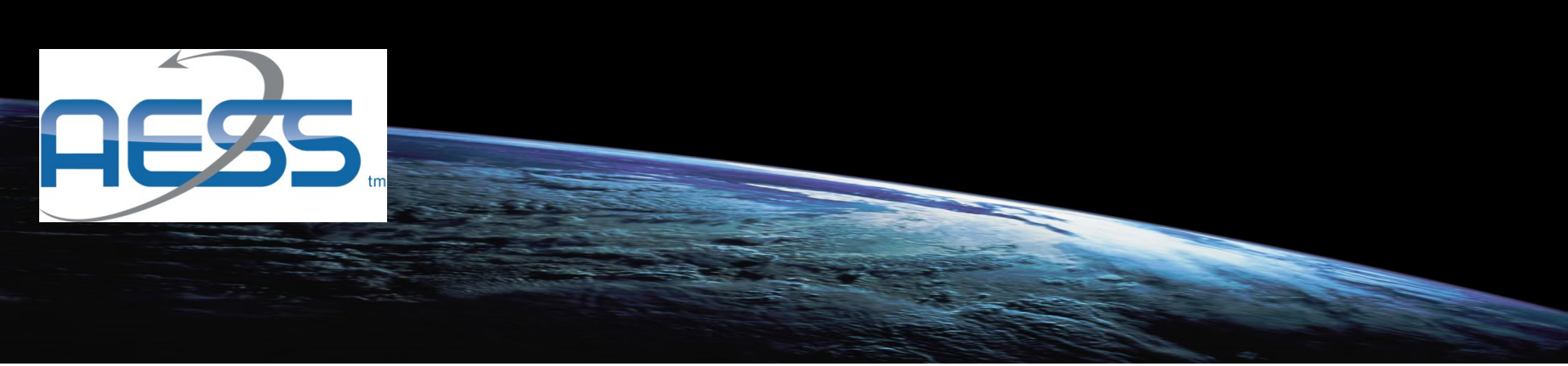

AESS – Education

Strategic Goals and Action Plans

1. Core Activities
2. New Initiatives

Joe Fabrizio

VP Education

AESS Board Meeting
Cincinnati, May 2014

Core Education Activities – *Distinguished Lectures and Online Tutorials*

1. Distinguished Lectures

1.1 Strategic Goals

- Reduce costs ***and*** increase DL activity to provide greater benefits for members and AESS
- Improve geographic distribution of speakers in DL program to enhance global participation
- Standardize process, register attendance & evaluate benefits as perceived by participants

1.2 Action Plans

- Encourage speakers to present DLs & promote AESS when compatible with other travel or work
- Establish committee to review DL roster, solicit nominations, evaluate applications, form new list
- Request DL hosts to meet **all** requirements with respect to reporting for AESS-sponsored events

2. Online Tutorials

2.1 Strategic Goals

- Broaden topics to better reflect AESS FOI's + emerging topics where AESS can provide a home
- Explore new ways to boost usage (website hits) for AESS online tutorials (engage 1-2 volunteers)

2.2 Action Plans

- Invite lecturers who present tutorials at conferences to contribute resources and expand program
- Provide a level of open access to tutorials (also to sell conference) + implement a feedback page

New Education Initiatives – *Mainly aimed at younger AESS members*

3. Mentoring Scheme

3.1 Strategic Goals

- Incorporate an operational AESS mentoring scheme to grow membership and revenue
- Attract and retain younger members in a supported but largely self-managed scheme
- Implement this new service through the evaluation and adaptation of a pilot (phase 1)

3.2 Action Plans

- Develop a planning document in consultation with Education committee for AESS BoG
- Nominate mentoring champion, mentoring coordinator, and develop on-line framework
- Select few AESS chapters, recruit mentors, advertise scheme, and implement phase 1

4. Dissertation Award

4.1 Strategic Goals

- Incorporate best Ph.D. dissertation award into the AESS Education program (IEEE Approval)
- Proposal to implement this new AESS award in memory of Robert Hill (radar systems panel)

4.2 Action Plans

- Formalize details with Awards Chairman and commence process with IEEE
- Select & recruit panel of judges and advertise award on the AESS website

DL Program – 2013 Activity Report

Action item (suggested by Teresa Pace) - Publish DL activity report in AESS magazine

AESS Distinguished Lecture and Tutorial Program

Activity Report for 2013

Dr Joe Fabrizio, Vice President - Education

Distinguished lectures and tutorials play a key role in the AESS Education program as this activity serves to develop and maintain a direct connection with our members via the section and chapter interfaces, as well as professionals and students who are active in AESS fields of interest across industry, government and academia. The value of the program resides in the close engagement it promotes between eminent speakers and the AESS community as a whole. This not only creates opportunities for sharing knowledge and experience, but also opens a space for dialogue and exchange on a broad range of subjects.

A large number of IEEE Sections and Chapters around the world have benefitted from this program, and 2013 was no exception with over 30 distinguished lectures and tutorials presented in countries including the United States, Canada, Malaysia, Turkey, Australia, Switzerland, Russia, Argentina, and the United Kingdom. I wish to highlight the active participation with reference to the 2013 events below, and take this opportunity to thank all distinguished lecturers and event organizers for their valuable contributions to the program.

