DEPARTMENT OF ELECTRONICS AND COMMUNICATION

WAVES

NEWSLETTER

DEPARTMENT VISION

Be a pioneer in providing quality education in electronics, communication, and allied engineering fields to serve as a valuable resource for industry and society

DEPARTMENT MISSION

Impart sound theoretical concepts and practical skills through innovative pedagogy

Promote interdisciplinary research

Inculcate professional ethics

PROGRAMME EDUCATIONAL OBJECTIVES

Work as Professionals in the area of electronics and communication and allied engineering fields

Pursue higher studies and be involved in interdisciplinary research work

Exhibit ethics, Professional skills, and leadership qualities in their profession.

MESSAGE FROM HEAD OF DEPARTMENT

The Department of Electronics and Communication Engineering is showing consistent improvement in its academic, research, and placement performance. It offers a range of innovatively designed programs like open courses and value-added courses whose curricula are constantly updated to meet the changing requirements of the industry and to meet the needs of major stakeholders. We believe that our students have been well accepted the expectations of the corporate world. The Department of Electronics and Communication Engineering brings out its bi-annual newsletter "WAVES" every semester. The Department is releasing its Volume-11, Issue-2, covering faculty and students' achievements from July 2024 to December 2024. I hope this will give motivation and encouragement for both students and faculty to excel further in their respective fields. I also congratulate the editor team members and students for their efforts, hard work, and precise coverage of the information. I wish them all the best. *Happy reading!*

Dr. Shobharani A
Associate Professor and HoD

WORKSHOPS / FACULTY DEVELOPMENT PROGRAMMES/ FESTS

The ECE Department and BICEP organized a workshop titled
"MATLAB Meets Hardware: Accelerating Prototyping and Innovation"
on 19th October 2024, attended by 5 faculty and 20 ECE students.

Led by Mr. Rakshit B S, Senior Application Engineer at CoreEL Technologies, and coordinated by Dr. Vijayalakshmi GV, Dr. Anna Merine George, and Prof. Chandraprabha.

The session showcased MATLAB's integration with Arduino, Raspberry Pi, and ESP32 for rapid prototyping. Participants explored hands-on examples using MATLAB toolboxes to control sensors and actuators, and were encouraged to ideate smart system solutions.
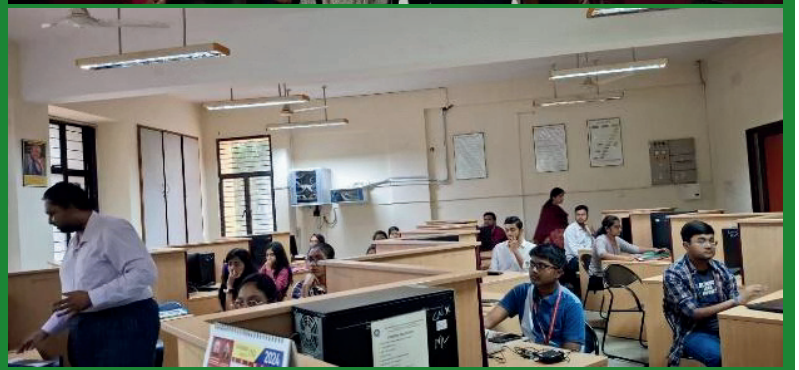
REVIEWER FOR JOURNAL / CONFERENCE

1) Dr. Anitha M and Dr Jayadeva G S served as a REVIEWER for 4th IEEE International Conference on Mobile Networks and Wireless Communications (ICMNWC-2024) organized by Department of Electronics and Telecommunication Engineering, Sri Siddhartha Institute of Technology, Tumakuru in association with IEEE Bangalore Section during 04-05 December, 2024.

2) Dr. Anna Merine George served as a Reviewer for (IEEE MoSICom 2024, Asian Research Journal of Current Science, COGNITIVE COMPUTATION AND SYSTEMS, Cyber-Physical Systems).

