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Society News

Membership Message
by Hugh Griffiths
AESS President 2011-2012



Did You Know?

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

Membership

Do you qualify for Senior Membership? [Find out here.](#)

AESS senior members elevated in 2012 to date are:

Yuliya Averyanova
Jose Angel Avila Rodriguez
Scott Berger
Chung-Liang Chang
Moriba Jah
Zhen An Liu
Daniele Mortari
Paolo Navaretti
Yukihiko Okumura
William Wilson
Rui Zhou
Sam Adhikari
Deniz Gencaga
John Jiemstra
Amit Mishra
Donald Burns
Sergey Gorshkov

One of the priorities I have set myself as President of AESS is to increase our membership. Currently AESS has just over 5,000 members worldwide. I'm sure all of us know individuals who are not members of AESS, but who ought to be ! Can I ask you to try to identify such people, and to use all your powers of charm and persuasion to get them to join ? Of course, you should point out the benefits: the publications, conferences, support for student activities, engagement with Chapters, Technical Panels, opportunities for recognition through Senior Member and Fellow grades, ... Put simply, **AESS offers 'a global professional home for engineers working in the aerospace and electronic systems domain'**. It's very easy - just visit the AESS website: http://www.ieee.org/membership_services/membership/societies/aes.html.

With best wishes,

Hugh Griffiths
President, AESS

IEEE AESS Society Expense Reporting Process

[Click here for more information](#)

[IEEE Expense Reporting Form](#)

Conference Information

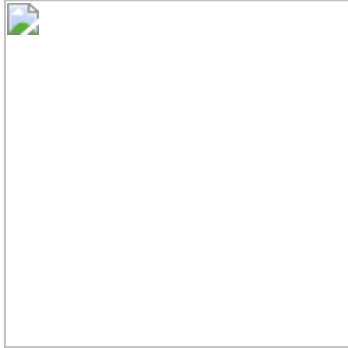
Please go to the [AESS Web Site](#) to see a list of upcoming conferences.

Cher-Hiang Goh
Paul Techau



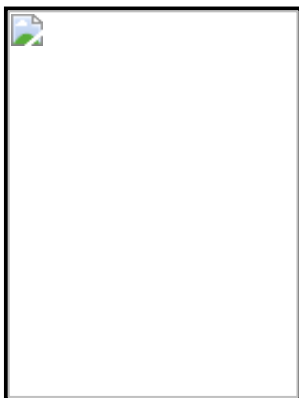
Student Activities

Hello to all my fellow AESS student members!



I am Christopher Cullen, the recently selected undergraduate student selected to represent the student population of the society. I would just like to introduce myself and let you all know that I am here for you to voice any concerns, suggestions, and questions about AESS. I can be contacted via e-mail at christopher.cullen38@gmail.com (it is also posted on AESS website under "Other Positions" -> "Undergraduate Student Rep"). I look forward to hearing from and helping all of you!

Chapter News



Luis Riesco, AESS International Director for South America, recently visited Argentina. Please see his full report,

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

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



“Don’t miss the **31st Digital Avionics and Systems Conference** in Williamsburg, VA October 14-19th, 2012.

Co-sponsored by the AIAA and IEEE/AESS, the DASC offers everything an aspiring or seasoned aviation engineer is looking for.

We are “Projecting 100 Years of Aerospace History into the Future of Avionics.” How does your work impact the future of flight? Your contributions are sought as Workshop participant, presenter, or exhibitor/sponsor. The 5-day DASC offers a robust tutorial session and special events in and around Colonial Williamsburg. The Plenary Session of aerospace industry, academia, and government leaders will be announced next week. Please visit our internet presence and contact one of us for more details on how you may best exploit this opportunity.

Sincerely yours,

[Roger Oliva](mailto:Roger.Oliva@dasconline.org)
Chair, 31st DASC
www.dasconline.org
703 343-3146

["Presentations, Assistance and New Chapter Start-ups".](#)

AESS Web Site

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

Publications

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](#).

Systems Magazine Archives

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

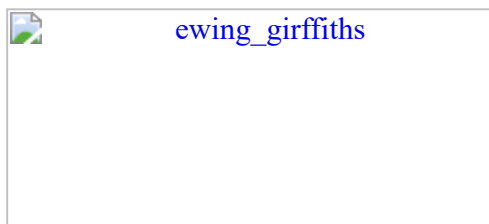
Upcoming Transactions Posted on the AESS Website

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

Coming up in the Systems Magazine. . .