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. We have selected an outstanding list of speakers who are experts in their fields. If you would like to find out more about this program, please contact me or any member of the AESS Education committee. A general description of the program including the available speakers and presentations and the procedure for organizing an event is provided on the Education site directly accessible from the AESS home page http://ieee-aess.org

Prof Hugh Griffiths

- "The Challenge of Waveform diversity", Crowsnest, Ottawa, AES Chapter, May 7
- "The Challenge of Waveform diversity", San Diego, IEEE Section and AES Chapter, June 27
- "Bistatic and Multistatic Radar", Joint AES/GRS Singapore Chapter, September 6
- "Bistatic and Multistatic Radar", ETH, Zurich, IEEE Swiss Section, November 7

Dr Mark Davis – "Foliage Penetration Radar"

- Yildiz Technical University, Istanbul, IEEE AES Turkish Chapter, August 27
- Engineering Technical University, Ankara, IEEE AES Turkish Chapter, August 29
- Queensland University, Brisbane, Australia, IEEE Section and AES Chapter, September 13
- La Trobe University, Melbourne, Australia, Victorian IEEE Section, September 16

Dr George Schmidt – "Inertial System and GPS Technology Trends"

- St. Petersburg International Conference on Integrated Navigation Systems, Russia, May 27

Prof Yaakov Bar-Shalom – "Multitarget Tracking, Low Observables and Multisensor Fusion"

- Tutorial plenary at FUSION 2013 , cosponsored by IEEE, July 30

Prof Simon Julier – "Distributed Multi-Target Fusion of PHD Filters via Exponential Mixture Densities"

- University College London, UK, August 29
- University of Adelaide, Australia, October 1

Dr Saj Durrani – "Satellite Communications Overview"

- Aviation Museum, College Park, MD, AESS Chapter of the Washington, DC Section, March 27
- Auditorium of Dominion Power Co, Dominion Blvd, Richmond, VA, IEEE Section, September 5

Prof Larry Chasteen – "National Missile Defense"

- University of Missouri at Rolla, IEEE/AESS student chapter, September 11
- St Louis, Missouri, IEEE section and AESS chapter, September 12

Dr Myron Kayton – "Back-Side Lunar Observatories"

- Double Tree Hotel in Santa Ana, CA, June 12

Dr Tony Ponsford – "Maritime Domain Awareness"

- CRC auditorium on the Shirley's bay campus, IEEE Ottawa Section and AESS chapter, September 10

Dr Paul Gartz

- "Systems-of-Systems (SoSs) & Systems Engineering", Ottawa and Montreal, Local AES Chapters, May 21
- "Systems-of-Systems (SoSs) & Systems Engineering", Quebec City, AES Chapter, May 23
- "Systems-of-Systems (SoSs) & Systems Engineering", St. Johns, May 27
- "Systems Integration and Systems-of-Systems (SoSs)", Middletown, NJ AES Chapter, June 6
- "Flying Cars & Other Futures of Aviation", Red Bank, NJ AES Chapter, June 6

Dr Eli Brookner

- "Around the world in 60 minutes – exotic places with a twist", Lincoln Laboratory, Boston IEEE Section and AES Chapter, March 20 (93 attendees)
- "Achievement, Breakthroughs and Future Trends", Lincoln Laboratory, Boston IEEE Section and AESS Chapter, LM & MTT, April 24 (87 attendees)
- "MIMO Radar: Demystified", Lincoln Laboratory, Boston IEEE Section and AES Chapter, MTT, AP & SP Societies, May 28 (64 attendees)

Dr Erik Blasch

- "Information Fusion Performance Evaluation Foundations", Rome, NY, July 18
- "High Level Information Fusion", Rochester, NY, November 5

Prof Simon Haykin

- "Cognitive Radar", Bariloche, Argentina, September 16 (about 40 attendees)
- "Cognitive Control", Conference on Information and Control, Bariloche, September 20 (about 200 attendees)
- "Cognitive Dynamic Systems and Cognitive Control", University of Buenos Aires, September 24 (about 175 attendees)

Distinguished Lectures 2014

Erik Blasch

Overview of Image Fusion, 6 May 2014, SPIE conference, 8 attendees (Highlighted AESS Mag. articles)
High Level Information Fusion, 05 Nov. 2013, Rochester Institute of Technology (60 attendees) (paid by IEEE AES RIT)
Keynote Tracking and Identification, 23 June. 2014, IEEE CVPR (paid by IEEE CVPR, free registration)
High Level Information Fusion, 28 June 2014, IEEE NAECON conference (paid by IEEE NAECON)
High Level Information Fusion, 05 Oct. 2014, IEEE/AIAA DASC conference (paid by IEEE DASC)

