

## PhD student in Hydrology and Climate Risk, with a focus on African flood impacts

*School of Chemical and Environmental Engineering, Technical University of Crete (TUC), Greece*

Are you interested in working on climate risks and flood impacts in Africa, in close collaboration with leading international partners and end-users? Are you looking for a fully funded PhD position in an international environment, with excellent training opportunities and strong links to real-world applications? We welcome you to apply for a PhD student position at the Technical University of Crete. The School of Chemical and Environmental Engineering at TUC hosts internationally recognized research and teaching in water resources, hydrology and hydraulics, environmental and climate engineering, and sustainable development. The successful candidate will be based at the Hydrologic and Hydraulic Engineering Laboratory, which works on hydrological extremes, climate change impacts, and risk assessment and management in Mediterranean and global contexts.

### Project and duties

As PhD student, you will work within the frame of the Marie Skłodowska-Curie Actions Doctoral Network project “Understanding and Predicting Impacts of Climate Extremes under Global Change (CLIMES - <https://www.climes.se/climesdn/>)”. The project’s international consortium is coordinated by Uppsala University. You will be part of a leading cohort of early-career researchers studying different aspects of impacts of climate extremes in Europe and Africa (from public health and agriculture to socio-economic perspectives) and will have access to a rich programme of training activities and research exchanges designed to enhance your career prospects in both academia and the private sector. Your work will focus on:

- Compiling and harmonizing data on historical flood events and impacts in Africa from multiple existing hazard and impact databases, the scientific literature, governmental and NGO reports, news archives and community surveys.
- Using hydro-climatic reanalyses and modelling tools to detect, characterize and cross-check flood events, and to identify regions with missing or inconsistent impact information.
- Integrating spatial exposure and vulnerability information, including population, economic and land-use datasets.
- Building a robust, quality-controlled flood events and impacts database for Africa, harmonized to administrative units that include timing, location, flood type and impacts.
- Conducting trend analyses and vulnerability/resilience assessments across different African regions and socio-economic contexts and providing data to other CLIMES doctoral projects on hazard modelling and risk assessment.

The work is inherently collaborative and will involve close interaction with other doctoral candidates and partners in the CLIMES network. You will be based in TUC, but as part of your duties, you will be required to attend international meetings, network-wide training events and complete two in-person international secondments:

- An academic secondment at the University of Szczecin, Poland (group of Dr Dominik Paprotny), focusing on database design, data quality assurance, event detection and integration of hydrodynamic model outputs with the flood impact database.
- A non-academic secondment at the Netherlands Red Cross’ data and digital unit 510 (group of prof. dr Marc van den Homberg), working on documenting flood impacts with practitioners and aligning the database with the needs of humanitarian and disaster-risk-management stakeholders.

You may also be offered the opportunity to contribute to teaching, supervision and other departmental duties, up to a maximum of 10% full-time. Any such duties will be compatible with your research and training plan.

### Formal MSCA eligibility conditions (must be fulfilled at the time of recruitment):

- Mobility rule: You must **not** have resided or carried out your main activity (work, studies, etc.) in Greece for more than 12 months in the 3 years immediately before the recruitment date (short stays such as holidays, and compulsory national service, do not count).
- Researcher status: Must **not** already hold a doctoral degree.

### Academic and professional requirements:

- Master’s (or equivalent) degree in Civil or Environmental Engineering, Hydrology, Environmental Science, Geosciences, Climate Science, Geography or a closely related discipline, obtained before the starting date.

- Strong background in at least one of the following: hydrology/hydraulics, climate data analysis, natural hazards, GIS and geospatial analysis, statistics/data science.
- Proficiency in spoken and written English.
- Programming skills (e.g. Python, R or MATLAB) and experience in handling large datasets.

Additional qualifications (considered as merits):

- Experience with flood risk, disaster impacts or climate-hazard analysis.
- Experience with African case studies or datasets, or with partners working in African contexts.
- Experience with AI/LLMs for automated text mining and impact-data extraction.
- Advanced skills in GIS, database management and reproducible workflows (e.g. Git, Jupyter).
- Familiarity with hydrological, remote sensing or climate model data.
- Experience in international and interdisciplinary teams.
- Proficiency in an official language used in Africa other than English.

Applications must be submitted in English and should contain the following documents:

1. Personal information.
2. Copies of acquired degrees/diplomas.
3. Official transcripts.
4. Copies of English Language Certificates (and of any other foreign language, where applicable).
5. Extended Curriculum Vitae.
6. List of awards, fellowships and publications.
7. Personal statement, describing your academic interest in and understanding of your chosen programme, as well as your purpose and objectives in undertaking the specific graduate studies.
8. At least two letters of recommendation which should be submitted via the online application system (<https://e-graduate.tuc.gr>) under Postgraduate Programs - SCHOOL OF CHEMICAL AND ENVIRONMENTAL ENGINEERING (POSTGRADUATE STUDIES).

The recruitment will follow an open, transparent and merit-based procedure, in line with the European Charter and Code. All eligible applications will be assessed by a selection committee including TUC supervisors. Candidates will be evaluated against pre-defined criteria covering academic excellence, research experience, skills relevant to the project, motivation and potential for development. Short-listed candidates will be invited to an online interview. Interviews will include a short presentation by the candidate and questions from the panel.

The successful candidate will be employed under a Marie Skłodowska-Curie Doctoral Network contract during the core 3 years of the doctoral studies, and, if necessary, resources from the university will be provided for an extra year of studies. The position is a temporary, full-time appointment (100%) as a doctoral candidate at the Technical University of Crete, consisting of research, coursework and (where applicable) limited teaching/other duties. Employment will be governed by Greek labour law and the internal regulations of TUC for doctoral candidates.

This includes:

- A gross salary composed of the MSCA living allowance, a mobility allowance, and, where applicable, a family allowance (for researchers who have a family as defined by the MSCA rules) during the core 3 years.
- Full social security coverage (health insurance, pension contributions, unemployment and accident insurance) in accordance with Greek regulations.
- Full-time employment (100%) as a doctoral researcher.
- Access to training, supervision, research facilities and career-development support.
- Employment (PhD) start date: 1 September 2026.
- Location: School of Chemical and Environmental Engineering, Technical University of Crete, Crete, Greece.

CLIMES project is formally starting on 1<sup>st</sup> of March

Please submit your complete application by **30 April 2026** through <https://e-graduate.tuc.gr/>

For further information about the position, please contact: Prof. Aristeidis (Aris) Koutroulis  
School of Chemical and Environmental Engineering, Technical University of Crete, Chania, Greece

E-mail: [akoutroulis@tuc.gr](mailto:akoutroulis@tuc.gr)

EURAXESS: <https://euraxess.ec.europa.eu/jobs/410476>