ALUMNI INTERACTION

Dr. Raghavendra Selvan (Alumni of 2009 batch), Assistant Professor, Technical University of Denmark Dr. Sneha Das, Assistant Professor in Statistics and Data Analysis at the Department of Applied Mathematics and Computer Science (Compute), Technical University of Denmark (DTU) Discussed Opportunities and trends in Signal Processing Research in a Session Called InsightHub 2.0. Cleared doubts of students regarding signal processing research and higher studies opportunities in abroad.

OFFLINE FDP WORKSHOPS ATTENDED BY FACULTY

1) Dr. Anna Merine George, Asst. Prof. attended five days FDP programme on AI driven Image Processing in Biometric Applications in Nitte Meenakshi Institute of Technology, Bengaluru from 19.08.2024 to 23.08.2024.

2) Dr. Anitha M Asst. Prof attended AICTE sponsored bilingual FDP on Smart cities and Mobilities on 9.08.2024 to 10.08.2024 at Jyothy Institute of Technology, Bangalore.

3) Dr. Asha K,Asst.Prof., attended the AICTE Training and Learning (ATAL) Academy Sponsored Six-day Faculty Development Program (FDP) on "Igniting Innovation Through Design Thinking & Entrepreneurship for Educator", at Reva University from 19.08.2024 to 24.08. 2024.

4) Anna Merine George Attended 10-day Faculty Development Programme (FDP) on "Harnessing Generative AI for Intelligent Systems in Today's Computing World," organized by the Department of Information Science and Engineering, NMIT in association with NIT Warangal and sponsored by EICT Academy, MeitY, Government of India, from Nov 4th - 14 ,2024.

5) Dr Anitha M attended Faculty Development Program on Generative AI and Large Language Models : Practical Insights & Future Directions, jointly organized by RNS Institute of Technology (RNSIT) and BMS College of Engineering (BMSCE) from 23rd to 28th September, 2024.

6) Dr.Suryakanth B and Shivarudraiah.B attended workshop Deep learning and generative AI at MSRIT on 19-08-2024 to 24-08-2024.

FACULTY ACHIVEMENTS

Dr. Dankan Gowda V, Assistant Professor in the Department of Electronics & Communication Engineering, BMS Institute of Technology & Management, Bangalore, has been named among the World's Top 2% Scientists for 2024 by Stanford University, USA.

Engineer's Day:

The Department of Electronics and communication Engineering celebrated Engineer's Day on 15th September 2024 as a mark of tribute to 162nd birth anniversary of one of the greatest Civil Engineer the world has ever produced, Bharat Ratna Sir Mokshagundam Visvesvaraya. The faculty members and the students of the Department actively participated the event and made it an auspicious one.

Award Recognition - Best Researcher 2023-2024

Dr. Saneesh Cleatus Thundiyil , Associate Professor, Dr. Dankan Gowda V, Assistant Professor, Dr Sateesh kumar, Assistant Professor from the Department of Electronics and Communication Engineering (ECE) at BMS Institute of Technology and Management (BMSIT&M), have been honored with the Best Researcher Award for the academic year 2023-2024.

This prestigious award was presented during the Teachers Day celebrations in recognition of their outstanding contributions to research and development.
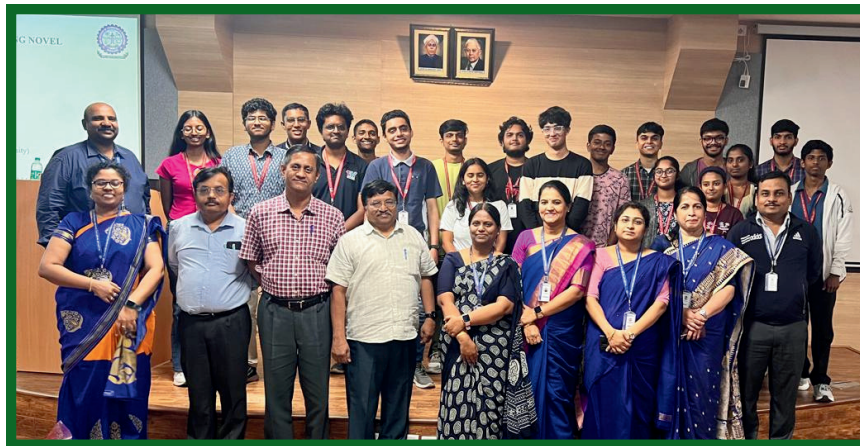

Dr. Thyagaraj T, Assistant Professor, Dept. of ECE completed his final Ph.D. Final Viva-Voce examination and PhD Degree awarded during the 24th Annual Convocation of Visvesvaraya Technological University (VTU) was held on July 18, 2024 in Belagavi, Karnataka

Asha G Hagargund, Assistant Professor Dept. of ECE, received best paper award for paper presented at International Conference on Network, Multimedia and Information Technology, at NMIT, Bangalore on 9th - 10th August 2024.

