



B.M.S. COLLEGE OF ENGG. B'LORE-19

[Autonomous Institute, Affiliated to VTU]

DEPT. OF Electronics and communication Engineering–

ACTIVITY REPORT

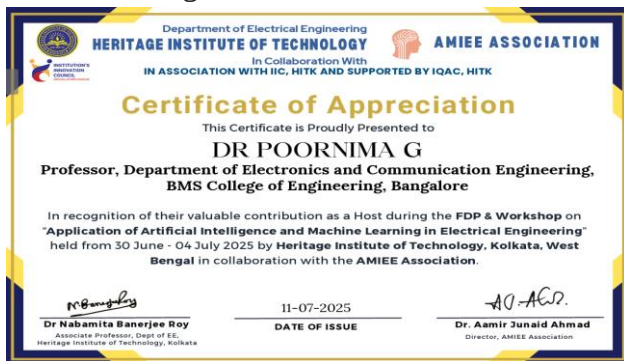
JULY 2025–JUNE 2026



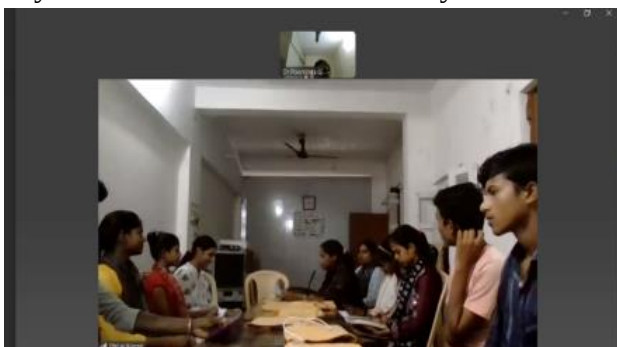
B.M.S. COLLEGE OF ENGG. B'LORE-19

[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT

July 01, 2025: Dr. Poornima G, Professor, Department of Electronics and Communication Engineering Hosted the session on **AI/ML Applications** in ‘**Energy load and Demand Forecasting**’ in the One-week FDP on Application of Artificial Intelligence and Machine Learning in Electrical Engineering, BMSCE, Bangalore.



July 01, 2025: Dr. Poornima G, Professor, Department of Electronics and Communication Engineering was invited to conduct season 4 of the ‘**Mentorship Session**’ for Rural candidates organized by Freedom Employability Academy, Unnao East, Uttar Pradesh – Nawab Ganj for 5 days dated between 2nd-30th of July 2025.



July 02, 2025: Department of Electronics and Communication Engineering organised a one-day Staff Development Program on ‘**FPGA Boards**’ for the faculties and technical staff of the department. Mr. Balaji, Research scholar from the department was the resource person.



July 07, 2025: Department of Electronics & Communication Engineering and Department of Electronics & Instrumentation Engineering organised two weeks Faculty Development Program on ‘**Recent Trends in Technology**’. This program offered a comprehensive hands-on exposure to cutting-edge technologies in Edge AIoT, Vision AI, Embedded Systems, FPGA, Pedagogy, and Quantum Computing held from 23/06/2025 to 04/07/2025.



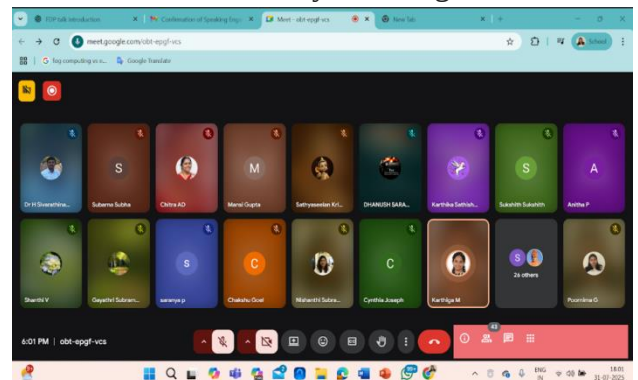
July 09, 2025: Dr. Suma M N, Professor, Department of Electronics and Communication Engineering was invited as ‘**Subject Expert**’ in the faculty selection interview conducted at **GSSS Institute of Engineering and Technology for Women**, Mysore through online mode. Department of Electronics and Communication Engineering.



DEPT. OF ECE – ACTIVITY REPORT



July 18, 2025: ELSOC, Department of Electronics and Communication Engineering organised an event '**Career Insights**' a focused one-hour session to provide valuable insights into the VLSI industry and placement preparation for the students of the department. The resource persons were Mr. Rakshith, Backend Implementation Engineer at Microchip Technology and Ms. Spoorthi, EMIR (Electrical and Magnetic Integrity & Reliability) Engineer at Ansys recently placed students from the department.



July 21, 2025: Dr. Vijayalakshmi k, Professor, Department of Electronics and Communication Engineering was invited as **Guest** for the **‘IEEE MOVE Outreach, India’** Vehicle inauguration on 21 July 2025 at Sheraton Grande Bangalore Hotel at Brigade Gateway, Bangalore.



B.M.S. COLLEGE OF ENGG. B'LORE-19

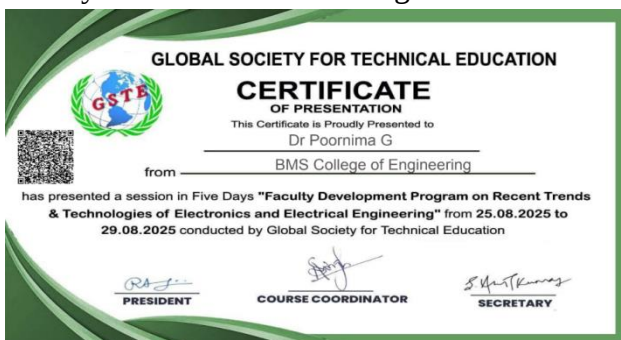
[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT



August 11, 2025: Dr. K P Lakshmi, Professor & HOD, Department of Electronics and Communication Engineering attended the 'Academic Meeting' organised and conducted by Microchip, Bangalore.



August 28, 2025: Dr. Poornima G, Professor, Department of Electronics and Communication Engineering was invited to deliver an expert session during the 'Faculty Development Program on Recent Trends and Technologies in Electronics and Electrical Engineering' organized by the Global Society of Technical Society held from 25th-29th August 2025.



