



INVITATION

Seminar 'Recent groundbreaking innovations in experimental research in wave tank facilities'

Experimental modelling in wave tanks has seen a worldwide revival during the last decade. In various fields of coastal and offshore engineering, and in the development of renewable ocean energy, the design is carried out using scale models of a prototype concept, which are subjected to wave and current loading to measure the model's response. Recent developments in theoretical insights, in steering control and in new technologies make the use of wave tanks a substantial and crucial part of a successful project.

At the occasion of the start of the construction of the new wave tank "Coastal and Ocean Basin" or "COB" in Oostende, a research seminar is organized focusing on recent innovations in experimental research, both locally in Flanders and internationally. Presentations from experts from UGent, KU Leuven and Flanders Hydraulics will focus on recent research achievements which are crucial for practical applications and for design manuals. Two international keynote lecturers will present their experience with state-of-the-art achievements related to wave tanks. The seminar will be interesting for researchers, consultants, contractors, public servants and interested audience.

You are kindly invited to the presentation and discussion on present available expertise in Flanders regarding large scale experimental test infrastructure such as wave tanks, and the importance of such test infrastructure in European and international research programs in support of government and industry. The seminar will be in English.

This seminar is free, but we request to register in advance. [Please register here](#)

Location

Staf Versluyscentrum, Kapelstraat 76, 8450 Bredene

Program

9h00 – 9h30: Registration and welcome coffee

9h30 – 11h00: session 1 (chair prof. Peter TROCH)

- Welcome and introduction (prof. Peter TROCH – UGent)
- Beyond the Eurotop 2 Manual: improved performance of wave overtopping prediction formulae (ir. David GALLACH SANCHEZ – UGent)
- A unique database for wave energy converter array modelling: the WECwakes project (dr. Vicky STRATIGAKI – UGent)
- Experimental wave propagation measurements in shallow foreshore (beaches) as validation for 1D and 2D numerical wave propagation models (dr. Tomohiro SUZUKI – WL)
- In search of extreme waves (prof. Jaak MONBALIU – KU Leuven)
- Hydrodynamic research on floating structures at sea: new opportunities at Flanders Maritime Laboratory (prof. Marc VANTORRE – UGent)

11h00 – 11h30: coffee break

11h30 – 12h30: session 2 (chair prof. Jaak MONBALIU)

- keynote lecture 1: The added value of wave tank testing (dr. Pedro LOMONACO – Oregon State University, O.H. Hinsdale Wave Research Laboratory, USA)
- keynote lecture 2: The importance of combined wave and current generation, a unique feature of the Fast Flow Facility (dr. Richard WHITEHOUSE – HR Wallingford, UK)

12h30 – 14h00: walking lunch and networking

Contact & Info:

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In cooperation with the department of Mobility and Public Works