

Mech Connect

The News Letter of Department of Mechanical Engineering, BEC, Bagalkote

September & October 2025



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Editorial Board

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About the College

Basaveshwar Engineering College (BEC), Bagalkote is undergoing unswerving growth since 1963. It is started as a private institute with only three engineering programs viz., Civil, Mechanical and Electrical Engineering and came into government grant in-aid code from 1968. Today, the institute offers 9 undergraduate and 8 post graduate programs with 10 departments recognized as R&D centers by VTU, Belagavi. It is a matter of pride for BEC to be placed in the rank band of 201-250 and 150-300 at all India level for the year 2019-20 and 2021-2022 respectively by the National Institutional Ranking Framework (NIRF) of MHRD, New Delhi. The selection of BEC under Technical Education Quality Improvement Program (TEQIP-I, 2004-2009) of MHRD, New Delhi was onset of new era in the history of BEC. The TEQIP grant of Rs.40.13 crores was effectively utilized for scaling up UG programs, PG programs and R&D activities. The BEC was granted academic autonomy from UGC, New Delhi in 2007. The core values of the institution emphasize on teaching-learning, research and administrative processes. Hence, to stimulate the academic environment for promotion of quality, the BEC looks forward for academic audit by National level bodies of engineering education.

Vision

" To be an institution of excellence in education, research and innovation for sustainable future".

Mission

- **Develop globally competent professionals for future talent requirements.**
- **Nurture a culture of research, Innovation and entrepreneurship.**
- **Promote collaborations, extension and outreach programs for addressing industrial and societal needs.**
- **Imbibe moral and ethical values.**
- **Foster ecological and environmental consciousness.**

From Director's Desk



Dr. R. N. Herkal

The Technical institutes under BasaveshwarVeerashaiva Vidya Vardhak Sangha are the artifact of a vision of excellence in the field of Technical Education. The swearing growth of college since its inception in 1963 is commendable. At BEC promoting academic excellence and rigorous discipline with sound practical exposure to the student community is the culture by qualified and experience faculty members. We at BEC prepare the students to face the problems faced by the society and overcome the challenges posed by the globalised world through our tireless journey by staying focused with commitment towards work.

With best wishes.

From Principal's Desk



Dr. Basavaraj R Hiremath

Basveshwar Engineering College, Bagalkote, stands as a beacon of technical education inspired by the ideals of Lord Basaveshwara emphasizing knowledge, service, and integrity. Our mission is to nurture competent engineers and responsible citizens equipped to meet global challenges through innovation, ethics, and continuous learning. We strive to provide a vibrant academic environment, modern infrastructure, and ample opportunities for research and skill development. At BEC, we believe in empowering students not only with technical expertise but also with values that shape them into future leaders of society. Let us together uphold the legacy of excellence and contribute meaningfully to the advancement of technology and humanity.

From Head of Department Desk



Dr. Vinay .V. Kuppast

The Department of Mechanical Engineering has been one of the most dynamic and versatile departments of Basveshwar Engineering College since its inception. We take pride in shaping engineers who combine strong technical foundations with creativity, ethics, and a spirit of innovation. Our department is equipped with well-established laboratories, modern software tools, and experienced faculty dedicated to excellence in teaching, research, and industrial collaboration. We continuously strive to enhance the learning experience by integrating emerging technologies such as Additive Manufacturing, Automation, and Sustainable Design into our curriculum. through innovation, leadership, and lifelong learning.



Basaveshwar Engineering College, Bagalkote



DEPARTMENT OF MECHANICAL ENGINEERING

About the Department

The Mechanical Engineering Department is one of the oldest and largest departments at BEC. The UG programme (B.E. in Mechanical Engineering) began in 1963 when the college started. The current annual intake for the B.E. Mechanical programme is 120 students. The department offers not just undergraduate (UG) teaching, but also postgraduate (M.Tech) and doctoral (Ph.D) work. Accredited by the National Board of Accreditation (NBA) under Tier-I for the years 2022-23, 2023-24, 2024-25, 2025-26, 2026-27 and 2027-28

Vision

To excel in Mechanical Engineering Education, Research and Innovation for Sustainable Development

Mission

- 5. Develop students with necessary knowledge and skills to meet societal needs.**
- 6. Enable the students to adopt for changing technological advancement for employment and entrepreneurship.**
- 7. Conduct research to develop intellectual property.**
- 8. Strengthen linkage between industry and academia.**

Program Educational Objectives (PEOs)

- PEO1:** The Mechanical Engineering graduates should be able to engage in the design and to develop the components and equipments in the field of mechanical engineering industries and other allied industries.
- PEO2:** The graduates should be able to apply the knowledge of mechanical engineering to solve problems of social relevance and pursue higher education studies and research in the field of materials science, machine design, manufacturing and thermal/fluid engineering.
- PEO3:** The graduates will work effectively as individuals and as team members in interdisciplinary projects
- PEO4:** The graduates should be able to engage in lifelong learning, to become an entrepreneur, apply ethics and adapt to changing professional and societal requirements.

