Growth Through Engagement and Teamwork
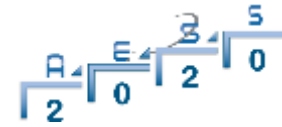
Lorenzo Lo Monte
VP - Education

January 17&18, 2020

Courtyard San Antonio Riverwalk

IEEE
Advancing Technology
for Humanity
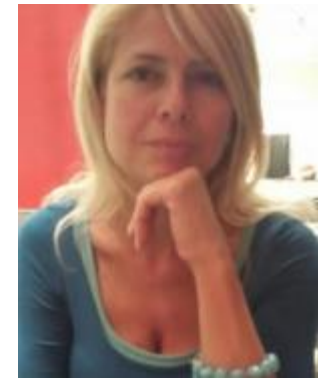
Welcome to the new EdCom

Yonina
Eldar

Francesca
Filippini

Kathleen
Kramer

Lorenzo
Lo Monte

Marina
Ruggieri

AESS 2017 Strategy: Where are We?

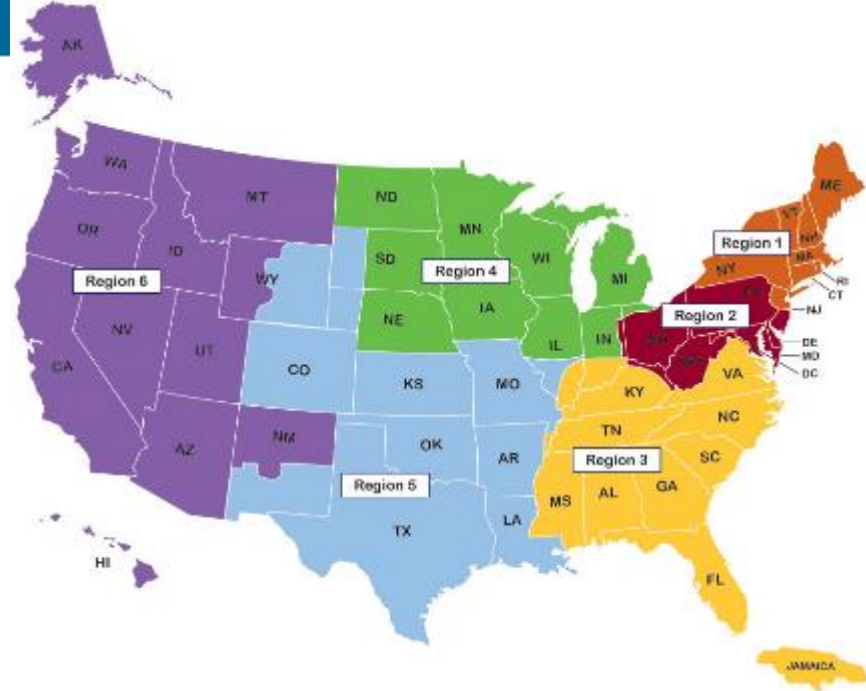| AESS Strategy 2017 Tasks	Has Improved?	Needs Improvement	Priority
Establish/reinvigorate Education activities where there are concentrations of members.	green	yellow	yellow
Improve and increase alignment of lectures with society technical interests.	yellow	pink	yellow
Improve and increase the global distribution of our lecturers.	yellow	yellow	yellow
Reach YP (Young Professional) and WIE audiences.	green	yellow	yellow
Increases DL usage by and support to chapters.	green	yellow	pink
Expand tutorial offerings and access online and through AESS conferences and publications.	green	yellow	pink
Develop and improve programs that support Young Professional (YP) and student members:	green	yellow	yellow
Improve submissions for Robert T. Hill Dissertation Award.	green	green	green
Work with and for YP and student projects and events, including undergraduate projects, interaction with IEEE-HKN, educational activities aligned with the Radar Systems Panel.	yellow	yellow	green
Develop fundamentals tutorials for these members.	green	yellow	pink
Support region IEEE student conferences, such as IEEE Rising Stars, and conference activities for students.	green	yellow	yellow
Increase awareness and opportunity for educational programs:	green	green	yellow
Ensuring online presence is well supported and current.	green	yellow	pink
"Chapter's First DL" program to encourage chapter participation.	green	green	yellow
Regular support and coverage in AESS publications, including Systems Magazine and QEB.	green	green	green
Promoting AESS education activities to YP and students at AESS conferences.	green	green	yellow

