

SRR & CVR (A) GDC, Vijayawada

Department of Chemistry

Field Trip to SDSC SHAR on 30 & 31st Dec 2019

Report by Dr. G. Nagarjuna, Lecturer

Department of Chemistry in collaboration with department of Mathematics, Physics and Statistics organized an educational tour to all the B.Sc students in the month of Dec – 30 & 31st 2019.

- Since the goal of education is to impart knowledge to students, they gain knowledge and upgrade their skills by using the new concepts they learn from these educational tours. In addition, educational tours play an important role in educating our students in a practical and interesting manner. The importance of Educational trips includes giving students the chance to— build closer bonds with their classmates, experience new environments and enjoy a day away from the classroom.
- The visit was planned according to the suggestions of our beloved Principal **Dr. Velaga Joshi**; Convener: **Dr. G. Lalitha**; Senior member: K.V. Nagalakshmi; Members: **Dr. G. Nagarjuna**, M.L.N.Dasu, Dr. Md. Mastan and Some of the guest faculty members.
- Satish Dhawan Space Centre or Srihari Kota Range is a rocket launch centre operated by Indian Space Research Organisation. It is one of the prestigious institutions of India where our legendary scientist Dr. APJ Abdul Kalam executed his ideas towards the development of National Space Research Programme.
- This Centre has the facilities for solid propellant processing, static testing of solid motors, launch vehicle integration and launch operations etc.
- The Centre has two launch pads from where the rocket launching operations of PSLV and GSLV are carried out. The mandate for the centre is (i) to produce solid propellant boosters for the launch vehicle programmes of ISRO (ii) to provide the infrastructure for qualifying various subsystems and solid rocket motors and carrying out the necessary tests (iii) to provide launch base infrastructure for satellites and launch vehicles.

We started from here by Bus on 30th December 2019 night to SDSC SHAR, Nellore. We visited SHAR center on 31st December 2019. The visit was started with checking at the main gate, and they won't allow mobiles to take along with us. We went to seminar hall over there, where we saw a ppt including brief history of SHAR, reasons to select that area for rocket launching and so many things.

We went to MCC (Mission Control Center), is a facility that manages space flights, usually from the point of launch until landing or the end of the mission. It is part of the ground segment of spacecraft operations.

Then we moved to launching pads. A **launch pad** is an above-ground platform from which a rocket-powered missile or space vehicle is vertically launched. The Centre has two operational orbital launch pads. The modern First Launch Pad was built in the early 1990s for the polar satellite launch vehicle. Second Launch Complex became operational in 2005 for accommodating PSLV, GSLV and GSLV Mk III launch vehicles of ISRO.

Later on we went to SPACE museum. The museum has full-scale model of PSLV and PSLV heat shield on its premises. The museum also has scaled down (one fifth in size) models of GSLV, GSLV Mk-III. Space Museum provides a tell-tale account of the Indian Space Programme from its infancy. The story of the Indian Space Programme is unfurled in six sections, comprising of history, education, technology, applications, global and the future.

I enjoyed the visit a lot, as it gave me an opportunity to understand the importance of spaceport of India and to know well about my students and their nature. I strongly recommend this type of tours would definitely help students to understand basic phenomenon in Physics and Chemistry that were used in Spacecraft operations. And it would definitely inspire students to pursue higher education in the field of space science and get employability in these kinds of highly prestigious institutions. In this contest, I felt very happy to know that some of the student determined and asserted to pursue higher studies and get themselves involved in Space Research.

Dr. G. Nagarjuna
Lecturer in Chemistry.

SDSC- SHAR Field trip on December 31st 2019



Class Room interaction about SDSC SHAR among students of III B.Sc

