

# IEEE AESS Magazine 2012

BoG Meeting  
Anaheim, CA  
September 2012

# Magazine Publication Leadership

- VP Pubs- Peter Willett
- EIC – Teresa Pace
- Assoc EICs –Dale Blair, Maria Greco
- Admin Editors – Bill Walsh (**Dave Dobson Retiring**), Susanne Walsh
- Book Reviews Editor – Darin Dunham
- Tutorials Editor – Braham Himed
- Assoc Editors
  - Scott Bawden – Maritime, Energy
  - Erik Blasch- Recognition Tracking, Sensors & Assessments
  - Shirley Cheng – Guidance
  - Mauro De Sanctis- Satellite and Wireless Communication Systems
  - Maria Greco – Clutter Models, Radar signal Process, Radar Systems
  - Haiying Liu – Fusion, Image Processing, Tracking
  - Rao Mannepli – Satellites, Modeling and Simulation, Energy
  - Carles Fernandez Prades – Navigation and Position (**NEW!**)
  - Ralph Teague – Sensors, Electro-Optics, Radar
  - Ruhai Wang- Communication Systems
- Contributing Editors
  - Awards – Erwin Gangl
  - Conferences- Mark Davis
  - Education – Steve Watkins
  - Student Research – Richard Coogle, John Glass (**NEW!**)
  - Website Coordination– Judy Scharmann
  - Distinguished Lecturers and Tutorials – Iram Weinstein
  - Quarterly Email Blast – Cosimo Stallo
- Allen Press
  - Rita Janssen

# Magazine Highlights

- Oct/Nov 2012
  - **Special** Two Part Issue on Passive Coherent Location Radar
    - Guest Editors A. Farina and H. Kuschel
- Dec 2012
  - Front Cover Pioneer Award of 2012
  - Back cover Apex Award for 2012
  - Annual Index
- Message from AESS President – Jan 2013
- Special Issue on IEEE Standards – Feb 2013
- Special Issue on Wide Area and Staring SAR Radars – Nov/Dec 2013

# Allen Press selected as new vendor

- Per IEEE rules, created SOW and RFP
- Received 3 proposals for bids
  - Sheridan Group
  - IEEE
  - Allen Press
- Allen Press provided best value solution
- First new issue scheduled for Oct 2012

# New Magazine Unveiled – Oct 2012



# Two Part Special Issue – PCL Radar (Oct/Nov)

Oct 2012		Systems Vol 27 #10		Scheduled		Aug 15, 2012	
No page limitation this issue							
Contents .....				1		(1 pg)	
In This Issue - Technically .....				2		(1 pg)	
From the Editor-in-Chief .....			T. Pace	3		(1 pg)	
<b>Articles</b>							
01	Introduction by Guest Editors Farina & Kuschel			3	est		
01	Multifrequency Hybrid Passive Radar Concept for Medium Range Air Surveillance – D. W. O'Hagen, H. Kuschel, M. Ummerhofer, J. S. Heckenbaugh, & J. Scheff			11	est		
02	Performance of a Multiband Passive Bistatic Radar Processing Scheme – Part I – Kuschel & Olsen			8	est		
04	Multi Receiver Passive Radar Tracking			9	est		
08	High Range Resolution Multichannel DVB-T Passive Radar			7	est		
09	Velocity Measurement and Traffic Monitoring using GSM Passive Radar Demonstrator – P. Krysiak, P. Szymczynski, M. Malanowski, L. Maslikowski, & K. S. Kulpa			8	est		
10	Use of Graphics Processing Unit for Passive Radar Signal & Data Processing – M. Bernaschi, A. Di Lalo, A. Farina, R. Falcofi, E. Gallo & L. Timmoneri			9	est		
<b>News &amp; Information Selected to fill page count</b>							
<i>Possibles:</i>							
Conference announcements/reports as available .....							
Pioneer Award Nominations Wanted .....							
Previous Pioneer Awarders (2 pages) .....							
Tutorials prepared by this Society .....							
Distinguished Lecturers & Tutorials .....							
Society Directory .....							
Society Organization Chart .....							
Student Membership Information .....							
Membership Information .....							
Meetings Calendar .....							
Inside back cover							
Covers: Front: Radar – explanation caption requested							
Rear: Radar –							

