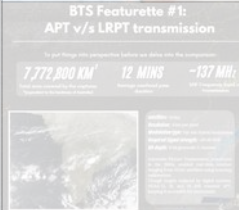




ಬಿ.ಎಂ.ಎಸ್. ತಾಂತ್ರಿಕ ಮತ್ತು ವ್ಯವಸ್ಥಾಪನಾ ಮಹಾವಿದ್ಯಾಲಯ  
**BMS INSTITUTE OF TECHNOLOGY & MANAGEMENT**  
(Autonomous Institution Under VTU)  
Yelahanka, Bengaluru -560119



**IEEE  
ComSoc**

**BMSIT  
Student Branch Chapter**

**WIRED FOR INNOVATION, TUNED TO IMPACT**





## **Name of the Society:**

IEEE Communications Society (ComSoc) BMSIT&M Student Branch Chapter

**Date of Formation:** 18<sup>th</sup> August 2024

**Faculty Advisor:** Dr. Siddiq Iqbal, dept. of ECE, BMSIT&M

## **Objective:**

To engage and promote the field of communications and its allied technologies among students of BMSIT&M, while enabling professional connections with global experts in communication technologies.

## **Frequency of Meetings:**

10-12 team meetings in a year including Annual General meet.

## **Social media:**



[IEEE ComSoc BMSIT LinkedIn page](#)



[IEEE ComSoc BMSIT Insta handle](#)



[IEEE ComSoc BMSIT Whatsapp infoboard](#)

## **ROLES AND RESPONSIBILITIES:**

- Organize technical talks, webinars, and expert interactions with industry professionals, researchers, and academicians from India and abroad.
- Facilitate skill development and experiential learning via hands-on workshop, projects, simulations and research initiatives.
- Encourage student participation in IEEE activities, conferences, competitions, and publications at national and international levels.
- Support interdisciplinary collaboration and innovation in areas such as wireless communications, RF systems, satellite communications, IoT, and 5G/6G technologies.
- Contribute to community outreach and societal impact by applying communication technologies to real-world challenges.
- Assist in infrastructure development and resource management for communication and RF research facilities within the institution.

## EXECUTIVE COMMITTEE:



From L-R: Tejashwini S U (*Webmaster*), Subasri L (*Secretary*), Srijan U (*Vice Chair*), Nitish K S (*Chair*), Md. Ayaan (*PR Associate*), Palak K (*Jt. Secretary*), Vibha (*R&D Head*)



Top(from L-R) Bhoomika V K (*Treasurer*), Tejashwini S U (*Vice Chair*), Kavana H B (*Design Associate*)  
Bottom(from L-R) Aradhya P (*R&D Head*), Md. Ayaan (*PR Associate*), Srijan U (*Chair*), Sujith K (*VolCom Lead*)

## FEATS ACHIEVED:

1. Largest SBC within BMSIT&M with over 144 members (as of 31<sup>st</sup> Jan 2026) and 3<sup>rd</sup> largest ComSoc SBC at Bangalore Section.

OU Name	Members
1 Vemana Institute of Technology,COM19	225
2 Vivekananda College of Engineering and Tech,COM19	190
3 BMS Institute of Technology,COM19	134
4 Sri Sairam College of Engineering,COM19	119
5 Presidency University - Bangalore,COM19	108
6 Sai Vidya Institute of Technology,COM19	95
7 Mainad College of Engineering - Hassan,COM19/PHO36	86
8 Dayananda Sagar College of Engineering,COM19	83
9 PES College of Engineering-Mandya,COM19	69
10 Global Academy of Tech,COM19	61
11 Dayananda Sagar University-Bangalore,COM19	58
12 Jawaharlal Nehru Nat Coll of Engg-Shimoga,COM19	54
13 Basaveshwar Engineering College,COM19	53
14 BNM Institute of Technology,COM19	45
15 CMR Institute of Technology,COM19/PHO36	45
16 R N S Institute of Technology,COM19	37
17 K S School of Eng and Management,COM19	32
18 Reva University,COM19	30

2. IEEE ComSoc BMS Institute of Technology Student Branch Chapter (SBC) has been awarded US \$300 for 2024-Q4 membership recruitment and retention efforts within the student branch chapter.

3. IEEE ComSoc BMSIT SBC was awarded the most promising SBC 2025 by IEEE ComSoc Bangalore Chapter for its initiatives and retention efforts.

4. Project SkyPulse was awarded a grant of USD 8,100 by EPICS in IEEE on August 18, 2025—marking exactly the first anniversary of the IEEE ComSoc BMSIT Student Branch Chapter's formation, following the May 1<sup>st</sup>, 2025 proposal deadline.

5. IEEE ComSoc BMS Institute of Technology Student Branch Chapter (SBC) has been awarded US \$500 for 2025-Q4 membership recruitment and retention efforts within the student branch chapter.

6. IEEE ComSoc BMSIT SBC was recognised for its activities, approach towards projects for the societal good and sustained effective student ExCom leadership at IEEE ComSoc Bangalore section AGM on 17<sup>th</sup> January 2025.



## BMS Institute of Technology 2024-Q4 ComSoc Student Branch Chapter Funding - Approval Notification

1 message

Cindy Tiritilli <c.tiritilli@comsoc.org>

20 December 2024 at 11:25

To: KS Nitish <nitishksn24@gmail.com>

Cc: anna\_thanku@yahoo.com, Tejas MD <tejasmutalikdesai@gmail.com>, sane@ieee.org, tsrinu@ieee.org, abhishek6675@gmail.com, ANA GARCIA ARMADA <anagar@ing.uc3m.es>, Ranga Rao Venkatesha Prasad - EWI <r.r.venkateshaprasad@tudelft.nl>, Trish Jaraicie <p.jaraicie@comsoc.org>, Bruce Worthman <b.worthman@comsoc.org>, "To: membership@comsoc.org" <membership@comsoc.org>, Giorgie Millamena <g.millamena@comsoc.org>, lingyang.song@pku.edu.cn, Anindya Saha <anindya@saankhyalabs.com>

19 December 2024

Nitish K S, ComSoc Student Branch Chapter Chair  
BMS Institute of Technology (SBC14611F)  
[nitishksn24@gmail.com](mailto:nitishksn24@gmail.com)

Re: IEEE ComSoc Student Branch Chapter 2024-Q4 Funding Approval

Dear Nitish K S,

Congratulations! It is our pleasure to inform you that the IEEE ComSoc BMS Institute of Technology Student Branch Chapter (SBC) has been awarded **US \$300** per the application you submitted for 2024-Q4 membership recruitment and retention efforts within your student branch chapter.

