Consider a BSc or MSc project in Water Microgrids

Grundfos and DTU Environment invites curious students to explore tomorrow’s decentralized water supply. Based on a literature review and in collaboration with Grundfos engineers, you shall specify system requirements and design scenarios for water microgrids.

Many small and isolated communities (1 - 10 households) in all parts the world struggle to have access to proper water and electricity. Off-grid microgrids are rapidly becoming a solution for these communities, however water supply is seldom thought into these systems. In this project you will work with questions related to how water and electricity can be thought together in one system, answering important questions like:

- Integration with energy microgrids (water-energy nexus)
- Water/electricity demand profiles and types of water use (statistics)
- Options for treatment, storage and reuse (environmental engineering)
- Water quality requirements (environmental engineering)
- Handling of residuals (mass flows and treatment)
- Environmental and economic performance (LCA/CBA)

Further information: Associate Professor Martin Rygaard mryg@env.dtu.dk