# BMS

## INSTITUTE OF TECHNOLOGY AND MANAGEMENT

An Autonomous Institute Under VTU, Accredited by NBA and NAAC
Yelahanka, Bengaluru-560064

# BMS
## INSTITUTE OF TECHNOLOGY AND MANAGEMENT

**Vision**
To emerge as one of the finest technical institutions of higher learning, to develop engineering professionals who are technically competent, ethical and environment friendly for betterment of the society.

**Mission**
Accomplish stimulating learning environment through high quality academic instruction, innovation and industry-institute interface.

**PHONE:**
080 - 2952 1171 / 6873 0444

**WEBSITE:**
https://bmsit.ac.in/

**EMAIL:**
principal@bmsit.in

**TWITTER LINK:**
https://twitter.com/bmsitm1

**FACEBOOK LINK:**
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Presented by :
**Dr. Sanjay H A**
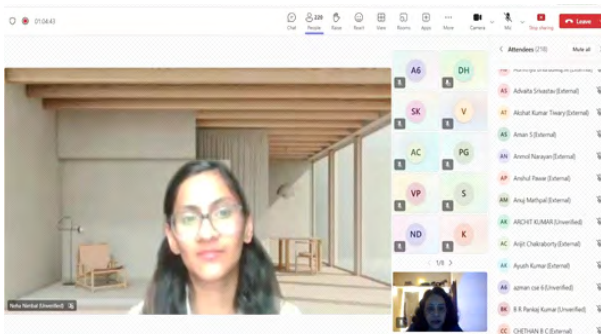Principal, BMSIT&M

## CONTENTS

## Awards / Recognitions

- A MoU was signed between 1M1B in collaboration with Flaunch Innovation Pvt. Ltd. and BMSIT&M through ARVR HUB on 22.10.2024. This collaboration promotes students and faculty members for providing training programs, internships, skill-building programs, networking and many more. This MoU was initiated by Dr. Srivani P & Prof. Bharathi R from the departments of AIML & CSE



## Events Conducted

1. Dr. HemaMalini B H, Associate Professor, Dept of CSE organised an ONLINE session on "Health and Psychology" to all the 14 section students of first semester, Chemistry cycle for Scientific Foundations of Health course to educate the students on Physical, Mental, Social, Emotional and Spiritual health on 25.10.2024, 6pm to 7pm IST. The speaker was Ms. Neha Nimbal, MRes Psychology - University of Leicester 2024, England.



2. The Department of AIML & CSE through AR VR HUB had organized a 1-Day orientation session with 1M1B in collaboration with Flaunch, for the orientation on upcoming LLM hackathons which will be launched with Meta. Over 500 students from various departments attended the orientation, showing a keen interest in LLM and AR/VR integration. Industry experts, faculty members, and representatives from 1M1B and the AR/VR Hub shared insights and encouraged students to leverage this hackathon as a platform for innovation.



3. MathWorks Code-Crux Hackathon was organized by the department of ECE and ETE under MATLAB CLUB-BMSIT&M and Innovation cell, BMSIT&M in association with BMSCE and MATHWORKS. Phase 2 and Final round of Hackathon was conducted on 09.10.2024 at Auditorium 2, BMSCE. 7 teams from BMSIT&M and 11 teams from BMSCE participated in this event. Top 3 teams were selected as winners of Hackathon based on the performance of MATLAB coding. 1st Runner up (Second place): Tharun Susri B S (ETE), Parjanya R Kandade (ETE)and Deniel Mathews (ISE), Data Pirates team, BMSIT&M.

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

4. The department of AIML, as a BICEP initiative, conducted a bootcamp titled "Creative Minds Bootcamp" on 19.10.2024 for the first semester students. This bootcamp was a dynamic workshop designed to empower students with the skills and mindset required for creative problem-solving using the principles of Design Thinking. This event aimed to foster innovation, collaboration, and user-centric thinking, giving participants hands-on experience in tackling real-world problems through design thinking methodologies.

5. First Semester students attended a presentation on "Creative enhancements for existing products on addressing challenges in the surrounding context", conducted on 19-10-2024 under the guidance of ECE department BICEP coordinators Dr. Anna Merine George and Dr. Asha K.



6. Extensive Survey Camp is a part of the curriculum and its very important for Civil Engineering students to get field knowledge and also it is a part and partial fulfilment for the award of B.E Degree. It is mandatory to attend and complete the Extensive Survey Camp for 10 days for the students of 5th semester. The camp was from 24.09.2024 to 04.10.2024 at Adde Vishwanathpura, Rajanukunte, Bangalore.



