

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

RK COLLEGE OF ENGINEERING

**Coordinator-IQAC
RKCE**



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R K COLLEGE OF ENGINEERING
Ketanakonda (V), Ibrahimpatnam (M),
Vijayawada, AMARAVATI-521 456



R K COLLEGE OF ENGINEERING

(Accredited by NAAC with 'A' Grade)

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 - 1 and 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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