Ph.D. Final Viva-Voce examination of research scholar Mrs. Mamatha K R working under Dr. Hariprasad S A, Professor & Director, JAIN (Deemed-to-be University) and Dr. Thippeswamy G, Professor & HoD, CSE BMSIT&M was scheduled on 9th October 2024 in the department of Electronics and Communication Engineering, BMS Institute of Technology and Management through offline mode. The topic of the research was *"Enhancement of SAR images using novel algorithm"*

On October 9th, 2024, an engaging interaction was organised by IEEE Student branch BMSIT with the IEEE Bangalore Section Chair and professor, IISc, Dr. Srinivas Talabattula. ECE faculty along with 15 ECE students active in IEEE took part in a discussion on his expertise in the field of Photonic Integrated Circuits, Opportunities in IEEE and his experiences.

STUDENT ACHIEVEMENTS

A Hackathon was organized exclusively for BMS institutes and a total number of 74 teams with a group of 3 members in team had registered. From BMSIT&M 19 Teams and 55 teams from BMSCE participated in the Phase-1 screening conducted offline at BMSIT&M and BMSCE.

After the evaluation from Faculty coordinators and MathWorks team, the top 18 teams were selected for the final round , among which 7 teams are from BMSIT&M and the remaining 11 teams are from BMSCE.

Phase 2 and Final round of Hackathon was conducted at Auditorium 2, BMSCE. 7 teams from
BMSIT&M and 11 teams from BMSCE were participated. Top 3 teams were selected as winners of Hackathon based on the performance of MATLAB coding finalists.

1st Runner up (Second place):
Tharun Susri B S(ECE), Parjanya R Kandade(ETE) Data Pirates team, BMSIT& M

2nd Runner up (Third place):
Preeti Bhat (ECE), Rohan Jemmy(ECE) and Vaishnavi Ghati(ECE), Screen warriors, BMSIT&M

SMART INDIA HACKATHON(SIH 2024)

Students of 3rd semester ECE, Team Insight Syndicate , received the First Prize in Smart India Hackathon 2024 for their idea, "Grey and Black Water Management." won *first place* with a cash prize of *one Lakh Rupees.*