7. The Department of Library organized a VTU Consortium e-Resources Training Program to the faculty, research students and library professionals of all North Zone Engineering colleges on 16.10.2024 in the BSN Auditorium, Lab Block. The Program was presided over by our beloved Principal, Dr. Sanjay H.A, The Chief Guest for the Program was Prof. Muttayya Koganuramath and VTU Librarian Dr. Somaraya B Tallolli and Librarian Mrs. Anitha K.S. To Utilize these resources to the fullest, the VTU Consortium has arranged training program in BMSIT&M. This training was intended for faculty, research students and library professionals. The e-Resource packages like Elsevier Science Direct, IEEE ASPP & POP, Springer Nature, Emerald, EBSCO, Quiklrn, Cengage, Cambridge University Press, Mint Books & Knimbus Publishers has given brief discussion on e-resources and its usage.

## Seminars / Expert Talks

1. The Department of Computer Science & Business Systems at BMSIT&M organized a one-day technical talk on "Cyber Security Awareness" on the 19.10.2024. This insightful workshop was conducted specifically for the esteemed faculty members and researchers of BMSIT&M, providing a platform to explore the significance of cybersecurity in today's digital age. The session was led by the esteemed Dr. Udaya Shankar Puranik, a renowned expert in the field, who shared his invaluable knowledge on this critical topic from 10:30 AM to 12:30 PM.



1. Department of Electrical and Electronics Engineering organized an expert talk on the topic "Job opportunities at VLSI/Semiconductor industry" for 7th semester students on 19.10.2024. The speaker, Mr. Santhosh of Synopsys covered the topic on basics of VLSI and job opportunities in VLSI industry for students of EEE/ECE/ETE. He spoke about his journey as a EEE student and how he landed in a job at VLSI domain and the requirements to obtain a job with electrical science background. Mr. Pradyoth of IBM gave insight of the VLSI design cycle with various steps of specifications, architecture, design verification, functional verification, synthesis, physical design, design validation and finally fabrication and packaging in an interesting way by making students interactive in the session. The activity was coordinated by Dr. Suma Umesh and Prof. Manjula B.K.



2. On 14.10.2024, an insightful invited talk on "Smart Urban Infrastructure" was delivered by Dr. Jayakesh K., Assistant Professor, Dept. of Civil Engg., NIT Arunachal Pradesh, an expert in smart technologies and urban development. The session started at 10:50 AM and saw active participation from students interested in urban infrastructure advancements. The talk aimed to shed light on the transformative impact of smart technologies on urban infrastructure and city planning, with an emphasis on how emerging innovations can enhance sustainability, efficiency, and quality of life in urban environments.



3. An Expert Talk under ISTE Banner on the topic "Intellectual Property Rights in Civil Engineering" was organized on 23.10.2024 for the 5th sem students of 2022 Batch. The Expert Talk was delivered by Prof. Praveen Kumar T N, Associate Professor, Department of Mechanical Engineering, BMSIT&M Bangalore. The activity was coordinated by Dr Vinod B R.

## Faculty as Resource Person

1. Dr. Anupama H S, Professor and Head, Department of AI & ML has extended their support as Resource person for workshop on "Artificial Intelligence and Machine Learning" on 21.10.2024 at MCE, Hassan.

2. Prof. Mayuri K P, Assistant Professor, Department of AI & ML was a resource person on "Supervised Learning Algorithms in Machine Learning" on 19.10.2024 at Sir M Visvesvaraya Institute of Technology, Bengaluru.

   Dr. M. Sridevi, Assistant Professor and Head, Department of MCA, served as a resource person for the webinar on "Data Science and Data Stories," conducted by the Department of MCA, Brindavan College, Yelahanka, Bangalore on 28.10.2024



## Out Reach Activity

1. Dr Anupama H S, Professor and Head, Department of AI & ML was a Chairperson at World Standards Day 2024 organized by Bureau of Indian Standards (BIS), Ministry of Consumer Affairs, Food & Public Distribution, Government of India on 14.10.2024 at Bengaluru.

## Faculty Achievements

1. Kallur V Vijayakumar, Chethan A.S. Muneshwara M S, Swetha M S, Anand R, Dr. Shivakumara T, and Pramath V Bhat have received the "Best Paper Award" for their research titled "HealthLink: A Cutting-Edge System for Secure Healthcare Data with IoT, Blockchain, and IPFS." This work was presented at the 3rd IEEE International Conference on Blockchain and Distributed Systems Security, held from 17.10.2024 to 19.10.2024.

2. On 27.10.2024, Dr. Shivakumara T was honoured at the Teacher's Felicitation Program during the Sparsh Guru Vandana ceremony for his commitment to nurturing young minds, at Sparsh Hospital, Bangalore.

3. 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, BMSIT&M was scheduled on 9th Oct 2024 at 10.00 AM 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"

## Students Achievements

1. Saanvi S Bhandiwad, Jeevetha A and Likhitha K M, 3rd semester students from Dept. of CSBS, participated in the case study and Idea Pitch event "IDEATHON Cypher 2.0" organized by the Rotaract Club of Atria, Atria Institute of Technology on 18.10.2024 to 19.10.2024 and secured 2nd position in the event.



