

You're receiving this Quarterly Email Blast because you are a member of the IEEE AESS.



AESS QEB, Issue 11

January, 2012

In this issue

- [Society News](#)
- [Conference Information](#)
- [Publications](#)
- [AESS Web Site](#)
- [Technical Operations](#)
- [Awards](#)
- [Chapter News](#)
- [Student Activities](#)
- [Education](#)

Did You Know?

Did you know that AESS is on [LinkedIn](#) and [Facebook](#)? Please join us!

Awards

Nominations for IEEE Medals and Recognitions, Technical Field Awards and AES Society Awards

For information on all IEEE Awards, Technical Field Awards and AES Society Awards, please [click here](#).

Call for Nominations - Frank McGinnis Award - Nomination deadline 31 May 2012

The prestigious Frank McGinnis Professional Achievement Award will be presented at IEEE AUTOTESTCON 2012 in Anaheim, California on September 13, 2012 to the individual who best upholds the tradition of advancing the field of Automated Test. This award is named for Automated Test pioneer and Sperry employee, the late Frank McGinnis, who spearheaded a Navy (1975) and then a Joint Services

Society News

Welcome Message by Hugh Griffiths *AESS President 2011-2012*



The IEEE Aerospace and Electronic Systems Society (AESS) provides a global professional home for engineers working in the electronic systems domain.

The Society offers a unique opportunity to become deeply connected with the three pillars of the Aerospace, Electronic and Defence sector: Industry, Institutions and Research Centers. Effective interaction between those pillars is the key element for the organization, design, development and operation of successful Complex Systems, which are the core of the AESS Field of Interest.

AESS Complex Systems cover the space, air, ocean and ground environments, including hardware, software, integration and many other aspects of the Engineering job.

AESS Conferences, Workshops, Transactions, Magazine and Educational tools enhance and disseminate the culture of Complex Systems through the global AESS community, bringing to a large and

(1978) Automatic Test Project to identify and recommend those areas where the military should invest in automated test research & development, and improve management practices. It resulted in the formation of the National Defense Industrial Association (NDIA) Automatic Test Committee which endures today, and which also holds one of its annual meetings in conjunction with AUTOTESTCON. The award includes recognition on a perpetual crystal trophy, an obelisk, and \$2000.00. The perpetual crystal trophy is on display at the National Electronics Museum in Linthicum, Maryland. It was previously known as the Westinghouse Radar Museum.

For more information and the nomination form, [click here](#)

Chapter News

Chapter Chair Updates

AESS Members, I am currently serving as the AESS Chapters chair which was previously held by Ron Ogan. My goal for the position is to continue to provide AESS Chapters with information they need for their success, provide past active Chapters with the ability to vitalize their Chapter, and help AESS members in locations with a Chapter to form a Chapter.

This quarterly chapter activities report focuses on new chapter starts and a goal to document successful AESS Chapters for members to become aware of other activities within AESS.

New Chapter Starts

We had email interest in 2 new chapter starts (North Carolina, Pikes Peak), one re-activation (Denver), and interest in the Distinguished Lecture Series (DLS). The information requests came by way of the on-line [officer information](#). To assist chapter formations, AESS can continue to get the word out and provide materials on the AESS website for chapter initiation (re-activation)

beneficial exchange of experience and achievements among our members.

If you have questions or comments please do not hesitate to contact us.

I warmly welcome all AESS members and I look forward to welcoming to our Society all IEEE non-AESS members and all who are visiting our website! Join us!

In Memorium- Cary R. Spitzer (1937-2011)



IEEE AESS members and many people throughout the world were influenced and taught by Cary Spitzer who passed away November 8, 2011. Cary, who was a current member of the AESS Board of Governors, was a Fellow of the IEEE, an honor that is only achieved by exceptional people. He was an Associate Fellow of the American Institute of Aeronautics and Astronautics (AIAA), and a cornerstone of the Digital Avionics Systems Conferences (DASC) co-sponsored by the IEEE AESS and the AIAA DATC. He was awarded the IEEE Centennial Medal, an IEEE Millennium Medal, and the Digital Avionics Award. He was a Past President of the IEEE AESS and Past Chairman of the IEEE United States Activities Aerospace Policy Committee.

