R K COLLEGE OF ENGINEERING

(Accredited by NAAC with 'A' Grade)

Industrial Visit Report: Andhra Medical Tech Zone (AMTZ)

Date: 6th March 2024

Venue: Andhra Medical Tech Zone (AMTZ)

Participants: 60 Electronics and Communication Engineering students and 3 faculties

Introduction:

The industrial visit to Andhra Medical Tech Zone (AMTZ) was organized for 60 students pursuing Electronics and Communication Engineering, accompanied by three faculties. The objective of the visit was to provide students with practical insights into the cutting-edge technologies and innovations in the medical technology sector.

Arrival and Welcome:

The group arrived at AMTZ premises at 10:30AM, where they were warmly welcomed by the AMTZ staff. A brief introduction to the organization and its mission was given, setting the tone for an educational and enlightening experience.

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VIJAYAWADA

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Vijayawada, AMARAVATI-521 456

Overview of AMTZ:

AMTZ, located in Vishakhapatnam, is a state-of-the-art facility dedicated to the research, development, and manufacturing of medical devices. The students were given a comprehensive overview of the zone's functions, emphasizing its role in promoting indigenous manufacturing and innovation in the healthcare sector.

Guided Tour:

The students and faculty were divided into smaller groups and taken on a guided tour of various departments within AMTZ. The tour covered the following key areas:

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1. Research and Development Labs:
    - Witnessed ongoing research projects related to medical electronics and communication.
    - Interacted with research scientists and engineers to understand the challenges and breakthroughs in the field.
2. Manufacturing Units:
    - Explored state-of-the-art manufacturing facilities for medical devices.
    - Gained insights into the manufacturing processes, quality control measures, and adherence to international standards.

3. Testing and Quality Assurance:
    - Learned about the rigorous testing procedures implemented to ensure the safety and efficacy of medical devices.
    - Demonstrations of quality assurance protocols and compliance with regulatory standards.
4. Innovation Hub:
    - Visited the innovation hub where startups and entrepreneurs collaborate to bring new ideas to fruition.

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- Engaged in discussions with innovators and entrepreneurs, understanding the role of electronics and communication in medical innovations.

Interactive Sessions:

The visit included interactive sessions where students had the opportunity to ask questions, seek advice from industry experts, and gain valuable insights into career prospects in the medical technology sector. Faculties facilitated discussions on the practical applications of Electronics and Communication Engineering in the healthcare domain.

Conclusion:

The industrial visit to AMTZ proved to be an enriching experience for both students and faculty. It provided a real-world perspective on the integration of electronics and communication engineering in the medical field. The exposure to cutting-edge technologies and the opportunity to interact with professionals in the industry will undoubtedly benefit the students in their academic and career pursuits.

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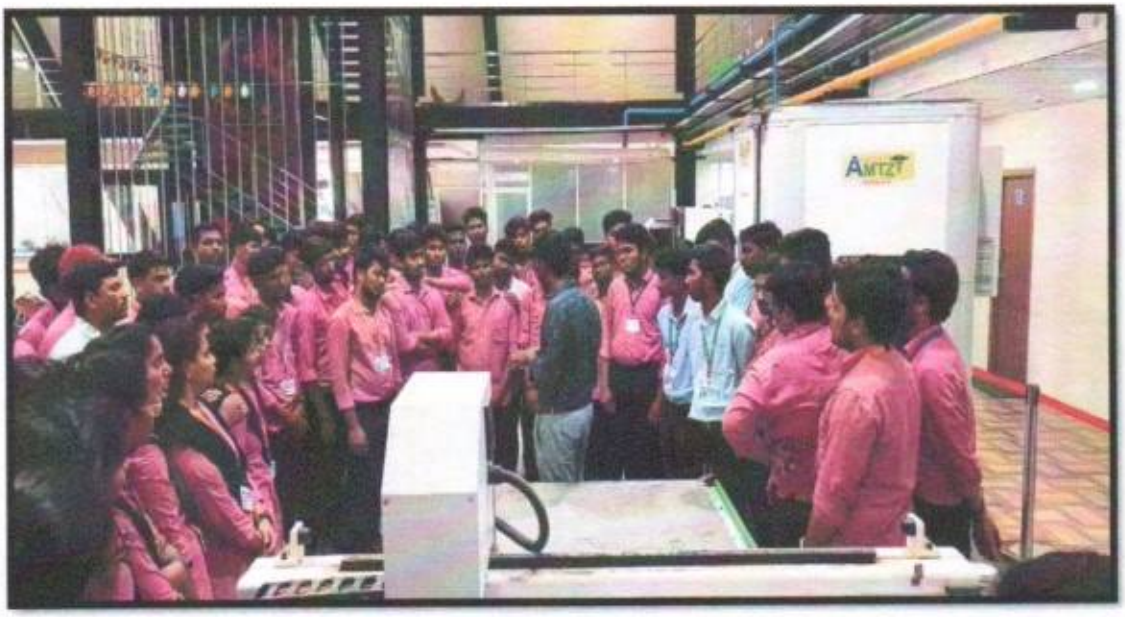
PHOTOGRAPHS



