



## Fields of Research at TUHH related to JEMES

### Institute of Wastewater Management and Water Protection

- Ultrasound application in Environmental Engineering
- Development of new sanitation concepts
- Planning and integration of new sanitation concepts in African countries
- Development of technologies for black, yellow and grey water treatment
- Photocatalytic oxidation of biologically treated greywater

### Institute of Water Resources and Water Supply

- Influence of methane, iron, ammonia and manganese on treatment of groundwater
- Bio-filtration processes in water treatment
- Groundwater modelling and remediation

### Institute of Environmental Technology and Energy Economics

- Renewable Energies
- Energy recovery from biomass
- Biological hydrogen production from bio-wastes
- Landfill technology (landfill simulation, aerobic in-situ stabilisation, biological methane oxidation, landfill gas emissions)
- Odour Management and Control
- Decentralised Wastewater and Biowaste Treatment (membrane technology, Wastewater reuse, anaerobic fermentation, treatment and utilisation of fermentation residues)
- Treatment of contaminated soil
- Solar treatment of metal polluted wastewater with electrocoagulation
- Impact of climate changes on water quality in northern europe
- Electrochemical treatment of waste water contaminated with organotin compounds

## Institute of River and Coastal Engineering

- Mathematical modelling of streams in coastal and alluvial waters
- Measurement of stream dimensions (like water-level, local flow rates, shear-tension in the foundation)
- Measurement of sedimentological dimensions (such as boulder detritus and suspended matter, sedimentation and erosion rates)
- Flood Protection

## Institute of Technical Biocatalysis

- Biodegradation (of mineral oil components, odour compounds from food industries, chlorinated hydrocarbons, x-ray contrast agents)
- Characterization and optimization of biotransformation processes in view of their technical application