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Panel

Editorial

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Welcome to the first issue of volume 160 of *Maritime Engineering*, part of the *Proceedings of the Institution of Civil Engineers*. It is my great pleasure and honour to serve as chairman of the Editorial Advisory Panel for this journal, and my fellow panel members and I hope you enjoy reading the papers published here.

It cannot have escaped your attention that the world is waking up to the realities of climate change. There is now general agreement that global warming is occurring and is very likely to have a human cause. In a recent report, the Intergovernmental Panel on Climate Change has predicted a rise in global temperatures of between 1.8 and 4°C by the end of the twenty-first century and a corresponding rise in sea levels of 0.28 to 0.43 m. There is a growing awareness of the need to curb emissions, reduce carbon footprints and protect the environment.

Maritime and coastal engineers have a key role to play in helping society adapt to global climate change and in shaping the future of our environment and how man interacts with nature. Global trade relies on the port and shipping infrastructure designed and constructed by engineers, and as new markets are opened up in the developing world, so there is demand for new facilities and more efficient transport mechanisms. Our hunger for fuel drives the need to exploit the world's natural resources, requiring engineers to find ways of recovering fossil fuels from under the ocean floor or, more recently, harnessing the power of waves and tides. Along our coasts and in our estuaries engineers are facing ever greater challenges to protect our homes from flooding and

erosion, whilst striving to protect and enhance the natural environments that bring us recreational pleasure and ensure biodiversity.

Our involvement in adapting to global climate change and dealing with natural forces is not optional and we must ensure our voices are heard. The 2004 Boxing Day tsunami and Hurricane Katrina in 2005 are two very prominent examples of the power of nature and both illustrate the opportunity for engineers to influence the outcome of such disastrous events. Investigations into the New Orleans and south Louisiana hurricane protection system have recently concluded that during the engineering design of the system, public safety was compromised by other issues, including cost and land use.

Maritime Engineering provides an opportunity to ensure our voices are heard in these challenging times. The journal provides a forum to share our experiences of best practice, lessons learnt, innovative techniques and new methods or understanding. The papers presented in this issue reflect the interaction of maritime and coastal engineers with the environment, covering port-related dredging, cliff recession and modelling of tidal flows in estuaries. Forthcoming issues will include topics ranging from assessment of the impacts of the south Asian tsunami, overwashing of beaches, marine piling systems, weather risk and quay design. If you wish to contribute to future issues of *Maritime Engineering* and help advance the professional understanding of engineers around the world, please contact the ICE Journals Manager, Ben Ramster, or see the guidelines printed at the back of this issue.