Alan Biju, A V Ravishankar, Apoorva D, Mohammed Ayaan, Vishnu Vijay N (all 3rd sem ECE) developed a hardware prototype SIH Venue, to solve urban drainage issues. The Smart India Hackathon (SIH) 2024 Hardware Edition was held at the Panipat Institute of Engineering and Technology (PIET) from December 11–15, 2024. The project was mentored by *Dr. Saneesh Cleatus T, Associate Professor, ECE.*
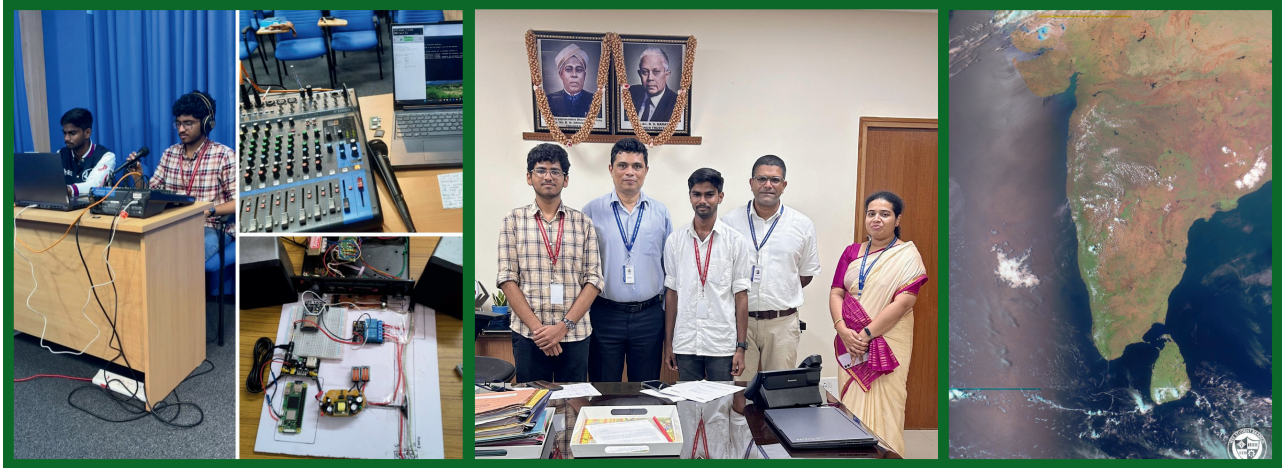
group 1: Srijan U and Vibha(both 3rd sem ECE)
group 2: Nitish K S and Kulajeet Barman(both 3rd sem ECE)
got the 1st prize and 2nd prize during poster presentation event which was organized on Thursday 26th December 2024 for the students of 1st and 3rd semester students in collaboration with the Bureau of Indian Standards (BIS), Bengaluru Branch, at BMSIT&M.

Nitish K S and Harshitha K V (both 3rd sem ECE) won the best paper award, for the paper titled *"Real-Time Aquaponics Monitoring with Gamma-Corrected Video Streaming and Remote Management"* during the Second National Conference on Advances in Science and Technology for Regenerative Agriculture [ASTRA–2024] organized by the department of agriculural Engineering, Bannari Amman Institute of Technology at Sathyamangalam, Tamil Nadu during December 19–20, 2024, under the guidance of Dr. Anitha M.

***First Prototype Test of Online Campus Radio Solution (12th September, 2024)*:** Nitish K S and Tarun Patil, (both 3rd sem ECE) under the guidance of Dr. Anna Merine George as part of IEEE ComSoc BMSIT&M, this prototype introduced a cost-effective Online Campus Radio for real-time audio streaming. It enhances campus connectivity, fosters community engagement, and showcases student talent.

IEEE SkyPulse Weather Forecast Initiative (November, 2024 onwards):
Led by Nitish K S, (3rd sem. ECE) under IEEE ComSoc BMSIT&M, SkyPulse is a community based weekly weather forecast editorial designed to provide timely and accurate updates on weather patterns affecting the campus and surrounding areas through real time satellite imagery and IoT weather data.

Tarun Patil, Sri Srujan Hari T, Nitish K S, Harshitha K V (all 3rd sem ECE) won 2nd place with a cash prize of Rs. 1,500/- in UVCE Kagada Project Expo organised by University of Visvesvaraya College of Engineering(UVCE) IEEE student branch for the project *"Real Time Smart Aquarium monitoring system Driven by IOT"* mentored by Dr. Anitha M.

Abdul Hannan Hanafi, Ayesha B Hosur, Harini K, Manoj Kumar Reddy, Maruthi P (all 5th sem ECE students) secured first place in the hardware track of IEEE BMSIT Stark Expo on 20th December 2024 for their 1U Cubesat prototype.

Samruddh, Rohit, Suraj, Nayan, Achyuth Panathula (all 1st sem ECE) secured 2nd place in the hardware track for their project "SafePath: Ambulance Detection and Traffic Signal Clearance System".