Program Specific Outcomes (PSOs)

- PSO1:** Apply core concepts of mechanical engineering to design, analyze and solve mechanical system and components by utilizing modern tools, computational methods and engineering practices
- PSO2:** Identify, formulate and implement solutions to real world mechanical engineering problems by integrating knowledge from multidisciplinary domains, including IoT and AI, while upholding ethical standards and effective communication within diverse teams.

Board of Studies (BOS) Meeting

The Board of Studies Meeting for the Department of Mechanical Engineering was held on August 30, 2025, to review the academic curriculum and integrate industry-oriented updates.

External Members

1. Dr. Manjunath Reddy	Professor Grade-1, VIT Vellore
2.Dr. Gomathy,	CEO, Fuego Health Furniture LLP, Bangalore,
3.Dr. Vijaykumar Hiremath	Director & CEO, CADMAXX Aeronautics Bangalore,
4.Dr. Mahadev Nagaral,	Manager HAL Bangalore
5.Sri. Barath R	Head, PPC & Manufacturing Excellence, Tata Hitachi Dharwad
6.Dr. Someshekhar M. A,	Professor, IIT Dharwad
7.Sri. Vinayak Kotikal,	GM, BOSCH India, Chennai
8.Sri. Balachandra Bingi	ODinSchool Edutech Pvt.Ltd Banagalore



Glimses of conduction of BOS meeting at Board-Room, BEC Bagalkote

Welcomes New Faculty



Dr. Surykanth Nalwar

1. Dr. Surykanth Nalwar , Assistant Professor

Dr. Surykanth Nalwar, has joined the department as an Assistant Professor. He holds a Ph.D. in Mechanical Engineering from National Institute of Technology Silchar, Assam, with specialization in Thermal Engineering. With over six years of teaching and learning experience. He has authored six SCI-indexed publications, most of which are in Q1-ranked international journals, collectively earning around 500 citations; a testament to the quality and impact of his scientific work in clean energy research.



Dr. Arun S Pattanashetti

2. Dr. Arun S Pattanashetti , Assistant Professor

Dr. Arun S Pattanashetti has joined as a Assistant Professor in the department. He holds a Ph.D. in Mechanical Engineering from Indian Institute of Technology Dharwad, specializing in Thermal Engineering. His areas of interest include experimental and numerical studies on fluid flow interactions in swirl combustor, combustion of methane, ammonia, hydrogen and alternative fuels in the context of gas turbine engines. He has authored 4 SCI indexed publications in Q1 and Q2 ranked journals and has presented his research work at 4 international level conferences held across India.



Mr Rajath M Handi

3. Mr Rajath M Handi , Assistant Professor

Mr Rajath M Handi has joined as a Assistant Professor in the department. He holds a M.Tech in Production Technology and is about to submit his Ph.D thesis at VTU Belgaum, titled Tribological and Thermal Performance Evaluation of Al-Si Piston Alloys under Dry Wet Lubricated Conditions using Non Edible Oil.

The department extends a warm welcome to the new faculty members and looks forward to their active participation in academic, research, and co-curricular activities. Their expertise and enthusiasm would contribute significantly to the department's growth and the holistic development of our students.

MEA Class Represenrative Election

The Department of Mechanical Engineering, BEC, Bagalkot, conducted the **Class Representative (CR) elections** under the **Mechanical Engineering Association (MEA)** for the academic year **2025–26** in the month of September 2025.

Students from various semesters actively participated, showcasing leadership and teamwork. The election was held in a fair and transparent manner under the guidance of faculty coordinators and the Head of the Department.

Elected Class Representatives (2025–26):

S.NO	Name	Semester		S.NO	Name	Semester
1	Tejas Viraktamath	1 st		5	Darshan Shinde	5 th
2	Deepak Sutagundar	1 st		6	Vishwanath Diggavi	5 th
3	Omkar Hongunti	3 rd		7	Amogh Danashetti	7 th
4	Rahul R Kudarikannur	3 rd		8	Abhay Nara	7 th
9	Raghu Kalamadi (GS)					

Mr **Raghu Kalamadi** was elected as a General Secretary of MEA for the academic year 2025-26



Ph.D. Milestone

Mr. **K. H. Pulikeshi**, a research scholar of the Department of Mechanical Engineering, successfully defended his Ph.D. thesis titled *"Fabrication, Characterization and Wear Behavior of Thermosetting Hybrid Composites"* on **11th October 2025** under the guidance of **Dr. R. V. Kurahatti**.