Cary's career involved many achievements including a successful career at NASA Langley Research Center followed by teaching and consulting all over the world after he retired from NASA in 1994. His work at NASA on the Viking program, and avionics programs including the Microwave Landing Systems, the Global Positioning System, automatic landing systems, and digital data exchange advanced the application

even if just linking to the [IEEE materials](#). For those [successful chapters](#) and members with experience in AESS or other society formations and sustainment, we are interested in soliciting valuable feedback from AESS members on how they got their chapter vitalized. If you are a member in transition to a location without an AESS Chapter, contact [Erik Blasch](#). An example of a chapter formation is to utilize the DLS to bring in a speaker followed with a advertisement in the IEEE local section of soliciting active and interested AESS members to sign the petition form – it only takes 12 signatures.

Current AESS members supporting AESS Chapter Starts:

North Carolina - [Randy Avent](#)

Northern California- [Greg Fountain](#)

Pikes Peak, Colorado (Jason Fritz)

Second, the interaction between the AESS student grants provides a mechanism for initiating and highlighting AESS to new aerospace electronics engineers. The five AESS student funded projects encouraged faculty and student interest in AESS from which preparations are underway for student chapter starts. If you are an AESS member supporting students, please check the process for student grants (see Contact [Robert Rassa](#)).

Finally, the coordination of AESS sponsored conferences is also an avenue for new member and chapter starts. For conference organizers without a local AESS chapter, we are here to help. AESS conference sponsorship considerations require members to get the word out on the new policies for AESS sponsored activities and the advertisement of the conference (in a new location) in the AESS Systems Magazine. Contact [Mark E. Davis](#) for information. The conference event provides a valuable way to initiate an AESS local chapter. If you are a member attending a AESS sponsored conference in a location without a local

of these technologies in space exploration and air transportation. Cary founded AvioniCon in 1993, an international avionics consulting firm that specialized in technology trends, avionics systems architectures, strategic planning, and business development.

Cary taught short courses at UCLA, companies, and the DASC. His courses were in high demand and well attended. Cary was author of Digital Avionics Systems (two editions), and Editor-in-Chief of the Avionics Handbook, published by CRC Press.

In 1992, he led for NASA a group of industry experts in visits to European avionics and aircraft companies. The Assessment of Avionics Technologies in European Aerospace Organizations report provided insight on the development of avionics for the next generation of aircraft.



2012 AESS Officers Meeting in Miami, FL

The AESS Officers and Editors met in Miami, FL on January 21, 2012 for a strategic planning meeting

New AESS Officers for 2012 were selected as follows:

President – Hugh Griffiths
 Executive Vice President – Robert Ewing
 VP Conferences – Mark Davis
 VP Education – Iram Weinstein
 VP Finance – George Dean
 VP Industry Relations – Reza Dizaji
 VP Member Services – Larry Chasteen
 VP Publications – Peter Willett

chapter, encourage the conference organizers to use the conference as a stepping stone for their chapter start.

Quarterly Chapter Highlight

We would like to highlight one AESS Chapter in each quarterly newsletter with an listing of activities, pictures, and contributors. Please consider self-nomination of your Chapter of the quarter featured in the newsletter and send your updates to the Chapter Chair.

In summary, the focus of this update is on new chapter starts for members moving to areas without a chapter, students, and conference organizers. As members of AESS, we can help these groups with organizing and activation of their local AESS chapter.

Please provide feedback on your AESS Chapter, the AESS website, the Distinguished Lecture Program or any other topic that the AESS Board of Governors may assist you in accomplishing in the promotion or aerospace and electronic systems technology.

AESS Chapters Chair
Erik Blasch

Student Activities

Dear Members,
First ever high valued summer school/refresher course is being held on Advanced algorithms on 4-15th June at Thapar University, Patiala. Event is sponsored by Sponsored by ACM SIGACT North India, Technical Sponsorship by IEEE India Council, IEEE Computer Society Delhi Section, In cooperation with IEEE AESS (Aerospace Electronic System Society) and IEEE Student Chapter, Thapar University
Objective of this workshop/ training course is to promote high quality teaching and research in theoretical

VP Technical Operations – Theodora Saunders

Jr. Past President – Marina Ruggieri

St. Past President – Bob Rassa

Secretary – Frank Reyes

Treasurer – Ron Ogan

EIC of Systems Magazine - Teresa Pace

EIC of Transactions- Lance Kaplan



VP of Finance George Dean



President, Hugh Griffiths and Executive VP, Robert Ewing



IEEE-USA President, Jim Howard and wife, Donna



AESS Treasurer, Ron Ogan

To view the current roster of the AESS Board of Governors , click here

[AESS 2012 Board of Governors](#)

computer science and computational algorithms.