August 30, 2025: Dr. Poornima G, Professor, Department of Electronics and Communication Engineering was invited to deliver an expert session on 'Intelligent Infrastructure: Leveraging AI and Machine Learning for Smarter Electrical and Electronics Systems' during the technical talk organised by Department of ECE-CUESTIC Association, Christ University.



September 01, 2025: ELSOC, Department of Electronics and Communication Engineering in collaboration with Robomanthan Pvt Ltd., conducted the following events for 2nd, 3rd and 4th year students of the ECE department held between 30th August 2025 to 20th September 2025. Dr. Archana H R, Assistant Professor, Dept., of ECE was the event coordinator.

- Hardware Hackathon- Mr. Saurav, Founder of Robomanthan was the invited resource person.
- Fury Road.
- Robowars.





B.M.S. COLLEGE OF ENGG. B'LORE-19

[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT



September 03, 2025: Department of Electronics and Communication Engineering, BMSCE signed a MOU with Robomathan Pvt Ltd – IIT Incubated for the purpose of making student industry ready and to reduce the gap between industry and academia.



September 15, 2025: Dr. Mamatha M N, Professor, Department of Electronics and Communication Engineering was invited as resource person to deliver a lecture on **‘Introduction to Biomedical Data Acquisition**

–an outcome based multidisciplinary approach’ as a part of Faculty Development Program held from 15th-19th September 2025 conducted by the Centre of Excellence in Signal and Information Processing, VTU Muddenahalli.



September 16, 2025: Dr. Vijayalakshmi K, Professor, Department of Electronics and Communication Engineering was invited as resource person to deliver a talk on **‘EEG Signal Processing - A Matlab Based Analysis’** as a part of Faculty Development Program held from 15th-19th September 2025 conducted by the Centre of Excellence in Signal and Information Processing, VTU Muddenahalli.



September 19, 2025: Department of Electronics and Communication Engineering organised a **Scientific Social Responsibility (SSR) Event on ‘Development of a Polymer**



B.M.S. COLLEGE OF ENGG. B'LORE-19

[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT

Nanocomposites-Based Rapid Malaria Sensing Device' funded by SERB (SPG/2021/002668). Forty students along with 2 faculty members from BMS College for Women, Bangalore, attended the event. Dr. Jisha. P, Assistant Professor, Dept., of ECE was the event coordinator.



September 20, 2025: ELSOC, Department of Electronics and Communication Engineering organised an event '**Sustainovate**'. The event focused on the integration of Society, Economy, and Technology (SET) with real-world problem-solving, encouraging students to ideate around challenges such as urban infrastructure improvement (e.g., fixing potholes in Bengaluru). Dr. Archana H R, Assistant Professor, Dept., of ECE was the faculty coordinator.



September 23, 2025: Department of Electronics and Communication Engineering, BMSCE signed Memorandum of Understanding with Xtremesilica Pvt. Ltd. to promote Industry-Academia collaboration in the field of Semiconductor IP Core Development and Capacity Building Activities.



September 26, 2025: Dr. Vijayalakshmi K, Professor, Department of Electronics and Communication Engineering was an '**Organizing Chair**' for the IEEE International Conference for Women in Innovation Technology and Entrepreneurship (ICWITE 2025) held on 26th and 27th September 2025 at BGS College of Engineering, Bangalore.



September 30, 2025: Dr. Veena M.B., Professor Department of Electronics and Communication Engineering and ShivaKumar. V(Ph.D. student from CPRI) Published a paper titled '**Cybersecurity Threat Modelling for Electric Power System SCADA Control Centers and Substation Automation Systems**' in SSRG International Journal of Electrical and Electronics Engineering on 30 September 2025, Volume 12, Issue 9, 49-65, ISSN: 2348-8379/ <https://doi.org/10.14445/23488379/IJEEE-V12I9P106> (Scopus Indexed) .



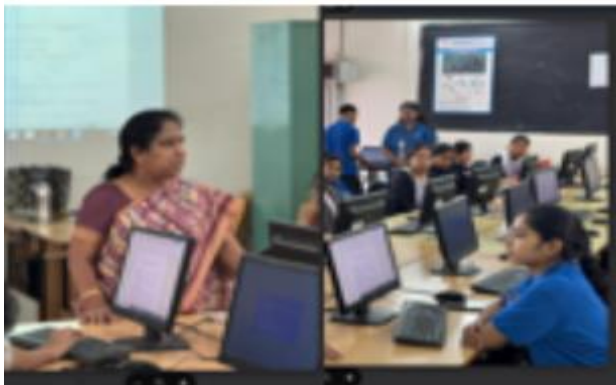
B.M.S. COLLEGE OF ENGG. B'LORE-19

[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT

October 07, 2025: Department of Electronics and Communication Engineering organised a **‘Technical Talk’ on ‘Role and Responsibilities of Electronics Engineers in Promoting Sustainable Environmental Practices’** for the students of 7th semester from the department. The invited resource person was Dr. Geetha Kuntoji, Assistant Professor, BMSCE. Dr. Kalpana and Dr. Jisha P, were the faculty coordinators, from ECE department.

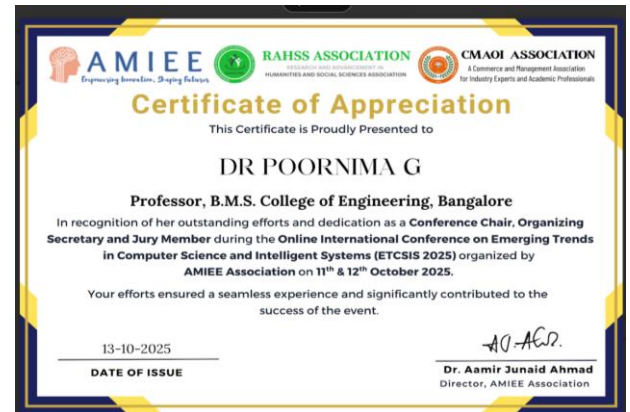


October 09, 2025: Dr. Vijayalakshmi K, Professor, Department of Electronics and Communication Engineering was invited as **Resource Person** for conducting ‘Hands on Workshop’ on **‘Image Processing Concepts Using Matlab’** at IEEE student branch of Vemana Institute of Technology, Bangalore, Celebrating IEEE Day ‘Technical Symposium’



October 11, 2025: Dr. Poornima G, Professor, Department of Electronics and Communication Engineering was invited as **Conference Chair, Organizing Secretary, Jury Member** during the

‘Online International Conference on Emerging Trends in Computer Science and Intelligent systems (ETCSIS-2025)’ organised by AMIEE Association held on 11th and 12th of October 2025.