2. Ms. Amisha Naik and Dr. Shivakumara T presented their paper titled "Automated Cleaning Scheduling Based on Sensor Data and Analysis" at CogSpec-24, the National Student Research Symposium organized by the Department of Computer Science (PG) at Kristu Jayanti College, Autonomous, in collaboration with IEEE Bangalore Section, on 22.10.2024.

3. Mr. Deena R and Dr. Shivakumara T presented their paper titled "Ride Shield: A Comprehensive IoT Solution for Bike Safety" at CogSpec-24, the National Student Research Symposium organized by the Department of Computer Science (PG) at Kristu Jayanti College, Autonomous, in collaboration with IEEE Bangalore Section, on 22.10.2024.

4. Ms. Anusha K M and Dr. Shivakumara T presented their paper titled "Integrating Deep Learning in Physiotherapy: Automated Assessment and Feedback System" at CogSpec-24, the National Student Research Symposium organized by the Department of Computer Science (PG) at Kristu Jayanti College, Autonomous, in collaboration with IEEE Bangalore Section, on 22.10.2024.

5. Tarun Patil, Sri Srujan Hari T, Harshitha k V and Nitish kS, students from Dept. of ECE, secured

the second prize in the "KAGADA 20" at the event IEEE UVCE's Annual National-Level Technical

Student Conference on 26th October 2024 titled "Real Time Smart Aquarium monitoring system driven by IoT", under the guidance of Dr Anitha M.

6. Krishna J and Drushya Gowda, 3rd sem students of AIML, participated in Nasscom Future Forge 2024, from 16.10.2024 to 17.10.2024 at the Taj WestEnd, Bengaluru. Students gained insights on advanced areas like AI, Quantum Computing, Robotics and other breakthrough innovations. Students also participated in specialized workshops and masterclasses led by experts, offering hands-on learning in key entrepreneurial areas like, product market fit etc.

## Industrial Visit

1. An Industrial visit was arranged by the Department of ETE for 3rd semester at PC Process Unit, Peenya, Bangalore on 23.10.2024 Dr. Saritha I G and Prof. Prathiba N along with one instructor Mr.Chalapathy M N, accompanied by 64 students .



2. The Department of Civil Engineering, in association with the Bureau of Indian Standards (BIS) Bengaluru, organized an industrial visit for fifth-semester students to ACC Limited, Thondebhavi Cement Works, in Chikkaballapur, Karnataka on 25.10.2024. Dr. Lalit Kumar Gupta and Mr. Ravikiran



K C accompanied a group of 30 students on this industrial exposure.

3. he Department of Civil Engineering, in collaboration with the Bureau of Indian Standards (BIS) Bengaluru, organized an industrial visit to UltraTech Cement Limited (Unit: Birla Super Bulk Terminal), Veerapura Post, near Doddaballapur Railway Station, Bangalore District, on 26.10.2024, for fifth-semester students. Dr. Lalit Kumar Gupta accompanied 27 students, offering them valuable industrial exposure.



4. An industrial visit was arranged by the Department of MBA for its second semester students at TresVista company on 03.10.2024. Dr. Vinay, faculty member from Department of MBA accompanied the students for the industrial visit

## Students Workshop Conducted/ Organised

1. Two days' workshop on "Trace the Path" was organised and conducted by Dr. Rashmi N, Assistant Professor, Dept. of ECE, at Arohana lab, Lab block BMSIT&M from 19.10.2024 to 20.10.2024. Totally 82 students from all the branches attended this workshop on 19th October 2024 session was conducted by Dr. Rashmi N and Senior student coordinators of E-ynatra from ECE Dept.

2. On 19.10.2024, students learnt how the



robot can be built and controlled by bluetooth. At the end of the session a small robo war challenge was organised to check how well students have built their robot.

3. On 20.10.2024, Sunday Dr. Viswanth V from the NMIT conducted workshop on how to connect the robot to the cloud and remotely how one can control it.

4. Many IoT applications and projects were discussed in the session

## FDP conducted/ organised

1. The Department of MBA conducted an Outcome-Based Education (OBE) workshop on 14.10.2024 for faculty members. Dr. Jyothi E Singh (HOD-MBA I/C) was the resource person for the event. The workshop highlighted the significance of Course Outcome (CO) to Program Outcome (PO) mapping, demonstrating how individual course objectives align with the overall program goals. The participants gained insights into how OBE prioritizes student learning outcomes and ensures that educational objectives are clearly defined and measurable.



