### **Standing Committee**

- Prof. Mehmet Atlar (U. of Strathclyde)
- Prof. Sander Çalışal (UBC and Piri Reis U.)
- Prof. Atilla İncecik (U. of Strathclyde)
- Prof. Ömer Gören (ITU)
- Dr. Barbaros Okan (ITU)
- Dr. Öner Şaylan

### **Technical Committee**

- Prof. Moustafa Abdel-Maksoud (TUHH-Hamburg University of Technology)
- Prof. Paul Brandner, University of Tasmania
- Prof. Steven Cecio (University of Michigan)
- Prof. (vis.) Patrick Fitzsimmons (University of Strathclyde)
- Prof. Emin Korkut (ITU)
- Prof. (*vis.*) Noriyuki Sasaki (University of Strathclyde)
- Prof. Tom van Terwisga (MARIN & TU Delft)

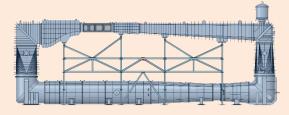
### **Local Organizing Committee**

- Dr. Devrim Bulent Danışman (Secretary)
- Dr. Burcu Erbaş
- Mr. Emre Kemal Gürtunca (SSB)
- Prof. İsmail H. Helvacioglu (Chair)
- Mr. Çağatay Sabri Köksal
- Dr. U. Oral Ünal



# Prof. A. Yücel ODABAŞI (1945-2009)

Professor Odabaşı, a graduate of ITU (1967), earned his Ph.D. degree from the same university in 1971. Following his Ph.D., he joined Strathclyde University where his work on the application of Lyapunov's theory to ship stability gained him a well-deserved international reputation which was acknowledged by STAB Award in 2012 post mortem. In 1974 he joined BSRA where he worked in almost every field of ship hydrodynamics and made significant contributions, in particular in the field of wake scaling. In 1988 he moved to USA to set up BMT International as its first director and CEO. He returned to ITU Turkey in 1991 where he inspired a generation of young academics while at the same time succeeding to lead Turkish Lloyd to worldwide recognition. He was awarded the gold medal of NECIES-UK and numerous awards from NAVSEA, SNAME.



# PRELIMINARY PROGRAM

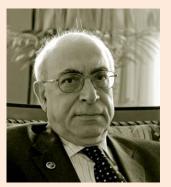


A. Yücel ODABAŞI Colloquium Series

3<sup>rd</sup> International Meeting

Progress in Propeller Cavitation and its Consequences: Experimental and Computational Methods for Predictions

> 15-16 November 2018 Istanbul Technical University Faculty of Naval Architecture and Ocean Engineering



## **15 November 2018, Thursday**

- 08:30 Registration
- 09:00 **Opening and Welcoming Address** Session 1 – Chair: M. Atlar
- 09:15 **E. Korkut** *Progress in ITU Large Cavitation Tunnel (ITU-CAT)*
- 09:45 M. Abdel-Maksoud <u>Keynote Address 1</u>: Investigation of Scale Effects on Propeller Sheet and Tip Vortex Cavitation Based on Hybrid Simulation Methods
- 10:30 Coffee Break

### Session 2 – Chair: M. Abdel-Maksoud

- 11:00 **K. W. Shin and P. Andersen** *Numerical Study on Characteristics of Cloud Cavitation on a Ship Propeller*
- 11:30 N. Yilmaz, S. Turkmen, B. Aktas, P. A. Fitzsimmons, N. Sasaki and M. Atlar *Tip* Vortex Cavitation Simulation of a Propeller in a Gate Rudder System
- 12:00 **O. Usta, C. S. Koksal and E. Korkut** *A Study on Cavitation Erosion Resistance of Marine Propeller Materials, Using a Water Jet Test Rig*
- 12:30 S. Turkmen, M. Fukazawa, N. Sasaki and M. Atlar Cavitation Model Tests and Full-Scale Review of the First Gate Rudder System Installed on the 400TEU Container Ship
- 13:00 Lunch Break

