

AUTOMATA

DEPARTMENT OF MECHATRONICS ENGINEERING

School of Engineering | Faculty of Science Technology and Architecture

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THE HOD'S MESSAGE



As we commence the second quarter of 2026, I am honored to introduce Volume 17 of our departmental newsletter. The rapid evolution of intelligent automation, artificial intelligence, and sophisticated mechatronic systems is fundamentally transforming industries worldwide. Our department remains committed to equipping students for this era by enhancing our practical learning frameworks, research initiatives, and industry-focused training.

— Dr. Prabhat Ranjan

VISION & MISSION

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.
- M2: Provide state-of-the-art academic and research facilities.
- M3: Encourage inter-disciplinary research and smart systems.
- M4: Exhibit lifelong learning skills with ethical values.

DEPARTMENTAL EVENTS & ACTIVITIES

Kaizen Conclave 2026

The Kaizen Conclave 2026 was organized in Jaipur through a collaboration between the QCFI Jaipur Chapter and Manipal University Jaipur. Thirteen teams participated, presenting innovative Kaizen projects.



Faculty Development Programme (FDP)

The Department of Mechatronics Engineering, in collaboration with MUJ-TEC and ETMN Technologies Pvt. Ltd., successfully conducted a Faculty Development Programme (FDP). The FDP on “Advances and Applications of 3D Printing Technology in Academia and Industry” was organized from 11th to 15th May 2026 at Manipal University Jaipur. This programme aimed to provide faculty members with an in-depth understanding of the latest trends, tools, and techniques in 3D printing and additive manufacturing.



JOURNAL PUBLICATIONS

S. NO	TITLE	AUTHORS & JOURNAL SOURCE
1	ENHANCED TERMINAL SLIDING MODE CONTROL FOR GAIT EXOSKELETON DEVICE	Dr Krishna Kant Pandey
2	UNITRIROB: A ROBUST MACHINE LEARNING REGRESSION MODEL	Dr Krishna Kant Pandey
3	IMPROVING BIDIRECTIONAL ENGLISH–ASSAMESE NEURAL MACHINE TRANSLATION	Dr Krishna Kant Pandey
4	ANALYTICAL INVESTIGATION OF NATURAL FREQUENCIES	Dr Manish Rawat
5	DISCRETETIME VALUE ITERATIONBASED POSITION TRACKING	Dr Ashok Kumar Kumawat

CONFERENCE PUBLICATIONS

S. NO	RESEARCH PAPER TITLE	FACULTY MEMBER
1	TRAJECTORY OPTIMIZATION AND LOCOMOTION OF A MOBILE ROBOT IN DYNAMIC TERRAIN	Dr Krishna Kant Pandey
2	TRAJECTORY OPTIMIZATION AND LOCOMOTION OF A MOBILE ROBOT IN DYNAMIC TERRAIN	Mr Hemant Kumar
3	BENCHMARKING TRANSFORMER MODELS FOR FINEGRAINED ASSAMESE HATE SPEECH DETECTION IN SOCIAL MEDIA	Dr Krishna Kant Pandey

4	AUTOMATION OF A WATER TREATMENT PLANT BASED ON PLC INTEGRATED SYSTEMS	Dr Ashok Kumar Kumawat
5	DISCRETETIME AND NONLINEAR SYSTEM CONTROL USING 'FMINCON' OPTIMIZATION: SIMULATION	Dr Ashok Kumar Kumawat
6	EMPIRICAL STUDY OF BOOSTING METHODS WITH OPTUNA OPTIMIZATION FOR WATER QUALITY CLASSIFICATION AND PREDICTION	Dr Krishna Kant Pandey

FACULTY WITH ADDITIONAL INSTITUTIONAL LEADERSHIP ROLES



Dr. Ajay Kumar
Professor & Dean
(Graduate Outcome)



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