2. The Department of ECE and BICEP organised a session on "MATLAB Meets Hardware: Accelerating Prototyping and Innovation on 19.10.2024 8:30 AM-4:30 PM. Around 5 faculty and 20 ECE students attended the session. The session was led by Mr. Rakshit B S, Senior Application Engineer, CoreEL Technologies. The session was coordinated by Dr. Vijayalakshmi G V, Dr. Anna Merine George and Prof. Chandraprabha. Following were the highlights of the session:

   Exploring how MATLAB connects and controls various hardware platforms like Arudino, Raspberry Pi and ESP32 along with various sensors and actuators, emphasizing its role in prototyping and product development across multiple domains. Showcasing practical examples of interfacing MATLAB with hardware devices, providing step-by-step guidance on using relevant toolboxes and packages. Discussion on potential projects and innovation opportunities, encouraging participants to brainstorm and leverage MATLAB for developing smart systems.

## International Journal/ Conference Publication/Magazine/ Book Chapters

### International Journal

1. H. M. Manoj et.al, "Comparative Assessment of Machine Learning Models for Predicting Glucose Intolerance Risk", SN Computer Science 5, no. 7 (2024): 894.

2. Prof S. Nithya Poornima, Assistant Professor, Dept of Mechanical Engineering published a paper titled "Exploring Nano-Graphene in Bio-Lubricants: Innovative Approaches to Reduce Friction and Wear Engineering Systems" in Letters in High Energy Physics ISSN: 2632-2714 Volume 2024 Q2 (2024), H index 11, SJR 0.41,

3. Prof S. Nithya Poornima, Assistant Professor, Dept of Mechanical Engineering published a paper titled "Rheological Insights and Optimization of Bio Nano Lubricants in Tribological Systems" in Nanotechnology Perceptions 20 No. S12 (2024) 262-27 ISSN 1660-6795 www.nano-ntp.com Q4 Journal (2024), H index 10, SJR 0.11,

4. Dr Kiran, M.D., Assistant Professor, Dept of Mechanical Engineering published a paper titled Tribological Characterization of Nano-$Al_2O_3$-Filled Nickel-Coated Short Carbon Fiber-Reinforced Epoxy Composites. In: Smart Materials and Manufacturing Technologies for Sustainable Development. SME 2023. Advances in Science, Technology & Innovation. Springer, Cham. https://doi.org/10.1007/978-3-031-63909-8_39

5. Dr Chethan D, Assistant Professor, Dept of Mechanical Engineering published a paper titled "Optimizing Dental Composites: Synergistic Effects of Calcite–Zincate Nanoparticles in PMMA Resin for Enhanced Mechanical Performance" in Journal of Inst. Eng. India Ser. D, ISSN: 2250-2130 , October 2024 Q2 (2024), H index 19, SJR 0.263, https://doi.org/10.1007/s40033-024-00830-5

6. Vinod B R et.al "Finite Element Analysis of Soil-Structure Interaction in Piled Framed Structures Under Seismic Loading Conditions" Letters in High Energy Physics, ISSN: 2632-2714, Volume 2024,:607-616, DOI: https://doi.org/10.31526/lhep.2024.

7. Pathak C.S., Aloysius, Gupta S., Mukhopadhyay S., Edri  E., "Highly conductive flat grains of $CsPbBr_3$ Perovskite via additive engineering with methyl ammonium bromide" Energy Advances, 3, (2024): 2543-2551. ISSN: 2753-1457, Impact Fcator: 3.2

8. Prakash K., Valeti N.J., Jain P., Pathak C.S., Gupta S.,  Edri E., Mukhopadhyay S., "Single Crystal Perovskite Halide: Crystal Growth to Devices Applications" Energy Technology (2024): 2400618. ISSN:2194-4296   Impact factor: 3.86

### International Conference

1. Manoj, H. M., Priyanka Pramod Pawar, R. Krupa, Piyush Kumar Pareek, Deepak Kumar, and G. B. Vindhya. "Innovative Horizons in Agricultural Technology with TSA Based Strawberry SqueezeNet Classification Model." In 2024 International Conference on Data Science and Network Security (ICDSNS), pp. 1-7. IEEE, 2024.

2. Manoj, H. M., Priyanka Pramod Pawar, R. Krupa, Piyush Kumar Pareek, Deepak Kumar, and Lalitha Bandeppa. "PFCM based Segmentation and TFA based DCNN model for Skin Cancer Classification using Dermoscopic Images." In 2024 International Conference on Data Science and Network Security (ICDSNS), pp. 1-7. IEEE, 2024.

3. Pawar, Priyanka Pramod, Deepak Kumar, Raghavi K. Bhujang, Piyush Kumar Pareek, H. M. Manoj, and K. S. Deepika. "Investigation on Digital Forensic Using Graph Based Neural

Network With Blockchain Technology." In 2024 International Conference on Data Science and Network Security (ICDSNS), pp. 1-7. IEEE, 2024.