October 16, 2025: Dr. Vijayalakshmi K, Professor, Department of Electronics and Communication Engineering was invited as **Jury Member** at **Mydeacine, Medical Ideathon Competition** an event Tech Fest-Pravruti held at RUAS, Bangalore.



October 24, 2025: Dr. Vijayalakshmi K, Professor, Department of Electronics and Communication Engineering was invited as a **Session Chair** for the **4th International Conference on Circuits, Controls and Communication (CCUBE-2025)**, held at RNS Institute of Technology, Bangalore.



B.M.S. COLLEGE OF ENGG. B'LORE-19

[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT



October 24, 2025: Department of Electronics and Communication Engineering organized an **'Industrial Visit'** to **Government Tool Room and Training Centre**, Bangalore for the students and faculties of the department. Dr. Madhusudan K N, Associate Professor was the event organizer. Dr. Kalpana R, Dr. Hemavathi,, Prof. Supreeth.K S, faculties, Dept., of ECE were the coordinators.



October 30, 2025: Department of Electronics and Communication Engineering organized **'Community Service'** at SGPTA School Basavangudi - Career guidance talk by ECE students from the department. Dr. K P Lakshmi, Professor & Head, Dept., of ECE was the faculty coordinator.



November 03, 2025: Department of Electronics and Communication Engineering organised **'Nokia Bangalore University Collaboration'** for the UG students from the department. Ms. Riya Rajesh Bagal won the **'2nd Runner Up'** for the best implemented industry project titled **'Holographic Beamforming Using Polarization Control'** at the Nokia University Collaboration Conclave 2025. Dr. Suma M N, Dr. Hemvathi and Prof. Manoj Kumar were the faculty coordinators.



November 03, 2025: Dr. Veena M B, Professor, Department of Electronics and Communication Engineering along with M.Tech students Ms. Devishree.C, Ms. Lakshmi H, Ms. Priyanka N, and Ms. Udaya Priya.S. presented a research paper titled **'A Triple Modular Redundancy Architecture for Fast Finite Impulse Response Filter Design'** in the 3rd International Conference on Emerging Applications of Master Science and Technology (ICEAMST) held from 3rd – 5th November 2025 in R.V College of Engineering, Bangalore and will be published in IEEE Xplore .



B.M.S. COLLEGE OF ENGG. B'LORE-19

[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT



November 07, 2025: Dr. Suma M N, Professor, Department of Electronics and Communication Engineering delivered a talk on **‘Cognitive Radio Network & SDR’** in National webinar hosted by Navodaya Institute of Technology, Raichur.



November 13, 2025: Dr. Veena n Hegde, Professor, Department of Electronics and Communication Engineering has been granted fund of **Rs.10,00,000** for the project **‘Swaccha Bauddhika Yantra-AI Driven Omnidirectional Smart Indoor Cleaning and Trash Collection Robot’** under Faculty Promotion Research Scheme(FRPS).

B.M.S. COLLEGE OF ENGINEERING, BENGALURU (Autonomous College under VTU)	
Project File No. R&D/FRPS-3/2025-26/EC/3-01	13 / 11 / 2025
GRANT ORDER	
Sub: Financial Approval of the project under Faculty Research Promotion Scheme (FRPS) Call-3	
The details are as below.	
1 Department	Electronics and Communication Engineering
2 Principal Investigator (PI)	Dr.Veena N Hegde
3 Co-Principal Investigator (Co-PI)	Dr.Umadevi V
4 Title of the Project	Swaccha Bauddhika Yantra-AI Driven omnidirectional smart indoor cleaning and trash collection robot.
5 Project File No.	R&D/FRPS-3/2025-26/EC/3-01
6 Project duration	36 Months
7 Total amount sanctioned	Rs.10,00,000

November 14, 2025: Department of Electronics and Communication Engineering organised the **‘6th National Conference on Networking Embedded and Wireless Systems’ (NEWS 2025)** held in a hybrid mode 14th & 15th November 2025, at the B. M. S. College of Engineering, Bengaluru. The event featured a keynote address on the **‘Role of ASIC Verification and Application of AI/ML in VLSI’** delivered by **Mr. Sougata Bhattacharjee** of Samsung Semiconductor [SSIR]. The conference incorporated a high level of technical engagement through several activities, including a pre-conference **Hackathon on Embedded System Design**, the **Yukti Kalpa (Project Exhibition)**, and five specialized workshops covering topics such as **Hands-on AI, PCB Design, and COMSOL for MEMS, Fundamentals of Electronics Design, and Introduction to Matlab applications**. A total of **132 papers** were received for the conference.



November 19, 2025: ELSOC under Department of Electronics and Communication Engineering conducted the following events held from 19th - 22nd November 2025.

- **Techno Trivia:** A fast-paced technical quiz event designed to evaluate participants on multiple fronts, including technological awareness, logical reasoning, and quick analytical thinking.
- **Electro-Odyssey:** a dynamic technical event designed to test participants across multiple

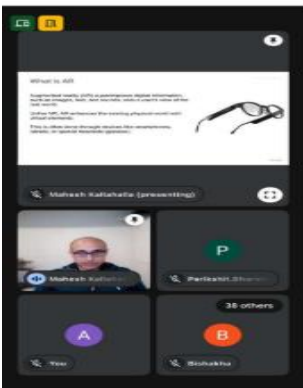


B.M.S. COLLEGE OF ENGG. B'LORE-19

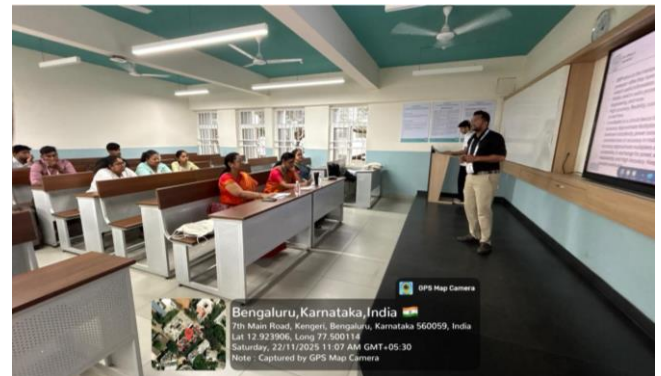
[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT

skill dimensions, including analytical reasoning, teamwork, logical deduction, and technical problem-solving.

