

# Hydro-Seminar

by Lab. of Floating-Body Dynamics in Waves

The speaker in the 42nd Hydro-Seminar is

## Professor Yonghwan Kim

Department of Naval Architecture & Ocean Engineering  
Seoul National University, Seoul, Korea  
Specially Appointed Professor of Osaka University

**Date:** Tuesday, 29 August, 2017

**Time:** 15:30 – 17:00

**Venue:** S1-412 (Lecture room, 4F of S1 building)  
Suita Campus, Osaka University



## Seakeeping Analysis Coupled with Manoeuvring Problem

### Abstract

One of current key issues in ship hydrodynamics is to solve the maneuvering problem coupled with seakeeping effect in the presence of ocean waves. In this study, some cases of numerical analysis coupled between ship motion and maneuvering are introduced. Marine Hydrodynamics Laboratory of Seoul National University has been developing a computer software, WISH-Maneuver, which applied a high-order Rankine panel method for seakeeping solver and MMG model for maneuvering solver. The problems to be introduced in this seminar include

- Technical issues in coupling seakeeping and maneuvering problems
- Introduction to WISH-Maneuver
- Validation of simulation results in regular waves
- Seakeeping of submarine with depth control
- Effects of Seakeeping and Manoeuvring on Ship Operation Efficiency

Some representative results are shown and some future research issues are suggested.

### The Speaker: Professor Yonghwan Kim

Professor Kim graduated Seoul National University for his bachelor and master degrees in 1987 and 1989, and got a PhD degree at MIT in 1998. He worked at Daewoo Shipbuilding and Marine Engineering Co., ABS and MIT, and he joined Seoul National University in 2004. Currently he is a chair of the Department of Naval Architecture and Ocean Engineering at Seoul National University, and the director of Advanced Marine Engineering Center and the Lloyd's Register Foundation Center. Also he is designated as a specially-appointed professor of Osaka University through the promotion program for international collaboration with Professor Masashi Kashiwagi.

His primary research areas marine hydrodynamics, including motion responses of ships and offshore structures, sloshing, ship hydroelasticity, greenship technology, and naval hydrodynamics. He is the author of more than 350 technical papers, and he is serving for several international journals as editor-in-chief, associate editor, and editorial board member.

He is a member of Korean Academy of Engineering and Fellow of RINA. Also he was chosen as the Distinguished Visiting Fellow of Royal Academy of Engineering, UK, in 2015~2016.



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