Surrendra Pal

10th Jan. 2014, Supreme Knowledge Foundation Group , Electrical Communication: From Graham Bell -of Institutions Mankundu(W.B) to Steve Jobs , 250 attendees, KOLKOTA-India
1st Feb. 2014 Birla Institute of Technology- Mesra-Ranchi Lunar Mission-Chandrayan 1 300 **INDIA**
20th Feb-2014 Sagar Group of Institutions(BHOPAL) Modern Communication Paradigm & NAVCOM INDIA 500
29th April-2014 Manipal University-Jaipur India Space communication- including GNSS 100

George Schmidt

Navigation Systems and Sensors in GNSS Degraded and Denied GNSS Environments:
1. June 3 Beijing Institute of Technology, Beijing, China
2. June 4 Chinese Academy of Launch Vehicle Technology, Beijing, China
3. June 5 Beihang University, Beijing, China
4. June 9 Shanghai Jiao Tong University, Shanghai, China
5. Aug 9 IEEE Chinese Guidance, Navigation, and Control Conference, Yantai, China (shortened version of lecture)

Inertial System and GNSS Technology Trends:
6. Aug 25 International Conference on Advanced Avionics, Hyderabad, India

Bob Rassa
Lecture given to National Defense Industrial Association Systems Engineering Division, April 9 2014,
local, no AES funds needed or used. 40 attendees, venue was General Dynamics Electric Boat auditorium,
1 Maritime Plaza, Washington DC.

Distinguished Lectures 2014 – Cont.

Mark Davis

Foliage Penetration Radar lectures in Paris 21-22 October. This is sponsored by SEE and Onera France. I will send a report when they are completed.
Tentative FOPEN lecture sponsored by NASA and Univ Southern California. Scheduled for later in the year. No dates yet.

Yaakov Bar-Shalom

His talk, entitled, "Target Tracking and Data Fusion: How to Get the Most Out of Your Sensors" was given on 1 May 2014 at 11:00 AM. There were 70 in attendance, and this included faculty and students in electrical engineering, computer engineering, mechanical engineering, chemical engineering, and computer science. This was one of the largest audiences we have had for any talk. His talk was well-received.

Fred Daum

21 January particle flow for nonlinear filters, Bayesian decisions and transport, MIT Lincoln Lab
Lexington MA, roughly 50 attendees, despite a blizzard, sponsored by Boston IEEE AES & Signal Processing
7 April particle flow for nonlinear filters, Bayesian decisions and transport, University of Leuven,
Belgium, roughly 30 attendees, despite sunny weather, sponsored by Univ. of Leuven
30 April particle flow for nonlinear filters, Bayesian decisions and transport, University of Liverpool, roughly 100 attendees, sponsored by IET, with very high ratings (see attachment
5 July 2014, particle flow for nonlinear filters, Bayesian decisions and transport, Xi'an University, China, 2 hour lecture, jointly sponsored by IEEE & Xi'an Univ.
23 September, particle flow for nonlinear filters, Bayesian decisions and transport, Amboise, France.

Eli Brookner

2/10/14, MITRE, Bedford, MA, 35 attended, BOSTON IEEE SECTION & AESS
7/6/14, Xidian Un. China, China IEEE AESS
7/10/14, UEST, Chendu, China, China IEEE AESS
7/13/14, BIT, Beijing
10/20/14, Paris, France, IEEE AESS
11/26/14 MIT LL, Lexington, MA, BOSTON IEEE AESS & LIFE MEMEBERS
12/10/14 MIT LL, Lexington, MA, BOSTON IEEE AESS & RELIABILITY
TBD Huntsville, AL, Huntsville IEEE AESS

Distinguished Lectures – Three-year trend

2012 Calendar Year

- Taken from AESS strategic plan
- Total of 12 DLs were presented
- AESS-portion funding USD=$17,900

2013 Calendar Year

- Total of 27 distinguished lectures were presented
- 10 in US and 17 international DLs
- AESS-portion funding approved by VP Ed USD=$8,268
- Average cost = 306 USD/lecture

2014 Calendar Year (Projected)

- Total of 32 distinguished lectures presented/planned
- 12 in US and 20 international DLs
- AESS-portion funding approved thus far USD=$4,450
- Average cost = 139 USD/lecture

Distinguished Lectures – Strategy and Tactical Items

Recall of three-year goals set out for the DL program in 2013

1. Increase Participation

- Active DLs are needed to be effective ambassadors of the AESS

→ Encourage DLs to be proactive, monitor activity & review annually

2. Reduce Costs

- Look for ways to reduce DLP expenditure while maintaining benefits for the AESS

→ Encourage DLs to present when compatible with other travel or work commitments

3. Standardize Procedure

- Informal application process increases potential for misunderstanding between DL, host, and AESS

→ Standardize process via an on-line DL request form such that all parties are clear on the agreement

4. Promote AESS

- DLs are in direct contact with the "customers" - must not miss the opportunity to promote the AESS

→ Review and improve promotional materials used to advertise benefits of AESS membership at events

5. Evaluate Benefit

- Need to measure benefit perceived by AESS members and other participants (not only the host)

→ Register attendance, provide information to VP Education, and send on-line evaluation requests

Standardize Procedure – DL Request Form (Draft Only)

