



DEPARTMENT OF MECHANICAL ENGINEERING

“NO TECH WITHOUT MECH”

The department of Mechanical Engineering, Swami Vivekananda University offers state of the art education, well equipped classroom, high end laboratories and cutting-edge research facilities for the students to create, enable, apply and spread knowledge in the advanced field of Mechanical Engineering. In addition to curriculum courses, the department contributes to value added courses, guest lecture by industry experts, industrial visits and various add on activities for the students to make them future ready technocrats of academia & industry. We are committed to work in emerging areas and to develop sustainable technologies & innovations pertaining to mechanical engineering and its allied sectors.

WHAT'S NEW

- KASCADE 2026
- Distinguished Keynote Speech at the Global Patent Innovation Conclave
- Notable Publication
- Involvement in Blood Donation and Health Checkup Initiatives at Campus

EDITORIAL

In pursuit of Swami Vivekananda University's vision of excellence, innovation, and entrepreneurship, the Department of Mechanical Engineering is committed to contribute the best possible and feels immense pleasure to share this newsletter with all of you. The department has a vision to emerge as an excellent center of skill-based learning in Mechanical Engineering to develop professionals who are technically competent, ethical and capable of addressing the changing societal needs with credibility. The department has focused to continued enhancement of its facility to cater the overall anticipation of industry and academia. We are thrilled to announce several exciting developments at our department. Department of Mechanical Engineering of Swami Vivekananda University continues to shine with recent accomplishments. This month, students of the Department of Mechanical Engineering at Swami Vivekananda University showcased their participation and excellence at KASCADE 2026, earning valuable recognition on a national platform. The department also celebrated a distinguished keynote delivered by Dr. Ranjan Kumar, Head of the Department, at the Global Patent Innovation Conclave, reflecting its thought leadership in innovation. Additionally, a notable publication in CNC Machining highlights the department's significant academic contributions and research prowess. Demonstrating their commitment to social responsibility, the department actively organized and participated in blood donation drives and health checkup initiatives, promoting community welfare among students and staff. For all these achievements, I express my sincere thanks to our students and faculty members for their invaluable contributions and countless efforts. We conclude with a commitment to pursuing excellence and look forward to sharing an enhanced version in the next issue.

HOD (Mechanical Engineering)

Mechanical Engineering Department Excels at KASCADE (KSHITIJ 2026)

Students of the Department of Mechanical Engineering, Swami Vivekananda University, actively participated in KASCADE 2026, a premier technical event under the umbrella of KSHITIJ 2026, held on 11th November 2025 at the university campus, Barrackpore. The event featured engaging competitions such as Source Code, Enigma, Maths Olympiad, and Anadigix, drawing enthusiastic participation from multiple departments. Mechanical Engineering students demonstrated remarkable problem-solving skills, creativity, and teamwork throughout the contests. KASCADE 2026 offered an excellent platform for technical exposure, collaborative learning, and innovation, inspiring students to enhance their knowledge, strengthen their technical aptitude, and prepare for future academic and professional challenges.



Keynote Address at International Conclave

The Department of Mechanical Engineering, Swami Vivekananda University, proudly shares that Dr. Ranjan Kumar, HOD & Associate Professor, was invited as the Keynote Speaker at the International Conclave on Patent Inventive Steps hosted by Banaras Hindu University on 22 November 2025.

Dr. Kumar gave an informative talk on the importance of inventive thinking in patent development, explaining how new ideas help drive technological progress. His participation in this respected event reflects the department's growing academic presence and its commitment to encouraging research, creativity, and awareness about intellectual property among students and scholars.



Research Achievement in CNC Machining

The Department of Mechanical Engineering, Swami Vivekananda University, proudly highlights the publication titled “*Study of CNC Turner Process Parameters of 45C8 Alloy Based on Surface Roughness,*” featured in the AIP Conference Proceedings (2025). This research offers valuable understanding of how different CNC machining parameters affect the surface quality of 45C8 alloy, contributing to improved accuracy and overall manufacturing performance.

The study was conducted by Asst. Prof. Joydip Roy, Asst. Prof. Debashis Majumdar, Asst. Prof. Soumya Ghosh, and Prof. Bikash Panja. Their consistent research efforts continue to enhance the department’s academic reputation and scientific contributions.

AIP Conference Proceedings

RESEARCH ARTICLE | NOVEMBER 12 2025

Study of CNC turner process parameters of 45C8 alloy based on surface roughness FREE

Arghya Gupta, Hitesh Ghosh, Kaushik Kumar, Joydip Roy, Debashis Majumdar, Soumya Ghosh, Bikash Panja

AIP Conf. Proc. 3361, 030008 (2025)
<https://doi.org/10.1063/5.0298571>



Articles You May Be Interested In

Mechanical properties of composites reinforced with alumina and zirconia nanofillers in polybutylene terephthalate matrix and their hybridization

AIP Conf. Proc. (November 2025)

A simulation study on influence the structure of the combustion chamber on the performance and emission characteristics of RT 125DI diesel engine

AIP Conf. Proc. (February 2020)

TATB ratchet growth and hydrostatically-confined PBX 9502

AIP Conf. Proc. (November 2020)

Participation in Community Welfare Camps at Swami Vivekananda University

The Department of Mechanical Engineering actively participated in the Blood Donation Camp and Free Health Checkup Camp organized on 12th November at Swami Vivekananda University, in collaboration with TMBC and AIIMS Kalyani. Faculty members and students contributed wholeheartedly, with many donating blood and others tirelessly assisting in organizing and managing the camp activities. Their involvement added significant value to the smooth and efficient coordination of the event.

The Free Health Checkup Camp offered essential services including nutrition, physiotherapy, optometry, and psychology, benefiting numerous attendees. The department’s enthusiastic participation reflected its dedication to community service, health awareness, and social responsibility. The combined efforts of students, faculty, and organizers ensured the successful execution of both camps, strengthening the spirit of service within the university.

