Postdoctoral Research Fellow
Clarkson University

Job Title	Postdoctoral Research Fellow
Department	Mechanical and Aerospace Engineering https://www.clarkson.edu/academics/schools-colleges/engineering/mechanical-aerospace
Institution	Clarkson University Potsdam, New York
Date Posted	Jan. 30, 2025
Application Deadline	Open until filled
Position Start Date	Available Immediately
Job Categories	Post-Doc
Academic Field(s)	Mechanical Engineering Electrical and/or Electronics Robotics
Job Website	https://careers-clarkson.icims.com/jobs/1140/research-associate/job
Apply Online Here	https://careers-clarkson.icims.com/jobs/1140/research-associate/job
Apply By Email	
Job Description	

Overview

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We are seeking a highly motivated and skilled Postdoctoral Research Fellow to join our cutting-edge research team. The successful candidate will work on advancing automation, real-time process monitoring, and acoustic/ultrasonic analysis in mechanical systems. This position is ideal for individuals with a strong background in mechanical engineering or related fields and expertise in systems integration, PLC programming, and advanced signal processing. The position is designed to support an NSF-funded project with Pharmacoustics Technologies LLC. This fellowship offers a unique career pathway for entrepreneurial-minded individuals holding a doctorate degree, focusing on pioneering advancements in automation, real-time process monitoring, and acoustic/ultrasonic analysis within mechanical systems.

The position is for one year with continuation possible pending funding. It is available immediately.

About Pharmacoustics Technologies LLC

Pharmacoustics Technologies LLC, located in Potsdam, NY, is at the forefront of integrating acoustic and ultrasonic technologies with mechanical systems to drive innovation in real-time process monitoring and automation. Our collaboration with ASEE through the NSF STTR Program and the I-PERF fellowship underscores our commitment to fostering entrepreneurial research and developing solutions that address complex engineering challenges.

Responsibilities

- Automation Development: Design and implement automation solutions for real-time process monitoring and control utilizing advanced PLC programming.
- Acoustic & Ultrasonic Analysis: Conduct advanced acoustic and ultrasonic analyses to enhance system performance and facilitate non-destructive testing.
- Signal Processing & Machine Learning: Apply digital signal processing (DSP) and Machine Learning techniques to analyze complex datasets and extract actionable insights.
- Systems Integration: Integrate hardware and software systems to ensure seamless operation within dynamic environments.
- Application Development: Develop custom applications using LabVIEW and MATLAB for monitoring and control functionalities.
- Collaborative Innovation: Work alongside a multidisciplinary team to conceptualize and develop

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innovative solutions for mechanical and real-time systems.
- Research Dissemination: Prepare technical reports, deliver presentations, and publish findings in peer-reviewed journals to share research outcomes with the broader scientific community.

Qualifications

Education: Ph.D. in Mechanical Engineering, Electrical Engineering, Robotics Engineering or related fields.

Experience: Demonstrated experience in automation, real-time monitoring, and signal processing. Proven track record of research excellence, including publications in peer-reviewed journals.

Essential Skills

- Strong analytical and problem-solving abilities.
- Excellent communication and teamwork skills.
- Entrepreneurial mindset with a passion for innovative research and development.

Physical Demands

The physical demands characteristics described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Health & Safety

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Health & Safety: All staff has a statutory responsibility to take reasonable care of themselves, others and the environment and to prevent harm by their acts or omissions. All staff is therefore required to adhere to the University's Health, Safety, and Environmental Policy & Procedures.

Disclaimer Statement

DISCLAIMER: *The above statements are designed to indicate the general nature and level of work performed by employees assigned to this classification. They are not intended to be construed as an exhaustive list of all duties, responsibilities, skills, and qualifications required of personnel so classified.*

EEO/AA Policy

Special Instructions to Applicants: An equal opportunity/affirmative action employer, Clarkson actively seeks and encourages applications from minorities, women and people with disabilities.

All offers of employment are subject to the applicant successfully passing a background check (including, but not limited to, employment verification, educational and other credential verification, and criminal records

Contact Information

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

Contact

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