



BMS INSTITUTE OF TECHNOLOGY & MANAGEMENT

Autonomous Institute Under VTU, Accredited by NBA and NAAC
Yelahanka, Bengaluru-560119.

Name of the Club:

IEEE AEROSPACE AND ELECTRONICS SYSTEM SOCIETY (AESS) BMSIT Student Branch

Date of Formation:

August 2024

Coordinator:

Dr. ASHA.K, ECE

Objective:

THE Aerospace and Electronics System Society (AESS) IEEE chapter at BMS INSTITUTE OF TECHNOLOGY (BMSIT) aims to be essential to the worldwide technical community and be recognized for outstanding contributions in the fields of aerospace and electronic systems.

Frequency of Meeting:

Two to three times a month

Social media link:

Linkedin: <https://www.linkedin.com/company/ieee-aess-bmsit/posts/?feedView=all>

Instagram: <https://www.instagram.com/aess.bmsit/>

Contact:

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Roles and Responsibilities:

A professional society, whose technical fields of interest include complex systems for space, air, ocean, and ground-based applications. Our goal is to engage the worldwide technical community, especially underrepresented regions, in a full spectrum of professional development activities, including Publications, Conferences, Technical Panels,

Events and Workshops. Currently focusing on student satellite program in the field of CubeSat's.

One Year Activities conducted:

AUTO ON WINGS

In December, 2024, IEEE Student Branch, BMSIT&M organized the event "WINTER OF PROJECTS". It was a two day event(20~21 December) conducted by the Student Branch IEEE BMSIT&M, with the venue being the Academic Block in BMS Institute of Technology and Management.

IEEE AESS BMSIT&M came up with a new event named "Auto on Wings" to both complement the event and make it a fun experience for those who were present there. "Auto on Wings" was a Flight Simulator experience where the participants were given a certain time to explore the joys of flying in the sky. We borrowed a broken down Auto Rikshaw and set it up as a private flight simulator cockpit. Each participant was given prior one on one instructions to understand the controls of the transmitter and opt for their preferred terrains and planes. The full experience costed INR 10 per person. The participants were given a unique stickers written AESS on it to create a positive and memorable experience for participants.

WINTER OF PROJECTS(wop)

In December, 2024, IEEE Student Branch, BMSIT&M organized the event "WINTER OF PROJECTS". It was a two day event(20~21 December) conducted by the Student Branch IEEE BMSIT&M, with the venue being the Academic Block in BMS Institute of Technology and Management. The event was initiated with the objective of having all the Societies under the student branch to come up with numerous problem statements in the field of their societies which were assigned to the student teams via an auction. The students were asked to bid on a certain project they liked with limited points to bid from (each team given 100 points). The teams were then given a duration of two weeks to come up with a solution to their problem statements.

IEEE AESS BMSIT&M came up up with 2 projects.

1. RC Fixed Wing
2. Cubesat

mARtian AESSance

In December, 2024, IEEE AESS, BMSIT&M organized the event 'mARtian AESSance', in collaboration with AR VR Hub, BMSIT&M. It was a **two** day event with the venue being the A.P.J Abdul Kalam Lab for the 26th and the Kalpana Chawla Lab on the 31st in BMS Institute of Technology and Management. The event was the first event done by AESS and was aimed to make our presence within the university known.

The event was semi-technical with the intention to bring about an interest in the matters of aerospace systems and space exploration.

Gravity Circus

On March 21, 2025, BMSIT&M hosted the International Conference on Computing for Sustainability and Intelligent Future (Comp-SIF 2025), focusing on advanced computing technologies, sustainability, and shaping an intelligent future. The event brought together researchers, practitioners, and industry experts to explore innovative solutions for sustainable development and intelligent systems.

The Student Technical Branch opened stalls to showcase current and upcoming projects from various societies. Our chapter organized a three-part non-technical event:

1. **Glide or Die:** Participants crafted paper planes or gliders, with the longest flight determining the winner.
2. **Eggstronaut:** Participants designed parachutes to safely land an egg payload; airtime and egg condition determined the winner.
3. **Splash Rocket:** Participants created water rockets, with the highest airtime winning.

These independent activities aimed to entertain attendees, reduce stress, and boost our chapter's presence. Additionally, we showcased a fixed-wing model and a CubeSat prototype to highlight ongoing projects and attract future recruits.

Machshot

With Aero India 2025 happening nearby, we seized the opportunity to engage students in an exciting online event. Given our institute's proximity to the air force station, participants were invited to capture a striking moment of any aircraft in flight during the show and share it with us. The spontaneity of the event added to its charm, making it accessible to aviation enthusiasts and casual observers alike. The student community embraced it enthusiastically, showcasing their creativity and keen eye for aerial wonders. This initiative not only fostered excitement but also strengthened our chapter's visibility and connection with the aerospace domain.

LEOS (ISRO) VISIT

Our club organized a visit to the LEOS (ISRO) Research Facility with the primary objectives of exposing members to professional research environments and inspiring those who are doing projects under us and our prospective members with new project possibilities. The facility tour provided valuable insights into advanced research methodologies and state-of-the-art equipment of space related sensors that many of our members had not previously encountered in a professional setting.

During the visit, researchers at the facility generously shared their insights on launching and the making of satellites along with showing us around the facility. While access was limited, they showed us the testing area for vibration testing and showed us



around the laboratory for solar and star sensors that were invaluable for us as it forms an important part for ADCS if we were to build a satellite ourselves. This exposure was particularly beneficial for junior members who gained firsthand understanding of systematic research processes, collaborative problem-solving approaches, and the precision required in experimental design. The researchers' willingness to answer questions and explain their work helped bridge the gap between academic theory and practical application.



