



**SFI Frontiers for the Future Programme for excellent independent researchers  
Geotechnical / Mechanical Engineering at University College Cork**

Project title: Geotechnical big data monitoring and assessment tools for evaluating whole-life performance of underground infrastructure

**Supervision team:** Dr. Zili Li (UCC) and other collaborators at UCC, Tyndall, University of Cambridge, UC Berkeley, MIT, Tongji, etc.

**Project description:**

This project will develop and improve the aforementioned two novel tools (distributed fibre optic sensing, **drone, robotics and image-based defect assessment**) for geo-infrastructure monitoring in collaboration with Cambridge University, UC Berkeley, Tyndall and industrial partners. The developed novel monitoring tools will be applied to 2-4 ageing & prospective underground infrastructures in a large scale to gather more comprehensive monitoring big data than previously available at lower cost.

**Position Description:** one 4-year PhD full-time positions start from **01 July 2023** or soon thereafter. The stipend is 18,500 euros per annum and tuition fee waiver.

**Candidate Experience:** The candidate should have a minimum 2.1 in an honours Bachelor's degree in Civil / Mechanical Engineering, or an equivalent standard from an overseas university. All applicants whose first language are not English must meet UCC English language entry requirement (e.g., IELTS or TOEFL) in the link below:

**Application:** Please e-mail a CV (max. 2 pages) and a cover letter outlining your experience and motivation to Dr. Zili Li ([zili.li@ucc.ie](mailto:zili.li@ucc.ie)) **as soon as possible**.