Thank you for providing your IEEE Section's banking information. You will be notified when transfer requests have been submitted to IEEE Treasury for processing. Please be advised that it may take as long as 90 days for funds to be received after they have been disbursed by IEEE.

Please visit the [IEEE ComSoc Student Branch Chapter resource center](#) for membership development and promotional collateral. We encourage you to tag [ComSoc](#) in your social media posts and to submit a 300-1,000 word article to the [Global Communications Newsletter \(GCN\)](#) celebrating your membership recruitment and engagement activities and successes.

Please contact Cindy Tiritilli, IEEE ComSoc Senior Membership & Programs Manager ([membership@comsoc.org](mailto:membership@comsoc.org)) if you have any questions about ComSoc Student Branch Chapter support or the ComSoc SBC Funding initiative. Financial and banking-related questions will be forwarded to the IEEE Finance team.

Thank you for your volunteer leadership and for your efforts to deliver value to student members within your ComSoc Student Branch Chapter!

Sincere regards,

Ana Garcia Armada  
VP, ComSoc Member & Global Activities

Dr. R Venkatesha Prasad ("VP")  
ComSoc Director, Member Services Board

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**EPICS in IEEE Approval and Acceptance Packet\_2024 Assignment Notification**

1 message

**EPICS in IEEE** <administrator@grantinterface.com>

Mon, Aug 18, 2025 at 10:05 PM

Reply-To: a.f.moran@ieee.org

To: nitishks@ieee.org

Cc: a.f.moran@ieee.org

Dear Nitish,

Congratulations! You have been awarded \$8,100.00 for your SkyPulse: Harnessing IoT and Satellite Data for Hyperlocal Urban Environmental resilience - India project! Please log in to EPICS in IEEE's online system and review and complete the agreement as part of your grant requirements.

Your Project is being funded by IEEE Antennas and Propagation Society, an EPICS in IEEE Partner.

Follow these steps to complete the contract:

1. Log in with your username ([nitishks@ieee.org](mailto:nitishks@ieee.org)) and password.
2. Once logged in you will be on the Applicant Dashboard.
3. Below your application, you will see that it reads Acceptance Packet\_2024. Click on the blue "Edit" link to the right of the form to access the form. You can save the form as often as you need but remember to submit by the due date (09/01/2025 11:59 PM EDT).

**Note:** Disbursements will begin once all signed copies of required paperwork have been submitted through the platform. This is integrated into the Acceptance Packet\_2024, so proper submission of this form will initiate this process. You may be contacted for further questions regarding distribution during this time by our staff member.

As a part of the grant agreement, you will need to complete regular check-in questionnaires and a final report. These will be assigned approximately every quarter until the project is completed. You will see these forms assigned in the platform in the near future.

Thank you,

EPICS in IEEE

**Applicant Information****Nitish K S**

+91 8073251956

[nitishks@ieee.org](mailto:nitishks@ieee.org)**Organization: Bangalore Section**

Form Name: Acceptance Packet\_2024

Process Name: EPICS in IEEE - 2025 Proposals

Project Name: SkyPulse: Harnessing IoT and Satellite Data for Hyperlocal Urban Environmental resilience - India

**Approval Notification: BMS Institute of Technology 2025-Q4 IEEE ComSoc Student Branch Chapter Funding**

2 messages

Cindy Tiritilli &lt;c.tiritilli@comsoc.org&gt;

Mon, Nov 24, 2025 at 6:02 AM

To: nitishks@ieee.org

Cc: Reyyan Aleem Janbaz <reyyanjanbaz@gmail.com>, Gnanapriya Chidambaranathan <cgpriya70@gmail.com>, kumarchk@ieee.org, mahesha@ieee.org, Lingyang Song <lingyang.song@gmail.com>, ANA GARCIA ARMADA <Anagar@ing.uc3m.es>, Ranga Rao Venkatesha Prasad - EWI <r.r.venkateshaprasad@tudelft.nl>, "To: membership@comsoc.org" <membership@comsoc.org>

21 November 2025

**Nitish K S****BMS Institute of Technology (SBC14611F)**[nitishks@ieee.org](mailto:nitishks@ieee.org)

Re: IEEE ComSoc Student Branch Chapter 2025-Q4 Funding Approval

Dear Nitish K S,

Congratulations! It is our pleasure to inform you that the **IEEE ComSoc BMS Institute of Technology Student Branch Chapter (SBC)** has been awarded **US \$500** per the application you submitted for 2025-Q4 membership recruitment and retention efforts within your student branch chapter.

Thank you for providing your IEEE Section's banking information. You will be notified when transfer requests have been submitted to IEEE Treasury for processing. Please be advised that it may take as long as 90 days for funds to be received after they have been disbursed by IEEE.

Please visit the [IEEE ComSoc Student Branch Chapter resource center](#) for membership development and promotional collateral. We encourage you to tag ComSoc in your social media posts and to submit a 300-1,000 word article and photos to the [Global Communications Newsletter \(GCN\)](#) celebrating your membership recruitment and engagement activities and successes.

**Please invite your ComSoc Student members to create a profile in the new ComSoc Connector!** The ComSoc Connector, a new platform designed exclusively for IEEE ComSoc members and our corporate partners, is your bridge to professional growth, collaboration, and innovation. By sharing your profile, you can advance your future by connecting directly with organizations seeking talent, research expertise, and new ideas.

Please contact Cindy Tiritilli, IEEE ComSoc Senior Membership & Programs Manager ([membership@comsoc.org](mailto:membership@comsoc.org)) if you have any questions about ComSoc Student Branch Chapter support or the ComSoc SBC Funding initiative. Financial and banking-related questions will be forwarded to the IEEE Finance team.

Thank you for your volunteer leadership and for your efforts to deliver value to student members within your ComSoc Student Branch Chapter!

Sincere regards,

Ana Garcia Armada

VP, ComSoc Member &amp; Global Activities

Dr. R Venkatesha Prasad ("VP")

ComSoc Director, Member Services Board

cc:

**BMS Institute of Technology**

Nitish K S, IEEE ComSoc Student Branch Chapter Chair

Reyyan Janbaz, IEEE Student Branch Chair

Gnanapriya Chidambaranathan, IEEE ComSoc Chapter Chair

Chandrakanta Kumar, IEEE Bangalore Section Chair

MAHESH APPAJAPPA, IEEE Bangalore Section Treasurer

Lingyang Song, IEEE ComSoc Asia Pacific Region Director

Diane Turton, IEEE ComSoc Volunteer and Membership Operations Specialist

Trish Jaraicie, IEEE ComSoc Director of Membership &amp; Marketing

Harold Tepper, IEEE ComSoc Executive Director

## ACTIVITIES (AUG 2024 - DEC 2025):

### 1. First Prototype Test of Campus Radio @BMSIT

**Date: 12<sup>th</sup> September 2024**

Student members of IEEE ComSoc at BMSIT&M designed a cost-effective, indigenous online campus radio solution aimed at enhancing vocal connectivity and fostering a strong sense of community within the campus. The initiative seeks to deliver educational, informational, and entertaining content to students while encouraging active participation and engagement.