Page 1

1. **Requesting POC**
   Name: Affiliation:
   Email: Telephone:
   IEEE Section/Chapter (if any):

2. **Distinguished Lecturer**
   Presenter name:
   Lecture titles:
   A)
   B)
   C)
   Please indicate the reason for this request:

3. **Proposed Itinerary**
   Please indicate the date, location, lecture ID, and local POC information for each proposed DL event

Event	Date	Location	Lecture	POC Name	POC Email
1					
2					
3					
4					
5					

4. **Cost Estimate**
   Please indicate approximate costs for each DL event in USD (include all airfares and/or surface-travel)

Event	Travel (air/surface)	Accommodation	Other (e.g. meals)	Total (USD)
1				
2				
3				
4				
5				

5. **Expense Apportionment**
   Please indicate how these costs will be apportioned between the AESS and host organization(s)

Expense Description	Amount	AESS Portion	Host Portion	Responsible POC

6. **Organizer Declaration**
   I have read the information provided on the back of this form and agree to meet AESS requirements.
   Name: Signature: Date:

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IMPORTANT INFORMATION

General Guidelines

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. We have selected an outstanding list of speakers who are experts in their fields. The AES Society will pay reasonable speaker's expenses for economy-class travel, lodging and meals. As a general guideline, speaker's expenses involving travel wholly within North America or within the European Union will be covered up to $1,000. Expenses involving extensive international travel will be covered up to $2,000. The Society encourages arrangements whereby more than one lecture is presented in a single trip, and costs in such situations will be considered on a case by case basis. The inviting organization is expected to cover 50% of the speaker's expenses.

Application Procedure

The procedure for obtaining a speaker is as follows: If a Chapter or Section has an interest in inviting one of the speakers, it should first contact the speaker directly in order to obtain his or her agreement to give the lecture on a particular date. After this is accomplished, the Chapter or Section must notify the AESS VP for Education. If financial support from the AESS is required for the speaker's expenses, he or she must submit an estimate to the AESS VP for Education before actually incurring any expenses. This estimate must be provided at least 45 days before the planned meeting to provide time for feedback from the VP for Education and for changes if needed. The VP for Education must provide written authorization to proceed.

AESS Promotion

Distinguished Lecturers and Tutorial speakers are ambassadors of the AESS. As such, they should take advantage of the opportunity to stimulate membership in IEEE and AESS in particular. To support this goal, the Society has prepared a short presentation on the benefits of Society membership. Speakers should contact Judy Scharmann well in advance of each lecture to arrange for shipping AESS and IEEE Membership brochures and back copies of Society Publications to hand out. After giving a lecture, the speaker and/or host should prepare a short report suitable for publication in Systems Magazine and posting on the AESS web site. Pictures taken at the meeting are highly desirable. Send this report to AESS VP for education.

DL Evaluation

In order to evaluate the level of participation and benefit of DL events to AESS members and other attendees, the host or point of contact of each DL event is requested to distribute the DL registration form (and a pen) to enable all attendees to write their details on the registration form before the start of the DL event. The host or point of contact should then scan and send the completed registration form to VP for education by email immediately after the DL event. Such information is used to assess the level of participation and to email out a DL evaluation questionnaire to all attendees shortly after the event.

Local Arrangements

The AESS expects the host organization(s) to take care of all local arrangements and local expenses for both the DL event and speaker *directly*. This will often include accommodation, surface travel, and meals for the speaker in accordance with IEEE standards. Ideally, the speaker should not to incur any costs for local expenses in relation to the DL event. It is up to the host organizations to reimburse the speaker if such expenses occur. The AESS will pay for the airfare costs and adjustments will be made after the event to ensure that the 50-50 rule is satisfied up to the maximum limit approved by VP for Education. The hosts (and speaker) are reminded to keep receipts for all expenses related to the DL event for acquittal purposes. The host or speaker should notify VP for Education of any significant changes to the event after the approval as soon as possible.

For more information, please contact the AESS VP for Education, Joe Fabrizio, joe.fabrizio@dsto.defence.gov.au

Promote AESS – Magazine Page and Speaker Materials (Thanks to Judy)

Revised DL Page

2013 Distinguished Lecturers & Tutorials
Dr. Joe Fabrizio, Vice President – Education

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. We have selected an outstanding list of speakers who are experts in their fields. The AES Society will pay reasonable speaker's expenses for economy-class travel, lodging and meals. As a general guideline, speaker's expenses involving travel wholly within North America or within the European Union will be covered up to $1,000. Expenses involving extensive international travel will be covered up to $2,000. The Society encourages arrangements whereby more than one lecture is presented in a single trip, and costs in such situations will be considered on a case by case basis. The inviting organization is expected to cover 50% of the speaker's expenses. The procedure for obtaining a speaker is as follows: If a Chapter or Section has an interest in inviting one of the speakers, it should first contact the speaker directly in order to obtain his or her agreement to give the lecture on a particular date. After this is accomplished, the Chapter or Section must notify the AESS VP for Education, joe.fabrizio@dsto.defence.gov.au. If financial support from the AESS is required for the speaker's expenses, he or she must submit an estimate to the AESS VP for Education before actually incurring any expenses. This estimate must be provided at least 45 days before the planned meeting to provide time for feedback from the VP for Education and for changes if needed. The VP for Education must provide written authorization to proceed.

