BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

DEPARTMENT OF MATHEMATICS

Activities in the month of July 2025

JULY, 2025: Dr. Chandrashekara G Associate Professor, Dept. of Mathematics, BMSCE, has presented the paper titled "Thermal and Fluid Flow Dynamics Over a Single-Walled Carbon Nanotubes in Converging and Diverging Channels Under Darcy-Forchheimer Flow Conditions: A Comprehensive Analysis" in Int. J. Appl. Comput. Math (2025) https://doi.org/10.1007/s40819-025-01956-0, Springer, July 2025.

JULY 2025: Dr. Silvia Leera Sequeira, Associate Professor, Associate Professor, Dept. of Mathematics has successfully completed AICTE Module 1: Orientation towards Technical Education and Curriculum Aspects,

JULY 22, 2025: Ms. Maithri K, Asst. Professor, Dept. of Mathematics has undergone the Industrial Training Program on Generative Artificial Intelligence with hands-on experience in LLAMAINDEX, LANGCHAIN, AND rag from 1st July 2025 to 22nd July 2025.

JULY 15, 2025: Ms. Shazia P A, Asst. Professor, Dept. of Mathematics has undergone the Industrial Training Program on MATLAB and Its Applications with Grade A++ from July 1 – 15 2025.

BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

DEPARTMENT OF MATHEMATICS

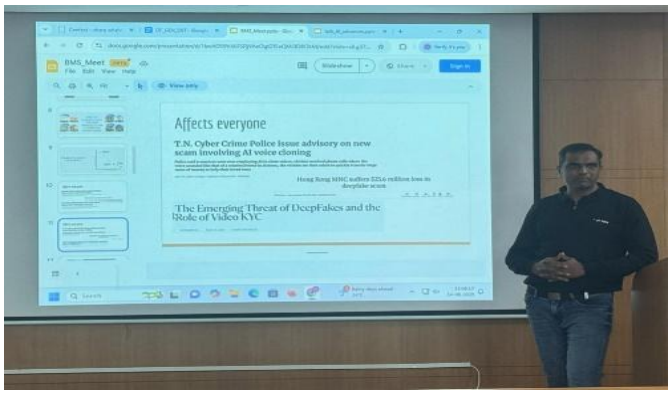
Activities in the month of August 2025

August 11, 2025: Dr. Umesha V, Asst Professor, Dept. of Mathematics, As co-author published the research article, titled "A Hybrid CFD–Machine Learning Framework for Melt Flow Optimization and Defect Prediction in Casting Gating Systems" Zhuzao/Foundry Volume 28 Issue 8, ISSN:1001-4977.

DOI:10.29014/FJ-2025-1001-4977.89.2095

Published on 11th August 2025

August 14, 2025: T The Department of Mathematics at B.M.S. College of Engineering organized an engaging guest lecture on August 14, 2025, delivered by Prof. Raghu Sesha Iyengar, Chief Scientist and Co-founder of Pi-Labs. The session, titled "Synthetic Faces, Real Threats: Understanding Deepfakes,



BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

DEPARTMENT OF MATHEMATICS

August 208, 2025: Pentagram - The Mathematical Society of BMSCE proudly represented BMS College of Engineering at Convergence 2025, the National Level Inter-Collegiate Mathematics Fest organized by the Department of Mathematics, Central Campus, Christ (Deemed to be University), Bengaluru on 20th August 2025. The fest featured eight challenging and innovative events that combined mathematical reasoning with creativity and strategy. A team of 10 students from BMSCE participated across these events, showcasing their enthusiasm, problem-solving skills, and competitive spirit. The team put up an exceptional performance, securing the runners-up position overall among several participating colleges. Notably, one of our teams, D Murali Satya Suhas (3rd Sem, CSE), Chethana Bhima (3rd Sem, CSE), and E Caleb John (3rd Sem, CSE), emerged as winners in their respective event, adding to the pride and recognition for BMSCE.



