

Education Strategic Planning

AESS Officers Strategic Planning Meeting

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Renaissance Atlanta Midtown

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Mission and Vision

■ Mission

- Develop and coordinate the educational activities of the Society to provide ***timely, relevant and interesting educational topics and delivery methodologies*** to our members and other members of the ***aerospace/defense community***.
- Provide the means to deliver ***high quality Distinguished Lectures and Tutorials*** to our audience.
- Address the needs of ***emerging engineers***.

■ Vision

- AESS will be recognized for its leadership in serving as an essential professional forum for delivering ***world-class educational activities that advance our international technical communities and are valued by AESS*** members.

Strategic Analysis

■ Strengths

- Strong base of activities across society related to Education
- Radar Systems, Tracking, and Fusion topics education activities supported by and supporting activities across AESS.

■ Weaknesses

- Small side of medium society – not as recognized as it should be.
- Lack of coverage for some areas.
- Lack of YP and WIE membership and involvement. Small number of student members.

■ Threats

- Online Tutorials not well used. Resource Center not yet adding value.
- Struggle to get many nominations for thesis award and similar issues.

■ Opportunities

- Society technical interests that coinciding with initiatives: UAS, Cyber, Navigation, Big Data
- Base that supports and wants greater involvement in Education Activities. Support from Publications.
- Technology community and industry base that values education and expert knowledge.
- New DLs with new technical and geographic coverage.
- Newly launched mentoring program
- Resource Center
- YP and WIE year in IEEE

Strategic Objectives

Overarching goal:

To strengthen and grow AESS internationally and technically through education

Growth can mean increasing membership, but also could mean increasing revenue, influence and impact, or recognition.

2015 long-term strategic objectives.

1. Grow the Distinguished Lecturer Program *through more efficient use of budget, leveraging travel, and global distribution of lecturers*
2. Continue to maintain the Video tutorial and expand where feasible *through new topics from tech panels, conferences and use of more appealing interface and publicity*
3. Work with AESS YP to develop programs aimed at younger members *through alternative DL programs, UAV project mentoring, and region student conferences.*

Strategic Objectives 2017

Overarching goal:

To strengthen and grow AESS internationally and technically through education

Growth can mean increasing membership, but also could mean increasing revenue, influence and impact, or recognition.

2017 long-term strategic objectives.

1. Distinguished Lecturer Program *will strengthen AESS with better reach of YP audience, to more chapters, and with increasing alignment with technical interests.*
2. Tutorials will be more useful, *changing who we reach and how we reach them*
3. Increase Education activities' interaction with and for those underrepresented in our membership.

Initiatives

1) Improve existing DL program and services

- Increase DL activity, reporting, expectations
- Utilize improved geographic and technical distribution.
- Update DL materials annually to improve promotion of AESS and access to Educational programs.
- Increase DLs for chapters, YP, and WIE
- Targeted DL for Coastal Los Angeles where we have high numbers of members and no chapter. Peru just formed joint chapter.
- Expand tutorial offerings and access online AND through means other than online - conferences and publications

Important to establish and reinvigorate AESS EDUCATION chapter activities where we have concentrations of members.

Initiatives

2) Programs and Support for YP/Student Members

- Mentoring Program
- Robert T. Hill Dissertation Award
- Working with a for YP/Student on projects
 - DL for IEEE Rising Stars
 - AESS and Undergraduate Projects (San Antonio Chapter)
 - IEEE-HKN
 - Radar Panel YP Summer School Project
- YP rep is a DL
- Fundamentals Tutorials

Initiatives

3) Increase Awareness and Opportunity for Educational Programs

- Open call for nominations for new DLs for 2017-18 got big response of high caliber potential DLs.
- Mentoring efforts involving large based of volunteers
- Online presence is well supported and current
- “Chapter’s First DL” program to encourage chapter participation
- Regular support and coverage in Systems Magazine
 - QEBs highlighting DL/Tutorial in each issue
 - Target conferences to promote to YP/students
 - CEUs project

Metrics / Scorecard

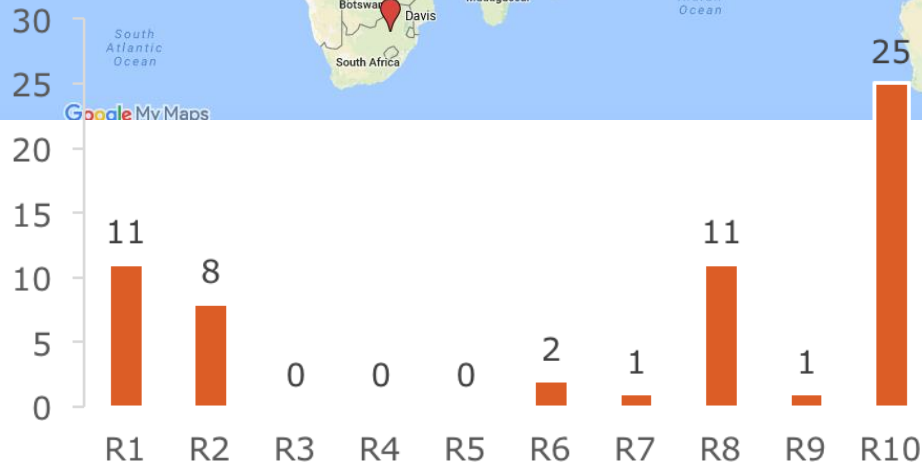
- **Education measures of success**
 - DLs' technical and geographic distribution
 - Tutorials not well used online.
 - Robert T. Hill had 4 nominations
 - Mentoring program launched with more than 60 mentors