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Acknowledgments:

We extend our heartfelt gratitude to the management and staff of AMTZ for their warm welcome, informative sessions, and the seamless organization of the industrial visit. Special thanks to **Nitturi Naresh Kumar** (Scientist-D) for their guidance and support throughout the visit.

This industrial visit has undoubtedly broadened the horizons of our students, and we look forward to more such collaborations in the future.

Report compiled by: John Sydha

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Department of Computer Science and engineering

Report on Industrial Visit to AMTZ(Andhra Medical Tech Zone), Visakhapatnam

1	Name of the Activity/Event	Industrial visit		
2	Date of the Activity/Event	26-03-2024		
3	Organized by/ Name of the committee	Department of Computer Science and engineering		
4	Place of Activity/Event	AMTZ		
5	Resource Person/ Guest/ Organization	M. Prasanna, AMTZ, Visakhapatnam.		
6	Type of Activity/Event	Technical		
7	Activity/Event Objectives	To create awareness on Medical Technologies used in Computer Science and Engineering		
8	Participation	Students	Faculty	Total
		40	4	44

The Department of Computer Science and Engineering of R K College of Engineering, Ibrahimpatnam had arranged a one day Industrial Visit for III B. Tech Students to AMTZ(Andhra Medical Tech Zone), Visakhapatnam,on 26/03/2024.Students reached AMTZ at nearly 10:00Am.

Total 40 students and 4 faculty members were participated in industrial tour.

One resource person Miss M.Prasannahas been assigned for our students.

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1. **Research and Development Labs:**
    - Witnessed ongoing research projects related to medical Computer Science and Engineering.
    - Interacted with research scientists and engineers to understand the challenges and breakthroughs in the field.
2. **Manufacturing Units:**
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4. **Innovation Hub:**
    - Visited the innovation hub where startups and entrepreneurs collaborate to bring new ideas to fruition.

- Engaged in discussions with innovators and entrepreneurs, understanding the role of electronics and communication in medical innovations.

Interactive Sessions:

The visit included interactive sessions where students had the opportunity to ask questions, seek advice from industry experts, and gain valuable insights into career prospects in the medical technology sector. Faculties facilitated discussions on the practical applications of Computer Science and Engineering in the healthcare domain.

Conclusion:

The industrial visit to AMTZ proved to be an enriching experience for both students and faculty. It provided a real-world perspective on the integration of software applications in the medical field. The exposure to cutting-edge technologies and the opportunity to interact with professionals in the industry will undoubtedly benefit the students in their academic and career pursuits.

Acknowledgments:

We extend our heartfelt gratitude to the management and staff of AMTZ for their warm welcome, informative sessions, and the seamless organization of the industrial visit. Special thanks to **M.Prasanna** (Scientist-D) for their guidance and support throughout the visit.

This industrial visit has undoubtedly broadened the horizons of our students, and we look forward to more such collaborations in the future.