The Challenge of Waveform Diversity – *Lecture*
Bistatic & Multistatic Radar – *Lecture*
Hugh D. Griffiths, University College London
h.griffiths@ieee.org, +44 20 76793966

Systems Engineering Best Practices (SE101 to 601) – *Lecture or Tutorial*
Flying Cars and the Future of Aviation – *Lecture*
Global Systems-of-Systems and Why You Should Care – *Lecture*
Educating 21st Century Engineers for Business and Academia – *Lecture*
Business Process Management for ROI Results vs Activity – *Lecture*
Applied General Systems Theory - *Lecture*
Paul E. Gartz, Boeing
paul.e.gartz@boeing.com, (206) 954-9616

Foliage Penetration Radar – *Lecture*
Mark E. Davis, Independent Consultant
medavis@ieee.org, (315) 896-6373

Backside Lunar Observatory – *Lecture*
Evolution of Aircraft Avionics – *Lecture*
Manned Space Avionics – *Lecture*
Navigation Systems – *Lecture*
Myron Kayton, Kayton Engineering Company
m.kayton@ieee.org (310) 286-0059

MIMO Radar: Snake Oil or Good idea? – *Lecture*
Never Trust a Simulation without a Simple Back-of-the-Envelope Calculation that Explains it – *Lecture*
Nonlinear Filters with Particle Flow – *Lecture*
Real World Data Fusion – *Lecture*
Is there a Royal Road to Robustness – *Lecture*
Frederick E. Daum, Raytheon Company
Frederick_E_Daum@raytheon.com

Inertial System and GPS Technology Trends – *Lecture*
George T. Schmidt
gtschmidt@alum.mit.edu, (781) 863-1637

National Missile Defense – *Lecture*
Larry Chasteen, University of Texas – Dallas
Chasteen@utdallas.edu, (972) 234-3170

Satellite Communication Systems – *Lecture*
Saj Durrani
s.durrani@ieee.org, (301) 774-4607

Antenna Systems for Aerospace Vehicles – *Lecture*
Global Navigation Satellite System – *Lecture*
Surendra Pal, ISRO Satellite Center
Pal_surendra@hotmail.com, +91-80-25205275

Target Tracking and Data Fusion: How to Get the Most out of your Sensors – *Lecture*
Yaakov Bar-Shalom, University of Connecticut
ybs@engr.uconn.edu, (860) 486-4823

Amazing Advances and Future Trends in Phased-Arrays and Radar – *Lecture*
MIMO Radar – Demystified and Where it Makes Sense – *Lecture*
Snoopy Explains Radar and Phased-Arrays – Lecture for the Whole Family – *Lecture*
AROUND THE WORLD IN 60 MINUTES – EXOTIC PLACES WITH A TWIST – *AN INFORMATIVE, ENTERTAINING, HUMOROUS EVENING FOR THE WHOLE FAMILY* - *Lecture*
Eli Brookner, Raytheon Company
Eli_brookner@raytheon.com, (978) 440-4007

High-Level Information Fusion Theory, Models and Representations – *Lecture*
Information Fusion Performance Evaluation – *Lecture*
Methods of Image Fusion - *Lecture*
Erik P. Blasch, US Air Force Research Lab
Erik.blasch@gmail.com

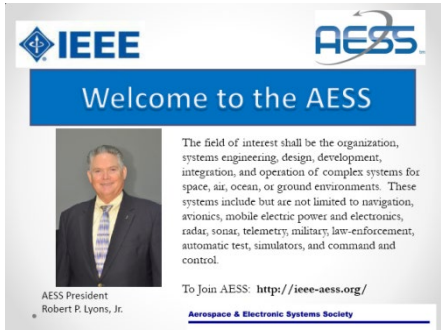
Business Case for Systems Engineering – Is Systems Engineering Effective? – *Lecture*
Robert C. Rassa, Raytheon Company
rcrassa@raytheon.com, (310) 985-4962

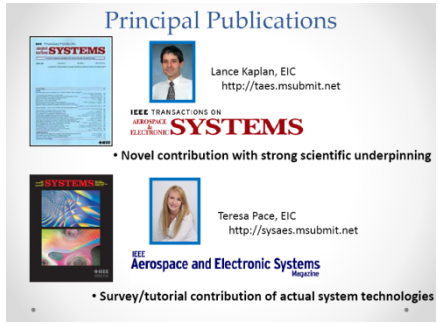
Effective Maritime Domain Awareness – A Systems of Systems Approach to Generating Actionable Intelligence - *Lecture*
Tony Ponsford, Raytheon Company
Tony_ponsford@raytheon.com, (613) 772-2997

Simon Haykin, McMaster University
Haykin@mcmaster.ca, (905) 525-9140
**Lecture Information unavailable at time of print*

Simon Julier, University College London
s.julier@cs.ucl.ac.uk, +44 20 76794132
**Lecture Information unavailable at time of print*

Revised PPT Slide-Pack





Assess Benefit – Registration & Evaluation Forms (Draft Only)

Registration of attendance at DL event

IEEE Aerospace and Electronic Systems Society

Distinguished Lecture Registration Form

Presenter name: Date:

Lecture title: Venue:

Hosted by: Email:

Registered attendees (please complete all fields)

Name	Affiliation	AESS Member (Y/N)	Email address

IMPORTANT INFORMATION!!!