### Session 3 – Chair: Y.L. Young

14:00 P. Brandner Keynote Address 2:

Developments in Experimental Modelling of Two-Phase Flows in Naval Hydrodynamics

- 14:45 L. Savio, C. Muthanna and K. Koushan Challenges in the Optical Design of a Cavitation Tunnel
- 15:15 **C. Johannsen** *Propulsion Testing in the HYKAT Cavitation Tunnel*
- 15:45 Coffee Break

## 15 November 2018 (Continued)

#### Session 4 – Chair: E.B. Djatmiko

- 16:15 B. Aktas, N. Yilmaz, N. Sasaki, G. Tani, F. Miglianti, M. Viviani, M. Atlar and D. Taylor An Experimental Investigation into Pressure Relieving Holes to Mitigate Propeller Cavitation and Underwater Radiated Noise
- 16:45 **S. Duman, S. Sezen and S. Bal** *Propeller Effects* on Maneuvering of a Submerged Body in Oblique Towing
- 17:15 W. Shi, A. Carchen, N. Sasaki and M. Atlar Full-Scale CFD Simulation for Manoeuvring and Service Performances of a 400TEU Container Ship Equipped with the World First Gate Rudder
- 19:00 Gala Dinner

## 16 November 2018, Friday

Session 5 – Chair: C. Testa

09:15 Y. L. Young <u>Keynote Address 3:</u>

Multi-functional Marine Structures: New Frontiers for Cavitating and Ventilating Flows?

- 10:00 M. Fukazawa, S. Turkmen, A.Marino and N. Sasaki Full-Scale GATE RUDDER Performance Obtained from Voyage Data
- 10:30 Coffee Break

### Session 6 – Chair: P. Bradner

- 11:00 C. Testa, F. Porcacchia, L. Greco and R. Muscari Effectiveness of Boundary Element Method Hydrodynamic Data for Propeller Hydroacoustics
- 11:30 **S.E Belhenniche, O. K. Kinaci and O. Imine** Computational Investigation of Hydroacoustic Propeller Performance for Non-Cavitating Case
- 12:00 E. Widjiati, E. B. Djatmiko, W. Wardhana and W. Wirawan An Investigation of Underwater Ship Noise Utilizing Cavitation Tunnel and Field Measurement
- 12:30 N. Sasaki and M. Atlar Investigation into the propulsive efficiency characteristics of a ship with the GATE RUDDER® Propulsion system

# 16 November 2018 (Continued)

13:00 Lunch Break

#### Session 7 – Chair: N. Sasaki

- 14:00 **Z. Tacar and E. Korkut** *Parametric Study of a Pre-Swirl Stator for a Tanker*
- 14:30 **M.Maasch, O. Turan and S. Day** *The Effect of Extreme Trim Operation on Propeller Cavitation in Self-Propulsion Conditions*
- 15:00 M. S. Karaalioğlu and Ş. Bal Investigation of Cavitating Marine Propeller Performance Using Blade Element Momentum Theory
- 15:30 Coffee Break

## **CONTACT INFORMATION**

### Dr. Devrim Bülent Danışman

Colloquium Secretariat Istanbul Technical University Faculty of Naval Architecture & Ocean Engineering, Maslak, 34469 Istanbul, TURKEY Tel :+90 212 285 6392 Fax :+90 212 285 6454 e-mail: ayocol@itu.edu.tr Web: http://www.ayocol.itu.edu.tr

### REGISTRATION

Registration fee: 250 EURO Students: 100 EURO

Colloquium is open to all interested researchers and academicians. Fee includes digital and hard-copy proceedings, lunches, coffee and colloquium dinner.

# VENUE

Colloquium will be held on 15-16 November 2018 in the Faculty of Naval Architecture and Ocean Engineering of Istanbul Technical University (ITU), Ayazaga Campus, Maslak, Istanbul, Turkey.