

Direct Link: https://www.AcademicKeys.com/r?job=246373
Downloaded On: Nov. 21, 2024 1:04pm
Posted Oct. 3, 2024, set to expire Jan. 31, 2025

Job Title Tenure Track Faculty

Department Manufacturing & Mechanical Eng Tech

Institution Rochester Institute of Technology

Rochester, New York

Date Posted Oct. 3, 2024

Application Deadline Open until filled Position Start Date August 2025

Job Categories Associate Professor

Assistant Professor

Academic Field(s) Mechanical Engineering

Robotics

Mechatronics

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Job Description

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Tenure Track Faculty

9207BR

College of Engineering Technology

CET Manufacturing & Mechanical Eng Tech

Faculty Type (Tenure Status): Tenure-Track

Faculty Discipline:

Faculty Rank: Assistant Professor, Associate Professor

Employment Category:



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Fulltime

Anticipated Start Date: 13-Aug-2025

Detailed Job Description

The Manufacturing and Mechanical Engineering Technology (MMET) department in RIT's College of Engineering Technology (CET) is currently seeking applications from exceptional candidates for a full-time, tenure-track position to support the Mechanical, Robotics & Manufacturing, and Mechatronics Engineering Technology programs. This position is open at the level of tenure-track Assistant or Associate Professor.

Salary range will adjust if hired at Associate Professor level.

Position Overview:

Candidates for this position will be expected to teach, publish, and conduct externally funded research in areas related to Mechanical Systems, such as:

- Mechanical Engineering Principles: Expertise in the design, analysis, and optimization of mechanical systems, with a strong understanding of statics, dynamics, mechanics of materials, and thermodynamics. Proficiency in structural analysis, materials selection, and mechanical component design.
- Solid Mechanics: Proficiency in analyzing the behavior of materials under different loading conditions.
- Control Systems: Strong background in classical control theory for mechanical systems.
 Familiarity with proportional-integral-derivative (PID) control, frequency response analysis, and stability analysis.
- Sensors and Actuators: Knowledge of various sensors and actuators commonly used in mechanical systems.
- Mechanical Design: Proficiency in computer-aided design (CAD) software for creating detailed mechanical designs. Experience in conceptualizing, modeling, and prototyping mechanical components and systems.
- Finite Element Analysis (FEA): Experience in using FEA software to simulate and analyze the behavior of mechanical components and structures under different loads and conditions.
- Prototyping and Testing: Knowledge of experimental methods for testing and validating mechanical designs. Proficiency in creating prototypes, setting up testing environments, and analyzing experimental data to verify design predictions and improve mechanical systems.
- Engineering Mathematics: Strong mathematical foundation applicable to mechanical engineering, including calculus, differential equations, and linear algebra. Skill in using mathematical tools for modeling and solving mechanical engineering problems.



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- Thermodynamics and Heat Transfer: Understanding of thermodynamic principles and heat transfer mechanisms relevant to mechanical systems.
- Material Selection: Knowledge of material properties, selection criteria, and manufacturing processes. Industrial/manufacturing experience is valued but not required.
- Artificial Intelligence/Machine Learning. Using and teaching AI/ML to students for mechanical system design, development, analysis, or manufacturing.

Responsibilities:

- Teaching: Develop and deliver undergraduate and graduate courses and laboratories. Engage in curriculum development to ensure the programs stay current with industry trends and technological advancements. Student engagement in the classroom using activity based pedagogical strategies is expected. Participation in KEEN and other effective teaching workshops is required.
- Research: Conduct research in a well-defined focus area related to the expertise mentioned above, secure external funding, and publish findings in peer-reviewed journals. CET has invested in the development and growth of Research Impact Areas: Forging our Future; Toward a Safer Society, Expanding Human Capacity. These faculty-led collaborative research groups leverage existing expertise and nurture the next generation of faculty leadership.
- Service: Contribute to the department, college, and university through committee work and other service activities. Maintain a clear professional development agenda to support the department's growth.

We invite candidates who are passionate about teaching and research in the field of mechanical systems and who are committed to contributing to the growth and success of our department.

Candidates for this position will be expected to teach, publish, and conduct externally funded research in areas broadly related to Mechanical Systems. Background in solid mechanics, materials, thermodynamics and heat transfer, or mechanical design is desired. Successful candidates will be expected to be able to apply artificial intelligence (AI) and machine learning (ML) in areas such as product design, design optimization, predictive maintenance, and material synthesis.

We are seeking an individual who has the ability and interest in contributing to RIT's <u>core values</u>, <u>honor code</u>, and statement of diversity.

Department/College Description



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THE COLLEGE/ DEPARTMENT:

The College of Engineering Technology (CET) is home to nine undergraduate and six graduate programs. It is one of RIT's nine colleges and enrolls approximately 12% percent of the university's students. CET prides itself on its constant evolution, innovation, and global outreach via online learning, corporate education, and international programs. CET is known throughout the RIT, national, and international communities as an excellent choice for an education that embraces the integration of "hands-on-minds-on learning" and application-based instruction grounded in science, technology, engineering, and mathematics (STEM) (www.rit.edu/cet). CET supports all students in an inclusive learning environment and welcomes a diverse student body where first generation and AALANA (African American, Latin American and Native American) represent greater than 20% of our undergraduate population.

The Department of Manufacturing and Mechanical Engineering Technology (MMET) is home to approximately 850 students and offers three Bachelors of Science and one Master of Science Degree Programs. Each program specializes in providing an experiential learning environment through integrated laboratory activities, innovative projects, and applied research. To gain real world experience, each student completes a year of co-operative work experience in industry. Our programs are strongly career focused and hence the department enjoys an outstanding record of successfully preparing students for industry.: (www.rit.edu/mmet).

Required Minimum Qualifications

- A Ph.D. in Mechanical, or Mechatronics Engineering, or an earned doctorate in a related field.
- Demonstrated knowledge and potential to teach in Mechanical Systems. Expertise in the design, analysis, and optimization of mechanical systems with a focus on mechanical engineering principles.
- Strong understanding of statics, dynamics, mechanics of materials, and thermodynamics. Proficient in structural analysis, materials selection, and mechanical component design.
- A strong publication record in reputable, peer-reviewed journals.
- Previous experience in securing external funding for research is highly desirable.
- Ability to contribute in meaningful ways to the college's continuing commitment to cultural diversity, pluralism, and individual differences.

Required Minimum Education Level
PhD

Required Application Documents



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Cover Letter, Curriculum Vitae or Resume, List of References, Research Statement, Statement of Diversity Contribution, Statement of Teaching Philosophy

How To Apply

Apply online at http://careers.rit.edu/faculty; search openings, then Keyword Search 9207BR. Please submit your online application, curriculum vitae, cover letter addressing the listed qualifications and upload the following attachments:

- A brief teaching philosophy
- The names, addresses and phone numbers for three references
- Contribution to Diversity Statement
- A research statement

You can contact the search committee with questions on the position at: Rachel Mathews, rkfsss@rit.edu

The direct link to this posting can be found here: https://sjobs.brassring.com/

Additional Details

RIT does not discriminate. RIT is an equal opportunity employer that promotes and values diversity, pluralism, and inclusion. For more information or inquiries, please visit RIT/TitleIX or the U.S. Department of Education at ED.Gov.

Hourly/Salary Minimum: 92000 Hourly/Salary Maximum:100000

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact



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Manufacturing & Mechanical Eng Tech Rochester Institute of Technology

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