- **Google Talk:** The primary objective was to educate attendees on the pivotal role electronics plays in shaping the fields of Augmented Reality (AR) and Extended Reality (XR).
- **Alumni Meet:** The primary objective was to establish a platform that enables current students to connect with alumni, thereby fostering a sense of community and networking.



November 20, 2025: Dr. Veena M B, Professor, Department of Electronics and Communication Engineering was invited as a **Session Chair** for the **9th IEEE International Conference on ‘Computational Systems & Information Technology for Sustainable Solutions’ (CSITSS-2025)** held from 20th – 22nd November 2025 at RVCE, Bangalore.



November 29, 2025: Department of Electronics and Communication Engineering in collaboration with IEEE Antennas and Propagation society SBC organized a technical talk titled **‘Aerospace Industry: Challenges, Innovations and Opportunities’** for the UG students of the department. The invited resource person was Dr. Swapna S, Advanced Wireless/RF engineer at Honeywell Technology Solutions Pvt Ltd. Dr. G S Karthikeya, Assistant Professor, Dept., of ECE was the faculty coordinator.

November 20, 2025: Dr. Vijayalakshmi K, Professor, Department of Electronics and Communication Engineering was invited as a **Session Chair** for the **9th IEEE International Conference on ‘Computational Systems & Information Technology for Sustainable Solutions’ (CSITSS-2025)** held from 20th – 22nd November 2025 at RVCE, Bangalore.



B.M.S. COLLEGE OF ENGG. B'LORE-19

[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT



December 12, 2025: Under the guidance of Dr. G S Karthikeya, Assistant Professor, Department of Electronics and Communication Engineering students from the department Mr. Abhiram Kasyap, Mr. Madhwesh Bharadwaj C V, Mr. Darshan M, Ms. Janani B S from Aerospace Dept., competed in '**SWANotchFM Filter Design**' an national level RF design competition organized by the department of SPASE(Space, Planetary & Astronomical Sciences & Engineering) IIT Kanpur as a part of Indian Sky Watch Array Network(SWAN) initiative.



December 12, 2025: Dr. Siddappaji, Professor, Department of Electronics and Communication Engineering along with student Mr. Pavan S Chavalgi published a research paper titled '**Performance Analysis of Cardiovascular Disease Detection and Recommendation System Employing Machine Learning**' in the International Journal of Creative Research Thoughts(IJCRT). 2025 IJCRT | Volume 13, Issue 12 December 2025 | ISSN: 2320-2882.

December 31, 2025: Dr. Santosh R Desai, Professor, Department of Electronics and Communication Engineering Co-authored and published a research paper titled '**Digital Sensor Assisted Analysis of Current Water Distribution Concerns & Automation Technologies for Future Enhancements**' in the journal Water and Energy International, 2025, Volume 68r, Issue 6, Page 6-14 in Dec 2025. DOI: <https://www.indianjournals.com/article/wei-68r-6-001>.

December 29, 2025: Dr. Vijayalakshmi K, Professor, Department of Electronics and Communication Engineering published a research paper titled '**Equivalence of Analog and Digital High-Frequency Electrocardiogram: Validating Sydäntek for Ischemia Detection**' in the Springer Journal: Physical and Engineering Sciences in Medicine. DOI: <https://doi.org/10.21203/rs.3.rs-6812483/v1>

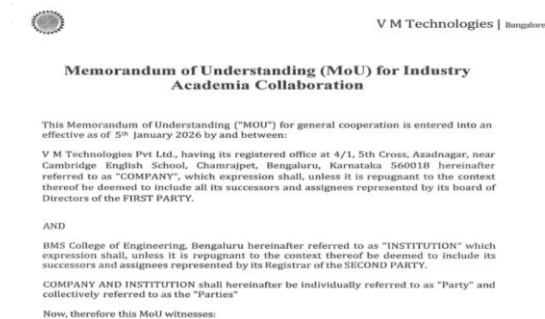
December 31, 2025: Dr. H H Surendra, Dr. H R Archana, Dr. N Rajanikanth Kashi, faculties from the Department of Electronics and Communication Engineering published a research titled '**Intelligent Framework for Autonomous Recruitment System using Multi-Modal Attributes**' in the Journal of Ambient Intelligence and Humanized Computing. DOI: <https://doi.org/10.1007/s12652-025-05022-x>

January 05, 2026: Memorandum of Understanding (MOU) was signed between Department of Electronics and Communication Engineering, BMSCE and V M Technologies Pvt Ltd., to express their desire to work together in areas of Embedded Systems Development and capacity building activities.



B.M.S. COLLEGE OF ENGG. B'LORE-19

[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT



January 07, 2026: Dr. Poornima G, Professor, Department of Electronics and Communication Engineering delivered a talk titled **‘From Sensors to Intelligence: Orchestrating Autonomous Systems’** during the Virtual FDP on Generative AI & Agentic AI : Building and Orchestrating Autonomous Systems for Real-World Applications organized by Coimbatore Institute of Technology.



January 28, 2026: Dr. Veena N Hegde, Professor, Department of Electronics and Communication Engineering was invited as resource person to deliver a talk on **‘From Sensors to System: Foundations of Embedded Design’** organised by VNR Vignana Jyothi Institute of Engineering and Technology, Bachupally, Hyderabad.



January 31, 2026: Dr. Feroz Morab, Dr. G S Karthikeya, Dr. Rajeshwari Hegde, Dr. Veena Hegde and Dr. Santosh R Desai, faculties from Department of Electronics and Communication Engineering have been granted **‘Patent’** for an invention entitled **‘Dual-Polarized All-Metallic Waveguide for Millimeter Wave Communication via Additive Manufacturing’** for the term of 20 years.



January 31, 2026: Department of Electronics and Communication Engineering organised **‘Stake Holders’** meeting. The invited panel members were Mr. Prasanna B R, Principal SW Engineer, Nokia, Bangalore, Mr. Amarjeet Kumar, Founder and CEO, Comminent, Dr. K R Shobha, Prof & HOD-ECE, DSCE, Dr. Ravish Aradhya H V, HOD-ECE, RVCE, Dr. Santhosh R Desai, Dr. Jayanthi K Murthy, Associate Professor, ECE and also alumni students, parents and all the faculties attended the meeting and discussed about the Curriculum and L_T_P, credits.



