



Internship Terms of Reference

Internship Title:	INTERN (Hydro-informatics): Responsible Artificial Intelligence-RAI
Reference Number:	2021/UNU/INWEH/INTERN/RAI/27
Institute/Office:	United Nations University Institute for Water, Environment and Health (UNU-INWEH)
Duty Station:	Hamilton, Canada – INTERNATIONAL RECRUITMENT
Supervisor Name:	Hamid Mehmood
Duration:	15/MAY/2021 to 15/SEP/2021
Background <p>For the past four decades, UNU has been a go-to think tank for impartial research on the pressing global problems of human survival, conflict prevention, development, and welfare. With more than 400 researchers in 13 countries, UNU’s work spans the full breadth of the 17 Sustainable Development Goals, generating policy-relevant knowledge to effect positive global change. UNU maintains more than 200 collaborations with UN agencies and leading universities and research institutions across the globe.</p> <p>United Nations University Institute for Water, Environment and Health (UNU-INWEH) The UNU Institute for Water, Environment and Health (http://inweh.unu.edu/) is a member of the UNU family of organizations. Its vision is a world free of water problems where sustainable human development and environmental health and security are assured for all. Its mission is to help resolve pressing water challenges that are of concern to the United Nations, its Member States, and their people. UNU-INWEH pursues its mission through critical analysis and synthesis of existing bodies of scientific discovery; targeted research that identifies emerging policy issues; application of on-the-ground scalable science-based solutions to water issues; and global outreach. UNU-INWEH is the only entirely-water focused Institute within the UNU System, and the only entirely water-related UN entity in Canada. UNU-INWEH is supported by the Government of Canada and hosted by McMaster University.</p> <p>UNU-INWEH works on four broadly defined, interconnected thematic areas: i) accelerating the implementation of water-related SDGs ii) activating a technology revolution for water security in the Global South; iii) advancing gender equality for effective water management and iv) managing water- and climate-related risks for improved water security UNU-INWEH-Strategic-Plan. The institute focuses primarily on global water issues and their implications for developing countries.</p>	
Project description <p>Water-Related Disasters (WRD) (cyclones, floods, and droughts) account for an overwhelming 90% of natural disasters. Since the year 2000 through the end of 2018, a total of 5,338 WRD have been reported, leading to over 326,000 fatalities and economic losses of more than USD 1.7 trillion globally. Floods account for about 54 % of all WRDs. In 2018 alone, WRD have caused an economic loss of USD 137 billion. The magnitude of water-related economic loss is expected to increase yearly due to the increasing frequency and intensity of severe weather events attributed to climate change, such as drought periods, heavy rainfall, and heatwaves.</p>	

While Artificial Intelligence (AI) technology was previously primarily applied in computer science, it now encompasses several other fields that collaborate with each other such as biology, neuroscience, engineering, environment, education, robotics, biomechanics, material sciences, economics, healthcare, and business management applications.

There is an increasing AI adoption to provide tools for WRD forecasting, impact assessment, and societal resilience. These AI-based tools are powered by the large-scale transboundary water-related disaster data that is available under open-access. The emergence of AI is expected to have a net positive impact on the management of WRD. However, there is a need to learn from the private sector and develop a better understanding of the potential for negative or unintended AI use for WRD.

We are looking for an intern to assist in developing a review paper on Responsible AI for WRD – Key Themes, Concerns & Recommendations

Description of Responsibilities

- Collect and synthesize data on different aspects of Responsible AI for WRD.
- Search and arrange literature on AI key areas and issues for WRD (ethics, design, responsibility, socio-economic impacts, and ethics).
- Prepare a draft of the state-of-the-art review on the status of Responsible AI for WRD.
- Undertake additional tasks as assigned by the supervisor.

