Announcement of NTNU-CSC PhD exchange Scholarship-
Quantifying the effects of change in water availability on freshwater dependent ecosystems

Type of scholarship: exchange PhD

Period of the scholarship: 1.September 2020 - 31.August 2021 (12 months)

Short description of the scholarship: The project for this exchange PhD scholarship will tie into an existing Postdoc work, which is about quantifying the impacts of water consumption on freshwater biodiversity within the framework of life cycle assessment. The specific task in this exchange is to take a lead in the development of an effect factor for impacts especially on aquatic species. The idea is to start modeling based on hydraulic river parameters (e.g. water discharge, width), altitude and climatic data, as well as species traits (abundance, richness, vulnerability) and recorded changes related to water availability, in order to arrive at effect factors (e.g. via species sensitivity distributions). Although a model that is operational on a global scale is desirable, the primary focus of the study will be Norway, the spatial scale is anticipated to be watersheds. Investigations into whether seasonal differentiations are necessary shall be made. It is expected that the candidate will write at least one publication for an international journal.

Qualification and requirement:
- Ongoing PhD degree in a relevant field (e.g. hydraulic engineering) is required
- A confirmation of the Chinese supervisor for the ongoing PhD studies is required
- Grades of relevant course work (e.g. hydrology) should be submitted
- The candidate should have knowledge in hydrology and simulations/modeling of water systems

In addition, for all applicants the following applies:
- Fluent English language, both written and spoken with certificates of TOEFL minimum 95 or IELTS minimum 6.5
- Chinese citizenship documents (copy of his/her passport or national ID of P.R. China
- CV
- A motivation letter

Deadline for submission of application: 20 February 2020
**Scholarship:** 12500 NOK/month from CSC for a period of 12 months. In addition, 4500 NOK/month will be paid by the supervisor.

**Supervisor info:** Francesca Verones, Associate Professor, Industrial Ecology Programme, Department of Energy and Process Engineering, francesca.verones@ntnu.no

**Email and contact information for where to send the application:**
francesca.verones@ntnu.no