4. Pawar, Priyanka Pramod, Deepak Kumar, R. Krupa, Piyush Kumar Pareek, H. M. Manoj, and K. S. Deepika. "SINN Based Federated Learning Model for Intrusion Detection with Blockchain Technology in Digital Forensic." In 2024 International Conference on Data Science and Network Security (ICDSNS), pp. 01-07. IEEE, 2024.

5. Mohan, H. G., Jalesh Kumar, I. S. Rajesh, K. Sai Geethanjali, Manjunath Sargur Krishnamurthy, and K. Jagannathan. "A CNN based deep learning model for detecting P2P Botnets using flow features." In 2024 Second International Conference on Networks, Multimedia and Information Technology (NMITCON), pp. 1-6. IEEE, 2024.

6. Palati, Madhu, R. Dharshan, Piyush Kumar Pattnaik, G. R. Nisarga, and Vineeth R. Harthikote. "Smart Water Leakage Alert System for Residential Buildings." In 2024 5th International Conference on Electronics and Sustainable Communication Systems (ICESC), pp. 357-362. IEEE, 2024. (Scopus)

7. Prashanth, N. A., and Madhu Palati. "Design and Implementation of DC-AC-DC High Frequency Converter in MATLAB/Simulink." In 2024 5th International Conference on Electronics and Sustainable Communication Systems (ICESC), pp. 253-257. IEEE, 2024. (Scopus)

8. Shreya, G. S., Dipanshu Bhardwaj, and Prashant A. Athavale. "Deep Learning Based Environmental Sound Classification." In 2024 Second International Conference on Networks, Multimedia and Information Technology (NMITCON), pp. 1-6. IEEE, 2024. (Scopus)

9. Dr. Banuprakash R, Dr. Siddiq Iqbal, Dr. Thejaswini S," A compact Antenna for 6GHz and 6G mid band application using slots and DGS" First International Conference on Advance Communication and Computational Devices-ICACCD-2024, 4.10.2024 to 05.10.2024 at Acharya Institute of Technology, Bengaluru.

10. Janhavi V, Dr.Banuprakash R, Dr. Siddiq Iqbal, "A compact slotted antenna for 6G mid band Communication", First International Conference on Advance Communication and Computational Devices-ICACCD-2024, 4.10.2024 to 05.10.2024 at Acharya Institute of Technology, Bengaluru.

11. Dr. Thejaswini S, Dr. Mamatha K R, Mr. Ramesh Babu N, "EEG Based Motor Movement Classification Using CNN", Annual International Conference on Recent Trends in Healthcare Innovation (AICRTHI-2024), 24.10.2024 and 25.10.2024 at Vidyavardhaka College of Engineering, Mysuru.

12. Dr. Saritha I G, Dr. Sowmyashree M S, Dr. Laxmisagar H S , Dr. Naveen I G , "Secured Hybridization assistance for Smart Cities Healthcare using CPS" , Annual International Conference on Recent Trends in Healthcare Innovation (AICRTHI-2024), October 24.10.2024 and 25.10.2024 at Vidyavardhaka College of Engineering, Mysuru.

**Book Chapters**

K. Venkatesh Sharma, Mahammad Mastan, G. Jai Arul Jose, Louay A. Hussein Al-Nuaimy, "Quality Assessment of South Indian Cherry Tomatoes Based on Deep and Convolutional Neural Networks", Iraqi Journal of Science, ISSN: 0067-2905, Vol 65 No 10 (2024), 30-10-2024 (Q3)

## NSS Events

### BLOOD DONATION AWARENESS PROGRAM

The NSS Unit in association with NCC and Youth Red Cross unit of BMS Institute of Technology and Management in collaboration with the Lions Blood Centre, Vijayanagar and Lions Blood Centre, Yelahanka organized a Blood Donation Awareness Program on 24.10.2024 aimed at educating and inspiring students to become voluntary blood donors. This awareness drive, held across all the classrooms, sought to make students aware of the critical role blood donation plays in saving lives and to encourage them to participate in the upcoming blood donation drive organized by the Lions Club.



The Volunteer Blood Donation camp and Awareness on the same was organized by the National Service Scheme (NSS) in collaboration with Youth Red Cross Unit and the National Cadet Corps (NCC) on 25th October 2024 with the primary goal of encouraging voluntary blood donation and raising awareness about its importance. The Lion Blood Bank (Yelahanka and Vijayanagar – Vaishnavi group) collected the blood samples, the event saw active participation from students, faculty, and community members.

