



MALLA REDDY COLLEGE OF ENGINEERING

(Approved by AICTE, Permanently Affiliated to JNTUH)

Recognised under Section 2(f) & 12(B) of the UGC Act 1956, An ISO 9001:2015
Certified Institution.

Maisammaguda, Dhulapally, post via Kompally, Secunderabad - 500100

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

REPORT ON *INDUSTRY VISIT* TO

***RESEARCH CENTER IMARAT (RCI),
DRDO, HYDERABAD***

Under VLSI & Signal Processing Club



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Maisammaguda, Dhulapally, post via Kompally, Secunderabad - 500100

Date: 29/03/2025

To,
The Principal
MRCE, Hyderabad

Respected sir,

Sub: Request seeking for Permission for Industry visit at “**Research Centre Imarat (RCI). DRDO**” from department of Electronics and Communication Engineering.

It is proposed to visit “**Research Centre Imarat (RCI). DRDO**” on **04/04/2025** by the ECE department. The duration is one day is to be visited .So we request you to grant permission for smooth conduction of the event.

We look forward to hearing a positive response.

Thanking you

Sincerely,

Signature :

Name : Mr. Shaik Sohel Pasha

Designation : Assistant Professor

Recommended/Not Recommended	Approved/Not Approved
If any comments:	If any comments:
HOD	PRINCIPAL



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

DATE: 29-03-2024

To

The Principal

MRCE

Respected Sir,

Sub: - Request to provide transport facility for Industrial Visit-Reg.

The department is continuously putting effort to impart practical knowledge to students in this regard Department of ECE organized an industrial visit for III ECE students. Hence we request you to arrange transport facility for the visit on **04-04-2025** as per the schedule given below.


Name of Company : **Research Centre Imarat (RCI). DRDO**

Address : **Research Centre Imarat (RCI).DRDO**
Kurmalguda, Hyderabad,
Telangana 500005

Date of Visit : 04-04-2025


Day_1 Timings : 9:30AM to 3.00PM

Total 40 students are divided into two batches. Each consists 20. Each batch will be coordinated by two faculty members.


Yours Sincerely,
Dept. of ECE
Malla Reddy College of Engineering,
SECUNDERABAD.

The following faculty members will coordinate the students.

1. Mr Rama Krishna
2. Mrs. S Rajeshwari


Yours Sincerely,
Dept. of ECE
Malla Reddy College of Engineering,
SECUNDERABAD.



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

DATE: 28-10-2024


CIRCULAR

All the **IV-Year Students** and here by informed that the **last date for registration of Technical seminar is on or before 30-10-2024.**

Technical Seminar Presentations will be held from 01-11-2024 to 02-11-2024

Note: 1. All Students should attend without fail

2. All students should carry Abstract PPT


Yours Sincerely,
Dept. of ECE
Malla Reddy College of Engineering,
SECUNDERABAD.

ONE DAY INDUSTRIAL VISIT TO- RESEARCH CENTRE IMARAT DRDO, KURMALGUDA, HYDERABAD

APRIL 4 , 2025

Department of ECE has organized One **Day industrial visit to Research Centre Imarat (DRDO), Kurmalguda Hyderabad on April 4, 2025** for III ECE Students.

Objectives of the Visit:

The industrial visit to the Research Centre Imarat (RCI) of the Defence Research and Development Organisation (DRDO) has as its objective to give students a real understanding of the latest technologies and research activities involved in the designing of advanced defence systems. The tour seeks to provide information on the design, development, and testing of missile systems, radar technologies, and other defence-related technologies. The students will also get exposed to the operational side of a world-class defence research establishment and deepen their understanding of the application of scientific principles to national security. The trip will also be a time for engagement with professionals, gaining insight into the actual challenges and opportunities in defence technology



FIG 1: Starting Point (CLG) At 8:15AM



FIG 2: RCI Entrance

We along with 39 students went for visit at 8.30 a.m. and took about two hour to cover the distance. The RCI is located in Kurmalguda, Hyderabad. As soon as we reached company we were guided by **D.Praveen Kumar**, Scientist-E, RCI(DRDO) and **T.Mallikarjuna Rao**, Scientist-G, RCI(DRDO) to exhibition centre for brief introduction of DRDO and AV session. Later we were accompanied to the visit.



FIG 3: Exhibition Centre Entrance

The schedule of the visit is given below:

Day	No. of Students	Faculty co-ordinators	Time	TOPIC/LAB
04/04/2025	39	1. Mr. Rama Krishna 2. Mrs.S.Rajeswari	10.30 to 10.45	Checking, Gate pass entry and Depositing electronic gadgets
			10.45 to 11.00	Refreshment (Breakfast)
			11.00 to 12.00	Brief introduction of DRDO and RCI along with AV
			12.00 to 01.30	Brief intro about RCI innovations and missiles
			01.30 to 02.30	Lunch
			02.30 to 04.00	Back to college

The visit was successful in providing students about Career Insights, Exposure to Cutting-Edge Technology, Real-World Application, Understanding of National Security, Inspiration and Motivation, Networking opportunities, Practical Learning. The students are excited and happy for connecting education to industry by providing practical knowledge.