The AESS needs to know the benefit this distinguished lecture/tutorial has provided for you. After this event, you are kindly requested to visit the AESS DL page and submit your evaluation on-line.

Distinguished Lecture Assessment

Lecturer _____

Topic _____

Location _____

Date _____

Attendee Name _____

	Poor				Outstanding
Contents of Lecture	☐	☐	☐	☐	☐
Speaker's Delivery	☐	☐	☐	☐	☐
Currency of Material	☐	☐	☐	☐	☐
Would Recommend	☐	☐	☐	☐	☐

Comments

New Education Initiatives – Mainly aimed at younger members

Review of strategic plan by VP Education discussed in May 2013

Significant Issue

- ``Concern about the Society's lack of growth'' - excerpt taken from 2012 strategic plan
- Sense that student interest is waning in engineering fields that traditionally feed AESS

Main Goal

- Develop programs aimed at providing attractive benefits for younger AESS members
- To retain student members and encourage young professionals to become members

Best Ph.D. Award

- Motion passed to establish a Best Ph.D. award at the AESS BoG meeting in Oct. 2013
- As a starting point, it may be introduced as an international radar systems panel award

Mentoring Scheme

- Students and young professionals are often left to their own after joining the AESS
- Structured scheme to help young members integrate quickly into AESS community

AESS Best Ph.D. Dissertation Award

Action item on VP Education at BoG Spring meeting (Ottawa, 2013)

→ Incorporate a best Ph.D. dissertation award into the AESS Education program

Award Description for AESS announcement – draft only

This annual award is sponsored by the IEEE Aerospace and Electronic Systems Society. Its purpose is to grant international recognition for the most outstanding Ph.D. dissertation by an IEEE/AESS member that has been awarded a Ph.D. degree in the 12 months prior to the date of nomination. The goals of the AESS in establishing this award are to foster increased participation, encourage individual effort, and reward outstanding contributions in AESS fields of interest. The award consists of a plaque and honorarium that will be presented at a convenient IEEE conference. Nominees must have been a member of the IEEE/AESS for more than one year at the time of nomination and must have made outstanding contributions in an AESS field of interest in their Ph.D. dissertation. Nominations must permit appraisal of the contributions.

Best Ph.D. Dissertation Award – General Information

Prize:

The winner will receive a $1,000 honorarium and commemorative plaque. If required, travel expenses of up to $1,000 may be authorized by the AESS President to attend the conference where the award will be presented.

Eligibility:

The nominee must be an IEEE/AESS member (of any grade) for more than one year at the time of nomination. The nominee must have been awarded the Ph.D. degree in the last 12 months prior to nomination. The Ph.D. dissertation is deemed to have made particularly noteworthy contributions in an AESS field of interest.

Basis for Judgement:

Individual contributions to an AESS field of interest made in the nominee's Ph.D. dissertation.

Presentation:

At a convenient IEEE conference held in the same year as the winner is announced.

Best Ph.D. Dissertation Award – Application Process

Application process:

The nominator is required to send an application package that includes the AESS nomination form, a copy of the official academic transcript awarding the Ph.D. degree, an electronic copy of the dissertation, and supporting references from the nominator and two other endorsers (preferably including the main Ph.D. supervisor and/or reviewers) to explain the merit of the nominee's contributions. The complete application must be emailed to VP Education, Dr. Joe Fabrizio, joe.fabrizio@dsto.defence.gov.au before 31 December. The winner will be decided by a committee and announced in April of the following year.

Chair of the AESS Best Ph.D. Dissertation Award: Dr Joe Fabrizio, VP Education

Additional elements:

- Nomination form for the award has been drafted – final version subject to panel review
- Resolve any remaining formalities, then determine a start date and publicise new award

Best Ph.D. Dissertation Award – Nomination Form (Draft Only)

Page 1

AESS Best Ph.D. Award – Nomination Form

This form is to be completed by the nominator

1. Nominee information

Last Name: First Name: Initial:

Business Affiliation (if any):

Mailing Address:

City: State: Postal Code: Country:

Telephone Number: E-mail Address:

IEEE Member Number:

2. Nominated Dissertation

Ph.D. dissertation title:

Name of primary supervisor:

Names of co-supervisors (if any):

School: City: Country:

Ph.D. degree start date: Date awarded:

2. Nominator information

Last Name: First Name: Initial:

Business Affiliation: Position Held:

Mailing Address:

City: State: Postal Code: Country:

Telephone Number: E-mail Address:

Page 2

2. In less than 100 words, describe your relationship to the nominee and how you personally became aware of the important accomplishments in the Ph.D. dissertation nominated for this award.