2/4



# Behind the Scenes

- Magazine implementing continual process improvement cycle
  - Review process strengthened
  - QC implemented
  - Updated contact info for Student Research Highlights
  - Monthly telecons for the SMEB
- **Dave Dobson retiring!**
  - BoG support/funding requested for recognition dinner and plaque
- Accepting nominees for year 2011 Harry Mimno Award
- Two book reviews in 2012
  - Tracking and Data Fusion – Reviewed by Fred Daum (Raytheon) and accepted
  - 3C Vision: Cues, Context, and Channels – Reviewed by E. Blasch (in process)

# Magazine Statistics

- Manuscripts received
  - 155 manuscripts received to date in 2012 (only 9 months)
  - 173 received in 2011
  - 93 received in 2010
  - 52 received in 2009
  - 56 received in 2008
  - 37 Pending Manuscripts in e-journal as of 9/11/12
- Magazine Acceptance Rates
  - 46% to date in 2012
  - 51% in 2011
  - 34% in 2010
  - 46% in 2009
  - 53% in 2008



# Continual Improvement!

# Call for Papers IEEE Aerospace and Electronic Systems Magazine Special Issue on Wide-Area and Staring Synthetic Aperture Radar

## 24/7 All-Weather Air-to-Ground Surveillance

With the advent of wide-area motion imagery (WAMI) sensors, it has become possible to provide situational awareness for areas of interest (AOIs) that approach city size. However, these sensors typically operate at optical wavelengths, making them susceptible to interruptions of coverage due to weather events and loss of daylight, thus motivating calls for an all-weather RF adjunct. Similar to the WAMI sensors, a staring, wide-area synthetic aperture radar (SAR) seeks to provide uninterrupted surveillance of a city-sized AOI, allowing perpetual observation of all stationary and moving objects. Development of this capability requires overcoming two overarching technical challenges: (1) real-time synthetic aperture imaging of wide areas (up to 20-km in diameter) with update rates commensurate with WAMI sensors and (2) detection/tracking/recognition of moving and stationary vehicles and individuals with a single-moded, multiple-phase center radar. This special issue will address recent advances in hardware, software, and algorithmic solutions to the challenges posed by wide-area and staring synthetic aperture radar.

## Key Topic Areas

- ☐ Hardware solutions for wide-area RF illumination and reception
- ☐ Solutions for down link of wide-area and staring SAR data
- ☐ Computational solutions for wide-area and staring SAR imaging
- ☐ Navigational requirements and solutions for staring SAR
- ☐ Algorithms: tracking of moving targets in staring SAR
- ☐ Algorithms: automatic target recognition in staring SAR
- ☐ Algorithms: three-dimensional SAR imaging of targets

For information on paper submission, prospective authors should visit [http://sysaes.msubmit.net/cgi-bin/main.plex?form\\_type=do\\_cat&file\\_nm=info.htm](http://sysaes.msubmit.net/cgi-bin/main.plex?form_type=do_cat&file_nm=info.htm). Manuscripts should be submitted using the manuscript submission web site for IEEE Aerospace and Electronic Systems Magazine at <http://sysaes.msubmit.net>. Manuscripts will be peer reviewed according to the standard IEEE AES process.

## Important Dates

- ☐ Manuscript submission deadline: 15 April 2013
- ☐ First review completed: 31 May 2013
- ☐ Revised manuscript due: 1 July 2013
- ☐ Second review completed: 15 August 2013
- ☐ Final manuscript due: 15 September 2013

## Guest Editors

- ☐ Prof. Brian Rigling – Wright State University, USA – [brian.rigling@wright.edu](mailto:brian.rigling@wright.edu)
- ☐ Mr. Steven Scarborough – Air Force Research Lab, USA – [steven.scarborough@wpafb.af.mil](mailto:steven.scarborough@wpafb.af.mil)

# Tutorials

- One paper accepted:
  - Review of Range-Based Positioning Algorithms
- Three papers awaiting revision:
  - Performance of Mobile twin VHF radar
  - Poisson Point Processes - An Alternative Tradition for Imaging, Tracking, and Distributed Sensing
  - The JPDAF: Versions and Implementations for Closely-Spaced Targets
- Five commitments for papers:
  - Synthetic Aperture Radar (SAR) Interferometry
  - Cognitive RF (jamming, radio, and radar) Sensing
  - Waveform Diversity, Design, and Optimization
  - Automatic Target Recognition and Classification
  - Over the Horizon Radar

