

AESS – Education Board Meeting October, 2013

Joe Fabrizio VP Education



Aerospace & Electronic Systems Society

Presentation Outline

Distinguished Lectures

- Activity report for 2013 DL events and expenses
- New developments and improvements
 - Revised DL page for AESS Magazine
 - Revised AESS promotional materials
 - Standardized application procedure
 - Attendance registration at DL events
 - DL evaluation by host & participants
- Remaining Issues

On-line Education

- Little change in status since May BoG meeting
- Areas for improvement and planned activities

New Initiatives

- Incorporation of Best Ph.D. Dissertation Award into Education Program
- Proposed roadmap for the AESS Mentorship Scheme discussed in May



Distinguished Lectures – Strategy and Tactical Items

Recall of three-year goals set out for the DL program at the start of 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. 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

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. 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



Distinguished Lectures – 2013 Activity Report

DL events and expenditure thus far in 2013

Prof Hugh Griffiths - "Bistatic and Multistatic Radar" & "The Challenge of Waveform Diversity"

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

Dr Mark Davis - "Foliage Penetration Radar" (cost to AESS \$2500)

- Yildiz Technical University (YTU), Istanbul, August 27, IEEE AESS Turkish Chapter
- Engineering Technical University, Ankara, August 29, IEEE AESS Turkish Chapter
- Queensland University, Brisbane, Sept. 13, Queensland IEEE section and AESS Chapter
- La Trobe University, Melbourne Australia, Sept 16, Victorian IEEE section

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, July 30, cosponsored by IEEE

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





Distinguished Lectures – 2013 Activity Report

DL events and expenditure thus far in 2013 - continued

Dr Saj Durrani – "Satellite Communications Overview" (cost to AESS \$136)

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

Prof Larry Chasteen - "National Missile Defense" (cost to AESS \$800 TBC)

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

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, Sept 10, IEEE Ottawa section and local AESS chapter

Dr Paul Gartz – "Systems-of-Systems (SoSs) & Systems Engineering" (cost to AESS \$4832 – less if funds can be recovered)

- Canada, May 21, Ottawa and Montreal, May 23 Quebec City, May 27, St. Johns (cost to AESS \$4172)
- NJ, June 6, Middletown and Red Bank, "Flying Cars & Other Futures of Aviation" (cost to AESS \$660)

Dr Eli Brookner

- "Around the world in 60 minutes exotic places with a twist", Lincoln Laboratory, March 20, Boston IEEE AESS (93 attended)
- "Achievement, Breakthroughs and Future Trends", Lincoln Laboratory, April 24, Boston IEEE AESS, LM & MTT (87 attended)
- "MIMO Radar: Demystified"; Lincoln Laboratory, May 28, 2013, Boston IEEE AESS, MTT, AP, and SP Societies (64 attended)



Distinguished Lectures – 2013 Activity Report

DL events and expenditure thus far in 2013 - continued

Dr Erik Blasch - "Information Fusion Performance" & "High Level Information Fusion"

- "Information Fusion Performance Evaluation Foundations, Strategies, and Applications ", Rome, NY, July 18
- "High Level Information Fusion", planned for Rochester, NY, November 5

Prof Simon Haykin - (visit not acquitted yet)

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

Dr Frederick Daum

- No DL events known to VP Ed as yet for 2013

Dr Robert Rassa

- No DL events scheduled as yet for 2013

Dr Surendra Pal

- No DL events known to VP Ed as yet for 2013

Summary (as at 2 October 2013):

- On the whole, the DLP has been active in 2013 with positive feedback from lecturers and organizers
- A total of 27 distinguished lectures have been presented thus far for a cost to AESS of USD=\$8268
- An recurrent issue of not following BoG-approved policy has arisen and needs to be resolved later



Standardize Procedure - DL Request Form (Draft Only)

Page 1

1. Requesting POC

Name:
Email:
IEEE Section/Chapter (if any):

Affiliation: Telephone:

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:

Aerospace & Electronic Systems Society

Page 2

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 <u>AESS VP for Education</u>. 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 <u>Judy Scharmann</u> 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



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

Distinguished Lecture Assessment

Lecturer _____

Topic

Location _____

Date

Attendee Name

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

Comments

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.





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 Sai Durrani s.durrani@ieee.org, (301) 774-4607

Antenna Systems for Aerospace Vehicles - Lecture Global Navigation Satellite System - Lecture Surendra Pal, ISRO Satellite Čenter 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





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

To Join AESS: http://iece-acss.org/ Aerospace & Electronic Systems Society

AESS Technical Panels

- 1. Gyro and Accelerometer Panel
- 2. Radar Systems Panel
- 3. Space Systems Panel
- 4. Taraet Tracking Systems Panel
- 5. Aerospace Systems Integration Engineering Technical Panel
- 6. Aerospace Control & Guidance Systems Panel
- 7. Aerospace Workforce Panel
- 8. Cyber Security Panel
- 9. Unmanned Aerospace Vehicles Panel
- 10. Avionics Systems Panel

Contact the VP Technical Operations (Roger Oliva, roger.oliva@ieee.org), the Technical Panel Chairs or any member of the Board of Governors if you're interested in participating in the work of a technical panel.

AESS Conferences



IEEE/AESS European

Conference on Satellite

Telecommunications (ESTEL)

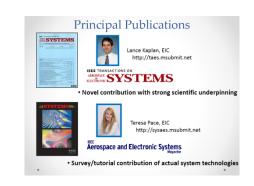
estel

CONFERENCE

Electronics Conference (NAECON) The 2014
 edition will be held June 25-27 in Dayton, OH

Integrated Communications, Navigation and Surveillance Conference (ICNS)

ICNS



AESS Conferences



IEEE/AIAA Digital Avionics Systems Conference (DASC) Digital Avionic

....