B.M.S. COLLEGE OF ENGG. B'LORE-19

[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT



31 Jan 2026 11:57:46 am
Basavanagudi
Bengaluru
Bangalore Division
Karnataka

January 31, 2026: Memorandum of Understanding (MOU) was signed between Department of Electronics and Communication Engineering, BMSCE and Impulse VLSI, Bangalore.



February 02, 2026: Dr.Arathi R Shankar, Dr. G S Karthikeya, Dr. Jayanthi K Murthy, faculties from Department of Electronics and Communication Engineering along with Ms. Mamatha GT, PG student from Digital Communication, have been granted '**Patent**' for an invention entitled '**A Super Compact Antenna System For 5G FR2 and Wi-Fi**' for the term of 20 years.



February 20, 2026: Dr. Veena M.B, Professor, Department of Electronics and Communication Engineering along with M.Tech students Ms. Chandana.C, Ms. Abhinav Movva, Ms. Rachana P and Ms. Rachana HD presented a paper titled '**Optimized Random Number Generator for Power and Area Efficiency**' in 3rd International Conference on Integrated Intelligence and Communication Systems (ICIICS-2026) held on 20th and 21st February 2026 in Sharnbasava University, Kalaburgi has been awarded '**Best Paper**' and will be published in IEEE Xplorer.



February 23, 2026: Dr. Suma M N, Professor, participated in a 3 days Faculty Development Program titled '**Wireless System Design Using FPGA**' organised by Mathworks and SAC ISRO held from 23rd to 25th of February 2026.



B.M.S. COLLEGE OF ENGG. B'LORE-19

[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT



February 24, 2026: Department of Electronics and Communication Engineering organized a **Student Orientation Program** on **‘QNX Everywhere’** an industry-led training initiative focused on RTOS skill development for Embedded Design Engineers, with particular emphasis on applications in the Automotive and Medical Devices industries. Dr. Veena Hegde, Professor and Ms. Pooja A P, Assistant Professor from the department were the faculty coordinators



February 26, 2026: ELSOC, Department of Electronics and Communication Engineering conducted a workshop **‘RISC-V-THON’** organised by **RISC-V Indian Developers Forum**, a non-profit registered company dedicated to promoting the adoption of open-source hardware and EDA tools in Indian academia. The event was part of RISC-V Week Days, an initiative aimed at training and inspiring the next generation of open-source hardware engineers conducted through Hybrid-Online/Offline mode for the students of ECE department. The invited resource persons were **Mr. Puneet Goel**, CTO and Co-founder of Coverify Systems Technology, **Mr Atul Joshi**

currently associated with the ASIC group of NOKIA and **Mr Madhusudan Sampath.**, VP of Digital Hardware Architecture and Design at MOSart Labs, Senior Member of IEEE, and an alumnus of NIT Tiruchirappalli. Dr Archana H R, Assistant Professor, Dept., of ECE was the event coordinator.



March 03, 2026: ELSOC, Department of Electronics and Communication Engineering organized a talk on **‘Energy Storage Systems: An Overview’** for the students of ECE department. The invited resource persons were Prof. Udaya Raghunath Birjie and Dr. Alok Srivastava, shared valuable insights into technology development, innovation ecosystems, and the future of energy systems. Dr. Archana H R, Assistant Professor, Dept., of ECE was the faculty coordinator.



March 14, 2026: Dr. Mamatha M N, Professor, Department of Electronics and Communication Engineering was invited as a **Resource Person** to



B.M.S. COLLEGE OF ENGG. B'LORE-19

[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT

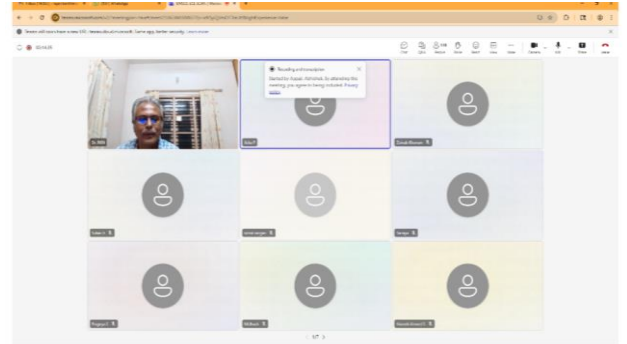
deliver a talk on ‘ಸಂಪ್ರದಾಯದಿಂದ ಪರಿವರ್ತನೆಯವರೆಗೆ:ಭಾರತದಲ್ಲಿ ಬದಲಾಗುತ್ತಿರುವ ಮಹಿಳೆಯರ ಪಾತ್ರ’ at the Vishwa Mahila Dina organised by Akhila Bharathiya Vidyarthi Parishath Bangalore Dakshin.



March 21, 2026: Ms. Ysaswini Chunduru, student from ECE department secured ‘**1st Place**’ in the **Space Tech Hackthon** for solving Solid Waste Management held on 21st – 22nd March 2026 at Yuvapatha, Jayanagar organised by Solid Waste Management – A Technology Driven Innovation Hackathon.



March 25, 2026: Dr. Rajanikanth Kashi Nagaraj, Associate Professor, Department of Electronics and Communication Engineering delivered a session on ‘**Networking : Interfaces & IoT Protocols**’ as a part of Value Added Course on SCAN- Sensing Computing Analyzing Networking organised by BMSCE,ECE.



March 26, 2026: ELSOC, the Department of Electronics and Communication Engineering organised an ‘**Arduino Bootcamp - A peer Learning Activity**’ conducted by the ELSOC students for the 1st and 2nd year students of the department held from 26th – 28th of March 2026. There were around 60 participants enthused and motivated to work on hands on projects.



March 29, 2026: Students from the Department of Electronics and Communication Engineering set up and demonstrated a technical project stall during the college’s Open Day event, effectively showcasing practical applications of core ECE concepts to visitors.





B.M.S. COLLEGE OF ENGG. B'LORE-19

[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT

March 31, 2026: Dr. Santosh R Desai, Dr. Rajeshwari Hegde and Dr. Feroz Morab, Faculties from Department of Electronics and Communication Engineering Co-Authored and published a research paper titled '**End-to-End Latency Prediction in 5G URLLC: Accuracy, Models, and Open Challenges**' in the Journal of Xidian University , vol. 20, Issue No.1, pp. 438-446, Jan. 2026.