The project commenced with an on-ground survey of an operational campus radio station at Kongu Engineering College, Erode, Tamil Nadu, conducted on 21st July 2024. This visit involved studying the FM broadcasting pipeline and understanding the licensing and regulatory procedures associated with traditional campus radio systems. The study concluded that implementing a conventional FM-based campus radio station at BMSIT&M would face significant challenges due to regulatory constraints and the proximity of a nearby Air Force station.

Based on these findings, the team strategically transitioned to an online campus radio architecture, thereby eliminating spectrum-related and licensing limitations while ensuring scalability and operational flexibility. An Icecast-based web audio streaming backend was deployed and integrated with a custom-developed application for content delivery and listener access. This architecture enabled live audio streaming, recorded programs, and campus announcements to be accessed seamlessly over the internet.

*Student members-* Nitish K S (ECE), Tarun Patil (ECE), Varun Bhat (CSE), Sri Srujan Hari T (ECE), Harshitha K V (ECE), Vaibhav B (CSE) (all batch of '23-'27 students)

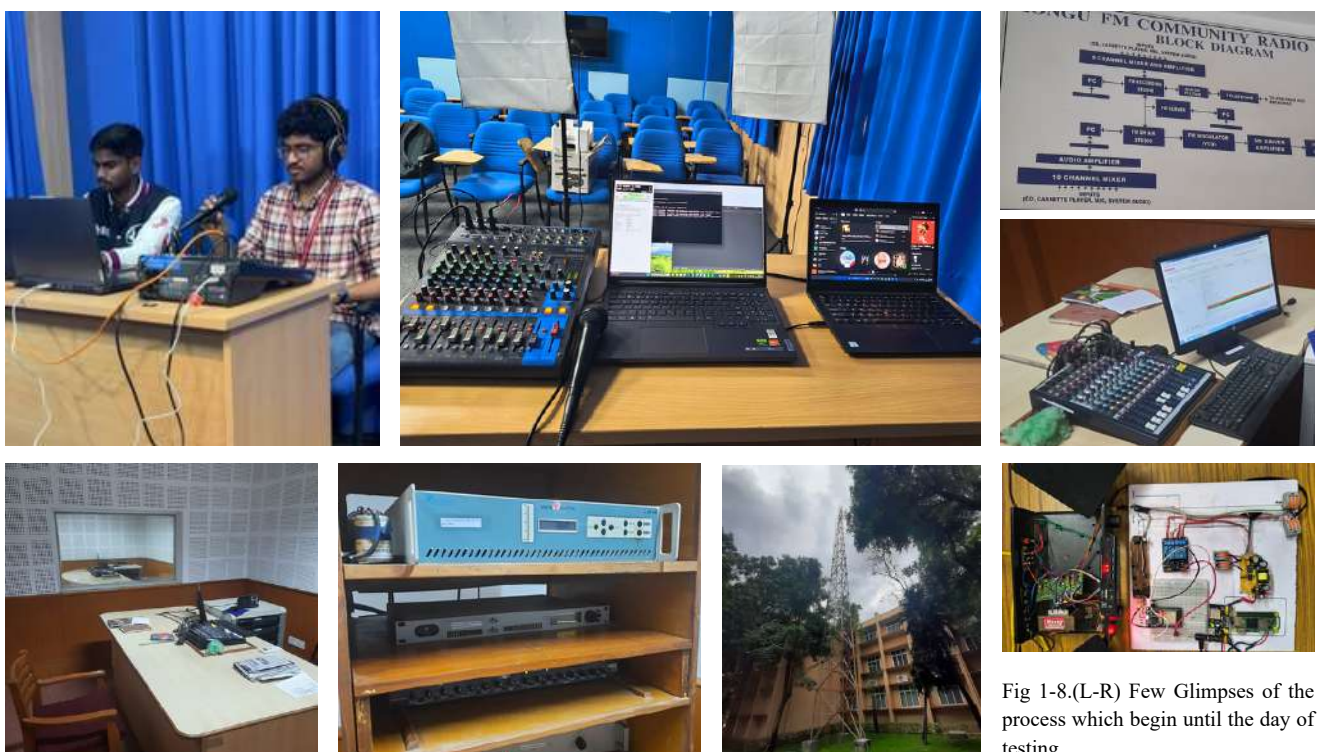


Fig 1-8.(L-R) Few Glimpses of the process which begin until the day of testing.

## 2. Launch of Project Skypulse



Date: 10<sup>th</sup> November 2024

SkyPulse is a hyperlocal environmental intelligence initiative designed to address the growing demand for real-time, localized climate and weather information in urban regions. The system integrates satellite remote sensing and IoT-based environmental sensing within a modular framework to enable hyperlocal weather monitoring and urban microclimate analysis. Satellite data is acquired using Software Defined Radio (SDR)-based reception systems, while ground-level observations are collected through distributed sensor networks. The acquired data is processed using real-time data analytics to generate actionable insights and support early warning systems for weather- and climate-related events. By leveraging open-source platforms, SkyPulse emphasizes scalability, accessibility, and community participation, enabling accurate and reliable environmental intelligence for research, urban planning, and public awareness.

As part of its outreach and community engagement, SkyPulse publishes a weekly weather forecast editorial *every Sunday at 10 PM* providing timely and localized updates for the BMSIT&M campus and surrounding areas of Bangalore through [comsoc infoboard](#) and various groups, in collaboration with Green Circle NGO. A major highlight of 2024 was the project's response during Cyclone Fengal, during which the team issued early alerts on heavy rainfall and strong winds, supporting safer commute planning and heightened situational awareness among students and the local community.