August 30, 2025: The Department of Mathematics organized a Faculty Development Programme on Applied Mathematics 2025 on August 30, 2025 in coordination with VTU Belagavi (Bangalore Region)





BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

DEPARTMENT OF MATHEMATICS

Activities in the month of September 2025

August 11, 2025: Dr. Anthony Christy Melosn, Dr.Meghana J, Asst. Professor, Dept .of Mathematics & Humanities has successfully participated and completed the conference under AICTE – Bubrant Advocacy for Advancement and Nurturing of Indian Languages (VAANI) on Energizing the Future: Navigating Sustainability and Climate Change in Kannada Language at Christ Deemed to be University from 11-09-2025 to 12-09-2025.

August 11, 2025: Dr. Hemanth Kumar C, Asst. Professor, Dept .of Mathematics & Humanities has successfully participated and completed the conference under AICTE – Bubrant Advocacy for Advancement and Nurturing of Indian Languages (VAANI) on Energizing the Future: Navigating Sustainability and Climate Change in Kannada Language at Christ Deemed to be University from 11-09-2025 to 12-09-2025.

August 11, 2025: Dr. Umesha V, Asst. Professor, Dept .of Mathematics & Humanities has successfully participated and completed the conference under AICTE – Bubrant Advocacy for Advancement and Nurturing of Indian Languages (VAANI) on Energizing the Future: Navigating Sustainability and Climate Change in Kannada Language at Christ Deemed to be University from 11-09-2025 to 12-09-2025.

BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

DEPARTMENT OF MATHEMATICS

Activities in the month of October 2025

October, 2025: Dr. Chaitra V, Dr. Deepthee M R, Asst. Professors, Dept .of Mathematics & Humanities has published a paper titled "Enhancing Engineering Mathematics Learning Through Mathematics Laboratory: A Review of Practices and Implications of Innovative Techniques" Springer Nature Singapore Pte Ltd. 2025. pp. 157–165, 2025.

October, 2025: Prof. D. L. Shivaraj, Department of Mathematics, has published a single-authored research article titled "Stability of mixed convection in a vertical layer of Navier–Stokes–Voigt fluid under a uniform magnetic field" in the Elsevier Q1 journal International Communications in Heat and Mass Transfer (Volume 169, Part E, 2025, Article ID 109923, ISSN 0735-1933, Impact Factor: 6.4 (2025),
DOI: https://doi.org/10.1016/j.icheatmasstransfer.2025.109923.

October, 2025: Dr. Chandrashekara G, and Dr. Hemanth Kumar C, Department of Mathematics has published a paper titled "Stability of mixed convective Jeffrey fluid flow in anisotropic porous media: LTNE effects and non-linear dynamics" in the journal Multiscale and Multidisciplinary Modeling, Experiments and Design , 8:472 (WOS-Q2 , Springer Nature Switzerland AG) DOI:https://doi.org/10.1007/s41939-025-01061-1

BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

DEPARTMENT OF MATHEMATICS

Activities in the month of November 2025

November 14, 2025: Dr. Umesha V successfully completed two MOOC/FDP courses through NPTEL Online Certification, funded by the Ministry of Education, Government of India: *"Essential Mathematics for Machine Learning"* offered by IIT Roorkee, and *"Mathematical Foundations for Machine Learning"* offered by IISc Bangalore.These certifications may also be considered as Refresher/Orientation Courses as per F.No. AICTE/RIFD/FDP through MOOCs/2023.

November 14, 2025: Dr. Shekar M successfully completed three MOOC/FDP courses through NPTEL Online Certification, funded by the Ministry of Education, Government of India:

1. *"Essential Mathematics for Machine Learning"* offered by IIT Roorkee,
2. *"Mathematical Foundations for Machine Learning"* offered by IISc Bangalore.
3. " Advanced Algorithmic Trading and Portfolio Management" offered by IIT Kanpur.

These certifications may also be considered as Refresher/Orientation Courses as per F.No. AICTE/RIFD/FDP through MOOCs/2023.

November 28, 2025: Dr. Mallikarjua has published the research article entitled "Artificial Neural Network–Based Parameter Estimation for Convective Heat Transfer in a Magnetized Porous Trapezoidal Cavity Under the Channel" in the journal "Heat Transfer" on 28th November 2025. https://doi.org/10.1002/htj.70111. (Scopus and Web of Science journal-Q2) (Impact Factor-2.6).

