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AESS Quarterly Email Blast

AESS QEB, Issue 6

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Did You Know?

Did you know that AESS is on LinkedIn and Facebook? Please join us!

Society News

AESS VP Membership Elected as the 2011 IEEE-USA President Elect

Jim Howard, the current AESS Vice-President of Membership was elected as the 2011 IEEE-USA President Elect during the recent IEEE elections. Jim has been a member of the **AESS Board of Governors** for several years and his

Dave Wallhermfechtel Garners Frank McGinnis Professional Achievement Award

The IEEE AUTOTESTCON Frank McGinnis Professional Achievement Award recognizes outstanding leadership, individual initiative and technical contributions in the field of automatic test engineering, either for a specific accomplishment or for a body of activities during a career. The award honors the memory of Frank McGinnis.

The 2010 recipient is David Wallhermfechtel, a leader in the military automatic test industry. Dave is a senior member of IEEE and a Boeing retiree.

Presented at the AUTOTESTCON 2010 Awards Luncheon by the Board of Directors Chair, Bob Rassa, and the Awards Administrator, Jim Leonard, the McGinnis Award includes an engraved icon and \$2,000. A perpetual plaque resides in the Historical Electronics Museum in Linthicum, MD.

The nomination period is now open for the 2011 McGinnis Award. Please submit nominations to Jim Leonard no later than June 1, 2011. The 2011 AUTOTESTCON will be held in Baltimore, MD on September 12-15, 2011.

The Nathanson Award

Nominations are now being accepted for the Nathanson Award. Please go to the AESS web site for the nomination form. Note: Nominations are due by December 31, 2010!!!

Description This award is in honor of the late Fred Nathanson, and is sponsored by the IEEE Radar Systems Panel present term on that Board will end in 2012.

The IEEE-USA utilizes the "3P" system, as does the IEEE, which means Jim will serve on the IEEE-USA Board in the following capacities:

2011 - IEEE-USA President-Elect 2012 - IEEE-USA President 2013 - IEEE-USA Past-President

For more information, please visit the <u>IEEE-USA web site</u>.

Jim is the 6th IEEE-USA President Elect to come from the ranks of the AESS.

Congratulations to Jim!

Nomination Process for IEEE Fellow Class of 2012 is Now Open

The IEEE Fellows nomination process has begun! If you know an IEEE colleague who you think qualifies for IEEE's highest member grade of Fellow, it is time to start a nomination process! Nominations are due to IEEE by March 1, 2011.

Please visit the <u>IEEE Fellow</u> <u>Web page</u> for more information, detailed instructions for preparing the application, and required forms.

If you need any assistance in the process, you can contact <u>Bob Rassa</u>, AESS Fellows Search Committee Chair.

AESS Distinguished Lecture Program

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of the Aerospace and Electronic Systems Society. The purpose of this award is to grant international recognition for outstanding contributions to the radar art by your IEEE/AESS members. The goals of the Radar Systems Panel in granting this award are to encourage individual effort and to foster increased participation by developing radar engineers. Established to grant recognition for outstanding contributions to the radar art, this award, consisting of a plaque and honorarium, is to recognize a member of AESS who has not exceeded the age of 40 in the year nominated. Nominees must be a member (in any grade) of IEEE/AESS and must have made outstanding contributions to the radar art; nominations must permit appraisal of the contributions.

Prize

\$1,000 and Plaque. Travel expenses of up to \$1,000 can be authorized by the AESS President.

Funding

Funded by the IEEE Aerospace and Electronic Systems Society from funds generated by AESS Radar Systems Panel Conferences.

Eligibility

Young (less than 40 years of age) AESS radar engineers whose performance is particularly noteworthy as evidenced by contributions to the radar art over a period of several years.

Basis for Judging

Individual contributions to the radar community through technical papers, presentations, inventions, or products.

Presentation

At National Radar or International Radar Conference depending on which is held in a particular year.