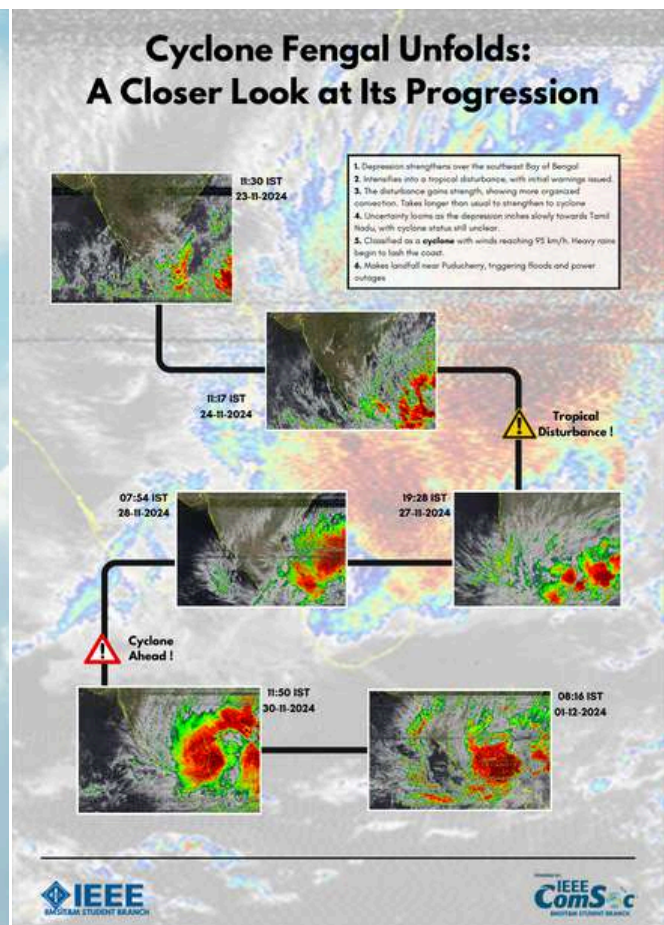
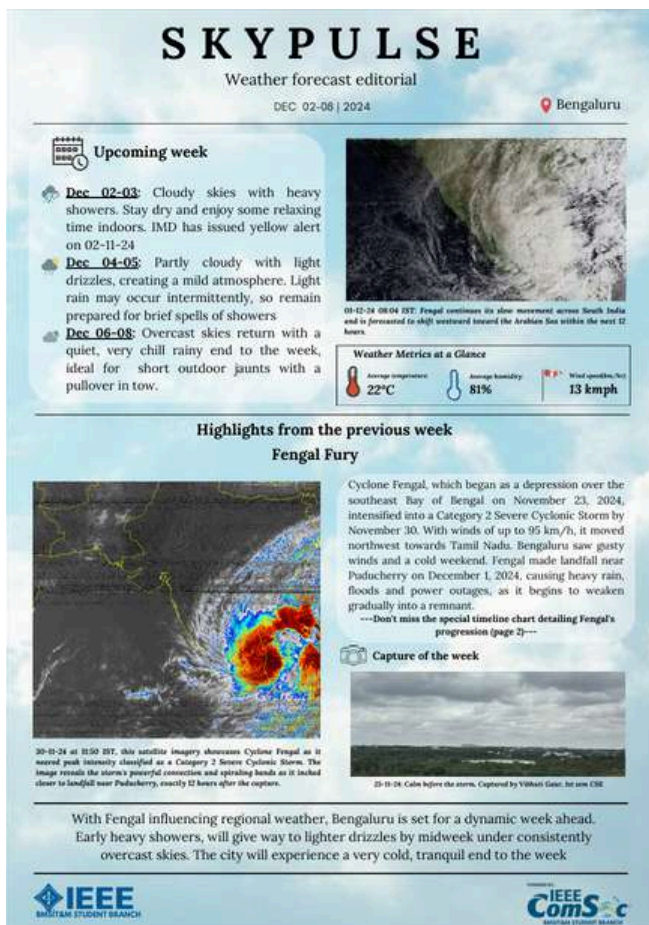


Fig 9-10.(L-R) special weather forecast issued during 02–08 December highlighted Cyclone Fengal and its subsequent impacts across South India. The forecast progression was entirely derived from AVHRR satellite imagery acquired from NOAA-15, NOAA-18, and NOAA-19, received in the ~137 MHz VHF band

### 3. Mission SPECTRUM



**Date:** 20<sup>th</sup> December 2024

**Venue:** Seminar Hall 2, Sir. M V Block, BMSIT&M

**Participants:** 80

**Prize Pool:** ₹ 3000/-

Mission Spectrum was a 5-hour Capture-the-Flag (CTF)–style, spy-themed technical event organized by IEEE ComSoc BMSIT in collaboration with the IEEE AP-S & MTT-S Chapter. The event was designed to showcase ComSoc’s focus on Computer Networks, Cybersecurity, and Signal Processing through an immersive, hands-on challenge.

Participants assumed the role of Signal Operatives, tasked with thwarting a simulated cyber-attack by solving puzzles, decoding encrypted signals, and developing real-time countermeasures. The event blended network analysis, cryptography, RF fundamentals, and rapid problem-solving, emphasizing both analytical thinking and practical implementation.

The competition comprised four progressive rounds:

1. A timed technical quiz covering ASK modulation and RC circuit fundamentals.
2. Morse code decoding using Audacity, testing signal interpretation skills.
3. Unlocking critical circuit schematics through passcode-based challenges.
4. Assembly and transmission using an RF transmitter, where teams sent a counter-signal to neutralize the simulated attack.

The first team to successfully transmit the counter-signal emerged victorious, making Mission Spectrum an engaging convergence of communication theory, hardware design, and cybersecurity strategy, while reinforcing the interdisciplinary scope of IEEE ComSoc.