Distinguished Lecturers 2015



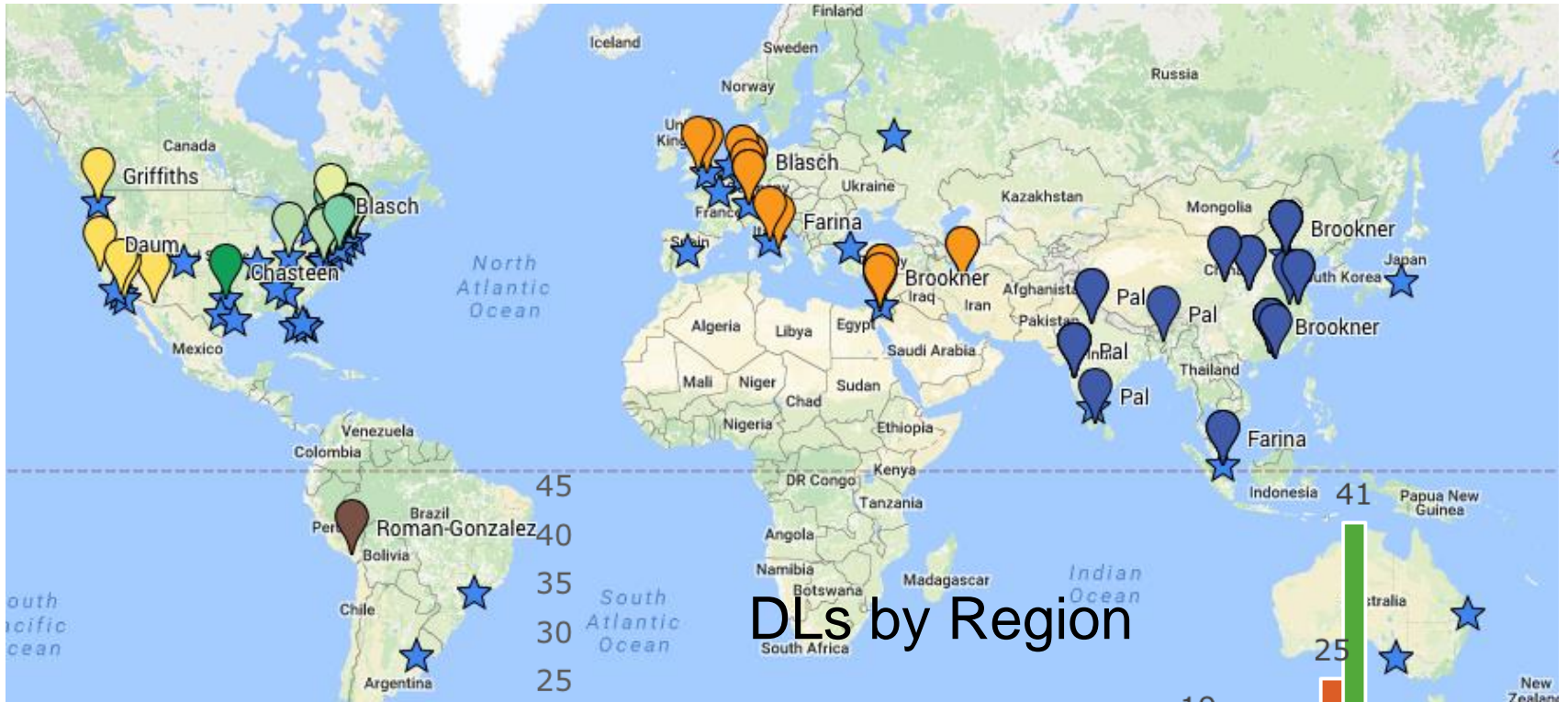
Distinguished Lecturers by Region

62 (3 via web)



