

Centre for Advances in Reliability and Safety Limited (CAiRS), initiated by The Hong Kong Polytechnic University, is established in 2020 with its operation located in the Hong Kong Science Park, New Territories, Hong Kong. The mission of CAiRS is to bridge academic and industrial counterparts to introduce and implement artificial intelligence methods and prognostic techniques to advance reliability and safety. The goal of the Centre is to improve reliability and safety of critical components and devices, products, systems and sub-systems designed, commissioned and/or manufactured by Hong Kong companies and enterprises. More information about the company can be found at <http://www.cairs.hk>.

**Senior Engineer / Research Scientist** (Ref. No.: CAiRS-RS/P3.1 - Development of canaries for catastrophic failure prevention)

### **Duties**

The appointee will report to the Project Leader and Programme Manager and assist in planning and monitoring the research project - “Development of canaries for catastrophic failure prevention”. The project will explore novel strategies for improving the safety and reliability of electrochemical energy storage devices and systems. Particular focus will be on the monitoring the state-of-health and estimations of their failure in advance. He/She will be required to:

- a) work with industry counterparts in consolidating academic research into tangible deliverables;
- b) steer the project, and ensure good and appropriate applicability to commercial/industrial partners;
- c) apply research findings to develop solutions to the industrial problems;
- d) manage research and development activities including technical and financial aspects, and other project administrative tasks such as preparing project updates and reports;
- e) work closely with research colleagues of the teams;
- f) coordinate with local and overseas universities, research institutions and business partners, and handle enquiries in a professional manner; and
- g) perform any other duties as assigned by the Centre Director or his delegates.

### **Qualifications**

Applicants should:

- a) have a post-graduate degree in Electrical Engineering, Mechanical Engineering, Industrial Engineering, Computer Science, Data Science, Operational Research or a relevant discipline;
- b) have research/relevant work experience with knowledge of corporate product development or engineering;
- c) be well-organized, capable to work under pressure and able to handle multi-tasking assignments in a multidisciplinary team;
- d) preferably have knowledge and experience in quality or reliability engineering (e.g. FMECA, Fishbone Analysis)
- e) have excellent interpersonal skills; and

f) have a good command of written and spoken English and spoken Cantonese.

Preference will be given to those with research experience in lithium-ion battery development and/or fibre optics engineering.

Applicants are invited to contact Dr Steven T. Boles at [steven.t.boles@polyu.edu.hk](mailto:steven.t.boles@polyu.edu.hk) for further information.

### **Remuneration**

A highly competitive remuneration package will be offered. Applicants should state their current and expected salary in the application.

### **Application**

Please send a completed application form, together with a detailed curriculum vitae via email to [careers@cairs.hk](mailto:careers@cairs.hk)

Feb 2022

**Deadline for application: Recruitment will continue until the position is filled.**