# Tutorial Issues

- Predominance of radar detection and tracking papers
  - Considering other topics – power, sensor networks, navigation
- Need to reinvigorate Tutorials with fresh topics
  - Actively soliciting papers
  - Open call for papers

# Backup

# For Reference

- <http://ieee-aess.org>
- <http://sysaes.msubmit.net>

# Current Hard Copy Inventory

## SYSTEMS MAGAZINES

May-09	24-5	49
June-09	24-6	192
March-10	25-3	360
April-10	25-4	314
May-10	25-5	270
June-10	25-6	929
August-10	25-8	163
October-10	25-10	153
December-10	25-12	1072
January-11	26-1	570
March-11	26-3	834
April-11	26-4	132
July-11	26-7	40
October-11	26-10	0
December-11	26-12	568
January-12	27-1	403
February-12	27-2	746
March-12		

## TRANSACTIONS - paper copies

January-09	45-01	0
April-09	45-02	0
July-09	45-03	0
January-10	46-01	0
April-10	46-02	0
July-10	46-03	0

## TUTORIALS

Number I	Jan 04	19-01	740
Number II	Aug 05	20-8	2688
Number III	June 06	21-6	1790
Number IV	September 07	22-9	2598
Number V	July 10	25-7	0
Number V part 2	July 10	25-7	507

## SPECIAL SECTIONS OF SYSTEMS

Space Education	July 06	21-7	232
Radar pt 1&2	Aug 06	21-8	816
NASA	Oct 08	23-10	1609
Junior Engineering	2010		1342

## OTHER ITEMS

Promotional flyer	2008	packs of 50	47 pks
Conference brochures	2012		3344

9/9/2011

IEEE Aerospace and Electronics Systems Magazine





# For Reference – Harry Mimno Award

## **Award Winner - 2010**

Tutorial Paper

**“Particle filter theory and practice with positioning applications”,**

F. Gustafsson

Dept EE, Linkoping Univ, Linkoping, Sweden

(22 citations from Google scholar)

July 2010

Vol 25 Issue 7

Pgs 53-82

## **Award Winner - 2009**

**“How engineers can conduct cost-benefit analysis for PHM systems”**

J Banks, K Reichard, E Crow, K. Nickell

Applied Research Lab, State College, PA

( 18 Citations Google scholar)

March 2009

Vol 24 Issue 3

Pgs 22-30

## **Award Winner - 2008**

Regular Paper

**“UWB radar for patient monitoring”**

I Immoreev, TH Tao

Moscow Aviation Inst., Moscow

(18 citations from Google scholar)

November 2008

Vol 23 Issue 11

Pgs 11-18

# Potential items of interest (or history)

- John Solin paper pulled from Dec 2012 issue
  - SYSAES-201200057R titled “ Airborne Laser Threat to Commercial Space Telescopes”
  - Lockheed Martin legal dept, Karrie Bem, indicated he had not received public release approval rights
  - Tony Vengraitis from IEEE contacted and consulted
    - Anthony VenGraitis, IPR Specialist  
IEEE Intellectual Property Rights Office  
445 Hoes Lane  
Piscataway, NJ 08854  
Phone: +1 732 562 5534  
Fax: +1 732 562 1746  
Email: [a.vengraitis@ieee.org](mailto:a.vengraitis@ieee.org)  
Web: <http://www.ieee.org/copyright>
- Ilir Progri removed as Assoc Editor (Position and Navigation)
- SYSAES-200600055R by Dr. Yunhua Wu (6 years old and accepted in 2006)
  - Similar article possibly published in 2007 in a different magazine but in Chinese
  - [http://en.cnki.com.cn/Article\\_en/CJFDTOTAL-JLGY200706048.htm](http://en.cnki.com.cn/Article_en/CJFDTOTAL-JLGY200706048.htm)
  - Will be published as is, as promised although more appropriate for transactions
  - Month of publication hasn't been identified yet
- SYSAES-201200089R (From Sagnac and Michelson to the measure...)]
  - Initial AE Ilir Progri
  - Summary - paper poorly written but review handled poorly (rude, inappropriate requirements, insufficient reviewers-- only 1-- himself)
  - Currently being handled by Maria Sabrina Greco
  - Authors agreed to revise and resubmit