



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Report on Guest Lecture on “Dr. Vikram Sarabhai Biography- Transforming India-The Human Space Flight(Gaganyaan)”

The department of **Electronics and Communication Engineering** has conducted **Guest lecture** on “**Dr. Vikram Sarabhai Biography-Transforming India-The Human Space Flight(Gaganyaan)**” on behalf of **IETE** which is held on 12/08/2022. All ECE I year students came forward to participate in this event.

To motivate the students, the guest lecture of **Dr. Vikram Sarabhai Biography** has been organized by The Institution of Electronics and Telecommunication Engineers (**IETE**) of ECE department.

Dr.K.Murali, HoD ECE welcomed the gathering.

Mr. C. Sateesh Kumar Reddy, Convener, introduced the resource person and invited **T S Raghuram** to discuss about biography of Dr. Vikram Sarabhai.

Resource Person:

T S Raghuram

Chief General Manager ,
Safety Operations and System,
Associate Project Director GSLV,
SDSC SHAR Centre,
ISRO, SRIHARIKOTA.

As a young boy Vikram Sarabhai loved a few cycling stunts. After his bicycle gained sufficient momentum, he would cross his arms over his chest and place his feet on the handlebars. If the road ahead was straight he would shut his eyes and let the bicycle carry him as far as it would go. All this while the terrified servants chased him and begged him to stop.



Dr. K. Murali Introducing the resource person

This daredevilry is a bit difficult, to associate with his later scholarship – author of 80 scholarly papers on cosmic rays! The seeds of this remarkable life were probably shown in early childhood and fostered by his unusual upbringing.

Vikram Sarabhai came from a prosperous business family - which owned the famous Calico textile mill in Ahmedabad. While returning by ship in the 1920's his father Ambalal and mother Sarla read Montessori's revolutionary book on education. They promptly decided to start a Montessori school for their children! Their eight children were educated in a private experimental school on the family's 21-acre property.



Resource person giving lecture on Dr. Vikram Sarabhai Biography

The children were home schooled by a succession of British and Indian teachers under the supervision of their parents. When Vikram showed some interest in tinkering and things mechanical his father gifted him a full fledged workshop with a supervisor in toe!. After schooling Vikram joined the Gujarat College, Ahmedabad, but before he graduated he left India to join St. John's College at Cambridge University. In 1939 he obtained his Tripos in Natural Sciences. The outbreak of World War II forced him to return to India. Here he went to work under Dr C.V. Raman on cosmic rays at the Indian Institute of Science, Bangalore.

The study of cosmic rays turned Sarabhai's attention inevitably to wards space science and technology. This interest lay dormant until opportunity beckoned him to play a major role in India's space programme. While at Bangalore, Sarabhai met and married Mrinalini Swaminathan, an accomplished Bharathanatyam dancer. They had two children a son Karthikeya and a daughter Mallika.

In 1945, with the war over, Sarabhai returned to Cambridge. He obtained his PhD degree in 1947 on the topic, Cosmic Ray Investigations in Tropical Latitudes under the guidance of E.S. Shire. The thesis also included some work on nuclear fission.



Students actively participating in the seminar

In the fervently idealistic post-Independence era, Vikram Sarabhai established several institutions such as the Physical Research Laboratory; the Darpana Dance Academy, which he co-founded with his wife, Mrinalini; the Ahmedabad Textile Industry's Research Association (ATIRA), India's first textile research cooperative; the country's first market research agency, the Operations Research Group; the Indian Institute of Management, (IIM/ Ahmedabad) and helped in setting up the National Institute of Design (NID).

Sarabhai laid the foundation for SITE (Satellite Instructional Television Experiment) a mass learning programme for millions of unschooled Indian children. He established a rocket launching station at Thumba, Kerala very close to the magnetic equator. It was later expanded to a full-fledged Space Science and Technology Centre (today this centre aptly bears the name Vikram Sarabhai Space Research Centre). Another rocket range was established in Sriharikota in Andhra Pradesh and a Satellite Communication Centre in Ahmedabad.



Resource person explaining about launch vehicles

T S Raghuram explained the different wireless services that operate a wide frequency range, they show significant promise in addressing new system requirements, necessary topics the students need to concentrate, the job opportunities in antennas and wireless communications and latest research in antenna design. All the Students of III year B.Tech ECE actively involved in the session where they recollected, related the information and effectively shared their knowledge.

After the Completion of Guest lecture on Dr. Vikram Sarabhai Biography session,

Dr. K. Murali, HoD ECE appreciated the students for their active participation in the event.

Mr. C. Sateesh Kumar Reddy, Convener delivered the vote of thanks.