HKU CAREERS

Senior Research Assistant / Research Assistant I (holding the functional title of Embedded Systems Engineer)

Ref.: 512555
Work type: Full-time
Department: Faculty of Social Sciences (30000)
Categories: Research Support Staff

Senior Research Assistant / Research Assistant I (holding the functional title of Embedded Systems Engineer) in the Centre for Water Technology and Policy of the Faculty of Social Sciences (Ref.: 512555) (to commence on September 1, 2022 for one year, with the possibility of renewal subject to satisfactory performance and funding availability)

The Faculty of Engineering and the Faculty of Social Sciences, in collaboration, have jointly established the Centre for Water Technology and Policy to conduct cutting-edge research on water science, technology and policy issues relating to the broader urban sustainability agenda. The Centre is dedicated to pursuing excellence in research and teaching on water policy-technology interface issues, and to reaching out to the larger community to stimulate discussion on salient research findings.

Applicants should possess a Master's degree in engineering-related disciplines with one year of work experience. Applicants who possess a Bachelor's degree in engineering-related disciplines with relevant project and/or internship experience are welcomed to apply for Research Assistant I. They should have solid knowledge on embedded C/ C++, real-time operating system (RTOS), and common communication protocols (e.g., UART, I2C, SPI, etc.). They should also have prior hardware development experience in image sensors and/or camera-based systems. They should be familiar with hardware debugging (e.g., with logic analyser, oscilloscope, GDB, etc.), Python scripting and Git workflow. Those with experience in (i) Zephyr RTOS and/or Nordic nRF series microcontrollers; and (ii) edge AI development targeting ARM Cortex-M MCU (e.g., TensorFlow Lite, TinyML, CMSIS-NN, etc.) would be an advantage.

The appointee will work on a multi-year interdisciplinary project that makes use of cutting-edge Artificial Intelligence (AI) and Internet of Things (IoT) technologies to study residential water usage and water conservation policy in Hong Kong. The project is being undertaken by a team of researchers drawn from the Faculties of Engineering and Social Sciences at HKU. He/She will assist in the design, prototyping, and testing of a camera-based IoT device for collecting water usage data. He/She will be responsible for (i) implementing a battery-powered, edge AI MCU system for numerical digit recognition; (ii) writing testable and maintainable code; (iii) preparing documentation; and (iv) developing internal tools for automated hardware-in-the-loop testing.

A highly competitive salary commensurate with qualifications and experience will be offered, in addition to annual leave and medical benefits.

The University only accepts online applications for the above post. Applicants should apply online and upload an up-to-date, project-based CV (including a link to your GitHub profile), transcripts and a writing sample. Review of applications will start as soon as possible and continue until **June 30, 2022**, or until the post is filled, whichever is earlier.

Advertised: Apr 14, 2022 (HK Time)
Applications close: Jun 30, 2022 (HK Time)

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