

# VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

# MECHNOVA

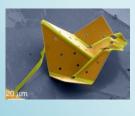


JUNE 2023 VOL 11, ISSUE 3

#### LATEST IN MECHANICAL ENGINEERING!!

Chemical Reactions Spark Life into Self-Folding Micro Origami Machines

Cornell researchers have devised a way to utilize chemical reactions for the selffolding of microscale origami machines, allowing them to work in dry, roomtemperature conditions. This breakthrough could pave the way for the creation of tiny, autonomous devices that rapidly respond to their chemical surroundings.



# INSIDE THIS ISSUE:

- Latest Mechanical Engineering
  Inventions
- Vision, Mission
- NBA Accreditation
- SIEP E-Bike Challenge 2023
- Placements
- Paper publication and Reviews
- Faculty achievements
- Student achievements
- Charity Pilgrim Meeting
- Farewell to 2019-23 ME Batch
- PEOs
- POs and PSOs

# **VISION**

"To become a centre of excellence in Mechanical Engineering, producing innovative and creative mechanical engineers to meet the global challenges"

#### **MISSION**

1. To Provide a platform to the students towards attaining quality education in Mechanical Engineering.

2. To Educate students about professional & ethical responsibilities and train them to build leadership and entrepreneurship qualities for their career development.

3. To Create opportunities and guide students in acquiring career-oriented jobs in the field of Mechanical Engineering.

#### **MECHANICAL ENGINEERING PROGRAM ACCREDITED BY**

#### NBA FOR ACADEMIC YEARS 2023-2026

An Expert Team conducted evaluation of the mechanical engineering program on 15th April, 2023 to verify the data of the program. The Competent Authority in NBA has decided accreditation of the above program on the basis of Compliance Report for the Academic Years 2023-2024 to 2025-2026 i.e., up to 30-06-2026. The same has been updated on the website of NBA under the following link.

https://www.nbaind.org/Accreditationprogram











#### **SIEP E-BIKE CHALLENGE 2023**





Seventeen students from and two staff members from Mechanical Engineering Department, Vimal Jyothi Engineering College participated in the SIEP E-bike challenge conducted by ISIE India at Galgotia University. The event took place from April 14, 2023, to April 18, 2023. To participate in the event, the students fabricated an electric bike and transported it to Galgotia University in Greater Noida.

#### **PLACEMENTS**

Based on the final interviews conducted on May 30, 2023, by IPA at their office in Peenya, Bangalore, the following students from the Mechanical Engineering Department (2019-23 Batch) at VJEC have been selected for onboarding in IPA India (P) Ltd., Bangalore, in July 2023.



MR. SAYANTH SASINDRAN

S8 ME B



MR. AJITH JOHNY

S8 ME A



MR. AJNAS A K

S8 ME A

# PAPER PUBLICATION AND REVIEWS

1. Dr. S Christopher Ezhil Singh published a paper titled "Artificial Neural Network on Tool Condition Monitoring in Hard Turning of AISI4140 Steel using Carbide Tool". Mathematical Problems in Engineering, Hindawi., Volume 2023, Article ID 2139906.

2. Dr. Sreekanth M P, Associate Professor, ME, reviewed for Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture (SAGE).

#### FACULTY ACHEIVEMENTS

During the staff meeting held on May 3rd, 2023, the following faculty members were recognized for their outstanding performance in producing high results for tough courses during the academic year 2021-2022.



MR. MIDHUN MUKUNDAN M K



DR. SREEKANTH M P



MR. DILIN DINESH



MR. ARUNLAL M P

### **STUDENTS ACHIEVEMENTS**

1. Milan S. Chalil (2019-23 ME B Batch) secured the third prize in High jump and Javelin throw (men) at the 5th Intercollegiate (Inter Zone) Athletic Meet held at Chandrasekharan Nair Stadium in Thiruvananthapuram on April 27th, 28th, and 29th, 2023.



2. Aditya Madhu (2020-24 ME Batch) along with his team, secured the second prize in Kho Kho (men's category) at the zonal level athletic meet held at GCE Kannur.



#### **CHARITY PILGRIM**

On April 29, 2023, the first-year students of Vimal Jyothi Engineering College decided to visit various old age homes and rehabilitation center branches as part of the Charity Pilgrimage, an annual event organized by our college management exclusively for first-year students. Our class, consisting of Mechanical and Civil Engineering students, was assigned the rehabilitation center named 'Mariya Bhavan,' which is conveniently located near Vimal Jyothi Engineering College. It is situated in Poopparamba, approximately 2km away from our college.



# FAREWELL TO 2019-23 ME BATCH



#### Program Educational Objectives (PEO'S)

**PEO1:** Graduates will be able to pursue successful professional career in Mechanical Engineering with sound technical and managerial capabilities.

**PEO2**: Graduates will have skills and knowledge to formulate, analyze and solve problems in mechanical engineering to meet global challenges.

**PEO3**: Graduates will be capable of pursuing mechanical engineering profession with good communication skills, leadership qualities, team spirit and professional ethics to meet the needs of the society.

**PEO4:** Graduates will sustain an appetite for continuous learning by pursue higher education and research in the allied areas of science and technology.

#### Program Outcomes (POs)

**PO1: Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

**PO2: Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

**PO3:** Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations

**PO4: Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions

**PO5: Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations

**PO6: The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

**PO7:** Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

**PO8: Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice

**PO9: Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO10: Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions

**PO11: Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**PO12: Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

#### Program Specific Outcomes (PSOs)

**PSO1:** Ability to use advance design, modelling, analysis, manufacturing tools and techniques to provide a solution in mechanical engineering problems.

**PSO2:** Ability to design, develop, implement and manage a product development process.

Mr. Arunlal M P (Asst. Prof, ME)

Student Editors:

Mr. Akash P (S8 ME), Ms. Anju M (S8 ME)

MECHNOVA