

### I. COMPANY INFORMATION

| Company Name:          | Centre for Advances in Reliability and Safety (CAiRS)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Address:               | Unit 1212-1213, 12/F, Building 19W, Hong Kong Science Park, Pak Shek Kok, NT, Hong Kong                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
| Background:            | Centre for Advances in Reliability and Safety Limited (CAiRS), initiated by The<br>Hong Kong Polytechnic University, is a research centre admitted under<br>AIR@InnoHK cluster and was established in 2020 with its operation located in the<br>Hong Kong Science Park, New Territories, Hong Kong. The mission of CAiRS is to<br>link up academic and industrial counterparts to introduce and implement new<br>artificial intelligence methods and deep learning techniques with reliability<br>modelling, with the goal of improving the products reliability and systems safety of<br>critical components and devices, products, systems and sub-systems designed,<br>commissioned and/or manufactured by Hong Kong companies and enterprises. More<br>information about the company can be found at http://www.cairs.hk. |  |
| Type of Industry:      | Research & Development Website: https://www.cairs.hk/                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| <b>Contact Person:</b> | Ms Jenny Ng (Admin Manager) Tel: 2162 5156                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| Email:                 | careers@cairs.hk                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |

## **II. POSITION OFFERED**

| Job Title:            | Postdoctoral Fellow / Research AssociateNo. of Vacancy:13                                                                                           |  |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Job Description:      | (a) design experiments as required in the health monitoring of modern mechanical/electronic systems;                                                |  |
|                       | (b) develop feature recognition algorithms and create simulation models for different defects in the interconnections of the electronic assemblies; |  |
|                       | (c) prepare and publish relevant research papers in high-tier peer-reviewed journals.                                                               |  |
| III. JOB REQUIREMENTS |                                                                                                                                                     |  |

Job Requirements:

- MPhil or PhD in Engineering, Physics, Computer Science, Electronic Engineering, Information Engineering, Statistics, Data Science, Mathematics, or related discipline.
- Candidates with research background in <u>one</u> of the following areas are encouraged to apply:

#### <u>Program 1</u>

# <u>Program 4</u>

- 1. Object Recognition
- 2. Image-understanding
- 3. Machine Learning
- 4. 3D reconstruction
- 5. Image Enhancement
- 6. Video Summarization
- 7. Augmented Reality
- 8. Time-series prediction

- 1. Data Driven Modeling
- 2. Physics of Failure Analysis
- 3. Machine Learning
- 4. Time-series prediction
- 5. Object Recognition
- 6. Image-processing
- Knowledge and solid experience in C/C++, Python, etc.
- Good command of written and spoken English and Chinese.



|  | IV. | TERMS |
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| Working Days:   | 5                                                                                                                           | Working Hours:  | 9am-6pm    |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------|------------|
| Annual Leave:   | 12 days                                                                                                                     | Monthly Salary: | Negotiable |
| Other Benefits: | Medical & dental insurance, flexible working hours, work-life balance, free drinks & snacks, excellent working environment. |                 |            |

## **V. APPLICATION**

| Application Method: | Please email the completed <u>application form</u> , together with a full resume, with current and expected salary to <u>careers@cairs.hk</u> . |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Deadline:           | Recruitment will continue until the position is filled.                                                                                         |