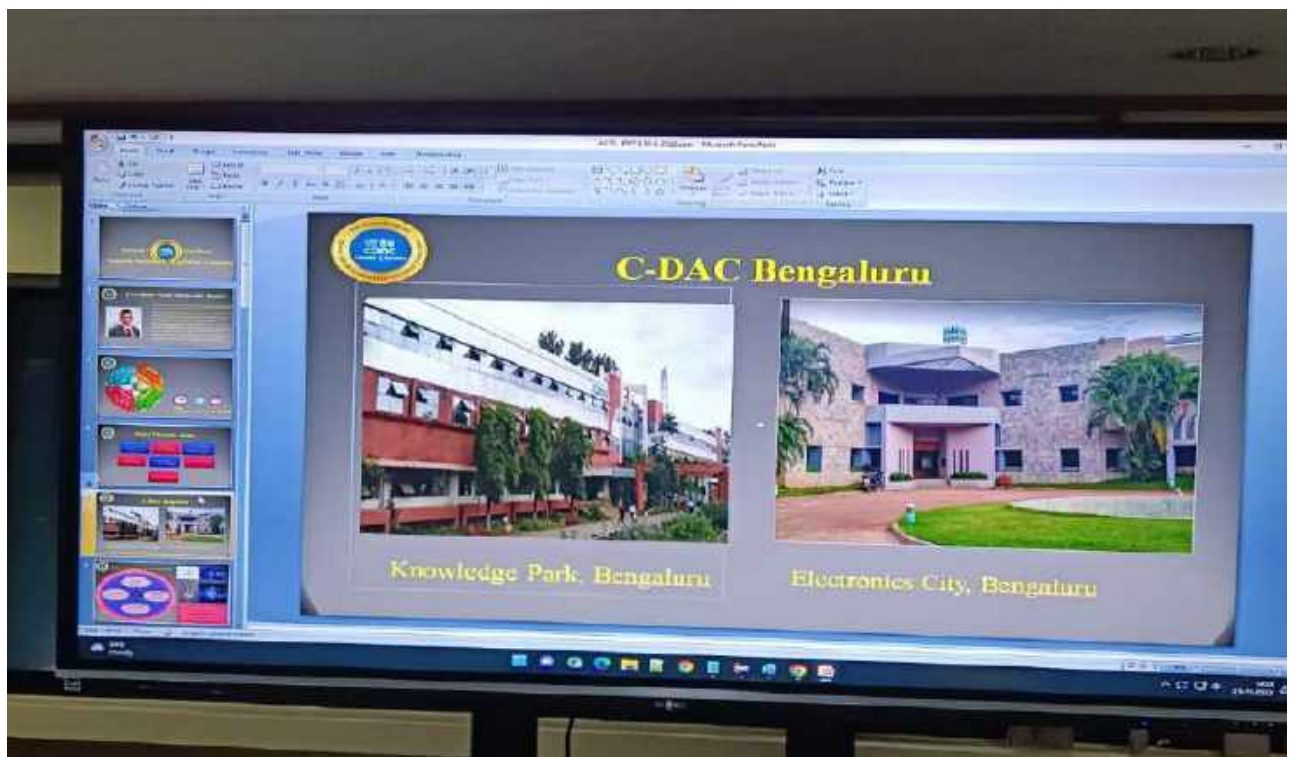


The students and staff had very warm welcome at green and beautiful campus of CDAC. All the students enjoyed a series of expert lectures by

Expert Lecture by: Ms. Indrani Hande (Placement Officer C-DAC, Bangalore)

Ms. Indrani Hande did her Master of Library and Information Science (MLIS) from Mangalore University, Mangalore. Currently, she is the placement officer at C-DAC Bangalore.

She gave us an informative lecture on Dr. S. D. Sudarshan, Executive Director, C-DAC, Bengaluru also she gave us a brief knowledge about what are the requirements we have to get to give the C-DAC Common Admission Test(C-CAT).



She also gave us the knowledge about the prospects at C-DAC:

- IoT Security functions
- Centre of Excellence in DNS security
- Quantum Computing

She also gave us the information about the courses provided by C-DAC:

- Post Graduate Diploma in Big Data Analytics (PG-DBDA)
- Post Graduate Diploma in Embedded Systems Design (PG-DESD)
- Post Graduate Diploma in IT Infrastructure, Systems and Security (PG-DITISS)
- Post Graduate Diploma in Internet of Things (PG-DIoT)

Objectives of the Industrial Visit:

- Awareness on DNS Abuse
- Internet Assigned Numbers Authority (IANA)
- DNS Amplification Attack
- Punycode
- Internet Corporation for Assigned Names and Numbers (ICANN)

After the Expert Lecture, Mr. Gopinath (C-DAC Faculty) gave us a brief knowledge about the Awareness on DNS Abuse. He explained how DNS can affect the information stored in root servers. He also mentioned about the website they have created, through which we can get to know about the security of the website. Also, he gave a brief introduction about the levels of Domain available. He gave a brief description about the DNS Amplification Attack, how the reverse look-up technique checks the malicious servers.