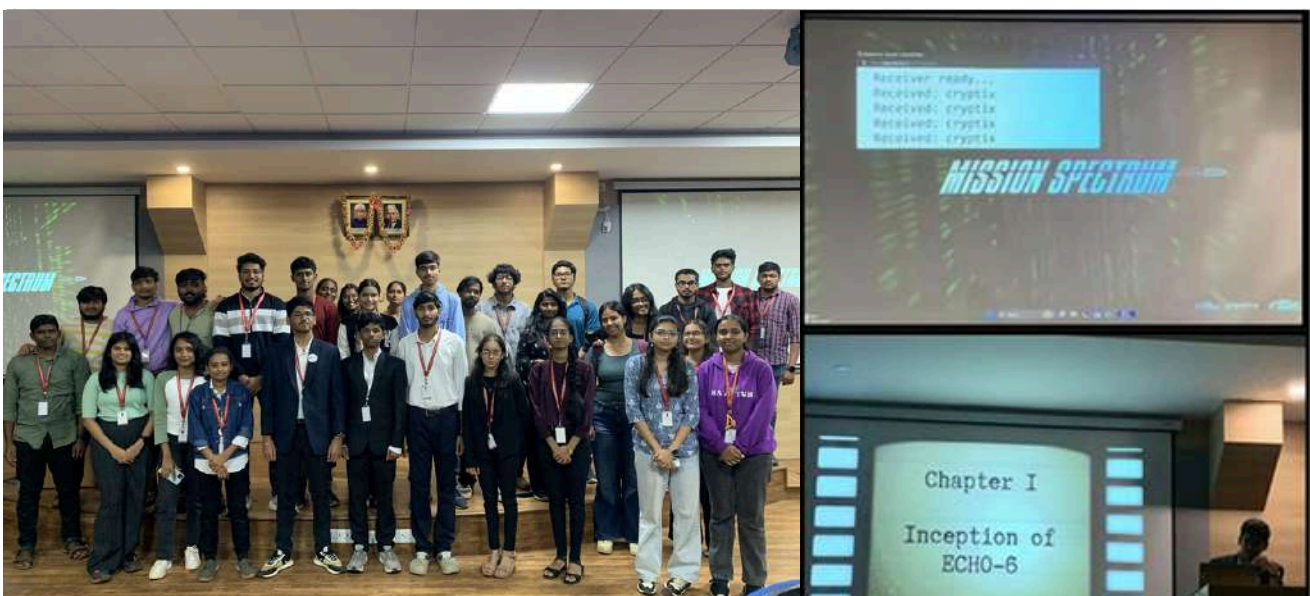


Fig 11-13.(L-R) Glimpses from Mission SPECTRUM.

#### 4. Launch of Skypulse Magazine



**Date:** 1<sup>st</sup> January 2025

**Location:** Seminar Hall 2, Sir. M V Block, BMSIT&M

A quarterly magazine under the same name was soft-launched in January 2025, marking a major milestone in the SkyPulse initiative. The magazine serves as a curated knowledge platform, compiling seasonal and monthly weather statistics, detailed analyses of observed weather patterns and anomalies, and data-driven insights derived from satellite and ground-based observations. It also features an in-depth exploration of the technology stack behind SkyPulse, including satellite data acquisition, SDR-based reception, signal processing pipelines, and real-time analytics.

In addition to meteorological insights, the publication offers a focused technical section on the application of RF systems in remote sensing, explaining how radio frequency principles enable satellite weather imaging, environmental monitoring, and climate analysis. By bridging data interpretation with core communication engineering concepts, the magazine aims to enhance technical literacy, promote interdisciplinary learning, and strengthen awareness of how communication technologies contribute to environmental intelligence and societal resilience.

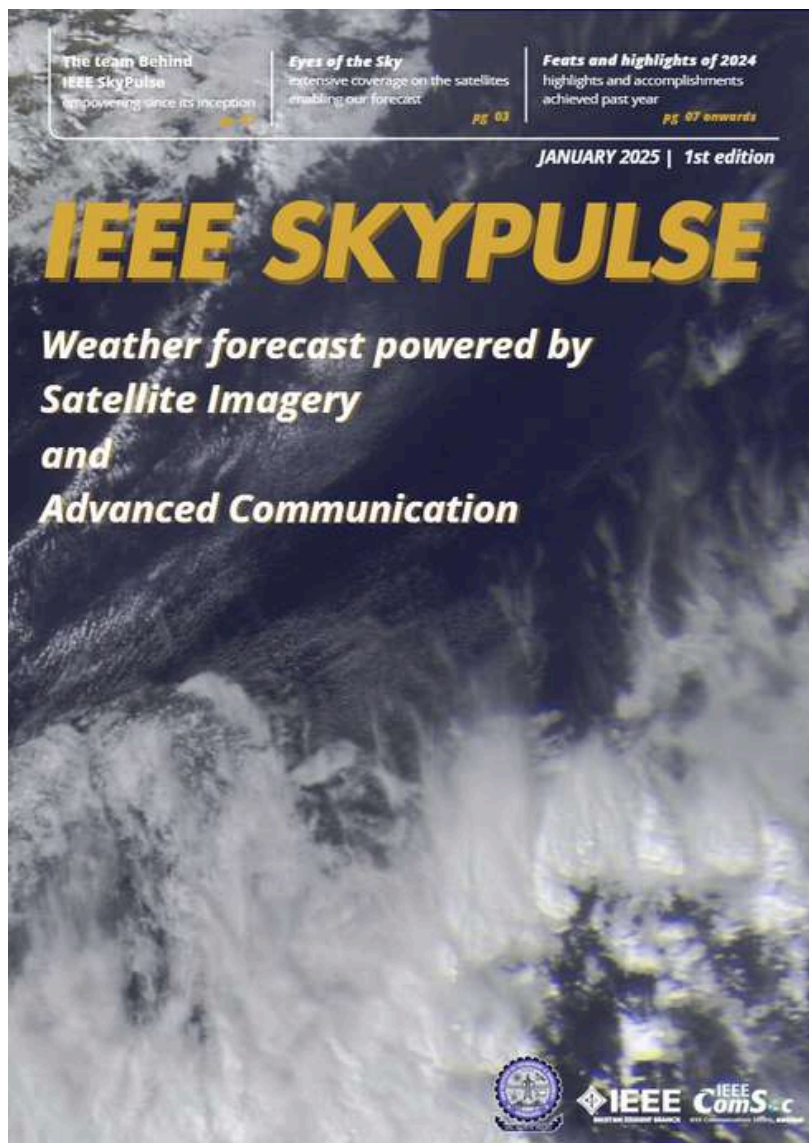


Fig 14.

*Click on the cover to read and explore the magazine !*

## 5. IEEE Open Day '25

**Date:** 21<sup>st</sup> March 2025

**Location:** Double Road, BMSIT&M

**Visitors:** ~300 comprising students, peers from academia and industry

The IEEE Communications Society (ComSoc), BMSIT&M actively participated in the IEEE COMP-SIF 2025 Keynote & Open Day, organized around the theme “Computing for Sustainability and an Intelligent Future.” The event served as a platform to showcase innovative, society-driven initiatives and foster interaction among students, professionals, and IEEE leadership.

At the ComSoc exhibition stall, two flagship projects were demonstrated through live hardware setups, enabling hands-on engagement for visitors:

- IEEE SkyPulse – A satellite and IoT-driven environmental intelligence initiative that transforms satellite signals into real-time, hyperlocal weather insights, bridging earth observation and communication technologies.
- Campus Radio Station – A cost-effective, web-based audio streaming platform designed to enhance vocal connectivity, information dissemination, and community engagement within the campus.

A key highlight of the event was the visit by Dr. Prasant Misra, Chair-Elect of the IEEE Bangalore Section, who interacted with the student team, reviewed the demonstrations, and shared valuable insights and encouragement. The Open Day witnessed participation from over 300 visitors, enabling direct engagement with students and ComSoc members through technical discussions, live demonstrations, and knowledge exchange.