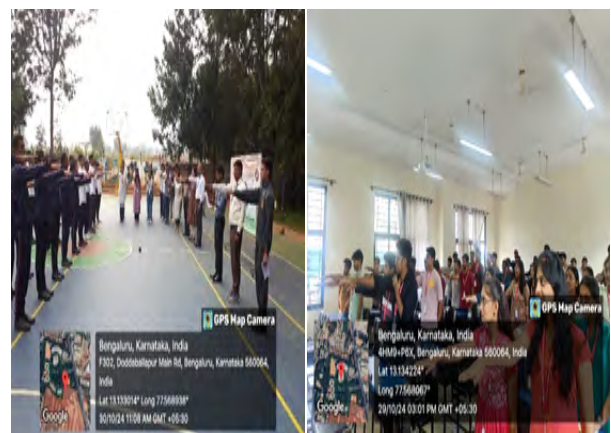### CELEBRATION OF MAHARSHI VALMIKI JAYANTHI

To honour the birth anniversary of Maharishi Valmiki—the revered ancient poet, sage, and author of the epic Ramayana, BMSIT&M celebrated Valmiki Jayanthi on 17.10.2024. The Principal, Dr. Sanjay H A, addressed the gathering and spoke about the significance and contribution of Maharshi Valmiki to the society. The main coordinator of an event narrated the life story and contribution of Valmiki to the gathering. The pooja was offered to Maharishi Valmiki by principal, Coordinators, Section heads and students by lighting the lamps.



### VIGILANCE AWARENESS WEEK - 2024

Vigilance Awareness Week 2024 was held on 30.10.2024 at Basketball Court, BMSIT&M to promote integrity, transparency, and accountability in public life with the theme "Corruption-free India for a developed Nation". The event began with deliberating the importance of Vigilance awareness week to all the students by the NSS Program Officer, followed by the Pledge taking for Corruption free India. Dr. Ganesh P, Dean- Planning and Development, Dr. Manoj H M, NSS Program Officer, Lt. Rani, NCC Officer, Dr. Kantharaju, NSS coordinator, Dr. Niranjanmurthy and NSS student Volunteers and NCC students participated in the event.

## BICEP Activities

### IIT Madras Carbon Zero Challenge 4.0

Dostbin had been selected for a funding support up to 5 Lakhs for product development with intermediate reviews for work progress and fund utilization. The engagement concluded with showcasing of their pre-market product at IIT Madras campus for a 3-day event from October 26th to 28th, 2024. The product was demonstrated to a wide audience of investors, enablers, experts from various fields. The stall was open for early customers to pre-book their order for the composters. Audience was thrilled to the witness the innovation which simplified composting for urban households, which is entirely controlled via a mobile app for ease of operation and accessibility.

Top 25 teams had pitch presentation session on day 2. Dostbin's pitch stood out among numerous innovative solutions, earning the Best Pitch Award for their clear vision, innovative design, and impactful solution. Additionally, the Director of IIT Madras, Dr. V. Kamakoti personally appreciated the product acknowledging its potential to contribute toward carbon neutrality and sustainable practices.

On World Sustainability Day, IIT Madras kicked off its 3-day Expo with distinguished guests like Dr. P. Senthilkumar IAS, Principal Secretary of Tamil Nadu's Department of Environment, Climate Change, and Forest, and Mr. Nagaraj Prakasam, Partner at Acumen Fund and angel investor. The first day was dedicated to students, with over 200 participating in sustainability games, quizzes, and project presentations, gaining valuable insights into eco-friendly practices. Day two fostered connections between investors and innovators, with inspiring talks from Ms. Pooja Kulkarni, Special Secretary & CEO of TNIDB, and Mr. Vidyut Mohan, Earth shot Prize Winner. Industry leaders, including Mr. Leo Bernard from Ashok Leyland, shared valuable perspectives on sustainable innovation. Representatives from Indian Bank, Villgro, StartupTN, and other organizations enriched the discussions.

### IIC meeting

Prof. Archana K, Head of Incubation, participated in the Institution's Innovation Council (IIC) meeting on October 7, 2024, to approve the shortlisted projects under the NAIN 2.0 Student Project Evaluation, organized by Guru Nanak Dev Engineering College (GNDEC) Bidar, on 07.10.2024. A total of 15 projects from various departments of the institute were shortlisted for the NAIN 2.0 initiative. During the meeting, IIC members thoroughly deliberated on the merits and feasibility of these projects, eventually giving their approval to proceed with the selected ones.

### Nasa space apps challenge Hackathon

BICEP promoted the event where 2 teams from BMSIT&M who participated in the NASA Space Apps Challenge Hackathon on 05.10.2024 and 06.10.2024 organized by Jain school of sciences, competing among a total of 80 registered teams. Out of these, 54 teams, 10 teams were awarded as winners.

