

Research Fellow/Engineer (Mechatronics) - EL3 Singapore Institute of Technology

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Posted Feb. 2, 2024, set to expire Jul. 5, 2024

Job Title Research Fellow/Engineer (Mechatronics) - EL3
Department Engineering
Institution Singapore Institute of Technology
Singapore, , Singapore

Date Posted Feb. 2, 2024

Application Deadline Open until filled
Position Start Date Available immediately

Job Categories Faculty Associate

Academic Field(s) Mechatronics

Job Website <https://careers.singaporetech.edu.sg/cw/en/job/498607/research-fellowengineer-mechatronics-el3>

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Job Description

Research Fellow/Engineer (Mechatronics) - EL3

Job no: 498607

Department: Engineering

Contract type: Contract

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As a University of Applied Learning, SIT works closely with industry in our research pursuits. Our research staff will have the opportunity to be equipped with applied research skill sets that are relevant

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to industry demands while working on research projects in SIT.

The primary responsibility of this role is to deliver on an industry innovation research project where you will be part of the research team to design and develop a novel ultrasonic testing instrument for inspecting anchor bolts applied in railway engineering.

Key Responsibilities

- Participate in and manage the research project with Principal Investigator (PI), Co-PIs and the research team members to ensure that project deliverables are met.
- Undertake these primary responsibilities in the project:
 - i. develop practical anchor bolt inspection processes and ultrasonic testing instrumentation for site trials in railway engineering
 - ii. develop algorithm for condition monitoring of anchor bolts with automated identification of defects based on ultrasonic data
 - iii. conduct time-motion studies and propose improvements to the bolt inspection processes based on lean principles
 - iv. co-supervise students who are working on the research project
 - v. present project outputs through progress reports, technical publications and seminars
- Carry out Risk Assessment, and ensure compliance with Work, Safety and Health Regulations.
- Coordinate procurement and liaison with vendors/suppliers for equipment and materials required in the project.
- Work independently, as well as within a team, to achieve project milestones.

Job Requirements

- Have relevant exposure to areas of data analytics and algorithm development for testing instruments.
- Competency in programming and data analytics with Python will be essential.
- Have at least 3 years of work experience in the research and development environment. Applicants with less years of experience but have a keen interest in the focus areas of the project may still apply.
- Have a Bachelor's degree related to Mechanical Engineering, Electrical/Electronic Engineering or other relevant disciplines. Possessing a relevant Master's or PhD degree will be advantageous.
- Knowledge, interest and work experience in material and structural testing for rail or any other engineering industry will be favourable.

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Key Competencies

- Able to build and maintain strong working relationships with people within and external to the university to facilitate smooth project progression
- Self-directed learner who believes in continuous learning for professional development through project activities like literature research and experiments
- Proficient in technical writing and oral presentation to effectively communicate the project outputs through progress reports, publications and seminars
- Possess strong analytical and critical thinking skills to solve engineering problems related to the project
- Show strong initiative, motivated and take ownership of work to achieve project objectives

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Advertised: 02 Feb 2024 Singapore Standard Time

Applications close: 31 Dec 2024 Singapore Standard Time

Contact Information

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

Contact

Singapore