Faculty-In-Charge

HOD


AMTZT
GPS Map Camera
Visakhapatnam, Andhra Pradesh, India
J5H5+VJV AMTZ Campus, Pragathi Maidan, Siddeswaram, Nadupuru Reserve Forest, Visakhapatnam, Andhra Pradesh 530032, India
Lat 17.629326°
Long 83.159084°
26/03/24 12:54 PM GMT +05:30
Google


I-SAT
AMTZT
NATIONAL INSTITUTE OF ADDITIVE MANUFACTURING IN ADVANCED MEDICAL TECHNOLOGY (NIAMAT)
I-SAT


GPS Map Camera
Visakhapatnam, Andhra Pradesh, India
J5H5+VJV AMTZ Campus, Pragathi Maidan, Siddeswaram, Nadupuru Reserve Forest, Visakhapatnam, Andhra Pradesh 530032, India
Lat 17.62933°
Long 83.159077°
26/03/24 12:56 PM GMT +05:30
Google


GPS Map Camera
Visakhapatnam, Andhra Pradesh, India
J5H5+VJV AMTZ Campus, Pragathi Maidan, Siddeswaram, Nadupuru Reserve Forest, Visakhapatnam, Andhra Pradesh 530032, India
Lat 17.629318°
Long 83.159079°
26/03/24 12:56 PM GMT +05:30
Google


GPS Map Camera
Visakhapatnam, Andhra Pradesh, India
J5H5+VJV AMTZ Campus, Pragathi Maidan, Siddeswaram, Nadupuru Reserve Forest, Visakhapatnam, Andhra Pradesh 530032, India
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Long 83.158868°
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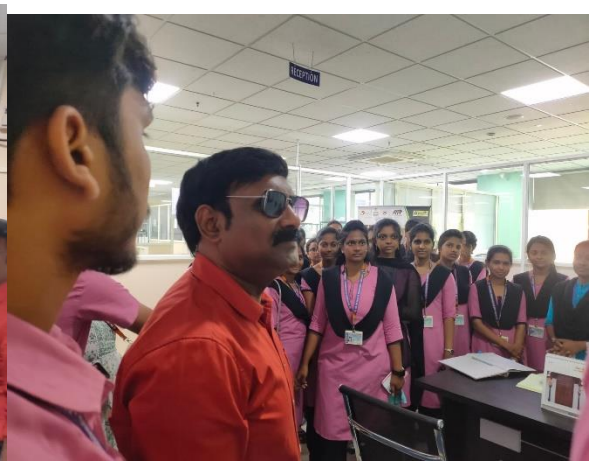
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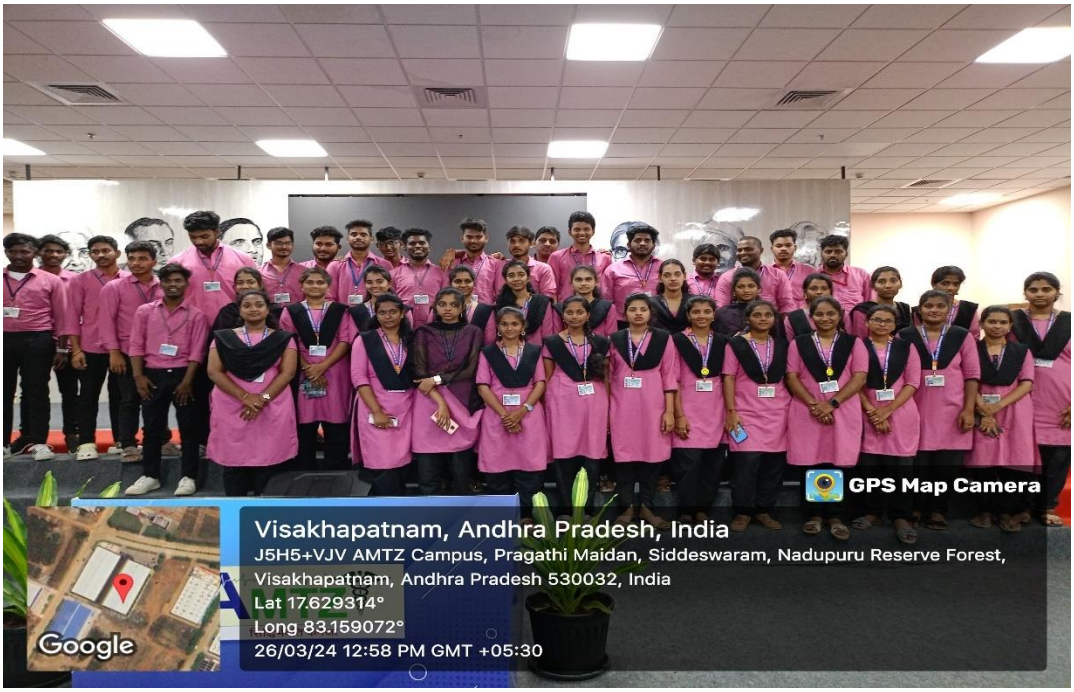
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Visakhapatnam, Andhra Pradesh, India
J5H5+VJV AMTZ Campus, Pragathi Maidan, Siddeswaram, Nadupuru Reserve Forest, Visakhapatnam, Andhra Pradesh 530032, India
Lat 17.629314°
Long 83.159072°
26/03/24 12:58 PM GMT +05:30
Google