After the wonderful and knowledgeable lecture from Mr. Gopinath, we also had another lecture from Ms. Lavanya (C-DAC Faculty), She gave us the knowledge about how in India we have peoples who don't understand the English language and how they can get to know about the name of a particular website.

She taught us about the Internationalized Domain Name System (IDNS), by which we can get domain names in different languages which include non-ASCII characters. The domain names are converted into punycodes which are then converted to ASCII characters which are understandable by the computers. 60% of Internet users are non-English speakers that is why we use IDNS for them so that they can understand the domains in their own languages.

She gave us a very brief introduction about the Internet Corporation for Assigned Names and Numbers (ICANN) which is responsible for the assignment of root directories (.in / .com etc.).

After the completion of the lectures, we were offered tea, we had our lunch in the bus and we then left the C-DAC Facility for our College.



It was a great experience to visit the C-DAC, we gained a lot of knowledge there.

**EXPOSURE VISIT TO Bengaluru Tech Summit
held at Palace Ground Bengaluru, by the Department of IT,BT GoK.**



The Bangalore Tech Summit is an annual event that serves as a platform for showcasing technological innovations, discussing industry trends, and fostering collaboration among stakeholders in the tech ecosystem. In 2023, the summit continued its tradition of bringing together leading experts, entrepreneurs, investors, and policymakers to explore emerging technologies and their impact on various sectors.

With a focus on themes such as artificial intelligence, machine learning, blockchain, Internet of Things (IoT), and cybersecurity, the Bangalore Tech Summit 2023 featured keynote presentations, panel discussions, workshops, and exhibitions. Attendees had the opportunity to gain insights into cutting-edge technologies, network with industry peers, and engage in meaningful discussions on the future of technology.

The summit also highlighted the role of Bangalore, often referred to as the Silicon Valley of India, as a hub for innovation and entrepreneurship. It showcased the city's vibrant startup ecosystem, featuring successful startups and providing aspiring entrepreneurs with valuable resources and mentorship opportunities.

Overall, the Bangalore Tech Summit 2023 served as a catalyst for driving technological innovation, fostering collaboration, and accelerating the growth of the tech industry in India and beyond.

GAFX

**held at Hotel Ashok Lalit Bengaluru, by the Department of IT, BT
GoK**



The Global Animation, VFX, Gaming & Comics (GAFX) Summit is a premier event that brings together professionals, enthusiasts, and stakeholders from the animation, visual effects, gaming, and comics industries. Held annually, GAFX serves as a platform for showcasing the latest trends, innovations, and advancements in these creative fields.

The summit features a diverse range of activities, including keynote presentations, panel discussions, workshops, masterclasses, and networking sessions. Renowned experts, artists, and industry leaders share their insights, experiences, and expertise, offering valuable knowledge and inspiration to attendees.

One of the key highlights of GAFX is its exhibition area, where leading companies, studios, and organizations showcase their latest projects, technologies, and products. Attendees have the opportunity to explore cutting-edge tools, software, and techniques, as well as interact with industry professionals and potential collaborators.

GAFX also hosts various competitions, awards ceremonies, and talent showcases, providing a platform for emerging artists and creators to showcase their work and gain recognition. Additionally, the summit often features special screenings, premieres, and interactive experiences, allowing attendees to immerse themselves in the world of animation, VFX, gaming, and comics.



Ghouisia College of Engineering, Ramanagara
Department of Electronics & Communication Engineering

Exposure Visit to ISRO

Date: 16-03-2023

Year: Final Year Students of BE Electronics & Communication Engineering.

Ghouisia College of Engineering, Ramanagaram

In Association with 

Institution's Innovation Council

Industrial / Field / Exposure Visit

On
16th March 2023
To
U R Rao Satellite Centre-ISRO

Arranged by
Department of Electronics and Communication Engineering

The banner is a blue rectangular graphic with white and yellow text. It features the college's logo on the left and the Institution's Innovation Council logo on the right. The text is centered and uses various font sizes and colors (white, yellow, light blue) to highlight key information.

