

## Institut für Wasser und Umwelt

Fachbereich Wasserbau und Wasserwirtschaft Prof. Dr. Mário Franca

## Lecture

## **Water Distribution Systems**

(LV-Nr. 6222905)

Lecturer: Dr.-Ing. Peter Oberle

Time: Wednesdays, 08:00 to 11:15 h

Place: Online (V) / Building: 10.50 (Ü) Room: 103 (Ü)

Is offered in: Winter Term

## Content:

This course offers the principles and methods for analyzing and planning water distribution systems using hydraulic simulation models. The modeling and application of hydraulic models for analyzing and planning water distribution networks are practised in a project work throughout the semester. In the project work, a given distribution network must be modeled and analyzed. Solutions must be developed for any deficiencies. Furthermore, an improved network must be planned and dimensioned.

The necessary fundamental knowledge (basics of water distribution, modeling, and pipe network calculation as well as the use of ArcGIS and EPANET, determination of water losses and water demand values, model calibration and design) is taught in individual course units. The relevant technical regulations (DIN, DVGW) are also presented. The course units are based on the content and timing of the project progress. Regular meetings are held to discuss the current situation. Finally, the participants present their work results as essential condition for oral examination.







Water distribution system through pipe network