November 14, 2025: Dr. Anthony Christy Melson successfully completed three MOOC/FDP courses through NPTEL Online Certification, funded by the Ministry of Education, Government of India:

1. *Mathematical Foundations for Machine Learning*

BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

DEPARTMENT OF MATHEMATICS

November 2025: Dr. dhananjaiah, Asst. Professor, Dept. of Mathematics & Humanities, published the book chapter titled "ಬರವು ಮತ್ತು ಅರಿವುಗಳ ನಡುವಿನ ಅನ್ವೇಷಣೆ ಕಾಡು ಮತ್ತು ಕ್ರೌರ್ಯ" in the book ದರ್ಶನ ಮೀಮಾಂಸಕ ತೇಜಸ್ವಿ , ಮಿಥ್ಯರೂಪ ಕಳಚಿ ವೈಚಾರಿಕತೆಯೆಡೆಗೆ published by Rachana Prakashana Mysore.

November 2025: Dr. T N Vishalakshi has published the research article entitled, "Enhancement of Spectral Efficiency and Interference Reduction in D2D Communication" in International Journal of Computational and Experimental Science and Engineering (IJCESEN) Vol. 11-No.3 (2025) pp. 4947-4955
http://www.ijcesen.com, ISSN : 2149-9144, November 2025

November 28, 2025: Dr.Silvia Leera Sequeira, Associate Professor, Dept. of Mathematics has presented paper titled "Neighborhood Alliance Number of Mycielski Graph of a Path" in the International Conference on "Applied Sciences and Advanced Materials ICASAM – 2025" organised by the Department of Physics, Chemistry, Mathematics & Mechanical Engineering, Bengaluru, held during November 28th & 29th November 2025.

BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

DEPARTMENT OF MATHEMATICS

Activities in the month of December 2025

December 09, 2025: Dr. Chadra Shekara G, Associate Professor, Dept. of Mathematics attended the Science Undergraduate Pedagogy meeting held on Azim Premji University Bengaluru, December 9 and 10, 2025 and presented the talk on "AI-Driven Simulations in Engineering Education for Teaching Differential Equations".

December 12, 2025: Dr. Chadra Shekara G, Associate Professor, Dr Gireesh D. S., Dr. Deepthee M R ,Dr. Meghana J, Dr.Umesha V, Dr Rajashi Chatterjee, Asst. Professors, Dept. of Mathematics has attended the refresher course on "Mathematics for AI/ML and Data Science" organised by Malaviya Mission Teacher Training Centre , IIT(ISM) Dhanbad Jharkand from 1st December to 12 December 2025 and relieved from 12th December 2025 6 PM onwards.

December 15, 2025: Dr.B Mallikarjuna, Asst.Professor, Dept. Mathematics, has been invited to Attend BOS meeting at VTU Bangalore on 15-12-2025

December 15, 2025: Dr. Chadra Shekara G, Associate Professor, Dept. of Mathematics has been invited as External Expert for the BOE 2025 in the Department of Mathematics, National Institute of Engineering, Mysuru on 11-12-2025.

December 2025: Dr. Noor E Misbah, Asst. Professor, Dept. of Mathematics, has participated in the Online International Workshop on the Transformative Role of Artificial Intelligence in Mathematics: Enhancing Problem Solving, Teaching and Research" Organised by the Department of Mathematics under the aegis of Department of Basic Sciences, Cambridge Institute of Technology, Bengaluru from 1st December to 5th December 2025.

BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

DEPARTMENT OF MATHEMATICS

December 26-30 2025: Dr Gireesh D.S. Assistant Professor, Dept. of Mathematics, has presented a research paper entitled "*Generating functions and Ramanujan-type Congruences for b_{5^k}(n)*" in the 91st Annual Conference of the Indian Mathematical Society-An International Meet organized by Lucknow University Lucknow, in association with Indian Mathematical Society from 26th to 30th December 2025.

December 2025: Dr. Anthony Christy Melson, Ms. Shazia P A., published the paper titled, "Non linear Analysis of the Non Sinusoidal Temporal Periodic Modulation of Boundary Temperature and Non-Inertial Acceleration on Ferroconvection" CU Journal of Non -Linear Fluid Mechanics, Vol. 01, No. 02,2025,https://doi.org/10.11615/cujnlfm.01202-1, Page No. 17-35, in December 2025.

