

The Singapore University of Technology and Design (SUTD) offers

Two Postdoctoral Research Positions focusing on the Water-Energy-Climate Nexus in the Greater Mekong Sub-region

The themes of the project include understanding the response of hydropower networks to past, present and future hydro-climatic variability in the Greater Mekong Sub-region, and enhancing their resilience through the design of novel management solutions. In particular, the project aims to: *i*) create a quantitative link between sources of hydro-climatic variability and anomalies of power production in the region, *ii*) reduce risks of power shortfalls by improving the operation of hydropower reservoirs, *iii*) examine the vulnerability of electricity supply and distribution to long-term climatic changes. Postdoctoral researchers will be expected to engage in multiple project themes. Additionally, they will be expected to assist in the supervision of PhD students and undergraduate research assistants, however they will not have formal teaching responsibilities.

The two candidates must be comfortable with both team and independent work, and possess a proven record of scientific excellence, personal initiative, and advanced proficiency in communicating scientific findings in peer-reviewed journals and at professional meetings. Excellent command of English is essential.

The positions will be located within the Pillar of Engineering Systems Design at Singapore University of Technology and Design. Successful applicants will be offered a 2-year position in Singapore and will collaborate with Dr. Stefano Galelli (SUTD), Dr. Bikramjit Das (SUTD) and Dr. Paul Block (University of Wisconsin-Madison).

Required qualifications (first position):

- Ph.D. in Environmental or Civil Engineering (or a related discipline);
- Academic background in catchment hydrology, stochastic hydrology, and climate impact assessments. Educational or research experience with process-based hydrological models (e.g., VIC, WaterGAP) is a preferred;
- Excellent skills in programming (e.g., R, Matlab, Python).

Required qualifications (second position):

- Ph.D. in Environmental, Civil, Systems/Industrial Engineering, Applied Mathematics (or a related discipline);
- Academic background in water resources planning and management, reservoir operation, optimization and/or control. Experience with electricity grid models is preferred, but not required;
- Excellent skills in programming (e.g., R, Matlab, Python) and large-scale computing.

Both positions are available starting March 1, 2018. Attractive working conditions include a competitive compensation and an option to renew for a third year. Applications will be evaluated until a suitable candidate is selected. Interested candidates should send a 1 page letter on why they are motivated, CV, and a list of publications to stefano_galelli@sutd.edu.sg