Technical Operations

Cyber Security Technical Panel

Today, Cyber (In) Security is a major discussion topic and cause of concern for all levels of government, the military and private industry. US military networks are probed 6 million times per day searching for classified military information. Secure corporate networks and the nation's critical The AESS Distinguished Lecture program continues to be well-received. This year, our speakers have made presentations in Ft. Monmouth, NJ, Huntsville, AL, and London, UK. Planned lectures for the rest of 2010 include: • Israel Fred Daum on **Nonlinear Filters** • Connecticut Theo Saunders on The Urgency of Systems **Engineering Education** India George Schmidt on Technology Trends for GPS and Inertial Systems Mexico Myron Kayton on The Evolution of Aircraft Avionics Tunisia Saj Durrani on Satellite Communications Systems

All AESS Chapters and IEEE Sections are encouraged to take advantage of the AESS Distinguished Lecturer and Tutorial Program for their regular or special meetings. See the <u>AESS web site</u> and look under the Education tab for further information.

AESS Field of Interest

The field of interest shall be the organization, systems engineering, design, development, integration, and operation of complex systems for space, air, ocean, or ground environments. These systems include but are not limited to navigation, avionics, mobile electric power and electronics, radar, sonar, telemetry, military, law-enforcement, automatic test, simulators, and command and control.

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infrastructure are under constant threat from scanners, cyber criminals, terrorists and foreign entities searching for valuable intellectual property, proprietary manufacturing designs and processes, software code and potential targets for sabotage. Successful extortion schemes on companies and monetary theft from individuals via the internet are commonplace. Against this backdrop, the government, military and industry now realize that they must become proactive in the fight against cyber crime and warfare. We are in a battle in the realm of Cyberspace.

Over the last few years, IEEE committees have been active in helping to develop standards to secure the Smart Grid. In order to broaden the focus to include the Cyber Security issues mentioned above, the IEEE Aerospace and Electronic Systems Society is pleased to announce the formation of the AESS Cyber Security Panel. Dr. George (Fred) A. Wright, Principal Research Engineer and Chief Scientist of the Electronic Systems Lab at the Georgia Tech Research Institute will Chair the panel. Dr. Wright directs the Cyber Security Initiative at GTRI and he is soliciting interested IEEE members to participate in expanding the panel and the ongoing process of developing definitions and standards for Cyber Security in government and industry arenas. If you are interested in being a part of this important and innovative panel or if you have questions, please contact Dr. Fred Wright.

UAV Technical Panel

AESS has established a new technical panel on Unmanned Aerial Vehicle Systems UAV. A charter has been written and an organizational meeting will be held on November 13 in Wichita, KS. If you would like to participate contact the chair, <u>George Dean</u>. It is anticipated that there will be three committees on the panel, University students, Commercial, and Military.

Unmanned aerial vehicle (UAV) technology has reached a level of maturity that has put these systems at the forefront of aerospace manufacturing and procurement around the world. Their relatively low-cost make them ideal for civilian applications like law enforcement, environmental monitoring and aerial survey.

Job Opportunities

An independently-produced report has a definitive

AESS wants to help connect job seekers with potential employers. Please submit job opportunities that would be of interest to our members to <u>Judy Scharmann</u>. Please see the current postings on the <u>AESS Web Site</u>.

IEEE-USA is offering "The Best of Today's Engineer: On Career Survival" FREE to unemployed IEEE members. Unemployed IEEE members can request a free copy by contacting <u>Helen Hall</u>. Employed members can purchase a copy for \$4.95 at the <u>IEEE-USA website</u>.

Publications

IEEE AES Transactions "Letters"

Your AES Transactions will have a new category of submissions: the Letter. As with other Society's published Letters, these are results that are of urgent interest. A Letter contains something that needs to appear very quickly: a contribution to a competitive and fast-moving subfield perhaps, or else a result that would be of immediate benefit to others if widely known.

The AES Transactions will offer thorough reviews with speedy decisions: our target turn-around time will be two months. We also promise that an accepted manuscript will be sent to the head of the publication queue. We anticipate that it will appear in the second-to-next

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assessment of the international military and civilian UAV market in 2010 and beyond, which is forecast to be worth \$80 billion by 2020. Rather than solely focusing on the potential value or market share in the coming years, the International Military and Civilian UAV Survey looks at the world's operators and manufacturers of unmanned air systems with profiles for over 450 different UAVs operated or developed in 49 countries.