3. In less than 200 words, summarize the individual contribution(s) that you believe warrant this nomination.

4. Name two other referees that will provide letters of endorsement for this nomination.

Referee # 1

Last Name: First Name: Initial:

Telephone Number: E-mail Address:

Relationship to nominee:

Referee # 2

Last Name: First Name: Initial:

Telephone Number: E-mail Address:

Relationship to nominee:

5. Are you willing to serve as nominator and the point of contact for this nomination? (Yes/No)

Date: _____ Signature: _____

Submit to: IEEE/AESS VP for Education, Dr Joe Fabrizio, joe.fabrizio@dsto.defence.gov.au

A consideration for the Board:

As many of you know, ideas have been floated in the international radar community to establish an award in Memory of Robert Hill.

The general consensus is that the award should focus strongly on the themes of education, international participation and fundamental technical excellence.

The best PhD award seems to meet these criteria. Should we consider it as a potential candidate?

AESS Mentorship Scheme

Action item on VP Education at BoG Spring meeting (Ottawa, 2013)

→ Incorporate an IEEE/AESS mentorship scheme as a new Education initiative

→ In consultation with AESS President, B. Lyons, and Education Committee volunteers:

A. Farina, H. Griffiths, R. Rassa, E. Blasch, L. Chasteen, I. Weinstein, J. Scharmann, T. Samaritano, C. Cullen

***Definition* of mentoring - there are many:**

A private relationship and alliance, often formed between two people with different levels of experience, that creates a space for positive two-way exchange based upon encouragement, constructive comments, openness, mutual trust, respect and a willingness to learn, share and support one another that enables the development of knowledge, skills or thinking for both the mentor and mentee mainly through dialogue, reflection and the arrangement of opportunities.

***Motivation* for the scheme - depends on perspective, but a win-win situation exists:**

AESS - Represents a new service and benefit provided to members to help grow the Society

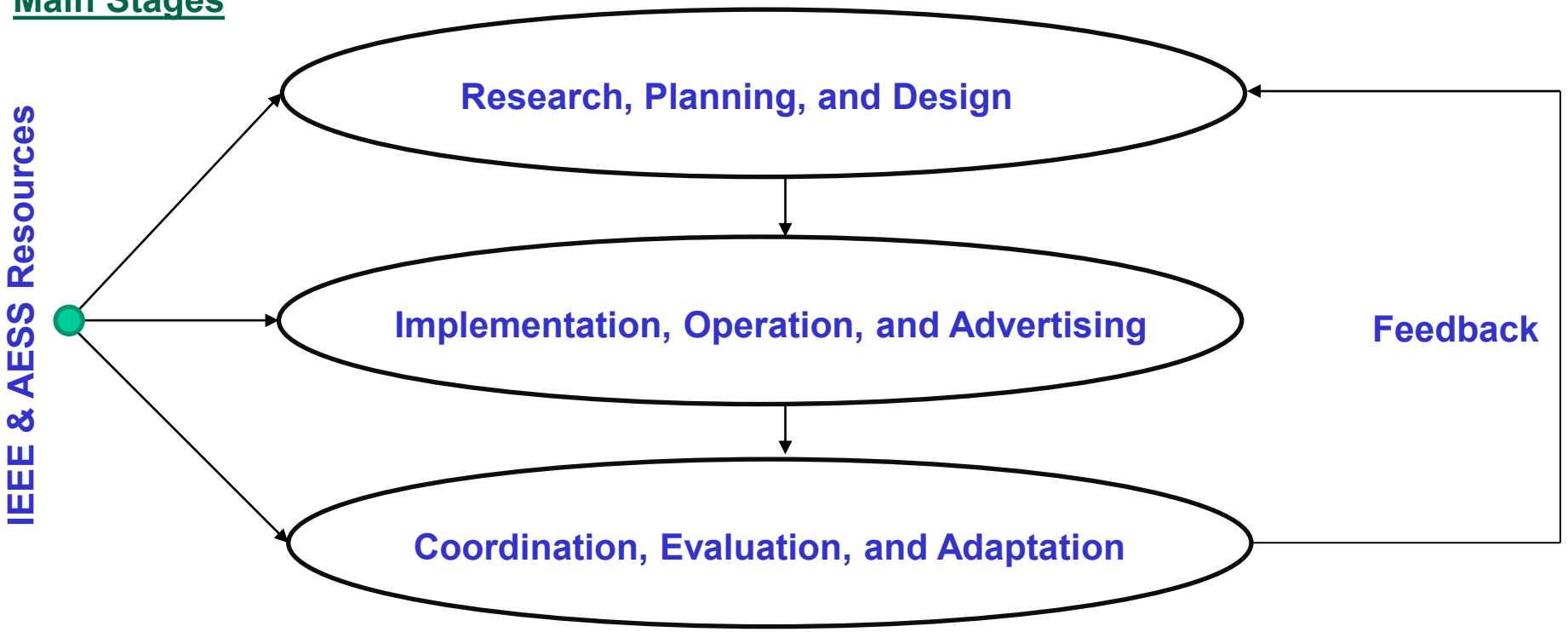
Participants - Many advantages or incentives for mentors & mentees to participate voluntarily

AESS Mentorship Scheme

Program Goal

To design, implement, and maintain a supported but largely self-managed operational mentoring scheme for AESS members, through the evaluation and adaptation of a pilot scheme, that will help grow the Society and provide valuable benefits to all participants.