High Level Information Fusion (HLIF): Survey of Models, Issues and Grand Challenges,
Erik Pl. Blasch, Dale A. Lambert, Pierre Valin, Mieczyslaw "Mitch" M. Kokar, James Llinas, Subrata Das, Chee Chong, Elisa Shahbazian

Spectrally-Compliant Waveforms for Wideband Radar, Carroll Nunn, Lee Moyer



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

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.

For the latest information, [click here](#).

IEEE/ION PLANS 2012 Conference Report - by Ilir Progri

The [2012 IEEE/ION Position Location and Navigation Symposium \(PLANS\)](#) was held at the Myrtle Beach Marriot Resort & Spa at Grande Dunes, Myrtle Beach, SC, April 23-26, 2012. This symposium is currently being cosponsored by the Institute of Electrical and Electronics Engineers (IEEE), the Institute of Navigation (ION), and the Aerospace and Electronic Systems Society (AESS), and it is held once every two years in the United States.

[. . .Read more](#)

Nominations sought for the Workforce Issues track AIAA Complex Aerospace Systems Exchange (CASE)

- How do complex aerospace systems justify rethinking how we train, organize, and manage our workforce?
- What specific things can Managers, Executives, and leaders do differently to train their workforce or alter their organizations to be more successful with complex aerospace systems?

The American Institute for Aeronautics and Astronautics (AIAA) will be holding a Complex Aerospace Systems Exchange (CASE), 11-13 September in Pasadena, CA to be held in conjunction with AIAA Space 2012. Workforce Issues will be a key theme at this year's exchange and nominations are currently being sought from speakers able to provide unique insight and/or tangible examples as their organizations approach to the Complex Aerospace Systems workforce issue.

Further details on the event can be found at <http://www.aiaa.org/case> and nominations to speak may be made to the Session Chair (Mr Brett Hoffstadt (brett.m.hoffstadt@boeing.com) or Session Co-chair (Reece Lumsden (reece.h.lumsden@boeing.com))

Accuracy Improvement of SINS Based on IMU Rotational Motion, Wei Sun, Ai-Gong Xu, Yang Gao, Li-Na Che

Migrating the Development of Complex Aerospace Systems Towards Commercial Practices, Daniel W. Kwon, Michael J. McGovern, Paul N. Caporossi

Seamless Networking for Aeronautical Communications - One Major Aspect of the SANDRA Concept, S. Plass

Airborne laser threat to commercial space telescopes, John R. Solin

Morphology-based building target detection from forward-looking infrared imagery in dense urban areas, Li Zhang, Tianxu Zhang, Fan Peng, Xiaoping Wang, Yaxun Wei

A multi-frequency hybrid passive radar concept for medium range air surveillance, D. W. O'Hagan, H. Kuschel, M. Ummenhofer, J. Heckenbach, J. Schell

High Range Resolution Multichannel DVB-T Passive Radar, M. Conti, F. Berizzi, M. Martorella, E. Dalle Mese

Multi Receiver Passive Radar Tracking, Mathieu Klein, Nicolas Millet

Performance of a Multiband Passive Bistatic Radar Processing Scheme - Part I, Karl Erik Olsen, Karl Woodbridge

Use of Graphics Processing Unit for Passive Radar Signal and Data Processing, M. Bernaschi, A. Di Lallo, A. Farina, R. Fulcoli, Emanuele Gallo, L. Timmoneri

Velocity Measurement and Traffic Monitoring using GSM Passive Radar Demonstrator, P. Krysik, Pl Samczynski, M.

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

Technical Operations

Avionics Systems Technical Panel Forming

AESS is sponsoring the formation of a new Avionics Systems Technical Panel. The focus will be on research, development, design, application, and test of avionics (navigation, display, surveillance, communications) for manned and unmanned systems. This will include ATM and Next Gen implementation. The committee will also address standards development; education, awards and conference management.

Additionally, 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 of this technical panel and AESS.

If you're involved in the avionics industry please consider volunteering for this committee. Contact Paul Kostek, p.kostek@ieee.org for more information or to volunteer.

Education

Final Report – AESS Distinguished Lecture

Cape Town and Pretoria South Africa
11 – 20 May 2012

Foliage Penetration Radar – Mark E Davis

The University of Cape Town and IEEE South Africa sponsored a presentation of the AESS Distinguished Lecture on 13 and 16 May 2012. Mark Davis presented the lecture for IEEE audiences at two locations: University of Cape Town, and CSIR Pretoria South Africa.

Professor Michael Inggs arranged the first lecture in the Engineering Department at UCT. There were 22 staff and students attending, with broad interests from signal processing, compressive sensing and radar system design. Figure 1 shows the comparison of techniques for characterizing objects under foliage. There was significant interest in the audience in applying compressive sensing to the detection and characterization of targets under foliage.

