THE ROYAL INSTITUTE OF NAVIGATION
Science  Technology  Practice

THE JOURNAL OF NAVIGATION

Editor-in-Chief  Nick Randall MSc FRIN

Assistant Editors

Christopher A Gash BSc FRIN

Associate Editors

Prof. Peter J. G. Teunissen FRIN
Curtin University, Australia and Delft University of Technology, The Netherlands

Dr. Gang Chen PhD
Aalborg University, Denmark

Prof. Ahmed El-Mowafy Curtin, Australia

Dr. Shaojun Feng PhD FRIN
Imperial College London, UK

Prof. Liang Chen PhD
Wuhan University

Prof. Ahmed El-Rabbany Ryerson, Canada

A/Prof. Renato Filjar FRIN
University of Zadar, Croatia

Prof. Amr Debnath PhD
Deakin University, Australia

Dr. Xiaolin Meng FRIN
University of Nottingham, UK

Prof. Changdon Kee Seoul, S. Korea

Dr. Marianne George Pacific Traditions, USA

Prof. Dah-Jing Jwo Nat. Taiwan Ocean, Taiwan

University of Zadar, Croatia

Dr. Chris Hegarty MITRE, USA

Prof. Izzet Kale

Dr. Allan Kealy

Prof. Changdon Kee Seoul, S. Korea

Prof. Joseph Kirschvink Caltech, USA

Prof. Dr. Serdjo Kos FRIN

Prof. Tomislav Kos FRIN

Prof. Richard Langley FRIN

Prof. David Last FRIN

Dr. Sherman Lo Stanford, USA

Name  

(Affiliation, Region)

Name  

(Affiliation, Region)

Prof. Craig Allen FRIN Washington, USA

Dr. Gene McCall AFRIN

Los Alamos, USA

Dr. Xiaolin Meng FRIN

University of Nottingham, UK

Prof. Terry Moore FRIN

Prof. Andy Norris FRIN

Prof. Washington Ochieng FRIN

Prof. Patrick Oonincx

Dr. Rafael Szlapczynski PhD

University of Nottingham Ningbo China, China

Italy

Defence, Netherlands

Dr. Rafael Szlapczynski PhD Gdansk University of Technology, Poland

Editorial Board. The Editorial Board (for administrative matters) consists of the members of the Royal Institute of Navigation’s Technical Committee.

Editorial Advisory Board. The Chairman of the Editorial Advisory Board (for academic matters) is the Royal Institute of Navigation Director (John Pottle, BSc MBA FRIN), the Secretary is the Journal Editor-in-Chief (Nick Randall MSc FRIN) and it consists of the following members:

Dr. Gang Chen PhD Aalborg University, Denmark

Prof. Ahmed El-Mowafy Curtin, Australia

Dr. Shaojun Feng PhD FRIN Imperial College London, UK

Prof. Liang Chen PhD Wuhan University

Prof. Ahmed El-Rabbany Ryerson, Canada

A/Prof. Renato Filjar FRIN University of Zadar, Croatia

Prof. Amr Debnath PhD Deakin University, Australia

Dr. Marianne George Pacific Traditions, USA

Prof. Dah-Jing Jwo Nat. Taiwan Ocean, Taiwan

Dr. Chris Hegarty MITRE, USA

Prof. Izzet Kale

Dr. Allan Kealy

Prof. Changdon Kee Seoul, S. Korea

Prof. Joseph Kirschvink Caltech, USA

Prof. Dr. Serdjo Kos FRIN

Prof. Tomislav Kos FRIN

Prof. Richard Langley FRIN

Prof. David Last FRIN

Dr. Sherman Lo

The Journal Journal is published six times a year by Cambridge University Press. It contains original papers contributing to the science of navigation, including those presented at the meetings of the Institute. Papers should be submitted via the link http://mc.manuscriptcentral.com/nav. The Editor-in-Chief may be contacted via e-mail at journal@rin.org.uk. The current ‘Instructions for Contributors’ are available online or by e-mail. The views expressed in the Journal are not necessarily those of the Institute, or of any organisation or department to which the authors may belong. Crown Copyright may be reserved. Any facts stated or opinions expressed in this Journal are the sole responsibility of the contributors. Neither the Royal Institute of Navigation, the Editor nor the Publishers can be held responsible for any injury or loss sustained in reliance thereon.

The Journal of Navigation and all other Cambridge journals can be found at journals.cambridge.org.

The address of the Institute is The Royal Institute of Navigation, at The Royal Geographical Society, 1 Kensington Gore, London SW7 2AT (Telephone: 020 7591 3130 Fax: 020 7591 3131), website (www.rin.org.uk) e-mail (editor@rin.org.uk).