Fig 15-17.(L-R) Glimpses from Open Day '25. Fig 15(L). Interaction with Dr. Prasant Misra, Chair-Elect, IEEE Bangalore Section '25, Chair, IEEE CS Bangalore Chapter '25. Fig 16.(R-Up) Subasri L(CSE '22-'26 batch) Secretary, ComSoc ExCom explaining SkyPulse weather node to visitors. Fig 17.(R-Down) IEEE ComSoc BMSIT SBC ExCom '25 from L-R: Subasri, Palak, Vibha, Srijan and Nitish

## 6. Powerplay '25



**Date:** 28<sup>th</sup> May 2025

**Venue:** Seminar Hall 2, Sir. M V Block, BMSIT&M

**Participants:** 104

**Prize Pool:** ₹ 3000/-

The IEEE Communications Society (ComSoc), BMSIT&M successfully organized PowerPlay 2025, an innovative tech-themed quiz event that uniquely blended the excitement of cricket strategies with core concepts of communication systems. The event aimed to promote technical learning through gamification while encouraging strategic thinking and teamwork.

The competition witnessed enthusiastic participation, with 26 teams competing in the preliminary rounds, from which six teams advanced to the on-stage final showdown. Participants engaged in thoughtfully designed rounds that mapped communication engineering concepts to real-world analogies:

- 1. PowerPlay Auction** – Simulating spectrum allocation and bidding strategies in competitive communication environments.
- 2. Stump the Signal** – Challenging teams to analyze latency and delay issues in real-time broadcast and communication systems.
- 3. The Death Overs** – A high-intensity buzzer round testing speed, accuracy, and rapid decision-making under pressure.

A key technical highlight of the event was the deployment of a custom-built low-latency buzzer system, developed entirely in-house by the ComSoc technical team using Raspberry Pi and LoRa modules. The system ensured real-time responsiveness, minimal interference, and reliable performance, significantly enhancing fairness and participant engagement during the final round.

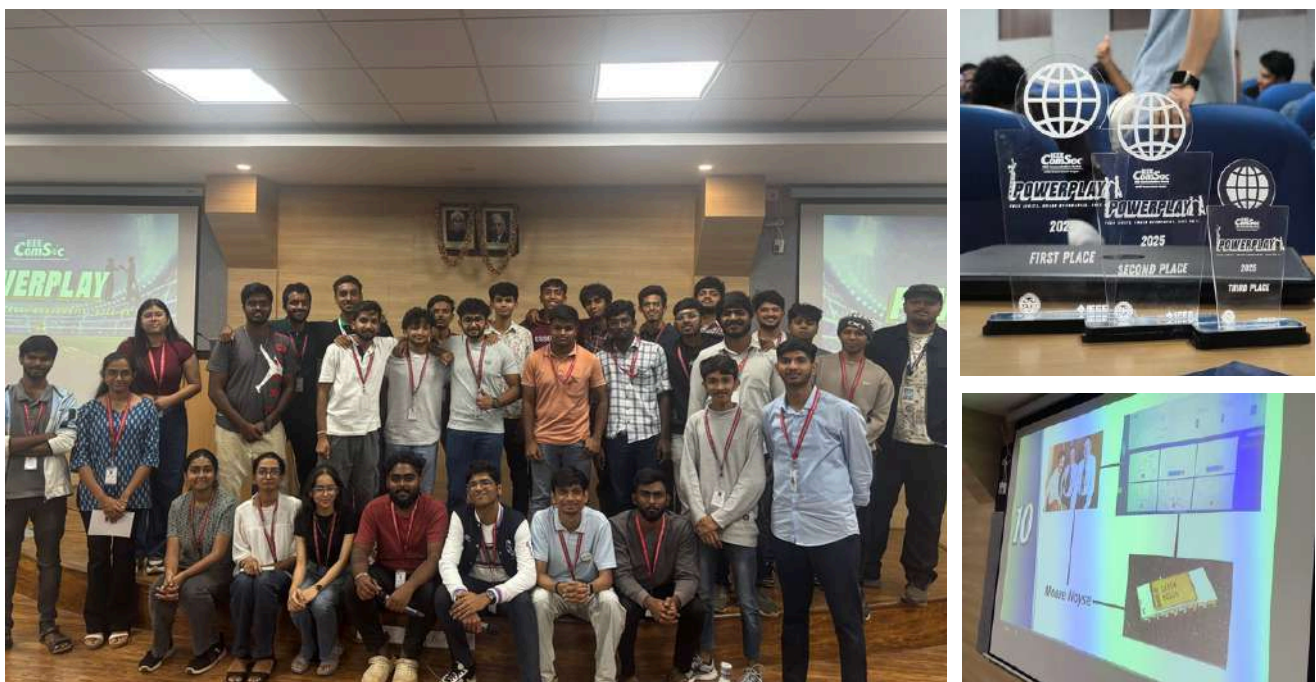


Fig 18-20.(L-R) Glimpses from Powerplay '25 Quiz with all the participants. The trophy awarded to the winners and a look into a question asked, try guessing the answer :)

## 7. Launch of Hydrolens: An initiative under Skypulse

**Date:** 9<sup>th</sup> September 2025

the HydroLens analysis initiative was formally launched as part of Project SkyPulse, with a focus on satellite-based analysis of major river basins in South India. By receiving, decoding, and processing large volumes of satellite remote sensing data, using L-Band antenna built by ComSoc and AP-S members @BMSIT, HydroLens leverages Earth observation data to study seasonal hydrological dynamics, reservoir behaviour, catchment response, and land–water interactions at basin scale.

The initiative integrates satellite imagery, temporal comparisons, and visual analytics to document how river basins evolve across dry and peak monsoon phases. As part of this effort, the team monitored morphological changes along a river meander near the Srisaillam region, tracking shifts in flow alignment and channel behaviour using satellite observations. Based on this analysis, preliminary alerts and observations on the evolving river course were communicated to relevant officials, demonstrating the potential of satellite-based monitoring for early awareness and informed decision-making.