INDUSTRIAL VISIT

AMTZ

सिद्धिर्भवति कर्मजा

Date: 22.03.2024

To,

Shri H M Sehgal

DGM (A) I/c

RINL / Visakhapatnam Steel Plant,

Visakhapatnam

Sub: Requesting for permission to enter bus from **RK College of Engineering, Vijayawada, Andhra Pradesh.**

Dear Sir,

This is to inform you that students from **RK College of Engineering, Vijayawada, Andhra Pradesh.** are visiting Andhra Pradesh MedTech Zone (AMTZ). About **60 students** are coming to attend industrial visit on **26th March 2024.** So please allow our vehicles to pass through Check Post at Steel Plant Town Ship and do the needful.

Vehicle No: **AP07TH6277**

May be permitted
follow safety rules

22/3/2024

ई. श्रीनिवास राव-E. SREENIVASA RAO
वरिष्ठ प्रबंधक (प्रशासन)-Sr. Manager (Admn.)
सामान्य प्रशासन विभाग-Gen. Admn. Deptt.
आर आई एन एल,विशाखपट्टणम इस्पात संयंत्र
RINL,Visakhapatnam Steel Plant
विशाखापट्टणम-Visakhapatnam-530 031

Thanks & Regards

AMTZ Visakhapatnam

Authorized Signatory

Great Place To Work. Certified

ANDHRA PRADESH MEDTECH ZONE LIMITED
E-mail: info@amtz.in, Contact: +91 88850 92122/33 CIN – U85190AP2016SGC103153
AMTZ Campus, Pragati Maidan, VM Steel Project S.O, Visakhapatnam, AP, India - 530 031. www.amtz.in

A REPORT ON EDUCATIONAL TOUR

SDSC SHAR, SRIHARIKOTA

On

07th March 2024

By

II B.Tech ECE

Students

2022-2026 Batch

Conducted By

Department of Electronics & Communication Engineering

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To improve skill and knowledge of the students in their academics, with the inspiration from the principal of our college Dr. K. Rama Krishnaiah garu, the Diploma in ECE had taken an initiation to conduct educational tour. As a part of it ECE department thought of visiting SDSC SHAR.

MR. V.V.G.S.RAJENDRA PRASAD, Head Department of ECE prepared a requesting letter to SDSC SHAR public relations officer & librarian Mr. Subrahmanya Sharma.

Our honorable chairman sri M.M.KONDIAH garu and hon'ble secretary Dr.M.MHENDHRANATH garu who had good relations with SDSC SHAR employees, spoke them and influenced them, so we had given permission for visiting SDSC SHAR. The staff and all the final year students were very much thankful to the management.

Principal sir declared the date for visit as 07th March, 2024.

