

Editorial

Understanding the Ocean, Protecting the Environment, and Engineering the Earth: 30th Anniversary of *JMEE*

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Journal of Marine Environmental Engineering (JMEE) is celebrating the 30th anniversary of publishing its first issue. Reflecting on 30 years of sharing high quality marine science and engineering research and scholarship with the world, we are overwhelmed by feelings of gratitude. Gratitude to the publishers, for recognizing that there was – and still remains – a need for a peer-reviewed journal focusing on relevant, leading-edge investigations into the myriad environmental challenges confronting the world's oceans and its tributaries, with a view towards potential solution paths. Gratitude to the editorial board members for their continuing efforts at ensuring that the authors and areas of study represented in *JMEE* are as inclusive as possible, with investigators and projects drawn from around the world and representing the full spectrum of disciplines that

together we long ago characterized as belonging to “marine environmental engineering”. And of course, gratitude to the authors, whose work has evolved as the threats to the health of the marine environment have evolved.

The primary aim of the *JMEE* is the dissemination of technical information among scientists and engineers working on marine environmental problems. The journal is unique in both its interdisciplinary nature and its focus on applied science and engineering. Articles generally describe practical solutions to real-world marine environmental problems, and as a result, the *JMEE* provides a vehicle for the publication of papers not normally found in traditional research and development orientated journals. To say that marine environmental engineering has experienced revolutions within the last three decades is an understatement.

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Technological advancements in laboratory physical testing, field observation, computer modeling, and artificial intelligence have catapulted several fields into entirely uncharted terrains. Previously intractable problems have become within reach and resolved. However, new marine environmental problems are springing up as well. Over the last 30 years, we have witnessed global population growth combined with a migration of populations to the ocean coastlines, with the attendant adverse impacts ranging from the degradation of coastal water quality to overfishing to micro plastics entering the food chain. Climate change, which 30 years ago seemed to be a long-term issue to be addressed by future generations, represents a here-and-now threat to the marine environment and all life that depends on it. Coral reefs are disappearing at an alarming rate; sea level rise is already threatening both urban city centers and ancestral lands in low lying island states; and warming oceans are giving rise to more frequent and more intense tropical storms, and may have already caused substantial changes to the great ocean currents, the impacts of which are still poorly understood. The solutions to

these challenges, and the adaptations that will be required of coastal communities around the world, will require the creativity and innovation embodied in the engineering and scientific disciplines represented in *JMEE*, coupled with effective education and outreach that can inform and inspire action. We have the utmost confidence that *JMEE* will be a significant contributor to the critical work that lies ahead.

Understanding the ocean, protecting the environment, and developing engineering solutions to protect the earth—an aim that our editorial teams have, and will continue to, uphold without compromise. On the occasion of *JMEE*'s 30th anniversary, we are prompted to revisit not only the problems that we have resolved in the last three decades but also the new and emerging challenges. To this end, we want to reinforce the role of *JMEE* as a professional forum to accompany seminal research with innovative solutions and thoughtful commentary. *JMEE* is continuing to grow and improve, and we expect it to be one of the most prominent journals in the fields of marine environmental sciences and ocean engineering for decades to come. Happy 30th Anniversary to *JMEE*!