IEEE International The 2013 edition will be held October 5-10 Carnahan Conference in Syracuse, New York on Security Technology



IEEE Aerospace Conference
IEEEAEROSPACE CONFERENCE
The 2014 edition will be held May 1-7

 The 2013 edition will be held October 8-11 in Medellin, Colombia

in Big Sky, Montana

Join AESS!

Go to http://ieee-aess.org/ and click on 'membership' to join today!

- The AESS is the only professional society dealing with total integrated electronic systems and the enabling technologies. AESS pioneered large-scale integrated interoperable systems. We interact with all technical societies and organizations. Additional Benefits include:
 - Panel and committee membership
- Conferences and symposia
- Present papers
- Prizes and awards for technical accomplishments o Benefit from our Distinguished Lecturer Series
- All members receive Aerospace and Electronic Systems
- magazine and a discount on Transactions.



Aerospace & Electronic Systems Society

National Aerospace & The 2014 edition will be held May 19-23 in Cincinnati, Ohio

Online Tutorials – Current Status

Available Online

- Bistatic & Multistatic Radar Hugh Griffiths
- GPS/GNSS + Inertial Navigation James Farrell
- Radar System Performance Modeling Dick Curry
- Sea Clutter Simon Watts & Keith Ward
- Fundamental Concepts in Radar Signal Processing Mark Richards
- Introduction to Stealth Dave Lynch

Under Discussion

- Foliage Penetration Mark Davis
- Inertial System and GPS Technology Trends George Schmidt
- Introduction to Image Fusion Erik Blasch

Main Observations

- Limited utilization
- Insufficient topic diversity
- Member login problems
- Only technical material





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





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

Mentoring Scheme (and Best Ph.D. Award)

- 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

Conference Networking

- To simply invite students to attend AESS conferences under sponsorship is not sufficient
- Need leaders to engage with them to help understand our community and promote AESS

Technical Guidance

- Students often know of leaders in their field of interest and often admire them from afar
- The scheme should **actively** help connect students and mentors for technical exchange



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 <u>AESS nomination</u> 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)

			Form Page 2	2. In less than 100 words, describe your re the important accomplishments in the Ph.L	elationship to the nominee and how you perso D. dissertation nominated for this award.	nally became aware of
	<u>This form is</u>	to be completed by the nomi	nator			
1. Nominee inf	ormation					
Last Name:		First Name:	Initial:			
Business Affiliation	(if any):					
Mailing Address:				3. In less than 200 words, summarize the in	ndividual contribution(s) that you believe war	rant this nomination.
City:	State:	Postal Code:	Country:			
Telephone Number:		E-mail Address:				
IEEE Member Num	ber:					
2. Nominated 1	Dissertation					
				4. Name two other referees that will provide letters of endorsement for this nomination.		
Ph.D. dissertation ti				Referee # 1		
Name of primary su				Last Name:	First Name:	Initial:
Names of co-superv	isors (if any):				E 1411	
School:		City:	Country:	Telephone Number:	E-mail Address:	
Ph.D. degree start d	ate:	Date awarded:		Relationship to nominee:		
2. Nominator is	nformation			Referee # 2		
Last Name:		First Name:	Initial:	Last Name:	First Name:	Initial:
Business Affiliation	:	Position Held:		Telephone Number:	E-mail Address:	
Mailing Address:				Relationship to nominee:		
City:	State:	Postal Code:	Country:	-	nd the point of contact for this nomination? (Yes/No)
Telephone Number:		E-mail Address:		5. Are you willing to serve as nominator and the point of contact for this nomination? (Yes/No) Date:		
Aerospace & Electronic Systems					a, Dr Joe Fabrizio, joe.fabrizio@dsto.defence.	gov.au

Society

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, H. Griffiths, and Education Committee volunteers:

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

Definition of mentoring - there are many, but here's mine:

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.

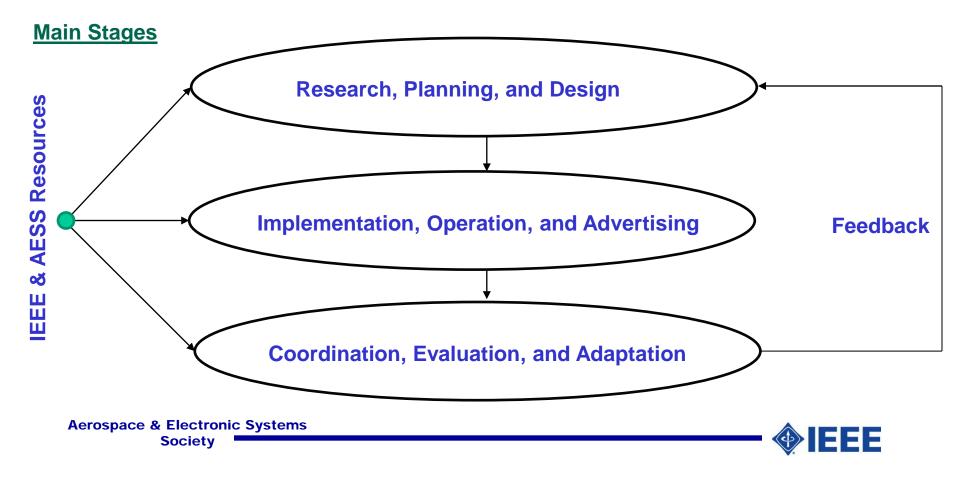
Motivation for the scheme - depends on perspective, but a win-win situation exists:

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



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.



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



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 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



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)