Main Stages



Summary

Growing the AESS and revenue (not only membership per se)

- Important to do more than simply advertise existing services and benefits
- Growth requires the implementation of new customer-focussed strategies

Strategy for AESS Education

- **Improve existing services**: Distinguished lecture program, online tutorial and education
- **Provide more benefits**: mentorship scheme – new initiative aimed for younger members
- **Grow technically**: creating a professional home for alternative/emerging fields of interest

Overarching Strategy

- Our members should be more encouraged and empowered to help grow the AESS
- Use membership resource to grow internationally (esp. under-represented regions)

Back-up Slides

Distinguished Lecture (DL) Program

Motion for BoG

- 16 individuals to represent AESS as DLs
- Two year terms beginning 1 January 2013
- Terms renewable at discretion of the BoG

Program Objectives

- Eminence of speakers
- Diversity of topics
- Quality of Content and Delivery
- Geographic distribution of DLs

Information on Website

- Lecture Descriptions
- Author Biographies
- Application Procedure
- Budget Guidelines

Yaakov Bar-Shalom	**Hugh Griffiths**
Erik Blasch	Simon Haykin
Eli Brookner	Simon Julier
Larry Chasteen	Myron Kayton
Fred Daum	Surendra Pal
Mark Davis	Tony Ponsford
Saj Durrani	Bob Rassa
Paul Gartz	George Schmidt

DL Activity in 2012

- 12 DLs given by 8 speakers
- 8 DLs were inactive in 2012
- 14 DLs presented at least once since 2010
- Could do better with geographic distribution

Online Tutorials – Planned Activities

Open Access

- Allow previews or limited portions of tutorials to be viewed by non-members (also applies to DLs)
- Enabled by modifying tutorial access and log-in on website (e.g. issuing of viewing certificates)

Broaden Topics

- Better representation of AESS FOIs and search for emerging topics where AESS can provide home
- e.g. approach lectures who already present tutorials at conferences and meetings or authors of texts

Online Education

- Develop an indexed compendium of useful links to existing open source education information
- This is also of interest to the education committee of the International Radar Systems Panel

Feedback Page

- Implement a feedback page to better understand the needs of AESS members
- The page could be made general to include other areas not limited to education

AESS Mentorship Scheme

Benefits for Mentors

- Opportunity to increase self-awareness and open up to new ideas and different perspectives
- Enhanced communication and leadership skills, often held in high regard by organizations
- A way of making a contribution and giving back to the community
- Fulfilment and intellectual stimulation

Benefits for Mentees

- Guidance in setting and achieving goals for personal growth and self-development
- Expanded vision and greater knowledge and skills to assist in career advancement
- Extended support systems and networking opportunities
- Increased confidence and self-esteem

Benefits for AESS

- Direct mechanism to fast-track the integration of younger members into the AESS community
- Provides an increased ability to attract and retain talent and hence grow Society membership
- Promotes an organizational culture that values leadership and commitment to members
- Increases opportunity for cross-fertilization and linkages for the Society to grow technically

AESS Mentorship Scheme

Selecting Participants

- Mentors: by nomination and invitation, or by application to an advertisement with references
- Mentees: mainly by application to join the scheme, also by nomination and invitation

Information Briefs

- Clear statement of scope of the program plus roles and responsibilities for the participants
- Provide training briefs to help manage expectations, guide interactions, and resolve issues

Supported Self-Matching

- Primary method: mentee selects one of the available mentors featured on the AESS website
- Secondary method: AESS support available to assist a mentee find a suitable mentor

Program Evaluation

- Invite participants to provide feedback (comments and scores) via an on-line questionnaire
- Collect statistics and interpret comments to evaluate scheme and make recommendations

Transition Plan

- Start with a pilot program (selected chapters) – 20 mentors and 20 mentees (1 year duration)
- Adapt program based on lessons learnt and go national (US), repeat, and go international

AESS Mentorship Scheme

AESS Resources

- Capital investment (time/money) needed for program design, implementation and publicity
- On-going costs associated with day-to-day coordination, support, evaluation and adaptation
- Recurrent costs associated with publicity and other events linked to promoting the scheme

AESS Sponsorship

- AESS resources needed to get the pilot scheme up and running still to be quantified
- Certain to need seed funding from AESS and apply to IEEE for new initiative funding

Pilot Program

- Aim to produce a policy document describing this scheme in detail by early next year
- Subject to AESS support and available sponsorship, aim to trial the scheme next year

AESS Liability

- Participants entering the scheme need to take full responsibility for all that occurs
- The AESS sets up the scheme but is not liable for any perceived negative impacts