



College of Harbor, Coastal and Offshore Engineering Hohai University

You are cordially invited to a seminar organized by College of Harbor, Coastal and Offshore Engineering, Hohai University

Location: 702 Yankai Building Date and time: 20/10/2017, Friday, 2PM

“Water engineering research at the University of Auckland”

Presentation 1: “Hydraulic and Coastal Research at UoA”

By Dr. Colin Whittaker

Abstract

Growing populations, rising sea levels and deteriorating coastal protection infrastructure provide a unique set of challenges for coastal engineers. A robust understanding of coastal hazards is required to determine the current vulnerability of coastal communities to tsunamis and storm waves, and to enhance the resilience of these communities in the future. Physical hydraulic models provide a valuable tool for fundamental and applied research on these topics, particularly when combined with flow visualisation techniques. This seminar will provide an overview of some of the experimental work underpinning hydraulic and coastal research at The University of Auckland, including tsunami generation by underwater landslides, tsunami impacts on buildings and critical infrastructure, coastal responses to extreme wave attack and particle transport by surface gravity waves. Future research opportunities will be discussed.

About the speaker



Dr. Colin Whittaker is a Lecturer in Civil Engineering Hydraulics in the Department of Civil and Environmental Engineering, The University of Auckland. He applies physical experiments to better understand the mechanics and impacts of destructive waves such as tsunamis and extreme storm waves, as well as undertaking a range of fundamental and applied fluid mechanics projects. Colin teaches on fluid mechanics, hydraulics, and water resources engineering to students at the University of Auckland. He is The University of Auckland representative on the New Zealand Tsunami Research Group (TsuRGe), and is the organiser of the FiNZ (Fluids in New Zealand) 2018 Meeting.

Presentation 2: “Hydrology Research at UoA”

By Associate Prof. Asaad Shamseldin

Abstract

As a result of rapid urbanization, installation of complex infrastructure and variations in rainfall, anthropogenic climate change is making cities increasingly vulnerable to flooding. The population growth in urban areas also presents grand challenges to decision –makers in terms of urban water management. Improving the resilience of our communities requires sound scientific understating of the water related issues. This seminar will provide an overview of some of the numerical modelling, experimental and laboratory works being undertaken at The University of Auckland. This seminars will discuss the research work conducted at the University of Auckland in areas of natural hazard mitigation, environmental change and urban water management.

About the speaker



Dr. Asaad Shamseldin is an Associate Professor at the Department of Civil and Environmental Engineering, University of Auckland, New Zealand. He has considerable research, consultancy and technology transfer experience in the field of water engineering. He has a wide range of research interests in the area of water engineering. His research interests include storm-water management, urban water demand management, data driven modelling, environmental change and natural hazard mitigation. He has over 200 publications in peer refereed journal papers, edited books, chapter in books and conference proceedings. His research work has attached around 3000 citations with an H-index of 24 according to Google Scholar.

The seminar also has another invited guest: Prof. Bruce Melville

About the invited quest



Prof. Bruce Melville is a Fellow of the Royal Society of New Zealand (FRSNZ) and a Distinguished Fellow of the Institution of Engineers New Zealand. He is an active researcher with an international reputation in the field of fluvial sediment transport. His expertise encompasses most aspects of water resources engineering, including hydraulic, river, environmental and hydro-electric engineering. He is Associate-Editor of the (ASCE) Journal of Hydraulic Engineering, has served on local and international research committees, and has been a member of many tribunals for water consent hearings.

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