Learning objective

Develop interns' research knowledge and capabilities, including the ability to conduct meta-analyses and apply critical thinking skills to highlight the ethical issues in the use of AI for water-related disasters

Competencies

Core Values:

- Respect for Diversity
- Integrity
- Professionalism

Core Competencies:

- Awareness and Sensitivity Regarding Gender Issues
- Accountability
- Creative Problem Solving
- Effective Communication
- Inclusive Collaboration

Qualifications

Education:

- University studies in one of the following disciplines: Disaster management, Artificial Intelligence, Hydroinformatics, Computer Science, Environmental Science or other relevant subjects is required.
- Be in their final year of undergraduate study or enrolled in a graduate degree programme or is within the two-year post-graduation (maximum) from either a bachelors', masters' or PhD degree programme.
- Eligibility requirements as available at: [internship-programme](#)
- Excellent writing and research skills, including ability to conduct searches in academic databases
- Ability to conduct geospatial analysis and statistical analysis.

- Working knowledge of Power BI, Tableau, or R.
- Ability to prioritize work and multi-task; focus on delivery; self-motivation.
- Ability to work in a multi-cultural environment with sensitivity and respect for diversity.

Language:

- Excellent communication skills (written and oral) in English are required;
- Working knowledge of another UN language is an advantage.

Application Procedure

Interested and eligible (must satisfy [Eligibility Criteria](#)) applicants should submit their application online through [Impactpool](#) and **must** upload all required documents listed below

- A completed and signed [Internship Application Form](#) downloadable from the UNU-INWEH website.
- A **separate** cover letter with a) a brief statement of purpose and b) why you think an internship would be a valuable opportunity and c) setting out how your qualifications and description of previous relevant experience match the requirements of the position.
- A Copy of Your University Transcript: Undergraduate or Graduate transcript. Unofficial is acceptable.
- For Non-Native English Speakers, a Copy of Your English Language Certification (E.g., TOEFL, IELTS, TOEIC); not required if the applicant has completed undergraduate and/or graduate studies with English as the medium of instruction. See [FAQ](#) Section 2 for further information on language certification.
- Confirmation of Family Relationship downloadable from the [UNU-INWEH website](#) .
- **Only** upload documents as requested. Applications submitted with additional documents e.g. reference letters can be disqualified.
- An indication of the reference number of the vacancy announcement **(2021/UNU/INWEH/INTERN/RAI/27)**
- Please **include** your surname in the file names of any attachments.

Candidates invited for interview must submit prior to the interview the following documents:

- Document(s) for Proof of enrollment or graduation; downloadable from the [UNU-INWEH website](#)
- Two Letters of Recommendation from your references as specified in application form (#17).
- Proof of health and life/accident insurance valid for the location in which the internship will be carried out. Selected intern must have health and life insurance. NOTE: ONLY applicable for on-site internships.

Only short-listed candidates will be notified and applications that do not include all the requested information will not be considered.

UNU accepts no responsibility for costs arising from accidents and/or illness or death incurred during the internship.

Duration and Start Date:

The duration of this internship is 4 months on a full-time basis with an expected start date of 15 May or as soon as possible thereafter. Part-time applications will be considered under exceptional conditions.

Duty Station:

The successful candidate shall undertake the internship remotely due to the ongoing pandemic associated with travel restrictions, uncertainties and delays in many aspects. This arrangement should also limit possible exposure to COVID-19. Interns working remotely must have access to a personal laptop or desktop with basic functionalities and internet for the duration of their in-/externship.

Stipend

Interns who are not in receipt of financial support (*please indicate on application form; 15 c & d*) for the purpose of this internship from other sources such as universities or other institutions will receive a stipend from UNU to partially subsidize basic daily expenses such as meals, transportation, and internet costs for the duration of the internship.

The monthly amount of the stipend will be determined according to the location of the in-/extern based on the stipend rates in effect. The stipend will be paid on a monthly basis and part-time internship arrangements are prorated accordingly.

Additional Information

Interns are not staff members and may not represent UNU in any official capacity.

The purpose of the Internship Programme is not to lead to further employment with UNU but to complement an intern's studies. Therefore, there should be no expectation of employment at the end of an internship.

UNU is committed to diversity and inclusion within its workforce, and encourages all candidates, irrespective of gender, nationality, religious and ethnic backgrounds, including persons living with disabilities to apply and become part of the organisation.

UNU has a zero-tolerance policy on conduct that is incompatible with the aims and objectives of the United Nations and UNU, including sexual exploitation and abuse, sexual harassment, abuse of authority and discrimination.