PhD Student Positions Available

Modelling of Critical Infrastructures for Resilience Analysis of High-Density Urban Systems

PhD student positions (under full scholarship) are available at the Institute of Catastrophe Risk Management (ICRM), Nanyang Technological University, Singapore, for a project to study the interdependencies of critical infrastructure (such as power generation/distribution, water supply and transport) within high density urban systems (from city to district level), with the aim of assessing and improving its resilience in response to shocks and disruption. High density urban systems present severe societal risks when exposed to man-made and/or natural hazards, particularly with the aggregation of infrastructure assets and integration of their critical functions. The scope of the research include the modelling and parameterization of the system resilience using economic (input/output) data as well as network, spatial and/or temporal characteristics. This project is part of Phase 2 of the Future Resilient Systems research programme (https://frs.ethz.ch/), a collaboration between Nanyang Technological University, National University of Singapore, Singapore Management University and ETH Zurich. Students will have opportunities to interact and work with fellow researchers from these institutions housed under the Singapore-ETH Centre in Singapore. The candidate should have a good class degree in engineering or science and proficient with computers and programming, and interest/experience in numerical analysis, network theory and geographic information systems (GIS) will be advantageous. Additional requirements for admission to this PhD programme can be found at the following link :

http://gc.ntu.edu.sg/Programmes/IGP/Pages/Admission-Requirements.aspx

Interested candidates should email their CV detailing academic qualifications, language proficiencies and relevant skills/experiences to Associate Professor Kang Tai (mktai@ntu.edu.sg).