Digital Dikes Program – Backward Erosion Piping

The section of Geo-Engineering at Delft University of Technology (TU Delft) is seeking candidates for 2 new PhD positions within the national research program Digital Dikes. This is a prestigious and ambitious project funded by the Netherlands Organization for Scientific Research (NWO), involving partners from the University of Twente, the University of Utrecht, Eindhoven University of Technology, the University of Bologna, Deltares, and TU Delft.

PhD Position: Physical Modelling of Backward Erosion Piping

This PhD position aims to push the boundaries of experimental BEP modelling by developing new experimental setups, incorporating novel measurement techniques, and exploring mechanisms that remain only marginally understood, such as the 3D meandering behaviour of pipe networks. The project combines fundamental research with applied relevance and will be carried out jointly between TU Delft and Deltares, offering a rich multi-institutional research environment.

Application deadline: **14 June 2026**
More information: www.careers.tudelft.nl
Contact: Dr. Miguel Cabrera
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PhD Position: Finite Element Modelling of Backward Erosion Piping

This PhD position uses the Random Finite Element Method (RFEM) to investigate the role of soil spatial variability on the initiation and progression of backward erosion piping under dikes. RFEM links the finite element method for modelling geotechnical structure response with stochastic models of ground spatial variability, within a Monte Carlo framework to account for uncertainty in soil parameter values.

Application deadline: **22 June 2026**
More information: www.careers.tudelft.nl
Contact: Prof. Michael Hicks
M.A.Hicks@tudelft.nl