Prof. Shama H M Innovation coordinator served as the faculty coordinator for the event. Teams were as follows:

1. Space Odyssey (3rd Year) 11th position (winners in consolation category)
- Team Leader: Abhinav Gupta (1BY22IS005)
- Team Members: Mithila S Shegaji (1BY22CS114), Bhanupriya R (1BY22AI137), Ayush Agarwala (1BY22CS033), Ayush Poddar (1BY22CS035), Aditya Dhanraj (1BY22CS010).

2. **Orion's Shield (2nd Year)**
- Team Leader: Tejashwini S Uranakar (1BY23IS234)
- Team Members: Abhinav Singh (1BY23AI006), Aditi D (1BY23AI008), Advaith A Kashyap (1BY23AI011), Atul Kumar Mishra (1BY23IS044), Sanjay S Nayak (1BY23IS189)

The teams demonstrated impressive innovation and problem-solving skills, representing BMSIT with distinction.

### Tech Fusion 2024 National Level Technical Hackathon

BICEP promoted the event organized by Rajarajeshwari College of Engineering on 24.10.2024 & 25.10.2024. Two ECE 1st Semester student's Mr. B Suraj and Mr. Rushil M M participated with their project on Ambulance Detection System. It enables green signals for lanes with ambulances approaching traffic signals. By detecting the ambulance siren frequency through a microphone and filtering circuit, the signal is sent to an Arduino microcontroller, which then manages the traffic signals accordingly. The hackathon began with an introductory session, and prototype implementation, with periodic progress checks by judges. Despite challenges with the siren filtering system, we resolved issues with guidance from our seniors. The participation is supported financially by BICEP with their registration amount.

### The NASSCOM Future Forge 2024

NASSCOM Future Forge 2024 was hosted at Taj West End, Bangalore. The event provided a platform to learn about emerging trends in AI, blockchain, cybersecurity, and digital transformation, while fostering networking opportunities with professionals shaping the future of the tech ecosystem. The knowledge and experiences gained will significantly contribute to both the academic and professional growth of the students. Ten students and one faculty member, Dr.

Sanjay M Belgaounkar, from our college participated in the event, which was held on 16.10.2024 and 17.10.2024. It was an incredible opportunity to engage with industry leaders, innovators, and visionaries, gaining valuable insights into the future of technology, innovation, and business transformation.



### Internal events and workshops

### BICEP Sessions

BICEP faculty members coordinated a session on innovation and entrepreneurship on 19.10.2024 across various departments, covering the key topics like Innovation process and need for innovation, Success stories of prominent innovators, Introduction to Entrepreneurship and success stories of Indian Entrepreneurs, Qualities of Entrepreneurs, Characteristics of Entrepreneurs, Challenges in Entrepreneurship, Opportunities in Entrepreneurship.

### BICEP-Aarohan-Aero club workshop

A two-day workshop on "Drone Building" was conducted on October 25.10.2024 and 28.10.2024, organized by the Aero Club combined with BICEP in Aarohan hardware innovation lab. The event aimed to provide participants with hands-on experience in drone assembly, programming, and operation.

**Day 1:** The first day focused on theoretical knowledge, covering drone components, types, and applications in industries like agriculture, defense, and surveillance. Topics like drone aerodynamics and flight principles were also discussed.

**Day 2:** The second day was dedicated to practical learning. Participants assembled drones from kits, covering wiring, motor installation, and flight testing. The day concluded with live flight demonstrations.

The workshop was highly engaging, with 100 participants on the first day and 26 students shortlisted for day 2 from AIML, CSE, ECE, EEE, ISE, and ME departments. Participants gained practical experience in drone assembly, troubleshooting, developing valuable skills relevant to areas such as aerial photography, logistics, and disaster management. The hands-on sessions, combined with clear and effective instruction, received positive feedback from attendees. The workshop



successfully met its objectives, equipping students with essential knowledge and practical skills in drone technology, preparing them for future trends across various industries.
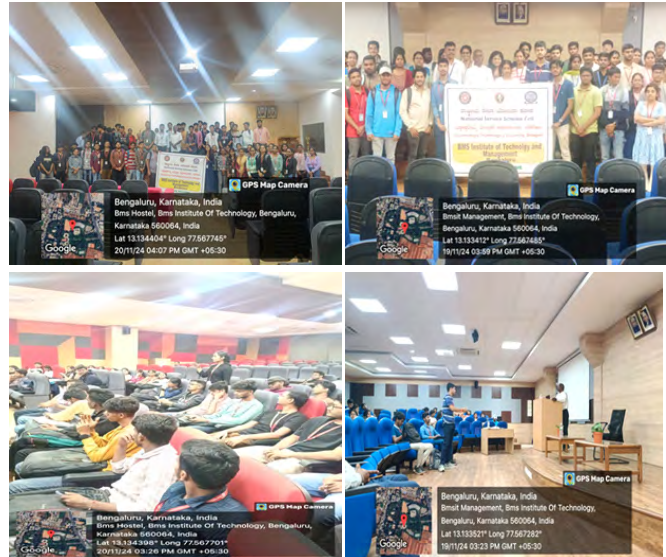




