

SPACE CLUB

ANNUAL REPORT 2024-2025

1. Space Day Celebrations

Various events were conducted during the month of August 2024 as part of the National Space Day celebrations. The following are the events organised at Mar Baselios College of Engineering and Technology:

- i. **Universe in a Nutshell**-(SDG 4-Quality Education)
- ii. **Adhara- Rocket Modeling**-(SDG 4-Quality Education, SDG 8-Decent work and economic growth, SDG 9- Industry, innovation and infrastructure)
- iii. **Literary Review on Space related books and films**-(SDG 4-Quality Education)
- iv. **Knowhere Quiz Competition**-(SDG 4-Quality Education)
- v. **Astral Artistry-Astrophotography Competition**-(SDG 4-Quality Education, SDG 8-Decent work and economic growth)
- vi. **Cosmos Canvas-Poster/Painting Competition**-(SDG 4-Quality Education, SDG 8-Decent work and economic growth)
- vii. **Visit to LPSC, Valiamala**-(SDG 4-Quality Education, SDG 8-Decent work and economic growth, SDG 9- Industry, innovation and infrastructure)
- viii. **Flash Mob**-(SDG 4-Quality Education)

2. Space Club Inauguration

The space club at MBCET was inaugurated by Dr. V. Narayanan, Director, Liquid Propulsions Systems Centre, LPSC, Valiyamala, Trivandrum on 1 October 2024. Dr. V. Narayanan delivered an inspiring inaugural address, sharing his passion for space and encouraging students to explore the wonders of the universe. His words ignited a sense of curiosity and excitement among the audience. Following his speech, the students were treated to captivating video presentations on the marvels of space and the Chandrayaan mission. Officials from LPSC joined the inaugural ceremony. The presidential address was delivered by Dr. S Viswanatha Rao, Principal, MBCET. The welcome address and Vote of Thanks were delivered by Dr. Swapna P. S., Faculty in charge of Space Club and Mr. Rohin Sabu, Student Coordinator, Space Club.

3. Space models exhibition

On February 27th, 2025, as part of the college techfest, the Space Club of MBCET, in collaboration with Illumina—the official body of the Electrical and Electronics Department—hosted a Space Modelling Exhibition. The event featured detailed models of space launch vehicles, satellites, and various other space-related structures. These models were created through the joint efforts of members from both the Space Club and Illumina.

(SDG 4-Quality Education, SDG 8-Decent work and economic growth, SDG 9- Industry, innovation and infrastructure)

4. Talk session

The Space Club of MBCET hosted a talk session featuring Dr. Manju S. Nair, Senior Scientist at LPSC Trivandrum, as the guest speaker on April 7th 2025. The session took place at Faraday Hall in the Electrical and Electronics Department and lasted for one hour. Dr. Manju S. Nair delivered an engaging talk covering the basics of launch vehicles, distance factors in space, and other fundamental space-related concepts. The session was highly interesting and informative, drawing a good number of student participants who actively engaged with the topic.

(SDG 4-Quality Education, SDG 9- Industry, innovation and infrastructure)

5. Logo Launch Competition

The Space Club of MBCET hosted a logo launch competition as its first official event in the college. The competition was open to all students at the college level, and both Space Club executive members and other students actively participated. Participants were invited to design and submit original logo concepts for the club. A time span of 8 to 10 days was given for submissions, allowing ample time for creativity and design. A good number of students took part in the event, and after careful evaluation, the best logo was selected to represent the Space Club.

6. Interview-Mrs Tessy Thomas

On January 10th, 2025, an exclusive interview event was held at St. John's Model HSS, Nalanchira, featuring Dr. Tessy Thomas, a distinguished scientist who has worked with ISRO and DRDO (Defence Research and Development Organisation). Dr. Tessy Thomas is renowned for her contributions in the fields of rocket and launch vehicle technology, intercontinental ballistic missiles, hypersonic missile systems, and the development of Agni-IV and Agni-V missiles. Representing MBCET, Mr. Adithya, the Chairman of the Space Club, participated in the event and posed a series of questions during the session.

(SDG 4-Quality Education)

7. KSPACE visit

A visit to K-Space (Kerala Space Park) was planned by the Space Club of MBCET as a three-level program aimed at exploring and understanding the initiatives and infrastructure of the space park. In the first phase, faculty members visited K-Space to gain insights into its operations, facilities, and objectives on 23rd May, 2025. This initial visit by the faculty was successfully completed.

(SDG 4-Quality Education)

8. Internship and Project Guidance at Hex20

MBCET signed an MoU with Hex20, which is a space startup in Technopark, Thiruvananthapuram, on 22 July 2024, marking a significant step towards enhancing industry-academia collaboration. This MoU will focus on providing Industry exposure to students through internships and guest lectures, and integrating students into the space startup ecosystem.

As part of the MoU, 3 students from ECE completed 2 weeks internship at Hex 20 during December 2024 and 3 students from ME during June 2025.

2 final year B.Tech projects (1 ECE and 1 ME) are carried out under the supervision from Hex20.

i. Geosync:Data Harvester: The objective of the project is to set up a Ground Station at MBCET to receive images from the Feng-Yun - 2H satellite and investigate the images received. This project bagged the Department Best project award during the Project Exhibition 2025.

ii. Thermal and structural analysis of INSPIRESat-1

(SDG 4-Quality Education, SDG 8-Decent work and economic growth, SDG 9- Industry, innovation and infrastructure)