

In short, it is a career of over 25 years in coastal and offshore engineering with academics, R&D and development rolled into consulting practice. He has worked as a team leader, principal investigator, doctoral and Master degree advisor, R&D engineer and domain expert.

An example of his ability lead multi-component project is a a recently completed phase 1 of a multi-phase Sustainable Coastal Protection and Mangement Investment Program for the state of Karnataka, India with loan assistance from the ADB. While providing technical foresight and vision to a team of Project Management and Design Consultants for the Mott MacDonald group, he effectively led the core issues of design and construction as well as the capacity/Institution building and procurement of this multi-element project. Besides projects of this nature, he has also managed implementation of large-scale experimental and desk-based R&D projects in coastal and offshore engineering.

His project experience as a domain expert covers design of coastal protection schemes and specific areas such as advanced numerical modelling of coastal and offshore processes, structural adaptation to climate change, climate risk and vulnerability analysis, numerical-modelling and satellite-data based analysis of thermal plume from power plant outfall. Based on careful analysis of site-specific data and requirements, he has delivered designs for coastal protection schemes using revetment, sand nourishment with groynes, offshore reef and ecological protection. The designs make use of different materials such as rocks, cast concrete elements and sand-filled geotextile bags/tubes.

Ashwini K Otta completed his B.Tech in Ocean Engineering and Naval Architecture from Indian Institute of Technology, Kharagpur (India). He then obtained his Master's and Doctoral degrees with specialization in the Ocean Engineering Program from the School of Civil Engineering, University of Delaware. During his master and doctoral studies, he developed numerical models for nonlinear wave propagation with applications which made many complex coastal features amenable to numerical anlysis; features such as wave motion, run-up and run-down over a beach and seawall; interaction of very large waves with steep structures.

He started his professional career as a specialist project engineer at the Delft Hydraulics, the Netherlands following the completion of his doctoral research. He worked on several projects around the themes of sea-bed pipeline, harbour tranquility, harbour resonance due to long-waves along-side applied R&D and modelling of marine hydrodynamics. Setting-up large scale experimental investigation and improvement of wave flume technology were also part of his tasks. He continued with his applied R&D and modelling of marine hydrodynamics with emphasis on nonlinear wave modelling and wave-current interaction in coastal environments when he joined ICCH, set-up by Danish Hydraulics Institute with grants from Danish National Science Foundation.

He returned to academics for some years in between. During his tenure as an associate Professor in the School of Engineering at University of Plymouth, UK he made a successful bid as Principal investigator of an education project on 'mathematical methods in coastal engineering' funded by EPSRC. He also guided a doctoral candidate and several master degree students towards their theses in addition to teaching maritime courses. He continued teaching and guiding sudents later as Visiting Faculty at IIT Kharagpur, India. Subsequently, as Head, R&D at SIMS, Lonavala under the aegis of ESM, Singapore, he was instrumental in designing and setting-up experimental facilities and initiated externally sponsored industrial research at SIMS.

His work reflects his adaptability to offer his services over wide-ranging issues in coastal and offshore engineering around infrastructure design, climate change resilience and renewable energy. He is experienced in leading multiple-component projects including elements of design, construction management and institution/capacity building.