

Research Fellow/Engineer (Innovative design of blast door systems) - PDL4
Singapore Institute of Technology

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

Job Title Research Fellow/Engineer (Innovative design of blast door systems) - PDL4

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) Mechanical Engineering

Job Website <https://careers.singaporetech.edu.sg/cw/en/job/498606/research-fellowengineer-innovative-design-of-blast-door-systems-pdl4>

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Job Description

Research Fellow/Engineer (Innovative design of blast door systems) - PDL4

Job no: 498606

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 to industry demands while working on research projects in SIT.

We are looking for a research engineer / fellow to help us develop a novel design for a blast door system as part of an industrial research project developing. The results of this project will be used in projects throughout Singapore. It is our aim to include all the door components in the analysis, making this a holistically developed solution.

The research will be conducted using numerical simulations, experiments and analytical solutions. The successful candidate will have a chance to acquire in depth experience in all these aspects of protective research and design.

Key Responsibilities:

- Participate in and manage the research project with Principal Investigator (PI), Co-PI and the research team members to ensure all project deliverables are met.
- Be responsible for these technical deliverables:
 - i. Develop models of the door system using advanced finite element software.
 - ii. Plan and conduct blast testing of the proposed solutions.
 - iii. Conduct laboratory tests of components as needed.
 - iv. Develop analytical models for fast design.
- Carry out Risk Assessments and ensure compliance with Work, Safety and Health Regulations.
- Coordinate procurement and liaise with vendors/suppliers.
- Work independently, as well as within a team, to ensure the achievement of the project objectives and proper operation and maintenance of equipment.

Job Requirements:

- Have a basic knowledge of structural dynamics.
- Have a degree (preferably Master's or PhD) in mechanical engineering, electrical / electronics engineering or related domains.
- Knowledge of blast and shock loading theory and applications would be advantageous
- Knowledge of non linear materials modelling would be advantageous

Key Competencies

- Proficient in technical writing and presentation

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- Possess strong analytical and critical thinking skills
- Show strong initiative and take ownership of work
- Have some experience in the use of advanced FEM analysis. This could include experience in ABAQUS, LS-Dyna, Radioss or equivalent software.
- Able to support other related laboratory tasks as needed
- Willing to learn new skills as needed for the project

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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