DOI: Doi.10.37896/jxu20.1/039.

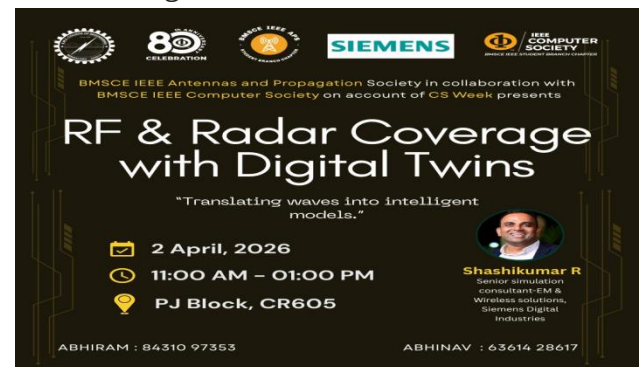
March 31, 2026: Dr. Rajanikanth Kashi Nagaraj, Associate Professor, Department of Electronics and Communication Engineering obtained a consultancy of Rs.1 Lakh from V M Technologies, Bangalore for '**Development of Technologies for Drone Related Systems**', March 2026.



April 01, 2026: Ms. Shubha M, UG student from Department of Electronics and Communication Engineering under the guidance of Dr. Sujatha N, NSS Programme Officer received '**Jury Choice Award**' for the project titled '**Smart Route SWM - GIS Based Dynamic System**' focused on making waste collection smarter, more efficient and sustainable at DESH APNAYEN's the Actizen Collective Program a State Level Innovation and Active Based Project for the year 2025-2026.



April 02, 2026: Department of Electronics and Communication Engineering, IEEE Antennas and Propagation Society organised a technical talk on '**RF and Radar Coverage with Digital Twins**' for the students of the department. The invited resource person was Mr. Shashikumar R, Senior Simulation Consultant-EM, Wireless Solutions, Siemens Digital Industries.



April 08, 2026: Mr. Sannidhi U, UG student from Department of Electronics and Communication Engineering secured 2nd place in '**CLASSICAL INSTRUMENTAL SOLO (PERCUSSION – TAL VADYA)**' in VTU FEST State level inter-college fest held at AIT(Acharya Institute of Technology).



B.M.S. COLLEGE OF ENGG. B'LORE-19

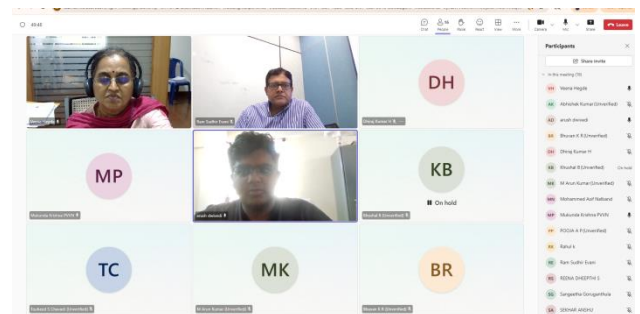
[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT



April 11, 2026: Department of Electronics and Communication Engineering conducted Value-Added Course on '**VLSI Analog Layout Design Using Cadence Virtuoso**' hands-on session on four Saturdays from 11th April-2nd May 2026. The sessions were handled by expert TI from Bangalore. Around 80 student from both UG & PG were trained in this course. Dr. Veena N Hegde, Dr. M S Suma, Dr. Veena M B, Dr. H R Archana from the department were the faculty coordinators.



April 15, 2026: Department of Electronics and communication Engineering arranged an **Industry Subject Matter Expert (SME)** interaction with **Pi-Square Tech**, Bengaluru to interact with students related to questions on **QNX RTOS** through online mode. Senior Engineer Managers from QNX , Mr. Ram Sudhir Evani and Mr. Mukund Krishna interacted with students answering their queries towards implementing QNX RTOS in Embedded applications. Dr.Veena N. Hegde and Mrs. Pooja A.P, faculties from the department were the evnet coordinators.



April 13, 2026: Dr. Rajeshawari Hegde Professor, Department of Electronics and Communication Engineering was invited as a '**Jury Member**' for the 10th National Level Techno Exhibition 2026 held at Dr. Ambedkar Institute of Technology, Bangalore.

April 15, 2026: Dr. Veena N. Hegde and Dr. Beena Ullalmath, faculties from Department of Electronics and Communication Engineering accompanied PG students of 2025 admitted batch to '**World Quantum Day**' at **Jawaharlal Nehru Planetarium (JNP)**, High Grounds, Bengaluru. This mega event was organized by **Karnataka Science and Technology Promotion Society (KSTePS)**, under the Department of Science and Technology, Government of Karnataka.



B.M.S. COLLEGE OF ENGG. B'LORE-19

[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT



April 19, 2026: Dr. Rajeshwari Hegde and Dr. Santosh R Desai, faculty, Department of Electronics and Communication Engineering co-authored and published a research paper titled, **'Impact of Heartfulness Practice on Social Wellbeing'** in the Minnesota Journal of Business Law and Entrepreneurship., Volume 2026, No. 1, pp. 1169-1181, April 2026, ABDC category B journal.

April 23, 2026: Department of Electronics and Communication Engineering organized an **Industrial Visit to Nokia Networks** at Manyata Tech Park, Bengaluru for 6th semester students. A total of 26 students participated in the visit, accompanied by Prof. Priyadarshini Jainapur, Assistant Professor, Department of ECE, and Dr. S. Kumuda, Assistant Professor, Department of EIE. The session was conducted by experienced professionals from Nokia, who provided a comprehensive overview of mobile communication. The session was conducted by experienced professionals from Nokia, who provided a comprehensive overview of mobile communication



April 25, 2026: Dr. Rajeshwari Hegde, Professor, Department of Electronics and Communication Engineering was invited as a **'Session Chair'** for the **4th IEEE International Conference on Knowledge Engineering and Communication Systems** held at SJCIT, Chickballapur.