- Are you fascinated by algorithms and curious about what algorithmists do?
- Do you like to solve challenging and puzzling computational problems?

If your answer is yes, then join us with other motivated teachers and researchers from across the world.

[Click here for Contents of the Workshop](#)

[Click here for Guidelines for applying and attending the workshop](#)

Candidates will be given free boarding/Lodging and ACIII Tier travel reimbursement.

Convener and resource person,

Dr Deepak Garg

Computer Science and Engineering Department, Thapar University, Patiala, Punjab, India -147004 Chair, ACM SIGACT North India, Secretary IEEE CS Delhi Section

www.gdeepak.com

Education

First Course in Radar Systems

Dr. Robert O'Donnell was Vice President–Education of AESS from 2007 to 2008, and led the development of a video education initiative for the Society. For this effort, the Society named him "2007 Innovator of the Year." He is presently Education Committee Chair of the IEEE New Hampshire Section.

We are very pleased to announce that Dr. O'Donnell has completed and made freely available his Radar Systems Engineering Course (video, audio and screen captured ppt slides) and separate pdf slides) as a first course in Radar Systems for first year graduate students, advanced senior undergraduates, or professionals new to radar (In the first 17 lectures there are over 1150 slides!). The lectures vary in length from 30 minutes to up to 2 hours. Most are somewhat over an hour. The video stream of each topic is broken up into

Dr. Ram Gupta Receives MGA Leadership Award



The IEEE AESS is pleased to announce that Dr. Ram Gopal Gupta is the recipient of the 2011 MGS leadership award with the following citation:

“For his distinguished leadership and outstanding contributions as a volunteer, at the Section and Regional levels, serving the IEEE for the benefit of its members and the engineering profession by popularizing IEEE in local industry and common engineering students.”

Congratulations, Dr. Gupta!

To read the full article, [click here](#).

IEEE AESS Distinguished Lectures in China on INS and GPS Technology Trends by George Schmidt



Entrance to the Forbidden City, Beijing

AESS Distinguished Lecturer, George Schmidt, gave a series of lectures in China during October, 2011.

To view full report, [click here](#)

"easily digestible" pieces of approximately 20 to 30 minutes. The entire series of lectures is hosted on the University of New Hampshire courtesy of AESS and the IEEE New Hampshire Section and can be viewed at <http://aess.cs.unh.edu/radar%20se1.html>



Tsinghua Organizing Committee



George Schmidt lecturing at Tsinghua University

Call For Papers

IEEE Transactions on Aerospace and Electronic Systems – Special Section on “Compressed Sensing Applied to Radar”. Manuscript submission due on **31 July 2012**. View the full CFP [here](#).

Introducing new AESS Systems Magazine Associate Editor



Introducing Ruthai Wang, a new Associate Editor for the Systems Magazine! Dr. Wang is an Associate Professor in Phillip M. Drayer Department of Electrical Engineering at Lamar University, Texas. His research interests include space communications, space-based networks, deep-space and interplanetary Internet (IPN), and delay-/disruption-tolerant networks (DTN). Welcome Dr. Wang!

Introducing the newest Associate Editor-in-Chief of the Systems Magazine



EIC Teresa Pace recently appointed W. Dale Blair as Associate Editor-in-Chief of the Systems Magazine, to serve along with Maria S. Greco. Dr. Blair is a principal research engineer with the Georgia Tech Research Institute (GTRI) and was recently elected to the AESS Board of Governors for 2012-2014. Welcome Dr. Blair!

IEEE AESS Society Expense Reporting Process

[Click here for more information](#)

[IEEE Expense Reporting Form](#)

Conference Information

Please go to the [AESS Web Site](#) to see a list of upcoming conferences.



The 2012 IEEE Radar Conference, being held in Atlanta, GA, May 7-11, 2012, will host 400 to 600 attendees interested in innovations and developments in radar theory and technology. Radar related topics will include presentations describing developments in radar systems and their implementations, phenomenology, target and clutter modeling, component advances, signal processing, and data processing utilizing advanced algorithms as well as feature exhibits by vendors of radar systems, radar components, instrumentation, related software and publications. In addition, a number of tutorials on radar

Introducing the new Editor-in-Chief of the Transactions on AESS



Lance M. Kaplan has been appointed EIC of the Transactions on AESS beginning 1 January 2012. Dr. Kaplan is a team leader in the Networked Sensing and Fusion branch of the U.S. Army Research Laboratory, and was recently elected to the AESS Board of Governors for 2012-2014. Welcome Dr. Kaplan!

