

**Global Centres**Deutscher Akademischer Austauschdienst
German Academic Exchange Service

Call for Applications

PhD Scholarship in Urban Digital Twin (3.5 years)

The **Global Water and Climate Adaptation Centre – Aachen • Bangkok • Chennai • Dresden (ABCD-Centre)** invites applications for a fully funded PhD opportunity on **Urban Digital Twin** with a focus on **hydraulic engineering and urban water systems**. This unique program offers an international research pathway across two leading institutions: **AIT|Asian Institute of Technology (AIT), Bangkok, Thailand** and **TUD|Dresden University of Technology (TUD), Germany**.

Programme Structure

The PhD is structured in two phases to provide a strong international research environment:

- **Phase 1: (24 months):** Research and study at **AIT Bangkok**, starting **September 2026**
- **Phase 2: (18 months):** Research and completion of the PhD at **TU Dresden, Germany**

Financial Support

The **ABCD-Centre** (DAAD Global Climate and Environment Centre) will offer the scholarship for accommodation and living expenses, as well as travel as follows:

- **700 EUR/month** during the Bangkok phase (24 months)
- **1,400 EUR/month** during the Dresden phase (18 months)
- **3x travel allowance up to 1000 €**

The tuition for the PhD program is covered by AIT.

Research Focus

The PhD will explore **Urban Digital Twin technology for hydraulic and urban water systems**, contributing to climate-resilient cities. Potential areas include:

- Integration of hydrological and hydraulic models into Urban Data Platforms and Urban Digital Twin applications
- Scenario analysis and (real-time) simulation for floods and droughts
- Machine-Learning based processing of sensor or remote sensing data
- Development of automated workflows for risk and resilience assessment (e.g. WATSAT)
- Virtual-physical feedback mechanisms within the **ABCD Living Lab**
- Translating digital insights into **practical adaptation strategies**

Your Profile & Requirements

Applicants should meet the following criteria:

- Master's degree in **Civil Engineering, Hydraulic Engineering, Water Resources Engineering, (Geo)Informatics or a closely related field**
- Strong academic background in **hydraulics, digital technologies, or modeling; programming experience (preferably Python)**
- Motivation to engage in **interdisciplinary and international research**
- Excellent command of **English** (spoken and written)
- Willingness to relocate to **Bangkok** and later to **Dresden**

Application Process

Applicants are requested to submit a **single PDF file** containing:

1. Letter of motivation (max. 2 pages)
 2. Curriculum Vitae (CV)
 3. Academic transcripts and certificates (Bachelor's & Master's)
 4. Contact details of two academic referees
- **Deadline for applications:** 15 August 2026
 - **Start of program:** September 2026 at AIT Bangkok
 - **Submit to:** abcd-centre@tu-dresden.de

About the ABCD-Centre

The **ABCD-Centre** is a DAAD-funded Global Water and Climate Adaptation Centre connecting five leading institutions: **RWTH Aachen, TU Dresden, UNU Resource Nexus (Germany), AIT Bangkok (Thailand), and IIT Madras (India)**. The Centre's mission is to foster scientific cooperation between the Global North and South to tackle global water and climate challenges, while contributing to **UN SDG-6 (Clean Water and Sanitation for All)**.

Key highlights of the Centre include:

- **Three Research Clusters:**
 1. Water security and safe water supply
 2. Ecosystem resilience and nature-based adaptation
 3. Transfer strategies and societal acceptance
- **Living Lab Concept:** A unique platform where **real-world data** meets **digital modeling**, enabling simulation and testing of climate adaptation strategies.
- **Capacity Building:** Scholarships, researcher mobility, joint supervision, and global workshops strengthen the next generation of water and climate leaders.