



## **AUTOMATA** NEWSLETTER

MANIPAL UNIVERSITY

Department of Mechatronics Engineering,

School of Automobile, Mechanical & Mechatronics Engineering

Oct.-Dec. 2024 Issue Vol: 11

### **Editorial Board**

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### **Inside The Issues**

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The HoD's Message Dr. Prabhat Ranjan



Adding a few phrases to the department bulletin makes me very happy. Modern technology is changing rapidly, thus it's imperative that we stay up to date on the latest advancements. The department organizes a variety of events, including conferences, webinars, seminars, faculty development programs, and other extracurricular and co-curricular activities, to educate students about current and future technical developments. The range of activities that the department's instructors and students engage in has also drawn recognition. I want to see more occasions like this in the future for the overall development of the department. The Message from the HoD

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 ny nuturing inter- disciplinary knowledge for enhancing academic and professional excellence.

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

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

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

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The industrial visit at Agresen Industries Pvt. Ltd Jaipur was organised as an essential part of academic learning, designed to provide students with practical exposure to real-world industrial environments.



The seminar on Entrepreneurship was organized by the department of mechatronics and e-cell, MUJ. The expert Mr. Himanish Bhattacharya, CEO, Corpift shared the experience journey to start a new business and to innovate the existing or new solutions for society.



The six-day Faculty Development Program (FDP) on "Recent Advances in Artificial Intelligence for Industrial Applications," sponsored by the AICTE ATAL Academy, was held from December 2 to December 7, 2024.



## **Journal Publications**

S. No	TITLE	
1	Kadam, A. N., Kumar, V., & Misra, M. (2024). Hollow ZnO@ AgIn5S8 nanorod based multifunctional and efficient Z-scheme catalyst for decontamination of Cr (VI), Cu (II), tetracycline, and organic dyes. Journal of Water Process Engineering, 67, 106234.	
2	Princy, R., Chintale, P., Patil, S. A., Poddutoori, J. R., Podduturi, M., Javalkar, V., & Bukya, M. (2024). An Overview of Gaming Peripheral and Gadgets and its Effect on Gaming Performance. Engineered Science, 32, 1293.	
3	Experimental Investigation On Mechanical Property Analysis Of Long And Short Fiber Glass	
4	Butaney, S., Gaurav, K., Ranjan, P., & Shrivas, N. V. (2024). Recent developments in autonomous floor-cleaning robots: a review. <i>Industrial Robot: the international journal of robotics research and</i> <i>application</i> .	
5	Jain, M., Salim, S., Patil, S., & Chowdhury, S. R. (2024). Evolutional development & design of an adjustable single gear tooth testing procedure for polymer gearing. <i>Forschung im Ingenieurwesen, 88</i> (1), 41.	

### **Conference Publications**

S. No	TITLE		
1	Kumaraswamy, J., Siva Ramakrishna, C., Ramasubramanian, S., Mishra, R., Sakhare, D. T., Karthik, K., & Pandey, K. K. (2023, December). Design and Analysis of Gudgeon Pin to Minimize Stress Concentration by Selecting Different Material Through FEA. In Conference of Innovative Product Design and Intelligent Manufacturing System (pp. 339-352). Singapore: Springer Nature Singapore. Chicago		
2	Padmanabhan, S., Siva Ramakrishna, C., Lalitha Saravanan, A., Bokde, R., Venugopal, S., Manikkavasakan, V., & Pandey, K. K. (2023, December). Investigation of Turning Parameters on AL7075 Alloy Reinforcement with Silicon Carbide for a Surface Roughness of Composite Material. In Conference of Innovative Product Design and Intelligent Manufacturing System (pp. 325-337). Singapore: Springer Nature Singapore.		
3	Kumawat, A. K. (2024, September). PLC Signal Level Based Traffic Light System Using RPi: An Experimental Setup. In 2024 3rd International Conference for Advancement in Technology (ICONAT) (pp. 1-3). IEEE.		

### **Book Chapter Publications**

November 2024 Padmanabhan, S., Siva Ramakrishna, C., Lalitha Saravanan, A., Bokde, R., Venugopal, S., Manikkavasakan, V., & Pandey, K. K.. Investigation of Turning Parameters on AL7075 Alloy Reinforcement with Silicon Carbide for a Surface Roughness of Composite Material. In Conference of Innovative Product Design and Intelligent Manufacturing System (pp. 325-337). Singapore: Springer Nature Singapore.

Dr K K Pandey/Mechatronics Engineering

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November 2024	Kumaraswamy, J., Siva Ramakrishna, C., Ramasubramanian, S., Mishra, R., Sakhare, D. T., Karthik, K., & Pandey, K. K. (2023, December). Design and Analysis of Gudgeon Pin to Minimize Stress Concentration by Selecting Different Material Through FEA. In Conference of Innovative Product Design and Intelligent Manufacturing System (pp. 339-352). Singapore: Springer Nature Singapore.	Dr K K Pandey/Mechatronics Engineering
December 2024	Shrivastava, D. R., Siddiqui, S. A., Malik, H., Gallegos, C. D. R., & Ustun, T. S. (2023, December). A Fast Real-Time Transient Stability Estimation for Enhanced Situational Awareness. In International Conference on Signal, Machines, Automation, and Algorithm (pp. 291-301). Singapore: Springer Nature Singapore.	Dr. S. A Siddiqui/Mechatronics Engineering
December 2024	Shrivastava, D. R., Siddiqui, S. A., Verma, K., Singh, S., Malik, H., Ayob, S. M., & Jusoh, A. (2024). Leveraging Synchronized Measurements for Novel Wide-Area Event Detector. In International Conference on Signal, Machines, Automation, and Algorithm (pp. 751-762). Springer, Singapore.	Dr. S. A Siddiqui/Mechatronics Engineering

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### **Department Achievements**





The 2024 IEEE International Conference on Augmented Reality, Intelligent Systems, and Industrial Automation (ARIIA-2024) was held at the Manipal Institute of Technology, Manipal, on December 20-21, 2024



# Faculty with additional Responsibility at MUJ level











Dr Princy Randhawa Assistant Director