The research focused on the **development of hybrid polymer matrix composites** using thermosetting resins reinforced with natural and synthetic fibers. The main objectives of the study were to:



- Fabricate hybrid composite specimens using optimized combinations of fibers and fillers.
- Analyze their **mechanical, thermal, and wear properties** through standard ASTM testing procedures.
- Study the **influence of process parameters** such as fiber orientation, filler content, and curing conditions on the overall composite performance.
- Evaluate the **wear mechanisms** under varying load and speed conditions using pin-on-disc tribological studies.

The work resulted in significant findings related to the **enhancement of wear resistance and mechanical strength** of hybrid composites by incorporating optimal fiber-filler ratios. The research outcomes are relevant for **automotive, aerospace, and structural applications** where lightweight and wear-resistant materials are essential.

Mr. Pulikeshi presented his research work before the expert committee and external examiner. His presentation was well-received, and he successfully addressed all queries during the defence. The evaluation committee appreciated the **novelty, experimental rigor, and industrial relevance** of his work.



Faculty Achievements

- Dr. **Vinay V. Kuppast**, Professor in the Department of Mechanical Engineering, **Basaveshwar Engineering College, Bagalkot**, has been honored with the **"Best IP Researcher Award 2025"** by **Bakliwal Foundation College of Arts, Commerce and Science, Vashi**, in association with **WeGrow Pvt. Ltd., Mumbai**.
- The **Council of Vibration Specialists (CVS)** has conferred the prestigious **Fellow Membership** upon **Dr. Vinay V. Kuppast**, Professor, Department of Mechanical Engineering, **Basaveshwar Engineering College, Bagalkot**. Dr. Kuppast has been officially granted **Fellow status** with **Membership No. FML2200225** under the seal of the Council.
- Faculty members of the **Department of Mechanical Engineering**, namely **Dr. S. G. Saraganachari, Prof. Sanjay S. J, Prof. Praveen C. Kolur & Prof. S. S. Davanageri**, and jointly presented a technical paper titled *"Advances in Natural Fiber and Nano Powder Reinforced ABS Composites for 3D Printing"* at the **International Conference on Computational and Cognitive System Science (ICCCSS-2025)** organized by the **School of Computing** during **30th-31st October 2025**.

- On the occasion of **Teachers' Day 2025**, **QuantPro Global Pvt. Ltd.** proudly presented a **"Certificate of Excellence"** to **Dr. Vinay V. Kuppast**, Professor, Department of Mechanical Engineering, **Basaveshwar Engineering College, Bagalkot**, and **Dr. S. M. Jigajinni**, Assistant Professor, Department of Mechanical Engineering in recognition of his **remarkable contribution to education** and dedication as an **outstanding teacher**.

The award acknowledges Dr. Kuppast's and Dr. Jigajinni's **exemplary commitment to academic excellence, innovative teaching methodologies, and mentorship** that have inspired countless students over the years.

- Dr. **S. M. Jigajinni**, Professor in the Department of Mechanical Engineering, **Basaveshwar Engineering College, Bagalkot**, has successfully completed the **NPTel certification course** titled *"Patent Drafting for Beginners"* conducted during **July-August 2025**, securing a **consolidated score of 63%**.
- Mr. **Praveen C. Kolur**, Research Scholar of the **Department of Mechanical Engineering**, successfully completed his **Open Seminar – II** on **11th October 2025** as part of the Ph.D. requirements under **Visvesvaraya Technological University (VTU)** under the guidance of **Dr S G Saraganachari**

Department Launches Institute of Indian Foundrmen Chapter

The Department of Mechanical Engineering, Basaveshwar Engineering College (Autonomous), Bagalkot, has established a Student Chapter of **The Institute of Indian Foundrymen (IIF)**, bearing **Membership Number CM/21692/S/BEL**.

The student chapter was initiated with the objective of **promoting foundry technology awareness, research, and industry-academia collaboration** among students. The chapter aims to provide a professional platform for students to engage with experts from the foundry and casting industries, explore innovations in metallurgical processes, and participate in technical seminars, industrial visits, and training programs.

Prof. Sanjay S. J and **Prof. P. C. Kolur** are appointed as the **Faculty Coordinators** for this chapter. Under their guidance, the chapter will organize a series of **technical workshops, guest lectures, and skill development activities** focusing on modern foundry practices, casting simulation, and sustainable manufacturing.

The formation of this student chapter marks a significant step toward **enhancing industry interaction and practical learning opportunities** for the students of the Mechanical Engineering Department.