Then we prepared schedule to take the diploma students of ELECTRONICS AND COMMUNICATION ENGINEERING

SCHEDULE

TIME	VISITED PLACE
04:00 AM	REACHING SULLURPET AND STAY IN THE HOSTELS (BOYS AND GIRLS) OF "GOKULA KRISHNA ENGINEERING COLLEGE"
07:30 AM	BREAK FAST AT HOSTEL OF GOKULA KRISHNA ENGINEERING COLLEGE. (SPONCERED BY RKCE MANAGEMENT)
08:00 AM	STARTING JOURNEY TO SHRIHARIKOTA
09:00 AM	REPOTING AT FIRST GATE OF SDSC SHAR
09:30 AM	REPORTING AT LIBRARY (PRO) IN SRIHARIKOTA
	SHAR VISIT AS PER THEIR GUIDENCE.
04:30 PM	RETURN FROM SHRIHARIKOTA

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05:00 PM	REFRESHMENT AT SULLURPET LAKE
08:00 PM	DINNER AT GOKULA KRISHNA ENGINEERING COLLEGE. (SPONCERED BY RKCE MANAGEMENT)
9.00 PM	RETURN TO VIJAYAWADA

LIST OF ATTENDED STUDENTS:

SL.NO.	STUDENT NAME	CLASS / BRANCH & YEAR
1	ARAVAPALLI VENKATESWARA RAO	B.TECH / ECE & II Year
2	BATTULA PREMCHANDU	B.TECH / ECE & II Year
3	BOYA GURU PRASAD	B.TECH / ECE & II Year
4	CM AKASH	B.TECH / ECE & II Year
5	CHINTHAKAYALA SIVA SHANKAR NAIDU	B.TECH / ECE & II Year
6	DAMARLA PAVAN SATHISH	B.TECH / ECE & II Year
7	DEVIREDDY AKSHITHA	B.TECH / ECE & II Year
8	DUGGIPOGU VIJAYA SRI	B.TECH / ECE & II Year
9	GUNUPATI PRATHYUSHA	B.TECH / ECE & II Year
10	KATHI PRABHAKAR	B.TECH / ECE & II Year
11	KORNE MANIKANTA SRINIVASA RAO	B.TECH / ECE & II Year
12	KURICHETI SRINU	B.TECH / ECE & II Year
13	LINGAVARAPU VAMSI	B.TECH / ECE & II Year
14	PAPPALA SANJAY SRINIVAS	B.TECH / ECE & II Year
15	PETLURI HARSHAVARDAN	B.TECH / ECE & II Year
16	REDDEM VAISHNAVI	B.TECH / ECE & II Year
17	SURAVARAPU AJAY	B.TECH / ECE & II Year
18	VADDE RAJESH	B.TECH / ECE & II Year
19	AKULA SUPRIYA	B.TECH / ECE & II Year
20	MANDELA JNANESWARI	B.TECH / ECE & II Year
21	NARAMALA SRI HARSHITHA	B.TECH / ECE & II Year
22	PENTAKOTA DURGA PRASAD	B.TECH / ECE & II Year
23	SAMSANI VENKATA SAI KUMAR	B.TECH / ECE & II Year

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STAFF CO-ORDINATORS:

DEPT.	FACULTY NAME
ECE	1.V.V.G.S.RAJENDRA PRASAD 2.Y.V N M Sarma 3.V.Vajralakshmi

Protracted description:

Staff co-coordinators hired from COLLEGE BUS and RAILWAYS. Total students along with staff started as per schedule on March 06th.

We reached GOKUL KRISHNA ENGINEERING COLLEGE, SULLURPETA by 04:00 am; we were arranged accommodation by Gokul Krishna Engineering College hostel.

Students and staff were ready by 7:30am, finishing their breakfast to go to SHRIHARIKOTA. Busses started to go to Shriharikota.

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Afterward we reached SHRIHARIKOTA by 9:00am and reported at gate no:1 after completing checking formalities we visited central library in SHAR, and at there we reported to public relations officer. He arranged a guide to support us and explain everything.

