

ADIKAVI NANNAYA UNIVERSITY: RAJAMAHENDRAVARAM
UNIVERSITY COLLEGE OF ENGINEERING

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

A REPORT ON INDUSTRIAL VISIT
TO
ISRO-URSC

An industrial visit to Indian Space Research Organization (ISRO) U R Rao Satellite Centre (URSC), Bangalore, has been organized by Department of Electronics and Communication Engineering of ADIKAVI NANNAYA UNIVERSITY, University College of Engineering Rajahmundry, Students of B. Tech 3rd year on 19-October-2022 who were accompanied by three faculty members, Mr. A. Vijaya Durga Asst.Prof., Mr. P. Venkata Ratnam Asst.Prof., Smt.Lakshmi Bhai.

The objective of the visit was to provide a Technical Exposure to the students about Space Technology and advancements in Technology. The visit not only provided a good insight into the quality of research happening in the area of space technology but also gave great exposure to the students about the future career prospects and areas of research in applied sciences.



About ISRO-URSC

The Indian Space Research Organisation (ISRO) is the national space agency of India, headquartered in Bangalore. It operates under the Department of Space (DOS) which is directly overseen by the Prime Minister of India, while the Chairman of ISRO acts as the executive of DOS as well. ISRO is India's primary agency for performing tasks related to space-based applications, space exploration and the development of related technologies. It is one of six government space agencies in the world which possess full launch capabilities, deploy cryogenic engines, launch extra-terrestrial missions and operate large fleets of artificial satellites.

The Indian National Committee for Space Research (INCOSPAR) was established by Jawaharlal Nehru under the Department of Atomic Energy (DAE) in 1962, on the urging of scientist Vikram Sarabhai, recognizing the need in space research. INCOSPAR grew and became ISRO in 1969, within DAE. In 1972, the government of India set up a Space Commission and DOS, bringing ISRO under it. The establishment of ISRO thus institutionalized space research activities in India. It since then has been managed by DOS, which governs various other institutions in India in the domain of astronomy and space technology.

ISRO built India's first satellite, Aryabhata, which was launched by the Soviet Union in 1975. In 1980, ISRO launched satellite RS-1 onboard its own SLV-3, making India the seventh country to be capable of undertaking orbital launches. SLV-3 was followed by ASLV, which was subsequently succeeded by development of many medium-lift launch vehicles, rocket engines, satellite systems and networks enabling the agency to launch hundreds of domestic and foreign satellites and various deep space missions for space exploration.

Summary of the Visit

One bus with students started from ADIKAVI NANNAYA UNIVERSITY, University College of Engineering Rajahmundry at 9:30 A.M. on 19th Oct 2022.



We Reached Rajahmundry Railway Station. Then we move from Rajahmundry railway station to Bangalore via Vijayawada. We reached Bangalore at 10:00 A.M, on 20th Oct 2022 where accommodation was provided to the students and faculty at Hotel Surya Residency, Gandhi Nagar, Majestic, Bengaluru. After Breakfast, on 21-10-2022 we started to visit Indian Space Research Organization (ISRO) U R Rao Satellite Centre (URSC), Bangalore, after several security checks and administrative formalities, Students and faculty to allow in to Organization.

ISRO Satellite Centre showed various movies in satellite model gallery in ISRO satellite centre, Bangalore about various ISRO missions, he further added that ISRO has conducted a variety of launching operations for both Indian and foreign clients.

It's been a thrilling experience for the under graduate students when they visited the campus of ISRO, Bangalore. The kind of response we got from the students was really good. Knowledge about the ISRO team, its objectives, milestones, achievements as well as the co-ordination between organization line and employees was explained in details.



From the early periods of ISRO to its current generation, how the objectives are accomplished, is depicted with sound lingual skill and zester The speaker evoked the knowledge of the technology of making and development of satellite, launch vehicles, sounding rockets, associated ground systems, remote sensing application projects, satellites like Aryabhata, Bhaskara, Rohini, apple, launch vehicles SLV-3 and ASLV and more importantly the 20 mins video about the journey of ISRO which creates their Feel good factor to any individual of India. ISRO satellite centre activities



cover digital systems. power systems, integration and testing. structures, thermal, spacecraft mechanisms, control systems, spacecraft mission planning and analysis, computers and information, systems reliability and space physics as well as communication and microwave systems.

In overall visit we first went to ISRO satellite model gallery after receiving gate-entry pass from reception. There we saw various old models of satellites like Aryabhata, Rohini etc, Rocket fuel propellant, astronomical 3D images of India and satellite communication model. Then we saw restricted area from first gallery through glasses which was a laboratory where various scientists were working in special dress on satellite launch vehicles.