EXPOSURE VISIT LETTER



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

GHOUSIA COLLEGE OF ENGINEERING

RAMANAGARAM - 571 511, KARNATAKA, INDIA

Accredited by National Board of Accreditation, New Delhi

Affiliated to Visvesvaraya Technological University, Belgaum, Recognised by Government of Karnataka & A.I.C.T.E., New Delhi

Tel : 080-7271353 (EXT-308)

Fax : 080 - 7273474

Web : www.ghousiaedu.org

To

Date: 01/02/2023

Group Director, PPEG

Indian Space Research Organization (ISRO)

Bengaluru.

Respected Sir/Madam,

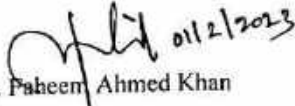
Reference: 1. Our e- mail dated 27th Jan 2023

2. Your response e – mail dated 30th Jan 2023

Sub: Confirmation of our visit to your esteemed organization-Reg.

With reference to the above subject, I hereby request your good self to kindly grant permission to our students for an industrial / educational visit to your prestigious organization. Our department student strength which includes 3rd, 5th, 7th semester students is 45, 16 and 27 respectively (Total 88). **March 16th 2023** will be convenient for us for the industrial visit. Any other date in the months of March / April are also suitable to us.

I have attached a scanned copy of an authorization letter signed by me.


Dr. Faheem Ahmed Khan

Professor and HOD, Department of ECE

Ghouseia College of Engineering

Dr. Faheem Ahmed Khan
ME, Ph.D, MISTE, FIE
-Professor & Head
Dept. of Electronics & Communication Engg.

The Indian Space Research Organisation (ISRO) is the space agency of the Government of India, founded in 1969 with the vision to harness space technology for national development, while pursuing space science research and planetary exploration. Here's a breakdown of its key aspects:

1. Mandate and Objectives: ISRO's primary objective is to advance space technology and use it for various applications such as communication, Earth observation, navigation, and space exploration. Its mission encompasses both societal and scientific goals, including satellite communication, meteorology, remote sensing, and lunar and planetary exploration.

2. Achievements: Over the years, ISRO has achieved significant milestones, including the launch of satellites for communication, navigation, and Earth observation. It has also conducted successful interplanetary missions, notably the Mars Orbiter Mission (Mangalyaan) in 2013, which made India the first Asian nation to reach Mars orbit and the first nation in the world to do so on its maiden attempt. Additionally, ISRO has made strides in developing indigenous satellite launch vehicles like the Polar Satellite Launch Vehicle (PSLV) and the Geosynchronous Satellite Launch Vehicle (GSLV).

3. Satellite Launch Vehicles: ISRO develops and operates a range of satellite launch vehicles to deploy satellites into various orbits. The PSLV is primarily used for launching satellites into polar orbits, while the GSLV is designed to place satellites into geostationary orbits. ISRO has also been working on the development of the GSLV Mark III, capable of launching heavier payloads.

4. Satellite Applications: ISRO's satellite applications cover a wide range of areas, including communication, remote sensing, meteorology, and navigation. Its satellite networks provide vital services such as telecommunication, broadcasting, weather forecasting, disaster management, agricultural monitoring, and urban planning.

5. International Collaboration: ISRO collaborates with space agencies and organizations worldwide on various projects, including satellite launches, space exploration missions, and technology development. It actively engages in cooperative ventures and has launched satellites for numerous countries using its launch vehicles.

6. Future Plans: ISRO continues to pursue ambitious plans for space exploration and technology development. Some of its upcoming missions include the Chandrayaan-3 lunar exploration mission, the Gaganyaan human spaceflight program, and the development of advanced satellite systems for communication and Earth observation.

7. Technology Development: ISRO invests in research and development to enhance its capabilities in space technology. It focuses on innovations in satellite design, propulsion systems, materials science, and other areas to improve performance, reduce costs, and increase reliability.

Overall, ISRO plays a crucial role in advancing India's space capabilities and contributing to international efforts in space exploration and technology development. Its achievements and ongoing missions demonstrate India's growing prowess in space science and technology.





