



Ian Turner

Professor and Deputy Head of School (Civil and Environmental Engineering)

Ian is a Professor and is also Deputy Head of School, Civil & Environmental Engineering. From 2014 to 2020 Ian was the Managing Director of WRL. He is a Senior Coastal Specialist in WRL's Coast and Estuary investigations group. Ian's current research interests include beach groundwater dynamics and sediment transport at the beach face, monitoring of coastal change and impacts of climate variability, coastal erosion control and coastal management, and coastal aquifer hydrogeology.

In 1999 Ian installed the first Australian-funded Argus coastal imaging station and continues to play an active role in ongoing WRL Coastal Imaging projects. Ian is a Fellow of the Institution of Engineers Australia, and from 2005 – 2015 was a member of the EA 'National Committee on Coastal and Ocean Engineering'.

During 2020 Ian was named by *The Australian* as Australian Leader in the field of Ocean & Marine Engineering, with his extensive contribution to coastal engineering being recognised as one of "Australia's leading researchers in engineering and computer science... with the highest number of citations from papers published in the last five years in the 20 top journals in their field."

Qualifications and affiliations

BSc Hons 1 & Uni. Medal, University of Sydney, 1989
MEngSc (Environmental Engineering Science), UNSW, 1995
PhD (Marine Science), University of Sydney, 1994
MIEAust (Member of the Institution of Engineers Australia)
Member American Geophysical Union

Professional history

1994-1995: Contractor (Coastal Scientist) - NSW Dept Public Works	2007-2009: Senior Lecturer – UNSW
1995-1997: Research Faculty - Coastal Lab, Uni of Maryland, USA	2007-2014: Deputy Director (Research) - WRL, UNSW
1997-2000: Senior Project Engineer - WRL, UNSW	2010-2014: Associate Professor - UNSW
1997-2000: Senior Lecturer – UNSW	2014-: Professor – UNSW
1998-2001: Manager - UNSW Groundwater Centre	2015-2020: Director – WRL, UNSW
2000-2006: Senior Research Fellow - WRL, UNSW	2021-: Deputy Head of School (Civil & Environmental Engineering) - UNSW

Expertise

- Coastal processes
- Coastal engineering design
- Coastal imaging (remote sensing)
- Physical modelling
- Numerical coastal modelling
- Field data collection
- Coastal groundwater dynamics
- Coastline forecasting
- Project management
- Research and publication

Selected journal publications (• = Denotes supervised student of postdoc)

- Turner, I.L. and Masselink, G. (2012) "Coastal Gravel Barrier Hydrology – Observations from a Prototype-Scale Laboratory Experiment (BARDEX)" *Coastal Engineering*, 63, 13-22
- Tarbotton, C.J., Dominey-Howes, D., Goff, J. and Turner, I.L. (2012) "GIS-Based Techniques for Assessing the Vulnerability of Buildings to Tsunami – Current Approaches and Future Steps" In: Terry, J.P. and Goff, J. (eds), *Natural Hazards in the Asia-Pacific Region: Recent Advances and Emerging Concepts*, Geological Society of London, Special Publications, 361, 115-125, DOI: 10.1144/SP361.10
- Blenkinsopp, C.E., Turner, I.L., Allis, M.J., Peirson, W.L. and Gerden, L.E. (2012) "Application of LiDAR Technology for Measurement of Time-Varying Free-Surface Profiles in a Laboratory Wave Flume" *Coastal Engineering*, 68, 1-5
- Masselink, G. and Turner, I.L. (2012) "Large-Scale Laboratory Investigation into the Effect of Varying Back-Barrier Lagoon Water Levels on Gravel Beach Morphology and Swash Zone Sediment Transport" *Coastal Engineering*, 69, 23-38
- Williams, J.J., Buscombe, D., Masselink, G., Turner, I.L. and Swinkels, C. (2012) "Barrier Dynamics Experiment (BARDEX): Aims, Design and Procedures" *Coastal Engineering*, 63, 3-12
- Turner, J.S. and Turner, I.L. (2012) "Foam Patches Behind Spilling Breakers" *Journal of Marine Research*, 69, 843-869
- Matias, A., Masselink, G., Turner, I.L., Williams, J.J. and Ferreira, O. (2011) "Detailed Analysis of Overwash on Gravel Barriers" *SI64 Journal of Coastal Research (International Coastal Symposium)*, 10-14, ISSN 07490208
- Harley, M.D., Turner, I.L., Short, A.D. and Ranasinghe, R. (2011) "A Re-Evaluation of Coastal Embayment Rotation: The Dominance of Cross-Shore Versus Alongshore Processes, Collaroy-Narrabeen Beach, Southeast Australia" *Journal of Geophysical Research – Earth Surface*, 116, F4, doi:10.1029/2011JF001989
- Sénéchal, N., Abadie, S., Gallagher, E., MacMahan, J.H.M., Masselink, G., Michallet, H., Reniers, Ad J.H.M., Ruessink, B.G., Russell, P.E., Sous, D., Turner, I.L., Arduin, F., Bonneton, P., Bujan, S., Capo, S., Certain, R., Pedreros, R. and Garlan, T. (2011) "The ECORS- Truc Vert'08 Nearshore Field Experiment: Presentation of a Three-Dimensional Morphologic System in a Macro-Tidal Environment during Consecutive Extreme Storm Conditions" *Ocean Dynamics*, 61, 2073-2098, DOI: 10.1007/s10236-011-0472-x
- Davidson, M.A., Turner, I.L. and Guza, R.T. (2011) "The Effect of Temporal Wave Averaging on the Performance of an Empirical Shoreline Evolution Model" *Coastal Engineering*, 58, 802-805
- Austin, A., Masselink, G., Russell, P.E., Turner, I.L. and •Blenkinsopp, C.E. (2011) "Alongshore Current Motions in the Swash Zone of a Sandy and Gravel Beach" *Coastal Engineering*, 58, 690-705
- Blenkinsopp, C.E., Masselink, G., Turner, I.L. and Russell, P.E. (2011) "Can Swash-by-Swash Velocity Moments be used to Predict Net Cross-Shore Sediment at the Beach Face?" *Australian Journal of Civil Engineering*, 9(1), 19-34
- Harley, M.D., Turner, I.L., Short, A.D. and Ranasinghe, R. (2011) "Assessment and Integration of Conventional, RTK-GPS and Image-Derived Beach Survey Methods for Daily to Decadal Coastal Monitoring" *Coastal Engineering*, 58(2), 194-205
- Blenkinsopp, C.E., Turner, I.L., Masselink, G. and Russell, P.E. (2011) "Swash Zone Sediment Fluxes - Field Observations" *Coastal Engineering*, 58, 28-44