# J.B. INSTITUTE OF ENGINEERING & TECHNOLOGY

**UGC Autonomous** 

# **DEPARTMENT OF ELECTRONICS & COMPUTER ENGINEERING**

Report on Industrial Visit on 25/02/25

ARCI, BALAPUR, Hyderabad



# J.B. INSTITUTE OF ENGINEERING & TECHNOLOGY

**UGC Autonomous** 

(Accredited by NBA & NAAC, Approved by AICTE & Permanently Affiliated by JNTU, Hyderabad)

Bhaskar Nagar, Yenkapally Village, Moinabad Mandal, R.R. Dist.-75. Telangana State.

Phone Nos.: 91-08413-235127, 235053, Fax: 91-08413-235753.

Website: www.jbiet.edu.in Email: principal@jbiet.edu.in

Date: 17-02-2025

Hyderabad.

To
The Director
Human Resource Development (HRD)
Advanced Research Centre Imarat (ARCI)
Department of Science and Technology
Government of India Balapur, Hyderabad

Dear Sir,

Sub:" Request to Industrial Visit for Students of II B.Tech of ECM Department"- Reg

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JBIET is one among the best 10 Engineering Colleges of the Telangana State and is established in the year of 1998. Our college has long been committed to delivering high-quality education and training in a range of engineering fields Mechanical, Civil, CSE, IT, EEE, ECE, AIML, AIDS, CSE-AIML, CSE-DS and ECM.

As a part of academic curriculum to bridge the gap between theoretical learning and practical applications providing students with exposure to real-world industrial processes, current technologies, and professional work environments, we request you for the kind approval of the industrial visit on **20**<sup>th</sup> **February,2025(Thursday)** of our 34 students of II B.Tech Electronics and Computer Engineering(ECM).

We believe this visit will be highly beneficial to the students, contributing significantly to their understanding of the industry and complementing their academic coursework. We will ensure that all necessary measures regarding safety and discipline are adhered to during the visit.

Thank you very much for considering this request. We look forward to your favourable response.

With Regards,

Dr.P.C.Krishnamachary, Principal,

JBIET PRINCIPAL J.B. INSTITUTE OF

ENGINEERING & TECHNOLOGY

Head Office: 6-3-248/1/1A, 4th Floor, Bhaskar Plaza, Road No. 1, Baskar Nagar Yenkapaly (V), Monebed (M) 034. Ph: 040-23301523, 23391979, Fax: 040-23304036

3/22/25, 12:31 PM

### Outlook

### Re: Request to Industrial Visit for Students of II B.Tech of ECM Department-Reg

From HRD ARCI <hrd@arci.res.in> Date Sat 2/22/2025 3:19 PM

To HOD ECM <hodecm@jbiet.edu.in> Cc Srinivas A <asrinivas@arci.res.in>

Dear sir,

This is w.r.t trailing email.

Director, ARCI has approved visit request on 25.02.2025 (Tuesday).

Please send list of students and faculty member details.

Instructions for visit will be sent shortly.

आदर के साथ With kind regards

सुधिंद्रा Sudheendra सहायक "बी" (एचआरडी) Assistant "B" (HRD) एआरसीआई, बालापुर ARCI, Balapur हैदराबाद 500 005 Hyderabad 500 005 तेलंगाना Telangana

040-2445 2515

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YouTube: [ https://www.youtube.com/channel/UC5d7pp92O2zTrNxZpLyGngO ]

From: hodecm@jbiet.edu.in To: "HRD ARCI" <hrd@arci.res.in>

Cc: "Jain PawanKumar" <pkjain@arci.res.in> Sent: Monday, February 17, 2025 3:48:38 PM

Subject: Request to Industrial Visit for Students of II B.Tech of ECM Department-Reg

Respected sir,

Please find the attachment and do the needful.

Thanks & Regards Dr.Narsappa Reddy, Associate Professor, HOD ECM Department, J.B Institute of Engineering & Technology,

### 1. Introduction:

The industrial visit of 29 students to the ARCI,

BALAPUR, Hyderabad was organized to provide valuable insights into advanced research and technology in the field of electronics, solar energy materials science. ARCI (International Advanced Research Centre for Powder Metallurgy and New Materials) is an autonomous research development and institution under the Department of Science Technology, and Government of India. The center is focused on developing advanced materials, processes, and technology for industrial applications.

The Balapur facility, situated in Hyderabad, is known for its work in the areas of powder metallurgy, ceramics, advanced coatings, and nanotechnology.

# 2. Objective of the Visit:

Understand the technological

- advancements and research at ARCI.
- Gain practical knowledge of the various processes involved in electronics and material development.
- Learn about the future trends in the field of solar energy and related to material science and engineering.

**Overview of ARCI Hyderabad:** ARCI (International Advanced Research Centre for Powder Metallurgy and New Materials) is a premier research institution located in Hyderabad, India. It is under the Department of Science & Technology (DST), Government of India. ARCI focuses on the development of advanced materials and technologies, specifically in the areas of powder metallurgy, new materials, and surface engineering. Here's an overview of ARCI





### 3. Activities Conducted:

- Introduction Session: Officials briefed us about the history and functions of the ARCI.
- Tour of Facilities: We visited different sections, including Center for Carbon Materials, Center for Solar energy materials, Center for Materials Characterization & Testing and Center for Advanced Ceramic Materials

# 4. Research & Development (R&D) Focus:

Scientists briefed the following

- ARCI has established itself as a leading institute in the field of materials science and technology, with a strong emphasis on innovation in:
- Industrial Applications: ARCI's technologies have wide-ranging applications in industries like aerospace, automotive, energy, and defense.

# Commercialization of Technologies:

The center works closely with industries to transform research outputs into commercially viable products.

 Sustainability: ARCI focuses on the development of environmentally sustainable technologies, particularly in energy-efficient materials and processes.

# INTERNATIONAL ADVANCED RESEARCH CENTRE FOR POWDER METALLURGY AND NEW MATERIALS Department of Science & Technology, Govt. of India

# 5.Key Areas of Research:

### ARCI specializes in the following areas:

- **Powder Metallurgy:** The study and development of materials through the processing of metal powders.
- **Surface Engineering:** Advanced coatings, surface modification, and related technologies to enhance material properties.
- **New Materials:** Development of high-performance materials such as ceramics, composites, and alloys.
- Energy Materials: Research on materials for energy applications, such as batteries and fuel cells.
- Nanotechnology: Research into the development and application of nanomaterials.

ARCI.

J. B. INSTITUTE OF ENGINEERING AND TECHNOLOGY

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Continue II B.Tech- I Sem ECM - 2023 Batch - (2024-25)

Electronics and Computer Engineering (Branch code: ECM)-Internship-1 Report

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# 6.Conclusion:

ARCI Hyderabad is a vital institution in the field of advanced materials and surface engineering. With its cutting-edge research, industrial collaborations, and focus on commercialization, ARCI plays a crucial role in the development of next-generation technologies and materials that have far-reaching impacts across various industries.