Professor Khashayar (Kash) Khorasani, Concorida University, Montreal, Quebec, Canada, was recently appointed as Associate Editor for Fault Tolerant Systems for the IEEE Transactions on Aerospace and Electronic Systems

Professor Salah Sukkarieh, The University of Sydney, Sydney, Australia, was recently appointed as Technical Editor for Robotics for the IEEE Transactions on Aerospace and Electronic Systems.

Coming up in the Systems Magazine. .

Biologically Inspired Legs for UAV Perched Landing, Arjun Nagendran, William Crowther, and Robert C. Richardson

Cross-Range Scaling for ISAR via Optical Flow Analysis, Chun-mao Yeh, Jia Xu, Ying-Ning Peng, Xiang-Gen Xia, Xiu-Tan Wang, Jian Yang

The Design and Development of A FMCW Polarimetric Imaging Radar, C. Y. Ang, Y. K. Chan, V.C. Koo

New real-time structural health monitoring microsystem for aircraft

associated topics will also be taught at the conference.

Prospective authors are invited to submit papers through the conference website <http://www.radarcon2012.com> before November 14th. Topic areas of interest include (but are not limited to) the following:

1. Environmental Remote Sensing
2. Antenna Technologies & Techniques
3. Components & Subsystems
4. Emerging Technologies
5. Radar Systems & Concepts
6. Phenomenology
7. Target & Clutter Modeling
8. Radar Singnal Processing (Theory, Architectures, & Applications)
9. Radar Data Processing (Theory, Architectures, & Applications)
10. SAR/ISAR/IFSAR Systems

In addition to conference papers, individuals are encouraged to submit special session proposals by October 14th as well as tutorial proposals by December 7th. Additional information about the conference and submissions can be found on the conference website at <http://www.radarcon2012.com/>.

For those interested in participating as an exhibitor, a booth package is available that includes an 8' x 10' booth space with background drape, skirted table, and coffee breaks. Please make your reservation before January 6, 2012 for a discounted rate and to ensure your spot as space is limited. The 2012 IEEE Radar Conference Committee looks forward to seeing you in Atlanta!



We are very pleased to invite you to the ESTEL 2012, the first *International IEEE-AESS Conference in Europe on Space and Satellite TELEcommunications*.

propeller blades, Mathieu Lastapis, Christophe Escriba, Stephane Andrieu, Jean-Yves Fourniols

Antarctic ice depthsounding radar instrumentation for the NASA DC-8, Allen C; Shi L; Hale R; Leuschen C; Paden J; Pazer B; Arnold E; Blake W; Rodriguez-Morales F; Ledford J; Seguin S

Small infrared target detection using sparse ring representation, Chenqiang Gao, Tianqi Zhang, Qiang Li

Development of a GPS/INS System for Precision GPS Guided Bombs, Deok-Bae Park, Dong-Ho Shin, Sang-Heon Oh and Hyung-Shin Kim

A Unique Radar Calibration Target, John E Heine, Herbert W Rosebrock & James N Devlin

Demonstration of Closed-Loop Airborne Sense-and-Avoid Using Machine Vision, Luis Mejias, John Lai, Jason J. Ford, Peter O'Shea

Prognostics of Thermal Fatigue Failure of Solder Joints in Avionic Equipment, Jonas Johansson, Peter Leisner

Planning of Low-Cost 77-GHz Radar Transceivers for Automotive Applications, H. Ameri, A. Attaran, M. Moghavvemi

Tightly Coupled GPS/INS Airborne Navigation System, S. Z. Jamal

Fiber Optic Gyroscope for Application at Attitude Determination Systems, Wei Sun, Ai-Gong Xu, and Yang Gao

Systems Magazine Archives

Did you know that we have Systems Magazine Archives on the AESS web site? Click [here](#).

The Conference will be held on October 2-5, 2012 in Rome, Italy at the *Roma Eventi Fontana di Trevi Conference Centre*, in the heart of Rome historical centre.

Estel Conference 2012 is the International conference on telecommunications via satellite organized for the first time in Europe by IEEE AESS in collaboration with ESOA (European Satellite Operator's Association) and SAT EXPO (Expo-Forum on Satellite and Advanced Telecommunications). It reasserts the continuous commitment on the promotion of the excellence in the technology for humanity on IEEE's part.

