A Report on Alumni Guest Lecture on "A Journey into Space: How Satellites Are Actually Built" Organized by Department of Mechanical Engineering in association with MITS Alumni Cell on 09.10.2026



Report Submitted by: Dr. Praveen Kumar B, Sr. Assistant Professor & Alumni Coordinator, Department of Mechanical Engineering
Resource person Details: Mr. Ganesh Macha, Mechanical Design Engineer, Dhruva Space Pvt Ltd., India.
Venue: KKB 004
Time: 10.00 AM
Mode of Conduct: Online
Attendees Count: 55 Mechanical Engineering 3rd year students and 1 faculty member.
Report Received on 30.10.2026.

Objective of the Program

1. To provide students with insights into satellite design, development, manufacturing, and the role of Mechanical Engineering in the space industry.
2. To familiarize students with the engineering principles, materials, manufacturing processes, and technologies involved in building satellites.
3. To create awareness of career opportunities in the space sector and motivate students to develop the technical and professional skills required to contribute to the growing space industry.

Event details:

The Department of Mechanical Engineering, in association with the MITS Alumni Cell, organized an Alumni Guest Lecture titled *"**A Journey into Space: How Satellites Are Actually Built**"* for the students of MITS (Deemed to be University). The session aimed to provide students with valuable insights into the satellite development process, the engineering challenges involved in space missions, and the significant contributions of Mechanical Engineering to the aerospace and space technology sectors.

The session commenced with a welcome and introductory address by **Dr. Praveen Kumar B, Faculty Coordinator, Department of Mechanical Engineering**, who highlighted the importance of alumni interaction and industry-oriented learning in enhancing students' technical knowledge and career readiness. He welcomed the resource person, **Mr. Ganesh Macha, Mechanical Design Engineer, Dhruva Space Pvt. Ltd., India**, and appreciated his willingness to share his professional experience and industry insights with the students.

Mr. Ganesh Macha delivered an insightful lecture on *"A Journey into Space: How Satellites Are Actually Built."* He explained the various stages involved in satellite development, from conceptual design and engineering analysis to material selection, mechanical design, manufacturing, assembly, integration, and testing. He highlighted the importance of precision engineering, structural integrity, thermal management, lightweight materials, and reliability in designing systems intended to operate in the challenging environment of space.



The resource person also discussed the role of Mechanical Engineers in satellite development and explained how engineering principles are applied to address real-world challenges in the space industry. The session helped students understand the interdisciplinary nature of satellite engineering and the importance of design tools, analytical skills, practical knowledge, and teamwork in developing advanced space systems. He encouraged students to continuously upgrade their technical competencies and explore emerging career opportunities in the rapidly growing space technology sector.

The interactive session provided students with a broader understanding of the practical applications of Mechanical Engineering in satellite design and development. It also motivated them to explore opportunities in aerospace engineering, space technology, mechanical design, and related research and development fields.

Outcomes of the Event

1. Students gained an understanding of the major stages involved in satellite design, manufacturing, assembly, integration, and testing.
2. The session enhanced students' awareness of the applications of Mechanical Engineering in the space sector, particularly in mechanical design, material selection, structural analysis, and thermal management.
3. Students gained insights into emerging career opportunities in the space industry and were motivated to develop relevant technical skills, practical knowledge, and industry readiness to pursue careers in space technology and related fields.