26-30 December 2025: Dr Shekar M. Assistant Professor, Dept. of Mathematics, has presented a research paper entitled "*Electro-Osmotic Peristaltic Transport of Casson Fluid with Thermal Radiation and Entropy Generation under the Influence of Ciliary Motion*" in the 91st Annual Conference of the Indian Mathematical Society-An International Meet organized by Lucknow University Lucknow, in association with Indian Mathematical Society from 26th to 30th December 2025.

December 26-30 2025: Dr Umesha V. Assistant Professor, Dept. of Mathematics, has presented a research paper entitled "Exponential Stability Analysis of Switched Recurrent Neural Networks under Interval Time-Varying Delays" in the 91st Annual Conference of the Indian Mathematical Society-An International Meet organized by Lucknow University Lucknow, in association with Indian Mathematical Society from 26th to 30th December 2025.

December 26-30 2025: Dr Rajashi Chatterjee, Assistant Professor, Dept. of Mathematics, has presented a research paper entitled "*A brief introduction to probability transition matrices and Markov chains for quadripartitioned neutrosophic sets*" in the 91st Annual Conference of the Indian Mathematical Society-An International Meet organized by Lucknow University Lucknow, in association with Indian Mathematical Society from 26th to 30th December 2025.

BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

DEPARTMENT OF MATHEMATICS

December 26-30 2025: Dr Divyashree B. K., Assistant Professor, Dept. of Mathematics, has presented a research paper entitled "*Graph-Theoretical Insights into Molecular Structures*" in the 91st Annual Conference of the Indian Mathematical Society-An International Meet organized by Lucknow University Lucknow, in association with Indian Mathematical Society from 26th to 30th December 2025.

14 December 2025: The Syndicate Trials, an internal event organized by Pentagram, The Mathematical Society of BMSCE was conducted on 14th December 2025 to mark the conclusion of the 2024–25 core team's tenure and to announce the 2025–26 core team. The event aimed to foster meaningful interaction among club members, with a particular focus on strengthening the bond between seniors and juniors. Over 22 online registrations were received, and the event saw the participation of 31 students from the second, third, and fourth years. Registrations were accepted on an individual basis, and no registration fee was charged, making the event inclusive and accessible to all members.

BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

DEPARTMENT OF MATHEMATICS

Activities in the month of January 2026

January 19, 2026: Dr. Chandra Shekara G, Associated Professor, Dept. of Mathematics, has participated in the three -day workshop on "Quantum Technologies: Fundamentals, Computation and Applications" held during January 19-21, 2026 Organized by Karnataka Science and Technology Academy, Dept. of Science &Technology, Govt. of Karnataka, Bengaluru.

January 2026: Dr. Hemanth Kumar C, Asst.Professor, Dept. of Mathematics, has reviewed for AIP Publishing

January 21, 2026: Dr. Silvia Leera Sequeira, Associate Professor, Dept. of Mathematics, has successfully completed Scintillation: A-2 day intense Leadership Development Program, focused on Leadership Skills in the VUCA world, Vision Creation, Effective Mentoring, Conflict Resolution, Effective Communication, Team Building, and Relationships, organized by BMSCE and conducted by SKILLFIX on 21 & 22nd January 2026.

January 27-31, 2026: Dr. Noor E Misbah attended an online Faculty Development Program (FDP) titled "Mathematics for AI & ML: Theory, Algorithms and Responsible Practice", an official pre-summit event of India-AI Impact Summit 2026, organized by RNSIT, Bengaluru, held from January 27 to January 31, 2026.

January 16, 2026: Department of Mathematics & Humanities, organized a Guest Lecture by Dr. Devaraju Narayanappa, Senior Application Scientist (Climate Modelling), Advanced Scientific Computing Unit, CSC-IT Centre for Science, Espoo, Finland on "New Digital Twin for Destination Earth:TerraDT" on 16th January 2026 in CE-1, MEL Dept, PJ Block, 7th Floor.

BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

DEPARTMENT OF MATHEMATICS

Activities in the month of February 2026

February 20th 2026: Dr. Madhukar K, Asst. Professor, Dept. of Mathematics, has presented in the Five days Online FDP on "Advanced Mathematical Frameworks for Nonlinear Dynamics and Geometric Analysis in the era of Artificial Intelligence" on the topic "Non Linear Dynamics" Organized by Dept. of Mathematics, Dr. TTIT, KGF held on 16-20th Feb 2026.