- **A unique venue**

Four days of very specialized seminars on all main topics of satellite telecommunications sector, from Tuesday the 2nd to Friday the 5th of October, in the heart of Rome, next to the well known Trevi's Fountain in a very comfortable and well equipped Conference Centre, the "Roma Eventi - Fontana di Trevi Conference Centre".

- **High-Quality Papers and Presentation**

The Estel Conference program will present the cutting-edge solutions in the field of satellite telecommunications, from the technological point of view to all possible applications related to Improving the Quality of Life (QoL) (Health, Security and Energy). It will offer an impressive list of speakers, including satellite telecommunications experts, top scientists and managers especially from the US, Europe and the Far East.

- **Multidisciplinary Focus**

The program is designed to facilitate dialogue among members of government, industry, and the academic community. The goal is to create a very diverse and multidisciplinary conference where operators and scientists from various complementary disciplines can meet and discuss subjects of common interest in the field of satellite telecommunications. The emphasis will be on applications-oriented research and development, from antennas, devices and components to most updated systems and software.

Upcoming Transactions Posted on the AESS Website

For a listing of Upcoming Transactions, please visit the [AESS website, Upcoming Transactions](#).

AESS Web Site

As a service to our members, the AESS website has job opportunities listed. Please visit the [AESS website, Job Opportunities](#).

• International participation

The Organization foresees as first edition the participation of around 200 foreign attendees coming from 21 Countries from the US, Europe, Africa and the Far East.

Important Dates

Abstract Submission: 1 February 2012

Notification of Abstract Acceptance: 1 April 2012

Draft Manuscript Submission: 15 May 2012

Notification of Acceptance: 20 June 2012

Final Manuscript Submission: 20 July 2012

www.estelconference.org

Please find all other Call for Papers here: <http://www.ieee-aess.org/estel-2012-call-papers>



AUTOTESTCON will be held at the Disneyland Resort and Conference Center in Anaheim, California, on September 10-13, 2012.

Abstracts are to be submitted to the Abstract Management website no later than March 31, 2012 (corrected submission deadline) at <http://www.edas.info/11707>.

For Technical Program information contact:

Michael T. Ellis, Technical Program Chairman

Northrop Grumman Corp.
21240 Burbank Blvd.
Woodland Hills, CA 91367
(818) 715-2944

michael.t.ellis@ngc.com

For other information contact:

Bob Rassa, General Chairman
Raytheon Company
2260 Engle Rd

Fallston MD 21047
(310) 985-4962
RCRassa@raytheon.com

Please go to the [AESS Website](#) to see a list of upcoming conferences.

**Please see the following AESS
Conference Call for Papers:**

- [AUTOTESTCON 2012](#)
 - [AUTOTESTCON 2012 Preliminary Announcement](#)
 - [Radar 2012 International Conference on Radar Systems](#)
 - [ESTEL 2012](#)
 - [ESTEL 2012 Press Conference](#)
 - [FUSION 2012](#)
 - [Radar 2012](#)
 - [PLANS 2012](#)
 - [2012 IEEE-USA Student Conference](#)
 - [IEEE 2013 Conference on Phased Array Antennas and Propagation](#)
-

Technical Operations

*****Panel Chair Needed*****

The Aerospace Systems Integration Engineering is looking for a chair. If you are interested or need more information, please contact the VP Technical Operations, [Theodora Saunders](#).

Forming New Avionics Committee for AESS

We're in the process of creating a new committee on Avionics for AESS. Avionics continues to be a growing industry and key part of AESS' field of interest. This committee will focus on the understanding of the latest technologies for manned and unmanned systems; ATM; research; standards development; and conference management. The committee will provide oversight and volunteers for the Digital Avionics Systems Conference and the Integrated Communications Navigation and Surveillance Conference. Both

conferences address core areas of interest. The committee will be holding a kick-off meeting at the 30th DASC (Digital Avionics Systems Conference) in Seattle. For more information, please contact [Paul Kostek](#).

2011 Radar Systems Panel Minutes

The Radar Panel held two meetings in 2011, please click following links to view the minutes

[May 2011 RSP Minutes](#)

[October 2011 RSP Minutes](#)

To submit new articles, please send an email with your article to AESS QEB Editor, [Cosimo Stallo](#), subject line: "Quarterly Email Blast Article Submission". The next publication will be in April, 2012, deadline for submission is March 15, 2012.