



UNESCO-IHE
Institute for Water Education

The **UNESCO-IHE Institute for Water Education** offers graduate education in Delft, The Netherlands, and carries out research and capacity building projects all over the world. The mission of UNESCO-IHE is to contribute to the education and training of professionals and to build the capacity of sector organizations, knowledge centres and other institutions active in the fields of water, the environment and infrastructure in developing countries and countries in transition.

UNESCO-IHE has a permanent staff of 180, of which 90 are scientific staff, while about 250 guest-lecturers from academia and industry contribute to the educational programme. Each year 750 participants (incl. about 200 new MSc students per year) from all over the world attend the various regular and short courses at UNESCO-IHE. The institute has an international staff & student community with English as working language

The **Integrated Water Systems & Governance (IWSG) Department** covers a broad range of disciplinary knowledge – sociology, law, economics, public administration, political science, information technology, mathematics, hydrological and hydraulic modelling sciences, engineering, knowledge management and innovation studies. With our research we seek to contribute to a better understanding of what makes such systems sustainable, resource efficient, resilient and how they contribute to social and environmental justice, in particular in, but not limited to, the Global South. UNESCO-IHE is developing together with its partners IWMI, FAO and WWAP an international framework for water accounting. The newly developed framework is referred to as Water Accounting Plus (WA+). An open-access data repository is under continuous development that shares the water accounts of river basins with all professionals involved in decision making processes (www.wateraccounting.org).

The Integrated Water Systems and Governance Department is looking for a:

Water Accounting Analyst / Junior Lecturer (m/f) – 1.0 FTE

Responsibilities

The candidate will support the implementation of the Water Accounting Plus (WA+) system to selected river basins in India, Indonesia and Sri Lanka. The Asian Development Bank is providing assistance to the development of a national water resources assessment plan in those countries. ADB wishes to utilize the water accounts estimated by the WA+ procedure for refining these national water resources assessments.

The candidate will apply the WA+ framework by integrating earth observation satellite measurements (incl. TRMM, GPM, MODIS, VIIRS, PROB-V, ASCAT, LANDSAT) with global hydrological models (e.g. PCR-Globwb, GLOBWAT) for each land use class. Local measurements on rainfall, dam release, water levels, discharges and withdrawals will be assimilated into the modelled data series. An aspect getting specific attention in WA+ is the integration of Remote Sensing data into global hydrological models. All WA+ data should be presented by means of standard sheets, tables and maps on an open access data repository.

The successful candidate should not only contribute to the development of the water accounts in pilot countries: India, Sri Lanka and Indonesia, but is also expected to co-develop the general procedures of water accounting. This includes innovative research solutions and UNESCO-IHE is encouraging young staff members to develop international publications related to these innovations.

It is expected that the candidate assists students and provide lectures in water management related modules.

The successful candidate will be working on:

1. Collecting and fusing spatially distributed data layers from earth observation satellites
2. Integrate satellite images with global hydrological models
3. Execute consistency checks and calibrate flows and fluxes with in situ measurement, where feasible
4. Prepare international publications in peer reviewed journals
5. Visit the pilot countries to explain results and built local capacity
6. Assist with teaching at MSc level on topics related to water accounting
7. Assist with supervision of MSc students on topics related to water accounting

Requirements

- a young academic person with a Master degree in either (i) civil engineering or (ii) hydrology/water management.
- Proven excellent analytical skills.
- Working experience with remote sensing images and have proficient programming skills in one of the software packages MatLab, Python and QGIS.
- Proficient knowledge of global hydrological models and Water Productivity is highly regarded.
- Some overseas working experience in the pilot countries has a strong preference.

Terms of employment

This position is a temporary position for one year. The position is based in Delft, The Netherlands, with short missions to the pilot countries (India, Sri Lanka and Indonesia). A competitive salary (up to grade 10, step 2) is offered depending on qualifications and experience in accordance with the conditions of employment for Dutch Universities. The appointment implies entry into the Netherlands' Civil Service Pension Fund (ABP). Candidates must be prepared to carry out long- and short-term missions abroad.

Information and application

Additional information can be obtained from:

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Dr. Elga Salvadore (+31 15 2151 871), e.salvadore@unesco-ihe.org.

Applications (in English), should respond specifically to the requirements, and can be sent until **15 February 2017** including curriculum vitae, statement of teaching and research interests, motivation letter and the names and contact details of two contactable referees (*as one PDF file with your family name as the filename*), to UNESCO-IHE, attn. Human Resource Management (E: vacancies@unesco-ihe.org), PO Box 3015, 2601 DA Delft, The Netherlands, stating vacancy-number **17-IWSG-01**.

Reactions from staffing agencies and other 3rd parties are not appreciated.