



MINOR FUNDAMENTALS OF HUMANITARIAN ENGINEERING



Want to tackle real-world challenges in the Humanitarian- and Development field?

Eager to work with stakeholders and communities to develop appropriate socio-technological interventions?

Interested in making a difference while considering local needs and social justice?

Join our minor to become a catalyst for positive change in the world of Humanitarian Engineering!

The minor course offers students an opportunity to engage in a foundational exploration of Humanitarian Engineering. Through this minor, students gain insight into diverse application areas within this field, including shelter, water and sanitation, healthcare, energy production, communication technology, and infrastructure. Emphasis is placed on understanding the lifecycle considerations inherent in humanitarian engineering interventions, ranging from immediate relief efforts, as exemplified by Humanitarian Aid Engineering, to long-term planning and capacity building, as exemplified by Resilience Engineering. This approach enables students to navigate various phases of humanitarian crises, each characterized by distinct challenges.

A unifying theme across the aforementioned focus areas is the adoption of an appropriate technological approach, adherence to humanitarian engineering design principles, and a commitment to advancing social justice. Notably, Humanitarian Engineering distinguishes itself from other engineering disciplines by its comprehensive incorporation of social, cultural, and contextual factors.

The course framework is rooted in challenge-based and community-based learning methodologies. Central to this approach are real-world community challenges, which serve as the cornerstone for instructing student teams in structured problem-solving techniques and the development of appropriate socio-technological interventions. Students collaborate closely with stakeholders and underserved communities to identify and define problems based on local needs. This collaborative process necessitates careful consideration of various factors, including community culture, the opportunities and risks of solutions, as well as the cultural and social dimensions influencing solution implementation in underserved communities.

For more information about humanitarian engineering, including details about ongoing projects and collaborative partnerships, please visit our website: <https://www.utwente.nl/en/et/dpm/chair/amme/HE/>