April 30, 2026: Ms. Saanvi S, Ms. Nandana K R, Mr. Teja M and Mr. Vinay C UG students from Department of Electronics and communication Engineering won 3rd **'Best Performing' Student Best Chapter Award** in **IEEE PELS & IES Student Congress** organized by IEEE PELS & IES Bangalore chapter in collaboration with IEEE PELS RNSIT SBC, Dept., of Electrical and Electronics Engineering, RNS Institute of Technology. As the result of the day one - series of 3 events with the theme **'Technotainment'** Mr. Teja^[PDI] M & Mr. Vinay C won 2nd place and Mr. Aprameya Kulkarni^[PDI] won 3rd place. Following day 2- with the theme **'Simuliz'** and 3 more events Nandana K R & Saanvi Bangalore won 2nd place.



B.M.S. COLLEGE OF ENGG. B'LORE-19

[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT



May 01, 2026: Mr. Abhiram Kasya student from Department of Electronics and Communication Engineering has won **1st place** in the **Comprehensive Internship Course on Antenna Design (CICAD 2025-26)**, conducted by RaoS Consultants LLC, Rancho Palos Verdes, CA, USA. Out of a highly competitive pool of participants from premier engineering colleges across India, Mr. Abhiram Kasyap has distinguished himself with outstanding performance and has been awarded Rs. 10,000 cash prize, plaque and certificate of appreciation, travel grant & free accommodation to attend WAMS 2026,



May 12, 2026: Department of Electronics and Communication Engineering organised **Industrial Visit** for the students of ECE department at **Bharath Electronics Limited**. Along with 29 students Prof. Poornima Kamath and Prof. Pooja A P, faculties from the department coordinated and accompanied the students.



May 16, 2026: Ms. Purna S, student from Department of Electronics and Communication Engineering has been selected as **Sub-Lieutenant** in the **Indian Navy** under **Indian Navy Academy (INA)**, Ezhimala, Kerala for training under Short Service Technical (General Service)-Electrical Branch.



May 16, 2026: Mr. Mudiam Satya Kuoshik, Mr. P Charan and Nilotpal Basak students from Department of Electronics and Communication Engineering as team **Gladiators** secured **1st place** in demonstrating innovation and technical excellence at Ascent the annual Builders Techfest of Scalar School of Technology held on 16th – 17th of May 2026 and showcasing in the event **Robo Run**.





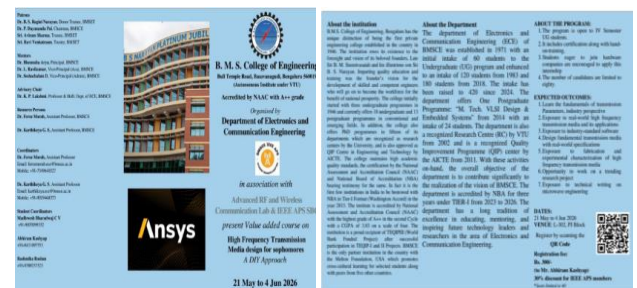
B.M.S. COLLEGE OF ENGG. B'LORE-19

[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT

May 22, 2026: Dr. Veena M B, Professor, Department of Electronics and Communication Engineering along with PG students Mr. Chandan S, Ms. Ashwini and Ms. Sailatha presented paper titled **'Energy-Efficient and Area-Optimized Parallel Bitonic Sorting with SIMD Vectorization'** in the 4th International Conference on Integrated Circuits and Communication Systems (ICICACS-2026) conducted on 22nd and 23rd of May 2026 at H.K.E. Society's Sir M Visvesvaraya College of Engineering, Raichur, Karnataka and will be published in IEEE Xplore.



June 04, 2026: Department of Electronics and Communication Engineering in association with Advanced RF and Wireless Communication Lab & IEEE APS SBC organised a Value Added Course on **'High Frequency Transmission Media Design for Sophomores - A DIY Approach'** for the students of 6th semester ECE Department. The resource person and faculty coordinators were Dr. Feroz Morab and Dr. Karthikeya G S, Assistant Professors, Dept., of ECE.



May 30, 2026: The Department of Electronics and Communication Engineering organized a Value Added Course (VAC) on **'Scan 2026-Sensing Computing Analysis and Networking'** for the students of 4th semester held from 16th March – 15th May 2026. The invited resource person were Mr. Prajwal Upoor Software Engineer 3, Walmart Global Tech, Dr. K P Lakshmi, Dr. Rajanikanth K N and Dr. Santosh R Desai faculties from ECE department BMSCE. The faculty coordinators were Dr. Santosh R Desai, Professor and Dr. Jisha P, Assistant Professor Dept., of ECE.

Date	Day	Time	Topic	Resource Person
16/03/2026	Mon	10:00 AM - 12:00 PM	Overview of SCADA Principles of Working	Dr. J. Lakshmi
17/03/2026	Tue	10:00 AM - 12:00 PM	Data Acquisition & Signal Conditioning	Dr. J. Lakshmi
18/03/2026	Wed	10:00 AM - 12:00 PM	SCADA Architecture - Applications	Dr. J. Lakshmi
19/03/2026	Thu	10:00 AM - 12:00 PM	Foundational & Process Modelling	Dr. J. Lakshmi
20/03/2026	Fri	10:00 AM - 12:00 PM	Industrial & Mobile Programming	Dr. J. Lakshmi
21/03/2026	Sat	10:00 AM - 12:00 PM	Networks, Controllers - Industrial OT/IT/OT	Dr. J. Lakshmi
22/03/2026	Sun	10:00 AM - 12:00 PM	Networking Hardware & IoT Protocols	Dr. J. Lakshmi
23/03/2026	Mon	10:00 AM - 12:00 PM	WiFi Connectivity & IoT Gateway	Dr. J. Lakshmi
24/03/2026	Tue	10:00 AM - 12:00 PM	Smart Home Automation	Dr. J. Lakshmi
25/03/2026	Wed	10:00 AM - 12:00 PM	Gateway IoT Edge & IoT Hub	Dr. J. Lakshmi
26/03/2026	Thu	10:00 AM - 12:00 PM	Integration of SCADA & IoT	Dr. J. Lakshmi
27/03/2026	Fri	10:00 AM - 12:00 PM	SCADA & IoT Security	Dr. J. Lakshmi
28/03/2026	Sat	10:00 AM - 12:00 PM	SCADA & IoT Cloud	Dr. J. Lakshmi
29/03/2026	Sun	10:00 AM - 12:00 PM	SCADA & IoT Future	Dr. J. Lakshmi
30/03/2026	Mon	10:00 AM - 12:00 PM	SCADA & IoT Summary	Dr. J. Lakshmi



June 06, 2026: Department of Electronics and Communication Engineering in association with BMSCE IEEE APS SBC organised an invited talk on **'The Language of RF: Transmission Line and Scattering Parameters'** for the students of the department. The invited resource person was Mr. R Akhil Karthik, Signal Integrity Engineer, Molex. Dr. Feroz Morab and Dr. G S Karthikeya Assistant Professors, Dept., of ECE were the faculty coordinators.