Objectives of the Exposure Visit:

1. **Exposure to Advanced Technology:** Visiting ISRO provides students with exposure to cutting-edge technology and engineering practices used in space exploration, satellite design, propulsion systems, and mission planning. It offers a glimpse into the practical application of theoretical concepts they've studied in their engineering curriculum.
2. **Understanding Complex Systems:** ISRO's projects involve complex systems and interdisciplinary collaboration. Students can gain a deeper understanding of how various engineering disciplines such as aerospace, mechanical, electrical, and computer science integrate to develop and operate space missions.
3. **Learning Best Practices:** Observing ISRO's operational procedures, quality control measures, and safety protocols can help students understand industry best practices. They can learn about standards for design, testing, and manufacturing required for space-grade components and systems.
4. **Inspiration and Motivation:** Interacting with ISRO scientists, engineers, and technicians can inspire students and motivate them to pursue careers in space technology or related fields. Hearing firsthand accounts of successful missions and overcoming technical challenges can ignite their passion for innovation and exploration.

5. **Career Opportunities:** The visit provides students with insights into potential career opportunities in the space industry. They can learn about job roles, skill requirements, and internship programs available at ISRO or in private companies working in collaboration with the space agency.
6. **Networking and Collaboration:** Students have the opportunity to network with professionals in the space industry, including ISRO scientists and engineers. Building connections during the visit can open doors for future collaborations, internships, or research projects.
7. **Project Ideas and Research:** Exposure to ISRO's projects and facilities can spark ideas for student projects, research topics, or innovative solutions to real-world challenges in space technology. Students can gain inspiration for their final year projects or pursue avenues for further academic exploration.
8. **Understanding National Importance:** Visiting ISRO helps students appreciate the strategic importance of space technology for national development, security, and scientific advancement. They can understand how space missions contribute to areas such as communication, weather forecasting, disaster management, and environmental monitoring.







Ghousia College of Engineering, Ramanagara
Department of Electrical and Electronic Engineering

Industrial Visit to Jala Vidyut Kendra







"Jala Vidyut Kendra" translates to "Hydropower Plant" in English. These are facilities designed to generate electricity using the potential energy of water stored in reservoirs or flowing in rivers. Hydropower is a renewable energy source that has been utilized for centuries to power various mechanical processes and, more recently, to generate electricity at scale.

Jala Vidyut Kendras typically consist of components such as:

Dam or Diversion Structure: This is where water is stored or diverted from a river to create a reservoir. The dam controls the flow of water and creates a height differential (head) that generates potential energy.

Intake Structure: Water from the reservoir or diverted river is directed into the hydropower plant through an intake structure.

Penstock: A penstock is a large pipe or conduit that carries water from the intake structure to the turbines.

Turbines: Water flowing through the penstock drives turbines, which convert the kinetic energy of flowing water into mechanical energy.

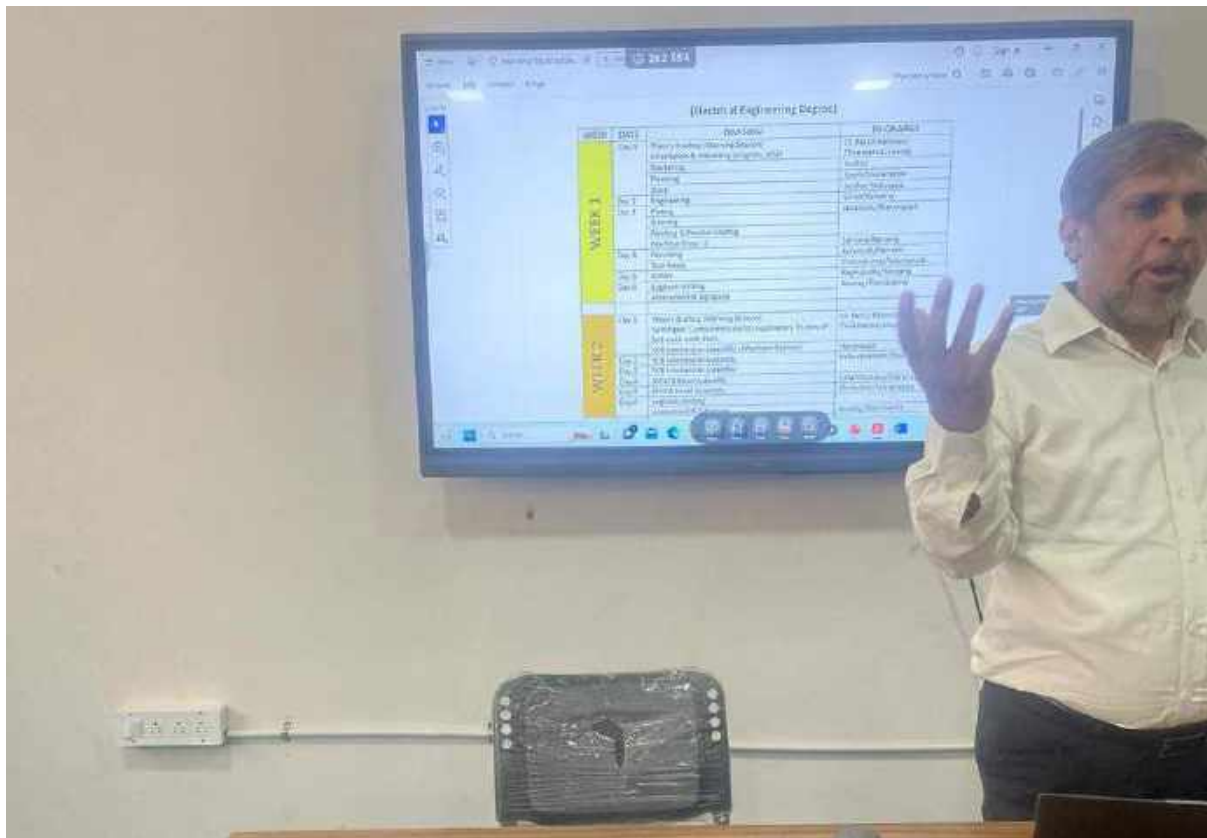
Generator: Turbines are connected to generators, which convert the mechanical energy into electrical energy through electromagnetic induction.

