

**JOB DESCRIPTION**

**Vacancy Ref:**

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| **Job Title:** Research Associate -CRDT-Port | **Present Grade:** 6 |
| **Department/College:** School of Computing and Communications | |
| **Directly responsible to:** Professor Qiang Ni | |
| **Supervisory responsibility for:** Relevant PhD students, Masters and UG students | |
| **Other contacts** | |
| **Internal:**  Other Research Associates and PhD students attached to the project; Staff and Students at the University; colleagues in the School of Computing and Communications | |
| **External:**  Members of the broader project team, other academic and industry project partners | |
| **Major Duties**  1   1. Conduct research in one or more of the following areas relevant to the project: digital twins, AI/machine learning, network communication protocol design, network simulation, digital twins software development, software defined networking, 5G and beyond, optimization, sensing/monitoring, AI/machine learning and/or resilient networking design for disaster resilience. 2. Develop resilient and efficient communication framework, architecture and protocols for potential disaster resilience utilising digital twins. The system will be based on using a variety of AI/machine learning and optimization approaches. 3. Implement these solutions and perform simulation via digital twins and/or real experiments to compare it against other approaches to demonstrate the range of design points and their impact. 4. Collaborate with academic and industry partners towards the above objectives, including integrating their requirements into your work where appropriate. 5. Participating in project meetings, including the preparation and development of progress reports, presentation slides, posters and reports describing and disseminating the progress/results of the project. 6. Participating in national and international conferences and workshops to present the results of the project to a wider audience and to learn about current advances in the field. 7. Leading the preparation of conference and journal papers for publication of project findings. 8. Participating in writing new research grant proposals. 9. Any other duties appropriate to the grade, as directed by the project Investigators.   6. | |