Students Share ISRO-URSC, Experience:

Some of the students, share their industrial visit Indian Space Research Organization (ISRO) U R Rao Satellite Centre (URSC), Bangalore, experiences, they are P.S.S Premkumar, D.T.V Sai Kumar, P.Sandeep, M.Amrutha Sai, N.Hema Latha are shared their experiences on a industrial visit to ISRO-URSC, Bangalore visit in the form of a presentation on the purpose, utility and experience of the visit. Mr. H.L.Srinivas has explained the various devices, fabrication and testing methods used in development of satellite and procedure of launching the satellite to space. Students were also taken to satellite manufacturing place (Window view). “Its objective is to provide space related techniques for India. The ISRO-URSC visit was quite enlightening and exciting. A lot of information related to the space was received from the excursion. Through, presentations, Guide lectures, and excursions, we get detailed information about India's space- related developments. They give detailed information regarding Rocket, Satellites, SLV, PSLV, GSLV-Mk II, Satellite Programme, Human Space Flight Programme, Mission Control etc.

- ❖ A News Paper Article regarding Adikavi Nannaya University, Engineering 3rd year Students visit to Indian Space Research Organization (ISRO) U R Rao Satellite Centre (URSC), Bangalore.

ఇంజనీరింగ్ విద్యార్థుల ఇండస్ట్రీయల్ విజిట్



19.10.22 (మీడియాసెల్) ఆదికవి నన్నయ యూనివర్సిటీ కాలేజ్ ఆఫ్ ఇంజనీరింగ్, డిపార్ట్మెంట్ ఆఫ్ ఎలక్ట్రానిక్స్ అండ్ కమ్యూనికేషన్ ఇంజనీరింగ్ ఆధ్వర్యంలో బెంగళూర్ లోని పలు ప్రాంతాలకు ఇండస్ట్రీయల్ విజిట్ కు వెళ్ళారు. బుధవారం యూనివర్సిటీ కాలేజ్ ఫ్రీస్టిపాల్ డా.వి.వెర్మిన్ ఇండస్ట్రీయల్ విజిట్ ను బెంగాళూరు ప్రారంభించి వివరాలను తెలియజేశారు. వీసీ ఆచార్య మొక్కా జగన్నాధరావు ప్రోత్సాహంతో యూనివర్సిటీ కాలేజ్ ఆఫ్ ఇంజనీరింగ్ విద్యార్థులకు మెరుగైన అవకాశాలను కల్పిస్తున్నామని, ఎ.ఎ.సి.టి.ఇ. గౌర్తింపుతో కూడిన నాణ్యమైన ఇంజనీరింగ్ విద్యను అందిస్తున్నామని

అన్నారు. పాఠ్య ప్రణాళికలలో భాగంగా 19వ తేదీ నుండి 25వ తేదీ వరకు డిపార్ట్మెంట్ ఆఫ్ ఎలక్ట్రానిక్స్ అండ్ కమ్యూనికేషన్ ఇంజనీరింగ్ విద్యార్థులను బెంగళూర్ ఇండస్ట్రీయల్ విజిట్ కు పంపిస్తున్నామన్నారు. బెంగళూర్ లోని సి.ఎస్.ఐ.ఆర్ - నేషనల్ ఎరోస్పేస్ రిసోర్సెస్, ఐ.ఎస్.ఆర్.ఓ - యు.ఆర్.రావు

కాలిలైట్ సెంటర్, శ్రీ మోక్షగుండం విశ్వేశ్వరయ్య మ్యూజియం వంటి ప్రాంతాలను సందర్శిస్తారని చెప్పారు. ఇంజనీరింగ్ లోని అడ్వూజులను ఆవిష్కరించిన ఇటువంటి ప్రాంతాలలో పర్యటించడం ద్వారా విద్యార్థులకు శ్రేష్టస్థాయి ఇంజనీరింగ్ విధానాలు అలవాటు అవుతాయన్నారు. ఇంజనీరింగ్ లో మెరుగ్గా రాజించడానికి ప్రోత్సాహకంగా ఉంటుండన్నారు. ఆధ్యాపకుల మార్గదర్శకంలో విద్యార్థులు క్రమశిక్షణతో ఇండస్ట్రీయల్ విజిట్ ను పూర్తి చేసుకొని రావాలన్నారు. ఈ కార్యక్రమంలో కోర్సు కోఆర్డినేటర్ డా.బి.నుధాకిరెడ్డి, డా.వెంకటరత్నం, లక్ష్మీధాయ్ మరియు విద్యార్థులు పాల్గొన్నారు.