More than 250 companies involved in the military and civilian UAV market are mentioned, This includes all the major players, including the AAI Corporation, Aero Vironment, Aurora Flight Sciences, BAE Systems, Boeing, Cassidian Air Systems, Elbit Systems, General Atomics Aeronautical Systems Inc, Israel Aerospace Industries, Northrop Grumman, Galileo and many others. Some of the types of UAV's are as follows:-

- Micro air vehicles
- Mini unmanned aerial vehicles
- Vertical take-off
- Tactical
- Medium altitude long endurance
- High altitude long endurance
- Unmanned combat air vehicles
- Lighter than air
- Optionally piloted vehicles

Chapter News



Ron Ogan, AESS Chapter Coordinator

We are delighted to welcome in our community the new AESS Chapter in Sao Paulo, Brazil, which is the FIRST such Chapter in Region 9. The effort to establish the Chapter began in September, 2009, and culminated in approvals by the Region and the AESS Board in July 2010. It took a lot of work, Transactions issue: in fewer than six months.

The requirements on an author are as follows. A Letter must be short, no more than 4 pages long as published. It must be submitted in singlespaced/double-column format so that we can check this. It must fit the requirements for a Letter, specifically that its expeditious publication be demonstrably important. The author must understand that there is no stage of revision: the manuscript will be either accepted as is, or else rejected – this means that the development must be clear and the language without flaw.

--Peter Willett, EIC Transactions on AES.

Systems Magazine Archives

Did you know that we have Systems Magazine Archives on the AESS web site? Click here.

AESS Web Site

Our web site is updated on a daily basis. This is the place to go for the most up-to-date information on society activities, conferences, publications, educational activities, technical operations, membership, student activities, etc.

www.ieee-aess.org

Conference Info

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and we applaud the members who led this effort and saw it through its completion.



Alessio Borelli, Section Chair



Andre Fenili, Chapter Chair, Brazil Chapter

The Distinguished Lecturers Program (DLP) played a significant role in starting the new Chapter, because the idea was discussed in detail during a visit by one of our Distinguished Lecturers. In addition, many copies of old issues of the Magazine and the Transactions were sent to the Section ahead of time, which were eagerly picked up by the attendees at several activities organized by the Section. The lectures and related activities were prominently reported in the Systems Magazine, which also enhanced interest in the AESS, and persuaded members to sign a petition to form a new AESS Chapter.

This "case study" shows that it is not enough to simply float the idea of forming a new AESS Chapter; it requires a concerted effort to show the benefits of a Chapter by providing educational and career-enhancing services to members, and by using our publications to help in this effort.

The Argentina Section has prepared a petition and approval has been given by IEEE for the new

Please go to the <u>AESS Web</u> <u>Site</u> to see a list of upcoming conferences.

Call for Papers

2011 IEEE Radar Conference

!!!!!2011 IEEE Radar Conference Deadline Extension!!!!

IEEE FISTS 2011

Student Info

Student members of AESS: Do you need an experienced AESS member to help you with resume writing? Or maybe help you with understanding what the "real world" in electrical engineering in industry is all about?

Perhaps you have an idea for a new Student Chapter of AESS at your university? Or maybe you have feedback on what AESS can, or should, do to better provide more content or help for its student members?

We may be able to help! Just contact <u>Bob Rassa</u> or <u>Jim</u> <u>Leonard</u> and tell us!

Student Branch News

The University of Missouri at Columbia (MIZZOU) IEEE Student branch has established a UAV project under the sponsorship of AESS. They have recruited a few new members and everyone has volunteered to work on one of the project committees they have set up. They have the airframe built and will soon have some of

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AESS Chapter following the DLP visit in September 2009, and we wish them success. We hope that several other Sections will use this model to establish new AESS Chapters, and we would be happy to help them in their efforts.

Please contact <u>Iram J. Weinstein</u>, VP Education, <u>James Howard</u>, VP Member Services, or <u>Ron T.</u> <u>Ogan</u>,Chair, Chapter Activities, for more information on how to invite a Distinguished Lecturer, or how to establish a new Chapter.