February 16th 2026: Department of Mathematics & Humanities, organized one week FDP on "Building Quantum Literacy: Computation and Algorithms", in association with AION-IA and KwantumG Research Labs Pvt Ltd held from 16th to 21st February 2026.



February 16th 2026: Dr. Silvia Leera Sequeira has participated one week FDP on "Building Quantum Literacy: Computation and Algorithms", organized by the Department of Mathematics, BMSCE in association with AION-IA and KwantumG Research Labs Pvt Ltd held from 16th to 21st February 2026.

BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

DEPARTMENT OF MATHEMATICS

Activities in the month of March 2026

March 26-27 2026: Dr. Silvia Leera Sequeira, Associate Professor, Dept. of Mathematics has attended the International Conference on Mathematical Advances (ICMA 2026) as Session Chair, organized by the Department of Mathematics, St. Joseph's University, Bengaluru from 26th & 27th March 2026.

March 28-30, 2026: Dr. Chandra Shekara G Associate Professor, Dept. of Mathematics has delivered an talk in the Three Days National Level Mathematics FDP Program on "Mathematical with Computational Mathematics" (PHBWEL-PCSSEL-NLM- FDP-MCM-2026) During 28th to 30th March 2026 organized by the Department of Mathematics, Karnatak University, Dharwad.

BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

DEPARTMENT OF MATHEMATICS

Activities in the month of April 2026

April 1, 2026: Dr. Hemanth Kumar C, Asst. Professor, Dept. of Mathematics published a paper titled "Heat Transfer Characteristics of Darcy-Bénard Convection Under the Combined Influence of Pressure Gradient and Thermal Non-Equilibrium" in the J. Nanofluids 2026, Vol. 15, pp. 296–305, 2026, No. 2, doi:10.1166/jon.2026.2314, April 2026.

April 7, 2026: Dr. Chandra Shekara G, Associate Professor, Dept. of Mathematics published a paper titled "Numerical study of hydromagnetic gyrotactic bioconvection nanofluid coating flow from an exponentially stretching surface with wall suction/injection effects" in the journal Nano-Structures & Nano-Objects 46 (2026) 101640 https://doi.org/10.1016/j.nanoso.2026.101640, Page No. 1-12, April 2026(Scopus Q1)

April 15, 2026: Dr. Shekar M, Asst. Professor, Dept. of Mathematics published a paper titled "Electro-osmotic peristaltic transport of Casson fluid with thermal radiation and entropy generation under the influence of ciliary motion" in the International Journal of Exergy, 2026, Vol. 49(4), pp. 299–317. Doi: 10.1504/IJEX.2026.152942.

April 18, 2026: Dr.Divyashree B K and

Dr Umesha V Asst. Professors, Dept. of Mathematics published a paper titled "Numerical Approximations of Abel's Integral Equations Using Haar Wavelet " in Boletim da Sociedade Paranaense de Matemática Vol.44,pp1-14 https://periodicos.uem.br/ojs/index.php/BSocParanMat/article/view/79343/751375162342

BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

DEPARTMENT OF MATHEMATICS

Activities in the month of May 2026

May 31, 2026: Dr Umesha V.et.al Asst. Professors, Dept. of Mathematics published a paper titled "A Global Stability Analysis of Fractional-Order Memrisor Fuzzy Bam Neural Networks with Time-Variable Delays and Leakage Term " in Discrete Dynamics in Nature and society Article ID 1112314, 16 pages,2026. https://doi.org/10.1155/ddns/1112314.

BMS COLLEGE OF ENGINEERING, BENGALURU-19

Autonomous Institute, Affiliated to VTU

DEPARTMENT OF MATHEMATICS

Activities in the month of June 2026

June 10, 2026: Dr. D. L. Shivaraj from the Department of Mathematics published a **single-author** research paper titled "**Modal, Non-Modal, and Energy Budget Stability Analyses of Viscoelastic Plane Poiseuille Flow under a Transverse Magnetic Field**" in the **ASME Journal of Fluids Engineering (Q2)** (10 June 2026). The work presents a comprehensive stability analysis of magnetohydrodynamic viscoelastic channel flow, providing new insights into flow instability mechanisms and energy transfer. https://doi.org/10.1115/1.4071829.