

# AUTOMATA

## NEWSLETTER

Department of Mechatronics Engineering,  
School of Engineering  
Faculty of Science Technology and Architecture

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## Editorial Board

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## Inside The Issues

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The HoD's Message  
Dr. Prabhat Ranjan



I'm happy to add a few sentences to the bulletin for the department. Because the world of modern technology is evolving so quickly, staying up to date with the latest developments is essential. The department hosts conferences, webinars, seminars, faculty development programs, and other events in addition to extracurricular and co-curricular activities to inform students about recent and upcoming technological advancements. Additionally, the department has received praise for the variety of activities that its teachers and students participate in. I want to see more occasions like these in the future to further the department's overall growth.

Dr. Prabhat Ranjan

### Vision

Global excellence in Mechatronics domain to provide comprehensive solution for industrial advancements and societal challenges.

### Mission

M1: Impart value-based education to fulfil industrial needs by nurturing inter-disciplinary knowledge for enhancing academic and professional excellence.

M2: Provide with state-of-art academic and research facilities, fostering humanistic values and peer teaching-learning approach for enhancing employability and entrepreneurship skills.

M3: Encourage inter-disciplinary approach to foster research and innovative ideas for smart Mechatronics system by experiential learning.

M4: Provide opportunity to exhibit and enhance life long learning skills with ethical values and social relevance.



The Department of Mechatronics Engineering, School of Engineering (SOE), Manipal University Jaipur, in collaboration with the HR Department and MUJ TEC, successfully organized a 4-Day Online Faculty Development Program (FDP) titled “Future-Ready Mechatronics: Innovations in Robotics, AI, IoT & EV Systems”



The 3-Days Online Staff Awareness Program on Department Capacity Enhancement was an initiative by the Department of Mechatronics Engineering, SOE, Manipal University Jaipur, organized in collaboration with the HR Department and MUJ TEC. The program is designed to strengthen departmental effectiveness by enhancing faculty awareness of academic frameworks, strategic planning, and infrastructure development.

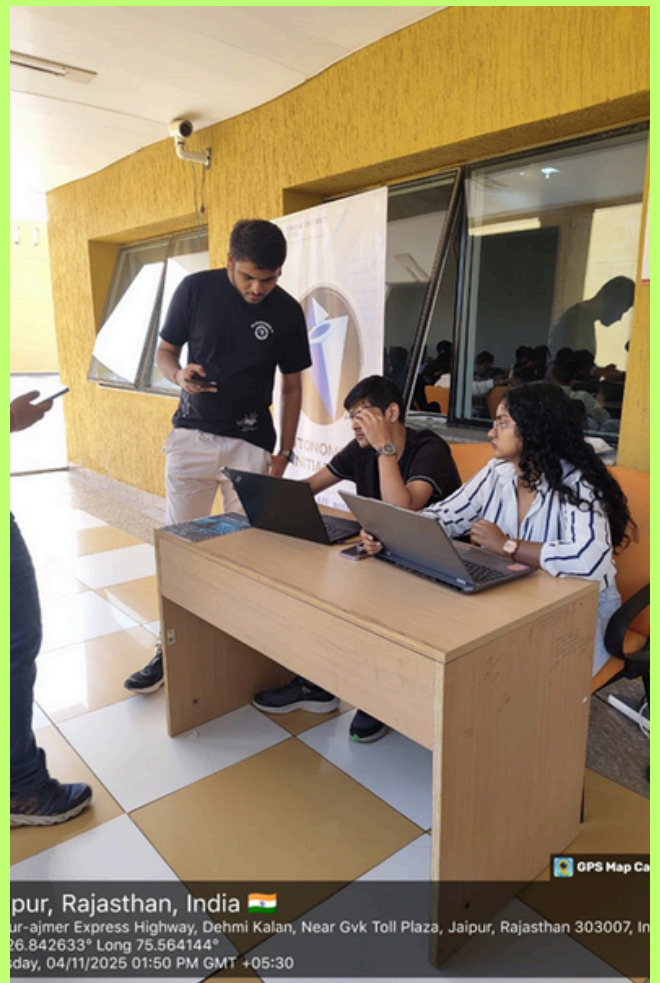


Dr. Nikhil VivekShrivastava and Dr. Krishna Kant Pandey from Department of Mechatronics Engineering, Manipal University Jaipur visited at Manipal Institute of Technology (MIT), Manipal, Udupi, Karnataka. They had interacted with Dr. Vijay Babu Koreboina, Associate Professor, Department of Mechatronics Engineering MIT, Manipal to start research collaboration and student exchange.





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## Journal Publications

S. No	TITLE
1	ML, P., Patil, S., Saini, D., Jain, M., & Nafiz, D. (2025). Experimental and numerical wear analysis of nylon 6 standard and asymmetric profile polymer gears. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 09544062251382751.
2	Chamuah, A., Bhattacharya, K., Ojha, S., Ghosh, C. K., Ghosh, J., Chakraborty, T., ... & Bhattacharya, S. (2025). Structural Evolution and AC Conductivity of Ag <sup>+</sup> Doped Chalcogenide System: Explanation Using DFT. Advanced Theory and Simulations, e01031.
3	Kumawat, G., Goswami, N. K., Vajpai, J., & Shrivastava, N. V. (2025). Attitude tracking of 2-DOF Aero System with Singular Terminal Sliding mode controller under affine disturbance. IEEE Access.
4	Nath, B., Pandey, K. K., Yadav, V., & Chintalapati, P. V. (2025). Few-shot and zero-shot Assamese hate speech detection: a comparative benchmark of large language models. Social Network Analysis and Mining.
5	Rai, S. K., Kumar, P., Gupta, M. K., Bhatt, D., Uniyal, A., Bagri, G. P., & Shrivastava, N. V. (2025). A Review On Sustainability, Reliability, And Safety Of Microchannel Heat Sinks In Electronic Cooling Applications . Reliability: Theory & Applications, 20(4 (89)), 839-851.
6	Singh, B. P., Goyal, S. K., & Siddiqui, S. A. (2025). A comparative analysis of varying weather patterns effect on the performance of the MPPT techniques. Discover Applied Sciences, 7(10), 1167.

## Faculty with Additional Responsibility at MUJ level



**Dr. Ajay Kumar**  
Professor & Dean  
(Graduate Outcome)



**Dr. Shahbaz Ahmad Siddiqui**  
Professor & Director  
(Directorate of Research)