

**Water and Climate Resilience** 

July 8-12, 2024

Venice International University Isola di San Servolo, Venice



# VIU International PhD Academy

## Water and Climate Resilience

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Venice International
University

Scientific Coordinator:
Albert Chen
University of Exeter

Climate change has altered the water cycle from local to global scales, leading to more frequent extreme hydrometeorological hazards that affect environment, ecosystems, and socio-economic activities worldwide.

During the first two decades of the 21st century, more than 7000 natural hazards occurred, claimed 1.3 million lives, and affected over 4 billion people around the world, leading to USD 3 trillion economic losses. Majority of these disasters were weather-related that their occurrences have increased significantly, comparing to the last two decades of the 20th century.

In addition, many extreme hazards are likely to trigger other types of hazards, including compound events that exacerbate the cascading impacts drastically, with water being the core element associating with various type of hazards. To investigate the risks that climate change poses to the human society and the natural environment, it requires a good understanding of the involved processes and causal connections from interdisciplinary perspectives.

Thus, the next generation of researchers and engineers should be trained to equip such capacity to integrate methodologies and tools from various field for developing solutions to strengthening climate resilience.

The main objectives of the PhD Academy are bringing multidisciplinary academics from VIU network together for widening early career researchers' vision on global challenges and offering transversal skill trainings for supporting the ECR's career development.

This PhD Academy will be led by:

- University of Exeter, UK
- Ludwig-Maximilians-Universität München,
- KULeuven, Belgium
- Tsinghua University, P.R. China

#### **Faculty**

Albert Chen, University Exeter
Guangtao Fu, University Exeter
Nav Mustafee, University Exeter
Ralf Ludwig, Ludwig-Maximilians-Universität
Patrick Willems, KULeuven
Haifeng Jia, Tsinghua University
Neil Maiden, City/ Ca' Foscari University
Ivan Sgandurra, VIU EU-Project Management Unit

Ilda Mannino, Venice International University Alessandra Fornetti, Venice International University

#### **Topics**

modelling

The Academy will consist of three parts:

1) Master Classes, which international experts will give lectures and discuss with the participants about the state-of-the-art methodologies and gaps in analysing climate change impacts. The Master Classes will cover the following themes:

Scenario definition, implementation and analysis Climate change and hydrometeorological hazard

Uncertainty assessment (natural variability, model structure, scenario)

Compound disaster and cascading impact assessment

Interventions for climate resilience

- 2) Transferrable Skills to help the ECRs building the capacity in scientific writing, project management, seeking funding opportunities, proposal writing, communication and presentation skills etc.
- 3) Hand on workshops enabling ECRs codevelop a multidisciplinary research proposal to address specific global challenge to enhance climate resilience.

#### **Learning outcomes for participants**

Understanding the SOTA research and exiting gaps in addressing climate resilience
Learning multidisciplinary knowledge and linking with their own research subjects
Improved transferable skills for research and career development
Building interdisciplinary partnership network

#### Who can apply?

This international PhD Academy is offered to PhD students, post-docs, and junior researchers in Environmental and Social Sciences. Open to candidates from all the VIU Member Institutions; applications from excellent candidates from non-member institutions will be also considered and evaluated.

#### **Fees & Grant Support**

Students from the VIU member institutions will pay <u>no</u> participation fees. Grant support is also available to support, partially or fully, the costs of international travel and accommodation.

The participation fee for students of non-member institutions is Euro 1,150 (incl. VAT). The fee is inclusive of tuition, course materials, accommodation, lunches, social events, and taxes. Students from non-member institutions are not eligible for VIU grant support.

VIU Alumni are eligible for a reduced fee.

### Call for applications December 1, 2023 – March 10, 2024 via the VIU website

Applicants must submit the (1) application form, (2) a letter of motivation – which should include a short bio and a brief description of the candidate's research project, (3) a curriculum vitae and (4) a photo.

For further information: <a href="mailto:phdacademy@univiu.org">phdacademy@univiu.org</a>

#### **VIU International PhD Academies**

Venice International University is a consortium of 21 institutions, representing 14 countries throughout the world.

The mission of VIU is to foster cooperation among VIU member institutions while facilitating the exchange of knowledge and ideas, by developing, promoting, and organizing joint academic, research and training/capacity-building program. Students from non-member universities may participate in selected academic programs.

The academic programs at VIU are distinguished by a markedly interdisciplinary approach to the topics, and by the international perspectives that the participants contribute to the discussions. The VIU campus is on the island of San Servolo in Venice, Italy.

Venice International University holds two/three International PhD Academies each year. They are intensive training opportunities open to PhD candidates from the member universities of VIU.

A PhD is the highest diploma awarded by universities in the world, and PhDs are naturally expected to take on major responsibilities in their professional life. Apart from the disciplinary scientific skills acquired during doctoral study and research, it is the ability to respond to the requirements of creativity, innovation, and project management, that produce the significant added value of a doctoral degree.

Whether they will work within or outside academia, PhDs must be able to develop a forward-looking vision of the challenges they have to face. The interdisciplinary approach of all VIU activities is adopted also in the PhD Academy, where the participants have the opportunity to meet their peers from all over the world, and to tackle transversal topics.

www.univiu.org/study/phd-academy

#### Location





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