### BICEP-Aarohan-E-yantra "Trace the Path" Workshop:

The "Trace the Path - Building a Line-Following and Object Detection Robot with ESP32" workshop was organized by the E-Yantra club in collaboration with BICEP at the Aarohan Hardware Innovation Lab on 19th October 2024. The workshop, with 80 first-year engineering students participating, introduced them to fundamentals of robotics and programming. Participants were guided through the process of building a robot capable of line-following and object detection using the ESP32 microcontroller. Students assembled the hardware, learned circuit design, and programmed the robot for obstacle detection and path-following. The workshop not only enhanced their technical skills in electronics, programming, and robotics but also fostered teamwork and problem-solving abilities. The session concluded with a practical testing phase, where students troubleshot their robots, followed by a Q&A session to explore applications and further learning opportunities. Students developed practical skills in circuit design, programming, and robotics, while also gaining experience in effective team collaboration. They gained a deeper understanding of the real-world applications of these skills in automation and IoT systems.

## NCC Activities

1. The National Service Scheme (NSS) Unit in association with Unnat Bharath Abhiyan, BMSIT & M, has conducted an interactive session on Organic Farming and Natural Farming on 19th and 20th November 2024 by Mr. Subramani Sudhakaran, proprietor of ZBNFmart, a pioneering organization in sustainable agriculture. The two-day event aimed to educate and inspire participants about the critical role of sustainable farming in addressing global environmental challenges and promoting health-conscious agricultural practices. This program has benefited the 3rd and 5th semester NSS volunteers and NSS Coordinators. Dr. Manoj H M, NSS Program Officer and Associate Professor, Dept. of AIML & Dr. Kantharaju V, Assistant Professor, Dept. of AIML and NSS coordinators organised this event.

**Event Snapshots are attached**



## Sports Events

Our college Boad Members have felicitated outstanding achievers of NCC cadets and Sports players.

BMSIT&M organised VTU Bengaluru North Division (Men) Basketball tournament -2024-25 on 16th of October 2024 and Emerged as Champions of the Tournament.









our college students' participated in VTU State level Karate competition (M&W) 26th Oct at BIT Blore, in that Ms. KAVYA from EEE dept. secured Bronze Medal under 50Kgs weight category.

Our college student Bhargav MV from EEE Dept has participated in badminton tournament and secured second place on 1st to 3rd October 2024 held at Manipal Institute of Technology.

## Placement Activities

2025 BATCH FINAL PLACEMENTS: The placement season for the 2025 Batch commenced on 01.07.2024. As on 31.10.2024, total 242 placement offers have been placed and given internship offers as detailed below.

M./s Elite Group Training: 2025 Batch Elite Group Training on 07.10.2024 to 9.10.2024.





M./s Indium: 2025 Batch Indium Campus Drive on 19.10.2024.



M./s Accorian: 2025 Batch Accorian Campus Drive on 21.10.2024.



M./s Galaxe Solutions: 2025 Batch Galaxe Solutions Drive on 22.10.2024.



M./s Smiths detection: 2025 Batch Smiths detection Campus Drive on 23.10.2024

## Counselling

The technique of offline and online was utilized for counseling. One student of ETE 'RI' had academic concerns, she was guided by 'Study skills', 'Time-table management'. Student 'MU' of EEE (5th sem) 'AY' of 7th sem CSE reported improvement after counselling in emotional, cognitive areas. Cognitive behavioral therapy was used for counselling. Student 'SHY' of 5th sem ECE has improved in 4th sem examination. From 7 he improved to 8.5 CGPA. He insisted to discuss factors for improvement i.e., dedication, smart work etc.

'JAY' parent of 'TU' of 5th sem ECE discussed academic concerns of her son. Student 'GE' , 'SA', and 'VI' of 1st seme CSE had emotional disturbances due to various factors. Cognitive behavioral therapy and client centered therapy was utilized. They are improving. Student 'DE' of 1st sem Civil is homesick hence moral support was extended. Seminar was conducted for 1st year hostel students, pg students. Topic – 'Effective Hostel Management' , 'Crafting Academic success' and 'Overview of counselling'. Hostel Mess staff meeting was held. They were provided orientation to health, hygiene and enhancing family relationship. To conclude, 9 students, 1 parent were counselled in the above period. 4 seminars were conducted.

**BMS**
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## INSTITUTE OF TECHNOLOGY AND MANAGEMENT

Doddaballapur Main Road, Avalahalli, Yelahanka,
Bengaluru - 560064. Ph: 080 - 2952 1171 / 6873 0444
**email : principal@bmsit.in | www. bmsit.in**

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