B.M.S. COLLEGE OF ENGG. B'LORE-19

[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT

June 06, 2026: Dr. Rajanikanth K N, Dr. Surendra H H, Dr. Archana H R faculties from Department of Electronics and Communication Engineering published a research paper titled **‘Modality-Aware Hybrid Deep Learning Framework with Attention for Emotion-Aware Patient–Robot Interaction’** in Sadhana.

Sadhana (2026) 51:151
<https://doi.org/10.1007/s12046-026-03148-y>

Modality-aware hybrid deep learning framework with attention for emotion-aware patient–robot interaction

RAJANIKANTH KASHI NAGARAJ, H H SURENDRA AND H R ARCHANA*

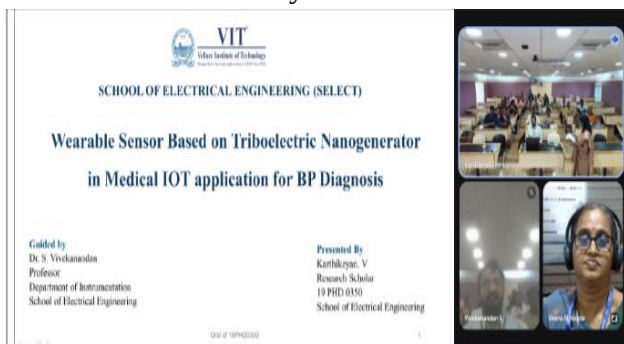
Department of Electronics and Communication Engineering, BMS College of Engineering, Bengaluru 560 019, India

*Corresponding Author.
E-mail: archana.h.r.ece@bmsce.ac.in

MS received 6 June 2025; revised 6 October 2025; accepted 5 December 2025
© The Author(s), under exclusive licence to Indian Academy of Sciences 2026

Abstract. Emotion-aware computing is becoming increasingly significant, especially in patient–robot interactions, where recognizing and responding to emotions is critical for effective communication. However, current systems struggle with accuracy and real-time performance when processing multimodal emotional input such as facial expressions, speech, and physiological signs. This study tackles these issues by introducing a hybrid deep learning model for emotion-aware patient–robot interactions. The model uses convolutional neural networks for spatial feature extraction and long short-term memory networks for sequential pattern recognition, together with an attention mechanism to improve multimodal data fusion. This guarantees that important emotional cues are accurately captured and processed. The suggested approach beats current models with 92.5% accuracy, 93.2% precision, and 91.8% recall. It also has faster training times and a smaller model size, making it ideal for real-time use in patient–robot interaction scenarios. This work contributes to emotion-aware computing by providing an effective way for improving human–robot interaction in healthcare and beyond.

June 25, 2026: Dr. Veena Hegde, Professor, Department of Electronics and Communication Engineering conducted Ph. D examination for a research work titled **‘Wearable Sensor Based on Triboelectric Nanogenerator in Medical IOT Applications for BP Diagnosis’** held at VIT Vellore under the guidance of Dr. Vivekanandan as an outside university examiner.



June 26, 2026: Dr. Veena M B, Professor, Department of Electronics and Communication Engineering along with Ph. D student Mrs. Sharavathi M H published a research paper titled **‘Energy-Efficient FPGA-Based CNN Accelerator: Achieving Significant I/O Power Reduction through Hierarchical Interface Optimization and Architectural Redesign’** in

the Journal of Intelligent Decision Making and Information Science, Volume 3(1s), (2026) 959-976 (Scopus Q1).

June 27, 2026: A meeting of the Board of Studies (BoS) – Electrical Cluster was conducted at the ECE Seminar Hall. The external BoS members present were Dr. Visvanath Thalasila, Professor at M.S. Ramaiah Institute of Technology, Dr. Kumaraswamy, Professor from SIT, Tumkur, and Mr. Chandrashekhar B.U. from Synosis, Bangalore. During the meeting, the Heads of Departments presented the proposed curriculum and NPTEL courses to be offered to students. Furthermore, Dr. Veena N. Hegde, Chairperson of the BoS, officially announced the closure of the tenure of the current cluster BoS.

June 30, 2026: Department of Electronics and Communication Engineering organised **‘Fielding, Mini Project Contest on Fields and Waves’** for the students of the department. A list of projects was floated to all the concerned students and the same project was implemented. The event was conducted through the entire semester. Dr. Karthikeya G S, Assistant professor Dept., of ECE was the event coordinator.





B.M.S. COLLEGE OF ENGG. B'LORE-19

[Autonomous Institute, Affiliated to VTU]
DEPT. OF ECE – ACTIVITY REPORT

June 30, 2026: Mr. Ninaada Ranga, UG student from Department of Electronics and Communication Engineering published a research paper titled **‘Comparative Analysis of The Acoustic Characteristics of Vishnu Sahasranama Raaga Anandabhairavi, Raag Bhoop and Conversational Speech’** in the International Journal of Research Publication and Reviews.



June 30, 2026: Dr Rajeshwari Hegde, Dr. Santosh R. Desai, faculties, Department of Electronics and Communication Engineering co-authored and published a research paper titled **‘Heartfulness Practice for Inner Transformation and Holistic Health: A Psychophysiological Inquiry’** in Vidhyayana – An International Multidisciplinary Peer-Reviewed E-Journal, 2026, Volume 11, Issue 6, in June 2026, ISSN: 2454-8596.

June 30, 2026: Dr. Veena M B, Professor, Department of Electronics and Communication Engineering along with Ph. D student Mrs. Dhanyavathi A published a research paper titled **‘Radiography and Subject Data Integration for Osteoporosis Detection Using Dingo Optimization Based Deep Belief Network Model’** in Journal Optical Memory and Neural Networks, 2026, Vol. 35, No. 2, pp. 276–293 ISSN 1060-992X (SCI-Q4) Springer Nature