Transformer and Transmission Lines: The electricity generated by the hydropower plant is stepped up to higher voltages using transformers and then transmitted through power lines to distribution centers and consumers.

Jala Vidyut Kendras play a significant role in providing clean and renewable energy, contributing to energy security and sustainability goals. They also provide additional benefits such as flood control, irrigation, and recreational opportunities in the reservoir areas.

Industrial Visit to Mysore Electrical Industries LTD









Mysore Electrical Industries Limited (MEI) is a prominent company in the electrical engineering sector, based in Mysore, Karnataka, India. Established in 1947, MEI has a rich history of over seven decades in manufacturing electrical equipment and components.

Here are some key points about Mysore Electrical Industries Limited:

Product Range: MEI manufactures a wide range of electrical products, including transformers, switchgear, capacitors, control panels, and other electrical equipment used in power distribution, transmission, and control systems.

Quality Standards: The company is known for its commitment to quality and reliability. MEI products adhere to stringent quality standards and are manufactured using state-of-the-art technology and processes.

Customer Base: MEI serves a diverse customer base, including government agencies, utilities, industries, and commercial establishments. Its products are used in various sectors such as power generation, transmission and distribution, railways, infrastructure, and manufacturing.

Innovation and Research: MEI emphasizes innovation and invests in research and development to stay abreast of technological advancements in the electrical industry. The company continually updates its product offerings to meet evolving customer needs and industry standards.

Sustainability: MEI is committed to environmental sustainability and energy efficiency. It develops energy-efficient products and practices environmentally responsible manufacturing processes.

Corporate Social Responsibility (CSR): MEI actively participates in CSR initiatives, contributing to community development, education, healthcare, and environmental conservation in the regions where it operates.

Industrial Visit to RAM gold towards motivation of green measures





"RAM gold" might refer to the idea of leveraging financial incentives or rewards to encourage the adoption of green measures. Essentially, it involves allocating resources (represented by "RAM gold") towards initiatives that motivate individuals or organizations to take environmentally friendly actions.:

Financial Incentives: Governments or organizations could offer financial rewards or subsidies to individuals or businesses that implement green measures such as using renewable energy, adopting energy-efficient technologies, or reducing carbon emissions. This could include direct payments, tax incentives, or grants.

Investment in Green Technologies: Allocating resources towards research, development, and deployment of green technologies can spur innovation and make sustainable solutions more accessible and cost-effective. This might involve investing in renewable energy projects, developing eco-friendly transportation systems, or supporting the creation of sustainable materials.

Education and Awareness: Investing in education and awareness campaigns can motivate people to adopt environmentally friendly behaviors. By highlighting the benefits of green measures and providing information on how to implement them, individuals and communities can be empowered to take action.

Partnerships and Collaborations: Collaboration between governments, businesses, NGOs, and communities can amplify the impact of green initiatives. By pooling resources and expertise, these partnerships can drive meaningful change at scale.

Carbon Pricing: Implementing a carbon pricing mechanism, such as a carbon tax or cap-and-trade system, can create financial incentives for businesses to reduce their carbon footprint. By putting a price on carbon emissions, companies are motivated to invest in cleaner technologies and practices.