



Advertisement for Job Vacancy

## Postdoctoral Research Associate

### The Hong Kong University of Science and Technology

We are hiring a Postdoctoral Research Associate, who will study the feasibility of utilizing membrane-processed reject brine as magnesia (MgO) cement for developing CO<sub>2</sub>-sequestering concrete products.

- Start time: as soon as possible, preferably before April 2025
- Appointment duration: 12 months, which can be extended based on performance
- Monthly stipend: 27,000 HKD/month or higher
- Location: Clear Water Bay Campus of HKUST
- Requirements:
  - PhD degree in material science or relevant engineering (e.g., civil, environmental)
  - Background in **cement chemistry (especially Mg-based cement), mineralogy, or concrete technology** is of primary importance
  - Background in **carbon capture-storage, waste upcycling, or computational mechanics** is preferred but optional
  - Experimental skill sets in relevant material characterization method

Please send a cover letter and your CV (with full publication list) to Prof. Jishen Qiu ([cejqiu@ust.hk](mailto:cejqiu@ust.hk)) if you are interested in this position. Your work will be co-supervised by **Prof. Jishen Qiu** (Civil Engineering) and **Prof. Alicia An** (Chemical Engineering).

#### About the PI

Hi there! My name is Jishen Qiu. I am an assistant professor in civil engineering materials at HKUST. My team develops next-generation building materials with novel functionalities, e.g., self-healing, self-sensing, CO<sub>2</sub>-sequestration. We are also in the effort to develop concrete that suitable for remote locations with extreme environment, e.g., Mars, Moon, and the Antarctica. Our material development is based on the approach of **Mechanics + X**, where the X being chemistry, physics, microbiology, etc. You may learn about me and my work through links:

[https://www.researchgate.net/profile/Jishen\\_Qiu](https://www.researchgate.net/profile/Jishen_Qiu) (ResearchGate)

<https://scholar.google.com.sg/citations?user=VdtKur8AAAAJ&hl=en> (Google Scholar)