### *Work Completed / Coverage So Far:*

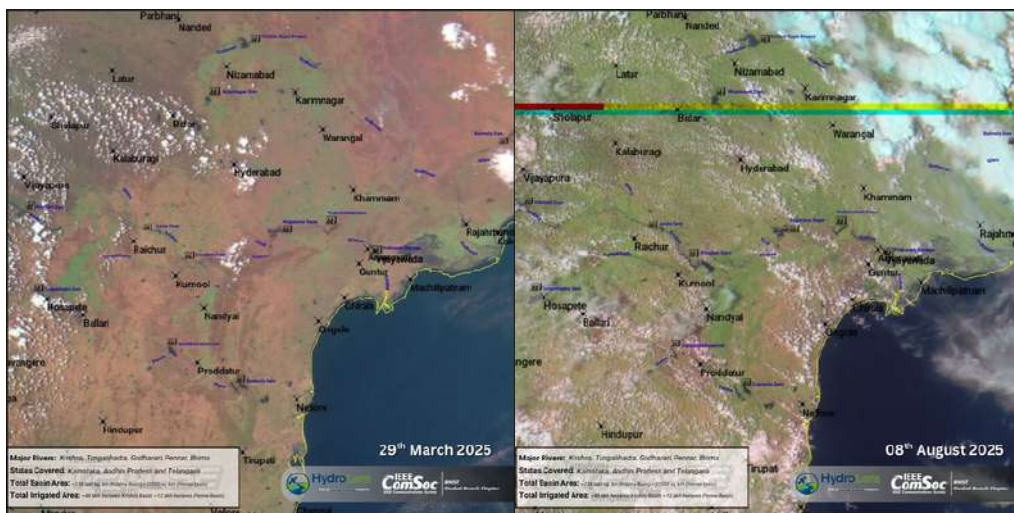


Fig 21-22.(L-R) Krishna–Tungabhadra–Godavari–Pennar–Bhima river basins, capturing pre-monsoon stress (March 2025) and peak monsoon recovery (August 2025)

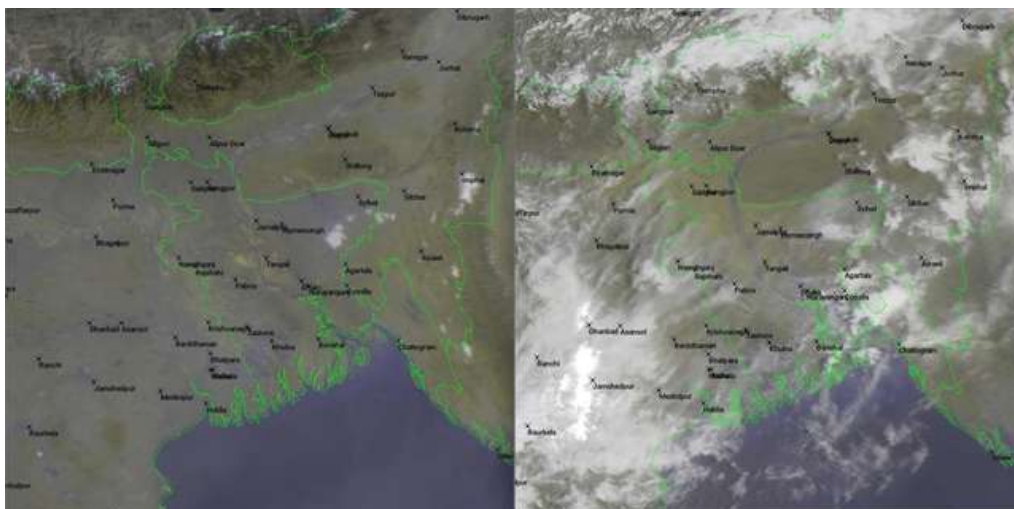


Fig 23-24.(L-R) Brahmaputra–Ganga Delta region on December 29<sup>th</sup> 2024 V/s April 29<sup>th</sup> 2025

## 8. IEEE ComSoc X Nokia Workshop



**Date:** 20<sup>th</sup> September 2025

**Venue:** Nokia, Bengaluru

**Participants:** 02

Student Members Rohan C and Alan Biju of IEEE Communications Society (ComSoc), BMSIT&M attended the Nokia–IEEE ComSoc Workshop 2025 on “Securing the Future Network: Opportunities and Challenges”, held at Nokia, Bangalore. The workshop provided in-depth technical insights into emerging challenges and solutions for securing next-generation communication networks.

The sessions covered key focus areas including 6G security and privacy, AI-driven security mechanisms, quantum-secure communications, and evolving cybersecurity frameworks for future telecom infrastructure. The workshop featured expert talks and discussions led by professionals from Nokia, Infosys, Intel, Samsung R&D, and IEEE, offering both industry and research perspectives on the rapidly evolving threat landscape.

The event served as an effective platform for understanding future security technologies and their implications for communication networks, while also enabling meaningful interaction with professionals and researchers across the telecommunications and cybersecurity ecosystem. The knowledge gained from the workshop is expected to contribute significantly to future ComSoc projects, research initiatives, and technical activities at BMSIT&M.



Fig 25-27.(Top-Down) Glimpses from the session.

## 10. Project SkyPulse Showcase @ India Mobile Congress



**Date:** 8<sup>th</sup> - 11<sup>th</sup> October 2025

**Venue:** Yashobhoomi Convention Hall, Dwaraka Sector 25, New Delhi

Team SkyPulse represented BMS Institute of Technology & Management (BMSIT&M) at the India Mobile Congress (IMC) 2025, held from 8th to 11th October 2025 at Yashobhoomi, New Delhi. The event was inaugurated by the Honourable Prime Minister of India, Shri Narendra Modi, and showcased major advancements across telecommunications, satellite communications, RF systems, broadcasting, and next-generation connectivity. The 2025 edition placed special emphasis on IoT and academic innovation, providing a national platform for cutting-edge research and student-led technological initiatives.

Out of 350+ national-level submissions, only 40 projects were shortlisted, with BMSIT&M emerging as the only private institution selected, marking a significant milestone for the institute and its IEEE student community. The SkyPulse initiative was showcased under the EPICS in IEEE program by Nitish K S (Chair, IEEE ComSoc BMSIT SB), Dr. Anitha V R (Faculty Mentor, Skypulse ), Tarun Patil (ExCom, IEEE SB BMSIT & IEEE ComSoc), along with IEEE ComSoc student members of BMSIT&M.

The exhibit featured a 16-node urban environmental observation network for Bengaluru, integrating ground-based IoT sensing with satellite-derived data. The team demonstrated a working prototype and live visualization system, highlighting short-term weather nowcasting capabilities for rainfall, fog, thunderstorms, and extreme weather events. The showcase emphasized the end-to-end workflow, from data acquisition and signal reception to analytics, visualization, and decision support.

The SkyPulse exhibit attracted significant interest from industry experts, policymakers, and researchers, facilitating technical discussions and expert feedback aimed at refining the system for scalable urban deployments. The participation at IMC 2025 reinforced SkyPulse's role as a student-driven, impact-focused innovation, aligned with national priorities in smart cities, climate resilience, and next-generation communication systems.



