

Research Engineer
Worcester Polytechnic Institute

Direct Link: <https://www.AcademicKeys.com/r?job=262090>

Downloaded On: Sep. 5, 2025 5:23pm

Posted Sep. 5, 2025, set to expire Jun. 30, 2026

Job Title Research Engineer
Department Mechanical & Materials Engineering - NFR JM
Institution Worcester Polytechnic Institute
Worcester, Massachusetts

Date Posted Sep. 5, 2025

Application Deadline Open until filled
Position Start Date Available immediately

Job Categories Professional Staff

Academic Field(s) Mechanical Engineering

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Job Description

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JOB TITLE

Research Engineer

LOCATION

Worcester

DEPARTMENT NAME

Mechanical & Materials Engineering - NFR JM

DIVISION NAME

Worcester Polytechnic Institute - WPI

JOB DESCRIPTION SUMMARY

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This position is in the Mechanical and Materials Engineering (MME) and works with the Autonomous Vehicle Mobility Institute (AVMI). This position is to support applied research on the development and application of off-road autonomous vehicle dynamics simulation.

JOB DESCRIPTION

This position involves working with an interdisciplinary team of world-class engineers, students, and scientists in the area of autonomous vehicles dynamics simulation. The Research Engineer is expected to lead and contribute to:

- **Support for Sound Simulation and Acoustical Modeling:** Collaborate with the audio research team to integrate vehicle noise, vibration, and harshness (NVH) analysis into real-time simulation platforms. Assist with collecting, processing, and managing vehicle telemetry data (e.g., RPM, torque, acceleration, terrain interaction) to drive dynamic sound models that accurately reflect vehicle states and environments.
- Autonomous Driving System: Real-Time Control of Maneuver and Energy Efficiency, and Dynamic Path Planning Strategy Based Visual Sensing
- Assessment and Virtualization of Tire-Soil Interactions for Real-Time Evaluation and Control of Autonomous Vehicle Mobility
- Multi-Domain Modeling, Hardware Prototyping and Experimental Research with application to rotation sensors and electric motors for electric vehicles
- Fully Electric Virtual Vehicle Demonstrator with Distributed Driveline and Suspension Systems
- Electrically-Driven Wheel Locomotion Module Virtual Demonstrator with Agile Sensing
- Mobility and Energy Efficiency Improvement of An Unmanned Ground Vehicle with Individually Controlled Wheels
- Robotic Manipulators: Modeling and control
- Develop proper documentation for reporting to the Department of Defense.
- Presenting results in conferences and publishing technical paper

FLSA STATUS

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United States of America (Exempt)

WPI is an Equal Opportunity Employer. All qualified candidates will receive consideration for employment without regard to race, color, age, religion, sex, sexual orientation, gender identity, national origin, veteran status, or disability. It seeks individuals from all backgrounds and experiences who will contribute to a culture of creativity, collaboration, inclusion, problem solving, innovation, high performance, and change making. It is committed to maintaining a campus environment free of harassment and discrimination.

To apply, visit: https://wpi.wd5.myworkdayjobs.com/en-US/WPI_External_Career_Site/job/Worcester/Research-Engineer_R0003253

About WPI

WPI is a vibrant, active, and diverse community of extraordinary students, world-renowned faculty, and state of the art research facilities. At WPI, we have competitive and comprehensive benefits, including health insurance, long-term care, retirement, tuition assistance, flexible spending accounts, work-life balance and much more.

Diversity & Inclusion at WPI

WPI is committed to creating an inclusive workplace where everyone feels valued and respected; a place where every student, faculty and staff member can be themselves, so that they can study, live, and work comfortably, to reach their full potential, and make meaningful contributions in order to meet departmental and institutional goals. WPI thrives on innovative practice and welcomes diverse perspectives, insight, and people from diverse lived experiences, to enhance the community environment and propel the institution to the next level in a competitive, global marketplace.

Contact Information

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

Contact

N/A

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