Exposure to Cutting-Edge Technologies:

The students were granted firsthand exposure to advanced technologies employed in avionics, missile systems, navigation, and control systems. They witnessed the practical implementation of theoretical concepts learned in classrooms, transforming abstract principles into tangible operational systems. The demonstrations and explanations provided a clear understanding of how these complex systems function in real-world scenarios.

Real-World Application and Engineering Practices:

The visit served as a crucial bridge between academic learning and real-world engineering practices. Students gained a deeper understanding of how scientific principles are applied to solve complex defense-related challenges. They observed the meticulous processes involved in designing, developing, and testing these systems, appreciating the intricacies and demands of defense engineering.

Inspiration and Motivation:

Observing the work of leading scientists and engineers at RCI inspired students to pursue careers in research and development. The visit fostered a sense of motivation to excel in their studies and contribute to technological advancements, igniting a passion for innovation and problem-solving.

Career Insights:

Students gained valuable career insights into opportunities within the defense sector and related fields. They learned about the specific skills and qualifications required for these roles, empowering them to make informed decisions about their future career paths. The interactions with professionals provided clarity on potential career trajectories within DRDO and related industries.

Understanding of National Security:

The visit provided a deeper understanding of the role of technology in national security and defense. Students gained an appreciation for the importance of indigenous defense capabilities and the significance of technological self-reliance. This exposure highlighted the critical role of DRDO in safeguarding national interests.

Practical Learning and Reinforcement:

Seeing the practical work being done in the RCI labs reinforced theoretical learning. It provided a greater understanding of how classroom concepts are applied in real-world scenarios, solidifying knowledge through direct observation and practical demonstrations.

Networking Opportunities:

The industrial visit offered valuable networking opportunities, allowing students to connect with professionals working in the field. These interactions provided valuable guidance and insights into potential career paths and the current state of technology development.

Research Centre Imarat (RCI) plays a crucial role within DRDO, particularly in the development of missile technologies. Here's a breakdown of the types of missiles and related products they contribute to

Key Focus Areas:

- **Seeker Technologies:**
 - RCI is heavily involved in developing seeker technologies, which are essential for guiding missiles to their targets. This includes:
 - Radio Frequency (RF) seekers.
 - Imaging Infra-Red (IIR) seekers.

- These seekers are crucial components in various missile systems, including:
 - Air-to-air missiles (like Astra).
 - Anti-tank guided missiles (like Nag and HELINA).
 - Anti-ship missiles.
- **Navigation and Control Systems:**
 - RCI contributes to the development of sophisticated navigation and control systems, ensuring the accuracy and precision of missile trajectories.
- **Avionics:**
 - They work on avionics systems, which are vital for integrating missile systems with aircraft.
- **Radio Proximity Fuzes (RPF):**
 - These are very important for air defence systems, and RCI develops these systems.
- **Radomes:**
 - RCI works on Ceramic/Composite Radomes.

Missile Systems Contributions:

- **Astra:**
 - RCI contributes seeker technology to the Astra, a beyond visual range air-to-air missile.
- **Nag and HELINA:**
 - They provide IIR seeker systems for these anti-tank guided missiles.
- **Akash:**
 - RCI is involved in the development of technologies used in the Akash surface to air missile system.
- Contributions to Ballistic Missile defense systems.
- Contributions to Anti ship missile development.

Conclusion:

The industrial visit to Research Centre Imarat (RCI) was a highly worthwhile and enriching experience for the students. It was successful in fulfilling its purpose of filling the gap between theoretical learning and practical industry usage. The students gained deep insights into the state-of-the-art technologies utilized in the defense industry, specifically in missile design, and observed firsthand the practical application of what they had learned.

The tour cultivated a better sense of the involved engineering techniques for creating sophisticated defense systems. The tour encouraged and inspired the students, demonstrating the possibility of effective careers in research and development. The exposure to the specialized tasks on seeker technologies, navigation systems, avionics, and other key components of missiles brought into focus a clear understanding of RCI's vital contribution towards national defense.

In addition, the students acquired meaningful career experiences, learned the importance of indigenous defense capabilities, and valued the real-world reinforcement of their classroom experience. The networking sessions provided valuable opportunities for interactions with professionals, providing advice and clarity on possible career options.

The positive response of the students and their expressed joy reflect the success of this industrial visit in bridging education and industry. The practical experience acquired at RCI has greatly improved their knowledge and made them ready for future careers in the engineering and technology field. This visit is a reflection of the significance of such industry-academia interactions in developing a skilled and motivated workforce, leading to the technological growth and security of the nation.



