

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>.

(1) **Postdoctoral Fellow** (Ref. No.: CAiRS-R1/P4.2 - Hybrid strategies for AI-based safety assurance)

[Appointment period: thirty-six months]

(2) **Research Associate** (Ref. No.: CAiRS-R2/P4.2 - Hybrid strategies for AI-based safety assurance)

[Appointment period: thirty-six months]

Duties

The appointees will assist the Project Leader and Programme Manager in the research - Hybrid strategies for AI-based safety application. The project will be involved in development and implementation of algorithms with artificial intelligence (AI) and big data analytics for safety and reliability in the area of “smart manufacturing and inspection”.

For the post of **Postdoctoral Fellow**, the appointee will be required to:

- (a) conduct literature review on AI and data analytical techniques with the related application;
- (b) design and implement AI and data analytical techniques;
- (c) perform required experimental setup and simulation (both hardware and software);
- (d) prepare and publish relevant research papers in high-tier peer-reviewed journals; and
- (e) perform any other duties as assigned by the Centre Director or his delegates.

For the post of **Research Associate**, the appointee will be required to:

- (a) conduct literature review on AI and data analytical techniques with the related application;
- (b) implement data analytical techniques;
- (c) perform required experimental setup and simulation (both hardware and software);
- (d) prepare proposal and technical reports; and
- (e) perform any other duties as assigned by the Centre Director or his delegates.

Qualifications

Applicants for the post of **Postdoctoral Fellow** should have a doctoral degree in Engineering, Computer Science, Mathematics, Statistics, or a relevant discipline. They should have a good publication record.

Applicants for the post of **Research Associate** should have a master’s degree in Engineering, Computer Science, Mathematics, Statistics, or a relevant discipline.

For both posts, applicants should also have/be:

- a) strong analytical skill with experience in data analytics, big data, and/or artificial intelligence (AI);
- b) proficiency in programming languages (e.g. Python, MATLAB, R);
- c) knowledge of computer vision;
- d) knowledge of corporate product development is a plus;
- e) knowledge and experience of reliability and safety area is a plus;
- f) well-organized, capable to work under pressure, and able to handle multi-tasking assignments in a multidisciplinary team;
- g) excellent interpersonal skills; and
- h) good command of written and spoken English and Chinese, with proficiency in Putonghua being an advantage.

Fresh graduates are also welcome.

Applicants are invited to contact Dr. Jeffery Chan at tel no. 2162 5118 or email jeffery.chan@cairs.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

Feb 2022