Research

Bachelor and Master Theses in Water Engineering

Master Theses in Environmental Engineering

Several master theses can be realized in ongoing projects.

- Groundwater Recharge of Samos Island, Greece - Factors and Response to Extremes
- Extreme flooding on Samos Island Greece - Causes, Mechanisms and Mitigation
- Extreme flooding on tropical soils - processes and engineering appraoches
- Impact of Mega-Droughts on Rivers, Springs and Groundwater on Samos, Greece

Bachelor Theses for Civil, Environmental and Water Engineers

Several master theses can be realized in ongoing projects.

- Keyjing Cheng: Hydrochemical Processes associated with groundwater salinization on Samos Island, Greece
- Xiaoyue Xin: Hydrochemical analysis of surface groundwater interaction of a lowland river
- Yuke Hu: Hydrochemical analysis of surface groundwater interaction of a lowland river
- Environmental isotopes: Impact of gases, soils and salinity

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List of completed Bachelor and Master Theses since 2018

Research Topics

Hydrology and Water Quality

Processes studies and assessment of water quality, flow and solute transport modeling in different environmenal compartments. Tracers, hydrochemical and compartmental modeling, and other models of environmental flow dynamics are derived from hydrochemical and isotope data.

Enhanced Monitoring

The research addresses new monitoring and modeling approaches, improved monitoring devices and techniques as well as their efficient operation, methods for data analysis and

Hydrological Engineering

We work continuously on developing new aspects of hydrological engineering.

- Water Engineering Solutions - Enhanced Nutrient Recycling in Hydrological Basins
- Water Engineering Solutions - Adaptive Drainage Systems for a Changing Environment
- Water Engineering Solutions - Adaptive Management of Alluvial Aquifers

programming including AI.

Hydrological Modeling

Modeling and design of ecohydrological systems for remediation, flood control, retention and recharge mangagment.

Secure and Sustainable Access to Water

The objective is to quantify environmental and socio-economic factors and derive indicators for access to water.

List of completed reports since 2018