Video Visuals:

Firstly, we were directed to sit in the auditorium. After faculty and students occupied their prearranged seats they started a video show. The video was covered 30 minutes explaining all of the SHAR activities.

SATISHDHAWAN space center SHAR at SRIHARIKOTA is one of the best known places among the spaceports of the world today. The space center which was popularly known as SHAR (Sriharikota Range), was renamed as 'SatishDhawan space center SHAR' on Sep' 5th, 2002 in memory of prof.Satish Dhawan who was occupied as a former chairman of Indian Space Research Origination (ISRO). The First Indian Lunar Mission, Chandrayaan - 1and 1st interplanetary mission of India, Mars Orbiter Mission (MOM) were take off from here apart from other satellites.

PROPELLANT PRODUCTION

SDSC SHAR has two solid propellant processing plants for processing large size propellant grains of satellite launch vehicles.

QUALIFYING ROCKET MOTOR

Rocket motors and their sub systems have to be rigorously tested today and evaluated on ground before they are declared flight worthy..

Other test facilities include systems for the environment testing of rocket motors and their subsystems under vigorous conditions like vibration, shock, Constant acceleration and thermal. S200 motor, the largest solid propellant booster ever produced by ISRO, was static tested here.

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VISIT TO NEW MISSION CONTROL CENTRE

After completion of video visual about activities of SDSC SHAR, in their guidance we moved to new MISSION CONTROL CENTRE in two buses after completion security check.

The new Mission Control Center (MCC), situated about 6km away from the launch complex, coordinates and conducts the launch operations during the countdown phase till the injection of satellite into the orbit. The MCC is linked to all ground stations through communication link for voice and data transmission. A host of new facilities including radars systems, Optical tracking systems, telecom and systems, real time computer network, a wind profile radar (MOTR) are established with indigenous technologies which helps even for tracking of space Debris.

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VISIT TO LAUNCH COMPLEXES

SDSC SHAR has two operational launching complexes, each equipped with the necessary infrastructure for launching satellites into LEO (Lower Earth Orbit), Polar Orbit and Geo Stationary Transfer Orbit (GTO). The launch complexes provide complete support for vehicle assembly, satellite preparation, Propellant filling, checkout and launching operations. Apart from these facilities for launching, Sounding Rockets are also available at SDSC SHAR. The individual stages of PSLV or GSLV, their subsystems and space craft are prepared and checked out in the separate facilities before they are sent to launch pad for integration.

NEW LAUNCH PAD ALONG WITH ROCKET ERECTION LAB

For meeting the growing national needs, in terms of enhanced launch frequency, a new facility viz. second vehicle assembly building (SVAB) is being added at 2nd launch complex. The launch complex and rocket was protected by four lightning towers in four corners of complex.

There is an underground duct to blow away starting fire and there is a water tank with 3lakhs liter capacity. The water used to sprinkle on when rocket body launch was fired (the three lakhs liter water was fully sprinkled in three minutes to protect rocket body from fire).

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After Completion of Visit at Launch Complex We Moved To Tracking and Telemetry Section. The range instrumentation facilities comprise of tracking, telemetry and tele command systems serve both the launch pads. The vehicle position information is instantaneously computed in Real Time from tracking data is used for evaluating the performance of the vehicle. The performance of the data of various systems of the vehicle is acquired by telemetry ground stations.

A group of space craft preparation facilities which are versatile safe and totally secured, are available at SDSC SHAR. They effectively meet the growing size of the satellite payloads, as well as customer requirements for more efficient, cost effective and faster paced launch campaigns.

The launched rocket was tracked by four base station radars which are geographically located in four different places of world so that they can have a track of rocket and satellites till placed in the ORBIT.

We are at Information Museum

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On the end of the day during the return we had collected a Feed Back from each student inside the Bus. Students felt very happy and shared their views that the trip was given both knowledge and enjoyment in their academic career and they requested us to arrange this knowledgeable tour to their juniors also. This Industrial visit is helping more to elaborate both their knowledge and pleasure not only them but also their juniors.

Yours faithfully

V.V.G.S.RAJENDRA PRASAD
(HOD ECE)

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