Fig 28-30.(L-R) Glimpses from IMC 2025

## 11. Kill Switch: Engineering Minds in Action

**Date:** 23<sup>rd</sup> - 24<sup>th</sup> October 2025

**Venue:** Seminar Hall 2, Sir. M V Block, BMSIT&M

**Participants:** 102



The Kill Switch event was organized by IEEE PES and IEEE CASS at BMSIT&M in collaboration with the IEEE ComSoc Chapter as an interactive technical investigation challenge that blended Electrical, Electronics, and Communication Engineering concepts with creative problem-solving. Participants acted as investigators to determine the cause and motive behind a fictional professor's "death" by solving technically themed clues based on circuit analysis, digital logic, microcontrollers, signal processing, sensor applications, and communication systems. The multi-stage format guided teams from case introduction to final report submission. The event promoted analytical thinking, creativity, and practical application of engineering knowledge, reflecting the mission of IEEE ComSoc and PES.



Fig 31-32.(L-R) Glimpses from Kill Switch

## 12. Inauguration of Workspace for Project Skypulse

**Date:** 31<sup>st</sup> October 2025

**Location:** 5<sup>th</sup> Floor, Silver Jubilee Block, BMSIT&M

IEEE ComSoc members at BMSIT&M inaugurated the Project SkyPulse initial workspace under the EPICS in IEEE program and BMSIT&M to initiate the development of an urban-scale environmental monitoring and nowcasting system for Bengaluru. The project focuses on deploying a 16-node observation network, establishing an in-house satellite ground station, and integrating RF and data analytics systems for real-time monitoring.

The workspace supports system development, prototype testing, and validation while enabling hands-on training in RF engineering, satellite remote sensing, and data analytics.



Fig 33-36.(Top-Down) Inauguration day with profs. from Dept. of ECE, Some of the facilities available currently in the centre.

### 13. Exploring IEEE Future Networks World Forum 2025



**Date:** 10<sup>th</sup> - 12<sup>th</sup> November 2025

**Venue:** Sheraton Grand, Whitefield, Bengaluru

**Participants:** 07

IEEE ComSoc BMSIT&M student members - Srijan U, Aniruddh M Adhvaryu, Keerthi Narayan MV, Monish U, Rohan, Alan Biju, and Mohammed Ayaan - along with Faculty Advisor Dr. Siddiq Iqbal, participated in the IEEE Future Networks World Forum (FNWF) 2025 in Bengaluru.

The forum focused on 5G–6G transition and AI-native, sustainable networks, featuring keynote sessions by experts including Dr. Vint Cerf, Dr. Riccardo Trivisonno, and Dr. Abhay Karandikar. The students contributed through lightning talks and poster presentations, showcasing a project on power management systems for Edge IoT smart homes.

Notably, Srijan U presented IEEE ComSoc initiatives and his research on power-efficient edge architectures. The event provided valuable technical exposure, industry interaction, and networking opportunities, strengthening student engagement in advanced communication technologies.



Fig 37-41. Glances from IEEE FNWF 2025.

## 14. IEEE Winter of Projects '25



**Date:** 29<sup>th</sup> October 2025 - 05<sup>th</sup> December 2025

**Venue:** Mentor sessions @Skypulse Centre, Stark Expo @Ground Floor, Sir M V Block

**Participants:** 144 (36 teams)

**Prize Pool:** ₹ 30,000/-

The IEEE Student Branch BMSIT&M, along with its 13 IEEE societies, successfully conducted Winter of Projects (WoP) 2025, a flagship interdisciplinary prototyping initiative focused on hands-on learning, innovation, and collaborative problem-solving. The program was conducted as part of IEEE Day 2025 celebrations and emphasized end-to-end project development through mentorship and structured technical guidance.

WoP 2025 witnessed significant growth, scaling from 22 teams in 2024 to 36 teams in 2025, reflecting the strong project-driven culture fostered by IEEE at BMSIT&M. Participants worked on domain-specific problem statements released by various IEEE societies and were selected through an SIH-style evaluation and allotment process, where team proposals were reviewed and top teams were shortlisted.

Throughout the program, teams progressed through the complete prototyping lifecycle, developing functional solutions under the mentorship of senior students, IEEE alumni, faculty advisors, and Executive Committee members. The initiative was fully supported by the IEEE Student Branch, which provided complete monetary support, along with structured review rounds and guided technical sessions.

The program concluded with Stark Expo 2025 on 05 December 2025, a campus-wide exhibition that showcased student innovations to faculty members, peers, and aspiring engineers.

As part of WoP 2025, IEEE Communications Society (ComSoc), BMSIT&M actively mentored and fully funded three project teams.

Novus (OI)	Automated Satellite Tracking and Data Acquisition System	P Achyuth	1BY24EC118
NextGen-Minds (OI)	Smart GasGuard	Kalpitha Naik	1BY23IS259
Rizz Board (OI)	SmartPill	PREETHAM B Y	1BY24EC136

A notable highlight was the outstanding performance of a ComSoc-mentored team, Team Novus - *Achyuth P, Vishruth N and Rohith N (all '24-'28 batch ECE students)* which secured First Place in the Hardware Track.

Their project titled '*Design and implementation of a custom A-Z Antenna Tracker for HRPT LEO Satellites.*' demonstrated strong technical depth in antenna positioning, satellite tracking, and real-time control systems, underscoring ComSoc's emphasis on applied communication engineering and hands-on innovation.

IEEE  
WINTER OF PROJECTS  
HOLD THE DOOR – FOR INNOVATIONS

GLIMPSES FROM WoP 2025



Fig 42-45.(Top-Down) Few Glimpses from Winter of Projects 2025.

#### 14. Felicitation @Bhumi Awards '25

**Date:** 13<sup>th</sup> December 2025

**Venue:** Asian College of Journalism, Chennai

Project SkyPulse, initiated under IEEE ComSoc and IEEE AP-S BMSIT&M Student Chapters, was felicitated at the Bhumi Campus Awards 2025 held at the Asian College of Journalism, Chennai. BMS Institute of Technology and Management received the Bhumi Campus Award 2025 – Best Innovative Social Initiative, recognizing SkyPulse for its innovation-driven social and environmental impact. The project was acknowledged as a student-led, interdisciplinary initiative that integrates communication systems, remote sensing, signal processing, and real-time data acquisition to deliver hyperlocal meteorological and satellite-based insights, supporting data-driven societal and environmental decision-making under the IEEE EPICS program



Fig 46-47.(L-R) at Bhumi Awards 2025.