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FACULTY AND STUDENTS LIST FOR INDUSTRIAL VISIT RCI

S.No	Roll Number	Student Name	Aadhaar Number	Phone Number
1	22Q91A0401	ADAPA SANJANA	808318085001	8125454409
2	22Q91A0407	BARMAVATH VINAYAK	698669548925	7993919051
3	22Q91A0410	EEDIGAPALLI MOUNIKA	651829943212	9121351413
4	22Q91A0411	GADDAM PRASANTHI	568624174118	9390386060
5	22Q91A0416	GOLLA SRILATHA	684280302193	9347017803
6	22Q91A0423	K SWARUP SATYA PRASAD	466477045722	9059568238
7	22Q91A0424	KARTIK PATIL	306738518868	9949165137
8	22Q91A0425	K NAGA VENKATA GHANASHYAM	646297049562	8886559924
9	22Q91A0427	KORASIKA.ANJANI SAI VARSHITHA	687928674175	8639668586
10	22Q91A0432	MADIPEDDI PRIYANKA	516064796570	6281571762
11	22Q91A0433	MATTEDDULA CHARITHA	613563339284	9392836194
12	22Q91A0434	MATTEDDULA DEEKSHITHA	908310629333	9493528304
13	22Q91A0442	PEDDAGOLLA AVINASH KUMAR	725584194671	9515933176
14	22Q91A0444	PULAKANTI SAI NIHARIKA	472662429550	8520959116
15	22Q91A0455	THALLAPALLI SAI RAM	496197053547	8374614560
16	22Q91A0462	YETHAM SHIVA	670175871727	7386199734
17	23Q95A0403	GUNDI ANUSHA	754495659704	9030883512
18	23Q95A0405	KSHAVENI LAVANYA	438618354306	8919905595
19	23Q95A0408	MUDAM GOUTHAMI	208518579669	6281083404
20	22Q91A0463	A NANDINI	803315114549	6309832830
21	22Q91A0464	ANGOTHU YAKUB	899996999857	7702275149
22	22Q91A0465	AREM SANJAY	389388570640	8341073159
23	22Q91A0472	CHENNUPALLI LOKESH	777196879144	8919209529
24	22Q91A0473	CHILUVERU NANDINI	398346807512	8639649432
25	22Q91A0476	DHARAVATH SARASWATHI	256748223262	8897403119
26	22Q91A0478	DONGLI VENU VARDHAN	222518450756	7793946425



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27	22Q91A0480	GOLLA BHASKER	414678954260	7993505263
28	22Q91A0485	JAGILLAPURAM ASHWITHA	608549027232	9177152498
29	22Q91A0487	JUJARE MEGHANA	574607824672	9381832716
30	22Q91A0497	M SANJANA	565349464371	6302853472
31	22Q91A04A1	MASHKARI ANITHA	558791147719	6304109582
32	22Q91A04B7	S.PREETHA	533607643927	7702101556
33	22Q91A04C1	VAJIROJ CHANDHU	840529793543	6300510175
34	22Q91A04C3	YAMAGANI BHANU PRAKASH	635137049949	8688754493
35	23Q95A0409	ADHE ANUSHA	565566749226	8978048489
36	23Q95A0410	BEDADALA SAI RITHVIK REDDY	318127217570	6305832107
37	23Q95A0412	GURRAPU DEEPAK	706611154286	9618028441
38	23Q95A0413	JAMGI SNEHA LATHA	584221788333	8008945405
39	23Q95A0414	KATROTH SANDEEP	212259410156	9989753178
40	23Q95A0415	SAADHULA ANVESH	315003762959	9346951254

FACULTY	S.No	Faculty Name	Aadhaar Number	Phone Number
	1 ✓	B. RAMAKRISHNA	823187313075	9398327304
	2 ✓	S. RAJESWARI	600373497847	9440216046


 Principal
MALLA REDDY COLLEGE OF ENGG
 Maisammaguda, Dhulapally Post,
 Kompally, Secunderabad - 500 100. (T.S.)

Institution

Vision

- To emerge as a Center of Excellence for producing professionals who shall be the leaders in technology innovation, entrepreneurship, management and in turn contribute for advancement of society and human kind.

Mission

- M1 : To provide an environment of learning in emerging technologies.
- M2 : To nurture a state of art teaching learning process and R&D culture.
- M3 : To foster networking with Alumni, Industry, Institutes of repute and other stakeholders for effective interaction.
- M4 : To practice and promote high standards of ethical values through societal commitment.

Department

Vision

- To become a center of excellence by producing high quality, self motivated, creative, ethical engineers and technologists contributing effectively to industrial and societal needs.

Mission

- M1. To impart state of art value based engineering education with relevant practical knowledge.
- M2. To enable students to develop skills by the usage of modern tools through team work which enhances the entrepreneur skills, employability and multidisciplinary activities.
- M3. To provide all possible support to promote research and development and to adept them for higher education.
- M4. To practice high standards of ethical values through societal commitment.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ORGANISES

INDUSTRY VISIT

RCI (DRDO), HYDERABAD

ON

04/04/2025



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