

## Editors

Editor-in-Chief—*Teresa L. Pace*  
Associate Editor-in-Chief—*W. Dale Blair*  
Associate Editor-in-Chief—*Maria Greco*  
Administrative Editor—*William P. Walsh*  
Ass't. Admin. Editor—*Susanne J. Willett*  
Editorial Consultant—*David B. Dobson*  
VP Publications—*Peter K. Willett*  
AESS President—*Robert P. Lyons, Jr.*  
Executive Assistant, AESS  
—*Judy Scharmann*

## Contributing Editors

Awards—*Erwin C. Gangl*  
Book Reviews Editor—*Darin Dunham*  
Conferences—*Iram Weinstein*  
Distinguished Lecturers &  
Tutorials—*Giuseppe A. Fabrizio*  
Education—*Giuseppe A. Fabrizio*  
History—*James Leonard*  
Standards—*Richard Hochberg*  
Student Research—*Richard Coogler,*  
*John Glass*  
Technical Panels—*Roger Oliva*  
Tutorials Editor—*Braham Hined*  
Website Updates—*Judy Scharmann*

## Associate Editors and Areas of Specialty

Scott Bawden—*Maritime, Energy,  
Position, Navigation, Timing*  
Erik Blasch—*Recognition, Tracking,  
Sensor & Assessments*  
Shirley Cheng—*Guidance, Distributed  
Sensors, Fusion, Biometric*  
David Crouse—*Sensors, Electro-Optics,  
Radar*  
Mauro De Sanctis—*Space  
Communications and Electronics*  
Carlos Fernandez-Prades—*Position,  
Navigation, Timing*  
Maria Greco—*Clutter Models, Radar,  
Signal Processing, Radar Systems*  
Moriba Jah—*Astronautics, aeronautics*  
Haiying Liu—*Fusion, Image Processing,  
Tracking*  
Ruhai Wang—*Systems Engineering*  
Peter Willett—*Tracking, Fusion,  
Signal Processing*

## How to Reach Us

We welcome letters to the editor; but, we reserve the right to edit for space, style, and clarity. Include address and daytime phone number with your correspondence.

Email: [sjwalsh4@gmail.com](mailto:sjwalsh4@gmail.com)  
[wpwalsh7@gmail.com](mailto:wpwalsh7@gmail.com)



June 2014

ISSN 0885-8985

Volume 29 Number 6

## COLUMNS

<b>In This Issue – Technically</b> .....	2
<b>From the Editor-in-Chief</b> .....	3

## ARTICLES

<b>Digital Beamforming Techniques Applied to Satellite-Based AIS Receiver</b> <i>Fabio Maggio, Tommaso Rossi, Ernestina Cianca, Marina Ruggieri</i> .....	4
<b>FPGA Implementation of Rapid PN Code Acquisition Using Iterative Message Passing Algorithms</b> <i>Wei Wang, Zhihua Wang</i> .....	13
<b>Online Joint Control Approach to Formation Flying Simulation</b> <i>Yunfei Yin, Xiaonan Wang, Haichao Guan, Yafel Zeng, Beilei Zhang</i> .....	24
<b>The Challenges of Closed-Loop Sensor Simulation</b> <i>Niklas Peinecke</i> .....	37
<b>Optimal Asset Network Planning for Counter Piracy Operation Support, Part 2: Results</b> <i>Raffaele Grasso, Paolo Braca, John Osler, Jim Hansen, Peter Willett</i> .....	44

## NEWS AND INFORMATION

<b>James V. Leonard, 2011 IEEE/AESS Pioneer Award Winner</b> .....	50
<b>Directory of IEEE-AESS Personnel</b> .....	53
<b>2014 Distinguished Lecturers &amp; Tutorials</b> .....	54
<b>IEEE-AESS Organization 2014</b> .....	55
<b>Membership Application 2014</b> .....	56
<b>Meetings and Conferences</b> .....	Inside back cover