



# MECHATRONICS

## Call for papers

### Focused Section on

## Advanced Control and Navigation for Marine Mechatronic Systems

Marine mechatronic systems are highly multidisciplinary which demands an effective integration of mechanical, electrical, control and information disciplines. There are a wide range of applications for marine mechatronic systems, such as ocean exploration, oil and energy harvesting, monitoring and surveying, transportations, and so on. While striving to explore more resources and expand civil, commercial and scientific activities in oceans and waterways, we are faced with an ever-increasing need for advanced mechatronic systems with enhanced performance in the harsh marine environment. Associated with this trend, issues like system design, modeling, control, guidance and reliability receive enhanced attention both in engineering and research domains. This Focused Section is dedicated to compile latest research and development efforts contributing to advances in marine mechatronics. The Focused Section will also welcome contributions addressing the state-of-the-art in associated developments and methodologies, and the perspectives on future developments and applications. Topics include, but are not limited to, the following research thrusts related to Marine Mechatronics:

- Innovative platforms, including moorings, buoys, ships, and underwater vehicles
- Cooperative control of surface and underwater robotic vehicles
- Advanced control, guidance and navigation
- Instrumentation, sensors and actuators
- Environmental monitoring and distributed sensor networks
- Marine measurement and sampling systems
- Ocean energy harvesting
- Methodologies and technologies for marine experimentations and simulations

Papers should contain both theoretical and practical/experimental results and will be subject to the normal TMECH review procedures.

### Manuscript preparation:

Papers must contain original contributions and be prepared in accordance with TMECH standards. Instructions for authors are available online at: <http://www.ieee-asme-mechatronics.org>

### Manuscript submission:

Manuscripts should be submitted through the online submission service available at <http://mc.manuscriptcentral.com/tmech-ieee>. The cover letter should report the following statement: "This paper is submitted for possible publication in the Focused Section on Marine Mechatronics". All manuscripts will be subject to the peer review process. If you have any question relating to this Focused Section, please email one of the Guest Editors.

### Important dates:

Paper Submission	February 15, 2016
Completion of First Review	May 15, 2016
Submission of Revised Papers	July 1, 2016
Completion of Final Review	September 1, 2016
Submission of Final Manuscripts and Copyright Forms	October 15, 2016
Publication	February 2017

### Guest Editors:

**YANG SHI**  
 Dept. of Mechanical  
 Engineering  
 University of Victoria  
 Victoria, BC, Canada V8W 2Y2  
 yshi@uvic.ca

**HUIPING LI**  
 School of Marine Engineering  
 Northwestern Polytechnical  
 University  
 Xi'an, China, 710072  
 lihuiping@nwpu.edu.cn

**HUAZHEN FANG**  
 Dept. of Mechanical  
 Engineering  
 University of Kansas  
 Lawrence, KS 66045  
 fang@ku.edu

**NAOMI KATO**  
 Dept. of Naval Architecture and  
 Ocean Engineering  
 Graduate School of Engineering  
 Osaka University, Japan  
 kato@naoe.eng.osaka-u.ac.jp