Chapter Rebates

Thanks to Judy Scharmann, AESS Executive Assistant, Liz Parascondola and Tina M. Cordeiro, Administrative Assistants IEEE headquarters, we have sent Chapter rebates totaling over \$10,000. These rebates are approved each year by the AESS Board for \$50 for each meeting up to a maximum of 6. Please contact <u>Ron Ogan</u> or <u>Judy Scharmann</u> for any questions or comments about your rebate.

Third AESS Chapter Summit to be held on August 18, 2011 in San Francisco, CA

We are planning for the Third AESS Chapter Summit to be held on August 18, 2011 in San Francisco, CA. Hotel details will be sent out soon. Reasonable travel expenses will be paid for a Chapter representative, preferably the Chair, to attend the Summit.

The objectives for the AESS Summit are:

Chapter Chair training and networking

• Share Chapter success stories– what's working and what need more work.

• Meet and give feedback to AESS leaders –this is an open exchange

• Chapter membership proposals – how do we retain and increase membership?

• Video tutorials- how are these helpful? What improvements would be helpful?

• Quarterly Email Blast and the AESS website – Are these helpful? How can they be improved? I would like to have volunteers to make this Chapter Summit a complete success. Please contact <u>Ron Ogan</u> to voice your support.

Do You Qualify to be a IEEE Senior Member? Senior Membership is the highest grade for which application may be made and shall require experience reflecting professional maturity; a the crucial electronics installed. They invite you to check out their new <u>website</u>. Also of note, they are now an officially recognized university organization!

AESS now has a student branch chapter at Missouri University of Science & Technology (MST) and two more in formation at the University of Kansas and the University of Colorado at Colorado Springs. All of them plan to be involved in a UAV design and development project.

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candidate shall be an engineer, scientist, educator, technical executive, or originator in IEEEdesignated fields in professional practice for at least ten years and shall have shown significant performance over a period of at least five of those years. An application for Senior Membership requires three references unless nominated by a Senior Member, and in that case requires two references.

Ten years of professional experience

Your educational experience is credited toward that time as follows:

• 3 years for a baccalaureate degree in an IEEE-designated field;

• 4 years if you hold a baccalaureate and masters degree;

• 5 years if you hold a doctorate.

Five years of significant performance

• Substantial engineering, responsibility or achievement.

• Publication of engineering or scientific papers, books, or inventions.

• Technical direction or management of important scientific or engineering work with evidence of accomplishment.

• Recognized contributions to the welfare of the scientific or engineering profession.

• Development or furtherance of important scientific or engineering courses that fall within the IEEE designated fields of interest.

• Contributions equivalent to those of the above in such areas as technical editing, patent prosecution or patent law, provided these contributions serve to advance progress substantially in IEEE designated fields.

Benefits of Senior Membership

• Recognition: The professional recognition of your peers for technical and professional excellence.

• Senior Member Plaque: Since January 1999, all newly elevated senior members have received an engraved Senior Member plaque to be proudly displayed for colleagues, clients and employers to see. The plaque, an attractive fine wood with bronze engraving, is sent within six to eight weeks after elevation.

• US\$25 Coupon: IEEE will recognize all newly elevated senior members with a coupon worth up to US\$25. This coupon can be used to join one new IEEE society. The coupon expires on 31 December of the year in which it is received.

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Letter of Commendation: A letter of commendation will be sent to your employer on the achievement of senior member grade (upon the request of the newly elected senior member).
Announcements: Announcement of elevation can be made in section/society and/or local newsletters, newspapers and notices.

• Leadership Eligibility: Senior members are eligible to hold executive IEEE volunteer positions.

• Ability to Refer Other Candidates: Senior members can serve as a reference for other applicants for senior membership.

• Review Panel: Senior members are invited to be on the panel to review senior member applications.

To submit new articles, please send an email with your article to <u>Judy Scharmann</u>, subject line: "Quarterly Email Blast Article Submission". The next publication will be in February, 2011, deadline for submission is January 15, 2011.