CAPTURE THE SIGNAL

Our ECE students part of IEEE Signal Processing Society BMSIT proudly hosted the Chapter Initiative "Capture the Signal" on 6th July 2024. This event aimed to challenge participants in the fields of signal processing and cryptography, providing a platform for both learning and collaboration.
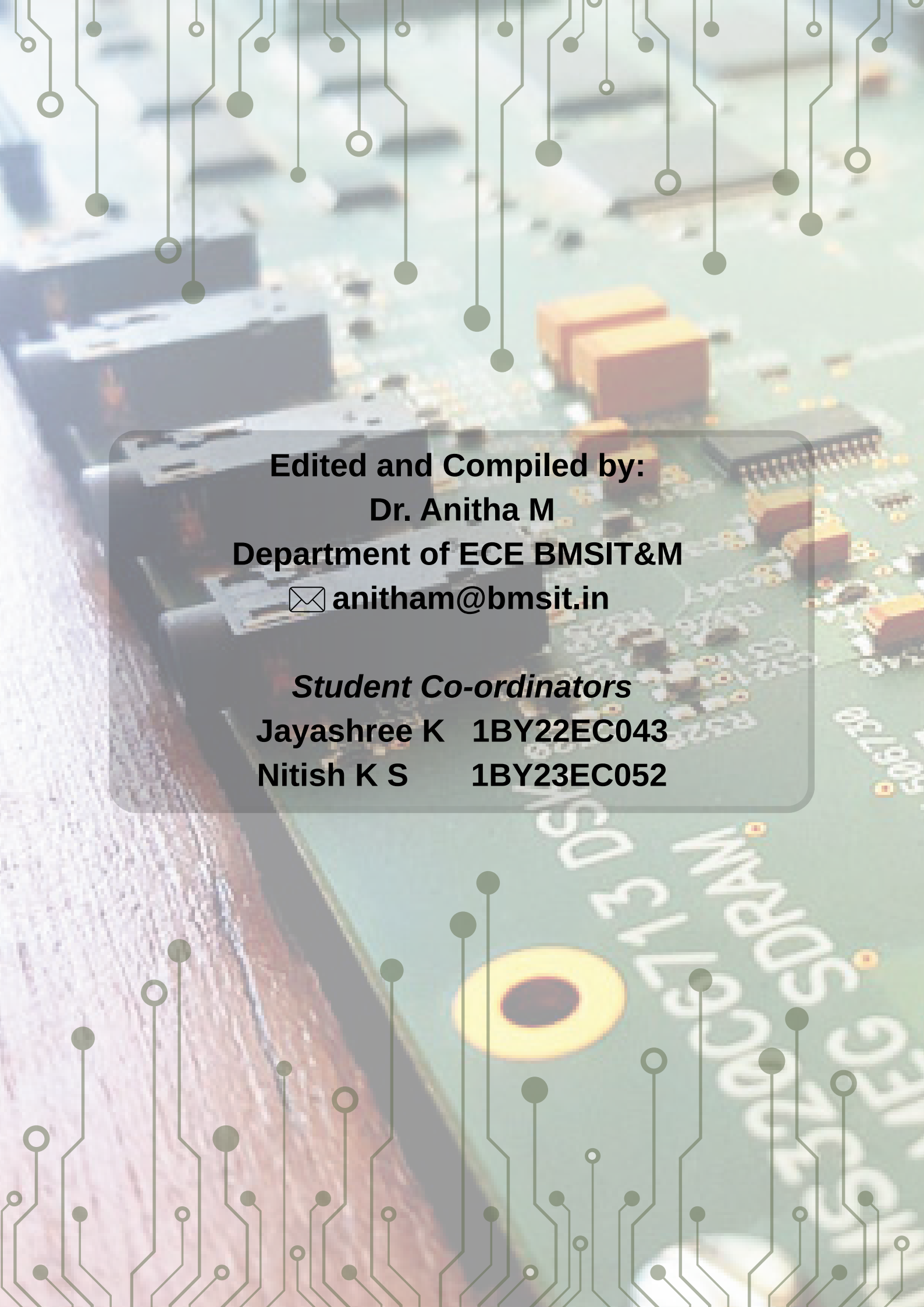

Organizing committee:
Adithya Srinivas K(8th sem ECE),
Sourabh KH, Shashank Panthangi, Suhas BS, Rakshit Pattar, Vaibhav Darshan,
Spandan S Salimath(all 6th sem ECE)

Edited and Compiled by:

Dr. Anitha M

Department of ECE BMSIT&M

✉ **anitham@bmsit.in**

Student Co-ordinators

Jayashree K   1BY22EC043

Nitish K S   1BY23EC052