Malanowski, L. Maslikowski,
K.S. Kulpa

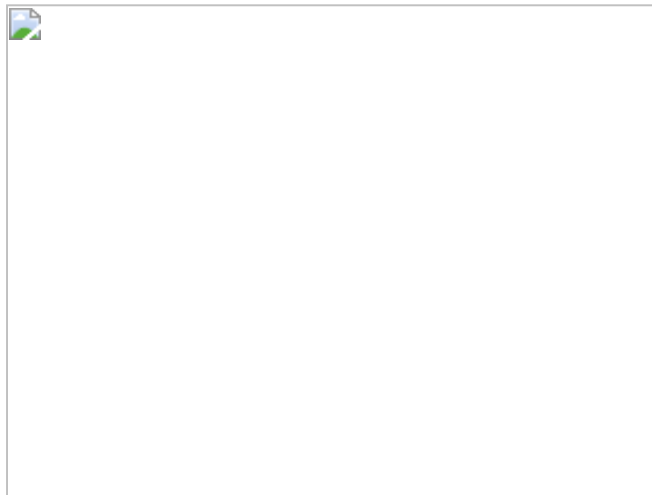


Figure 1 - Dist. Lecture at University of Cape Town 14 May 2012

The second lecture was conducted on 16 May at the Council of Scientific and Industrial Research (CSIR) in Pretoria. Francois Anderson and Willie Nel arranged the presentation at CSIR Conference Centre. There were 48 persons in attendance, including CSIR staff members, IEEE South Africa, and members of the government and academic community in Pretoria. Figure 2 shows Mark Davis presenting the lecture on FOPEN image processing techniques. There was significant interest in the audience in using these technologies for border surveillance and the difference in foliage characteristics between South Africa and the North America forested regions covered in the lecture.

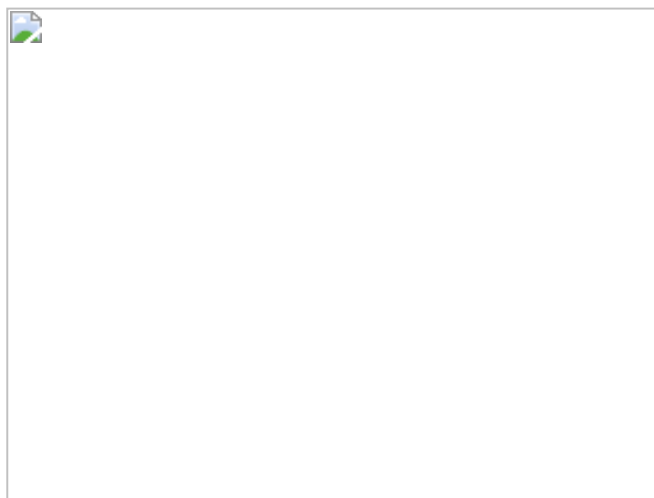


Figure 2 - Distinguished Lecture at CSIR Pretoria on 16 May 2012

While in South Africa, a side trip to Entenabi Game Preserve was arranged to look at the local foliage and wildlife. This gave a unique opportunity to compare the South African landscape and foliage environments. Shows the hosts Francois Anderson (L) and Willie Nel (R), Mark Davis and his wife Diane and the safari tour guide.

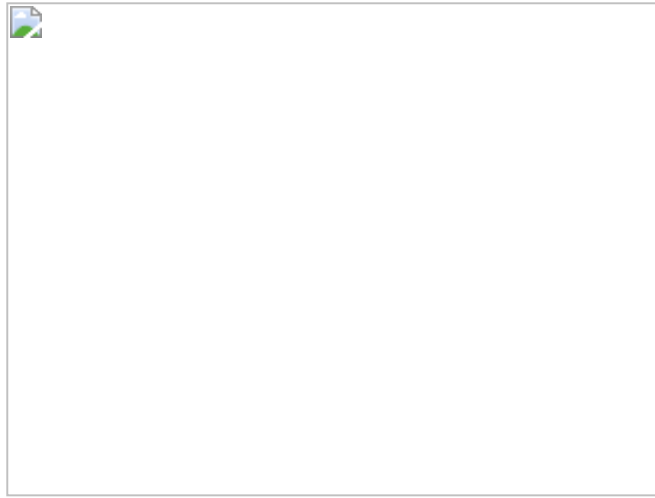


Figure 3 Tour of South African Safari with foliage and wild life environments

A special debt of gratitude is given to Ms. Liesl Baben (CSIR) who facilitated the arrangements for both lectures, as well as coordinating the support from AESS, IEEE South Africa and CSIR for the events.

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 October, 2012, deadline for submission is September 15, 2012.