



# Ashvini Kumar Mishra

 : 0000-0001-8576-3469

 : 272311

**Sr. Assistant Professor- Mechanical Engineering**  
**akmishra@iujaipur.edu.in**

## Profile

Mr. Ashvini Kumar Mishra is a dedicated academician, researcher, and engineering educator with more than 12 years of experience in Mechanical Engineering education, academic coordination, student mentoring, laboratory instruction, and research activities. Currently serving as a Senior Assistant Professor in the Department of Mechanical Engineering at The ICFAI University, Jaipur, he has developed a professional career characterized by a strong commitment to teaching excellence, continuous professional development, technical innovation, and emerging research in advanced engineering materials.

With a strong academic foundation from one of India's premier technical institutions, Indian Institute of Technology (IIT) Roorkee, and more than a decade of experience in engineering education, Mr. Mishra brings together theoretical understanding, practical engineering knowledge, classroom experience, and an increasingly research-oriented approach to Mechanical Engineering.

He completed his B.Tech. in Mechanical Engineering from United College of Engineering and Research (UCER), Naini, Allahabad, affiliated with Uttar Pradesh Technical University. His academic journey reflects a consistent interest in Mechanical Engineering and its diverse applications.

His academic aptitude is further demonstrated by his performance in the Graduate Aptitude Test in Engineering (GATE). He secured a score of 799 in GATE 2014, following scores of 699 in GATE 2012 and 578 in GATE 2011. These achievements demonstrate his strong command of fundamental engineering concepts and his continued commitment to strengthening his technical knowledge.

Since 2014, Mr. Mishra has been actively engaged in engineering education and has accumulated more than 12 years of professional teaching experience. His current position as Senior Assistant Professor at The ICFAI University, Jaipur involves teaching, student mentoring, laboratory activities, academic coordination, project supervision, and participation in departmental and institutional initiatives.

Throughout his academic career, he has taught a wide range of core Mechanical Engineering subjects. His teaching expertise encompasses areas such as Fluid Mechanics, Engineering Mechanics, Thermodynamics, Heat Transfer, Refrigeration and Air Conditioning, Strength of Materials, Power Plant Engineering, and related laboratory courses.

His teaching approach emphasizes a balance between fundamental theory, numerical problem-solving, engineering applications, experimentation, and practical understanding. He aims to enable students to move beyond memorization and develop the analytical and problem-solving skills required to address real engineering challenges. His responsibilities have also included guiding students in academic projects, laboratory work, technical activities, and co-curricular initiatives. Through these activities, he contributes to the development of students' technical competence, professional confidence, teamwork, and problem-solving abilities.

A major new dimension of Mr. Mishra's academic career is his ongoing doctoral research in the field of advanced polymer nanocomposites and graphene-based materials. He is currently pursuing a Ph.D. in Mechanical Engineering, with his research topic: "Investigation of Graphene Oxide and Reduced Graphene Oxide Based Polymer Composites for Enhanced Mechanical Properties." His doctoral research addresses an important area of contemporary materials science: the development of polymer composites with improved mechanical performance through the incorporation of advanced carbon-based nanomaterials. The research particularly focuses on Graphene Oxide (GO) and Reduced Graphene Oxide (rGO) as reinforcing materials in polymer matrices. His research interest is centered on establishing the relationship between material composition, processing conditions, microstructure, and mechanical performance.

Before moving strongly toward advanced materials research, Mr. Mishra developed his academic specialization in Thermal Engineering. His major M.Tech. project at IIT Roorkee focused on Natural Convection in Water, in which the natural convection phenomenon was investigated for different aspect ratios in a square enclosure. The study involved analysis of important heat-transfer parameters and non-dimensional numbers such as the Nusselt number and Rayleigh number. This research experience provided him with exposure to experimental investigation, engineering analysis, interpretation of results, and scientific research methodology. His background in Heat Transfer and Thermal Engineering continues to provide a strong foundation for understanding the thermal and mechanical behavior of engineering materials. His broader technical interests include Heat Transfer, Fluid Mechanics, Thermodynamics, Refrigeration and Air Conditioning, Strength of Materials, Advanced Materials, Polymer Nanocomposites, and Nanotechnology.

Mr. Mishra has consistently participated in Faculty Development Programmes, workshops, webinars, and professional training programmes to strengthen his technical knowledge and pedagogical capabilities. His professional development activities cover both engineering and higher-education domains. He has participated in programmes related to: Exploring Recent Trends in Applied Mathematics and Machine Learning, Outcome-Based Education and its Implementation, Innovation in Curriculum Design, Cloud Computing and Resource Optimization, Industry 4.0 and Smart Manufacturing, Metal Matrix Composites, Manufacturing and Automation, Educational innovation and contemporary teaching practices. These programmes demonstrate his willingness to continuously adapt to developments in engineering, technology, and modern higher education.

Beyond classroom teaching, Mr. Mishra has contributed to various academic and institutional activities at the university level. His responsibilities have included academic coordination, student mentoring, project guidance, departmental activities, laboratory-related responsibilities, and participation in institutional events and workshops. As a Senior Assistant Professor and doctoral researcher, he remains committed to three interconnected objectives: excellence in engineering education, advancement of meaningful research, and development of technically competent and innovative engineers. His long-term vision is to contribute to both academia and industry through research-driven engineering solutions, interdisciplinary collaboration, and continuous innovation in advanced materials and engineering education.