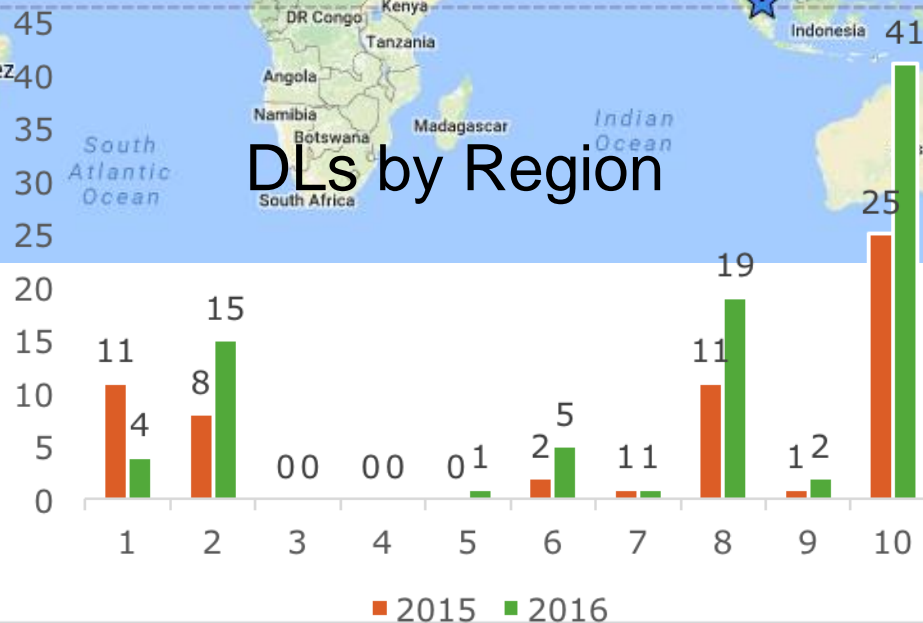
Distinguished Lecturers by Region

Distinguished Lecturers 2016



DLs by Region

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Distinguished Lectures – Geographic Distribution

Where our DLs were based - 2015

United States	Canada	Europe	Other R8	South America	Australia	India	China
9	2	4	0	1	1	1	0

Where our DLs are based - 2017

United States	Canada	Europe	Other R8	South America	Australia	India	China
13	1	4	0	1	2	1	1

Distinguished Lectures – Technical Panel Alignment 2015

Important to ask AESS Technical Panels to nominate candidates

Technical panel “gap analysis” courtesy of Walt Downing

- Update roster and include lectures that cover all technical panels (one has no DLs)
- Selecting roster that distributes lectures evenly over all TPs may not serve membership optimally
- Some consideration should be given to the proportion of members aligned with the different TPs

- Consideration should also be given to selecting DLs that can grow membership aligned with a TP

	Gyro and Accelerometer	Radar Systems	Space Systems	Target Tracking Systems	Aerospace Systems Integration Engineering	Aerospace Vehicle Guidance Systems	Cyber Security	Aerospace Vehicles	Avionics Systems	Other
Yaakov Bar-Shalom		?		?						
Erik Blasch				?		?				
Eli Brookner		?								
Larry Chasteen		?			?					
Fred Daum		?		?	?					
Mark Davis		?								
Saj Durrani			?		?					
Giuseppe Fabrizio		?								
Alfonso Farina		?								
Avid Roman Gonzalez			●							
Maria Sabrina Greco		?								
Hugh Griffiths		?								
Simon Haykin		?				?				
Wolfgang Koch				?	?	?				
Surendra Pal			●					●		
Tony Ponsford					?					
Bob Rassa					?					
George Schmidt	●				?	?		?	?	

Distinguished Lectures – Technical Panel Alignment 2017

	Aerospace Control Guidance Systems	Aerospace Systems Integration Engineering	Avionics Systems	Cyber Security	Gyro and Accelerometer	*Proposed* Navigation Systems	Radar Systems	Space Systems	Target Tracking Systems	Unmanned Aerospace Vehicles
Maruthi Akella								X		X
Yaakov Bar-Shalom		X							X	
Erik Blasch	X	X							X	
Eli Brookner							X		X	
Larry Chasteen		X	X				X			
Fred Daum		X					X		X	
Mark Davis							X		X	
Walt Downing			X			X		X		X
Giuseppe Fabrizio		X					X		X	
Alfonso Farina							X		X	
Maria Sabrina Greco							X		X	
Hugh Griffiths							X		X	
Phillip Hall										X
Lorenzo LoMonte							X			
Wolfgang Koch	X	X					X		X	
Kathleen Kramer				X		X				
Surendra Pal	X	X						X		
Zhihua Qu										X
Bob Rassa		X								
Avid Roman-Gonzalez								X		
George Schmidt	X	X	X		X	X				X
Michael Wicks							X	X		
Peter Willett							X		X	
Ji Wu								X		

*Gap analysis table is by
Walt Downing*

Financial Assessment

- Every initiative involves more support- to at least some degree, such as for announcements, online resources and tools, applications, reporting...
- Programs intended to support students get resources and leadership effort in Education and across areas but we do not have a large student base of recipients
- Resource Center intended to serve across areas but costs started Jan 1
- DL program is typically extraordinarily efficient, with many no/low cost DLs given, and we did agree at BoG to allow larger share of support for a chapter's first DL of the year.