

Senior Water Resources Engineer / Project Manager

About Us

DHI is an independent, international consultancy with over 60 years of experience across 26 countries, delivering groundbreaking technologies in water and the environment. DHI Seaport, a part of DHI, is dedicated to the 24/7 development and operational management of cloud-based services for Ports and Waterway operators, owners, and regulators. Our flagship product, NCOS ONLINE, is the world's most accurate large vessel traffic management system.

We value innovation, collaboration, and continuous learning. We encourage our team members to bring fresh ideas and take on challenges, knowing support is always there when needed.

The Role

We are seeking an **experienced Senior Water Resources Engineer / Project Manager** with deep technical expertise in advanced numerical modelling using the **MIKE software suite** by DHI. The ideal candidate brings 8–10 years of hands-on experience in hydrodynamic, hydrological, and water-quality modelling, underpinned by strong engineering judgement and proven project-delivery capability.

Core Technical Responsibilities

- Develop, calibrate, and validate MIKE+ 1D/2D hydrodynamic models for river systems, floodplains, drainage networks, and complex hydraulic structures. MIKE+ enables simulation of water movement using river cross-sections, interconnected branches, and integrated GIS-based spatial analysis.
- Perform water-quality and ecological modelling using MIKE ECO Lab, dynamically coupled with MIKE hydrodynamic engines (e.g. MIKE+), to assess physical, chemical, and biological processes, pollutant transport, eutrophication potential, and TMDL-related scenarios.
- Apply MIKE modelling frameworks for flood-risk assessment, drainage master planning, dam-break simulations, river basin management, and urban stormwater evaluations, including integration with digital elevation models for overland flow analysis.
- Produce high quality model outputs to support decision-making, mitigation strategy design, scenario testing, and compliance with environmental and regulatory standards.

Project & Leadership Responsibilities

- Lead end-to-end project management, including proposal development, technical scoping, resource planning, client engagement, reporting, and delivery of high-quality technical outputs. Conduct site visits, stakeholder consultations, and technical workshops to translate complex modelling results into actionable engineering insights.
- Mentor junior engineers in hydraulic modelling, MIKE workflows, and best practices in model calibration, data management, and interpretation.
- Ensure adherence to modelling standards, QA/QC procedures, and robust documentation throughout the project cycle.

Required Technical Competencies

- Advanced proficiency with MIKE+, including modules for 1D/2D hydrodynamics, rivers, overland flow, rainfall-runoff integration, and GIS-linked model configuration.
- Strong command of MIKE ECO Lab for multi-parameter water-quality modelling, including nutrient dynamics, dissolved oxygen, pollutant loading, and ecological response modelling
- Familiarity with MIKE+ integration of hydraulic structures (culverts, weirs, tide gates, pumps), scenario assessments, and model-based evaluation of drought/flood conditions.
- Excellent ability to handle large datasets, perform calibration using long-term hydro-environmental data, and interpret model behaviour under varying hydrological conditions.

Other Essential Skills

- Excellent communication skills for conveying technical findings to clients, regulators, and multidisciplinary teams.
- Strong leadership, team coordination, and the ability to manage competing priorities in a dynamic project environment.

What We Offer

- A challenging role with room for your own innovations and ideas.
- Flexible working arrangements to support work-life balance.
- A supportive environment that encourages innovation, continuous learning, and career progression.
- The chance to work alongside passionate and talented colleagues from around the world.
- Opportunities to work on impactful, real-world projects.

Office Location

You will be based in our office in Petaling Jaya, Kuala Lumpur