AESS Distinguished Lecturer Program

75 Distinguished Lectures in 2019!

DL Technical Diversity

Topic	DL Diversity	Total DL Presented
Avionics	5	15
Control&Guidance	2	4
Cyber Security	0	0
Gyro and Accelerometers	0	0
Navigation Systems	3	5
Radar Systems	12	48
Space Systems	3	2

DL Regional Diversity

IEEE Region	DL
Region 1	28
Region 2	7
Region 3	0
Region 4	0
Region 5	0
Region 6	7
Region 7	4
Region 8	19
Region 9	2
Region 10	4

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Effect of Active Outreach of Chapter Chairs

	AESS Chapter	AESS POC	Desired DL
✓	Colombia	Giovanna Ramírez Ruiz giovis.941@gmail.com	Zhihua Qu
	Colombia	Giovanna Ramírez Ruiz giovis.941@gmail.com	George T. Schmidt
	Bolivia	Avid Roman-Gonzalez avid.roman-gonzalez@ieee.org	Kathleen Kramer
	Guadalajara	Luis Valtierra luis.valtierra@outlook.com	
✓	Singapore	Lu Yilong, EYLU@ntu.edu.sg	Jade Morton
✓	Bolivia	Paola Escobari Vargas	Lorenzo Lo Monte
	Denver	Nagaraj Shivaramaiah nagarajcs@ieee.org	Short Course
	Florida West Coast	Jim Anderson jim.anderson@ieee.org	Kathleen Kramer
✓	Manitoba	Dustin Isleifson Dustin.Isleifson@umanitoba.ca	Kathleen Kramer

DL Program Summary

- Total Cost of DL : 7,000
- Total Number of DL : 75
- Average Cost of DL : $95

Distinguished Lectures and Tutorial Recognition

Continuing Education Unit (CEU) - Meets our strict CEU guidelines

In order for a participant to receive a CEU certificate, the course must consist of:

- *Assessment:* case study, class assignment, class quiz/test or facilitated questions and answers
- *Instructional Method*: lecture, class discussion, panel discussion, problem solving
- *Feedback*: evaluation form

Professional Development Hour (PDH) - meets our comprehensive PDH guidelines

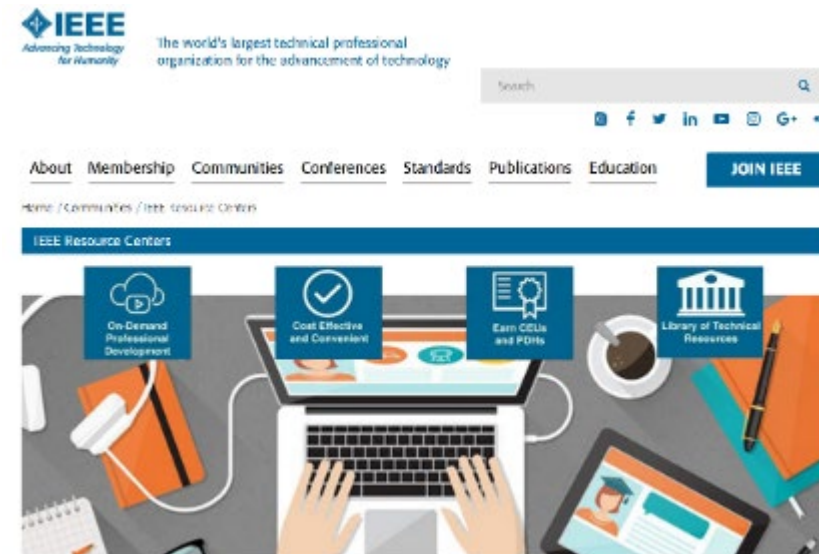In order for a participant to receive a PDH certificate, the course must consist of:

- *Feedback*: evaluation form
    - can be offered by watching a webinar, site tour, research, etc.
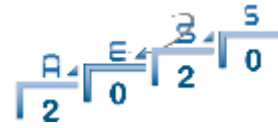
AESS Resource Center

The Resource Center is now an IEEE-wide activity, where many society are heavily investing.

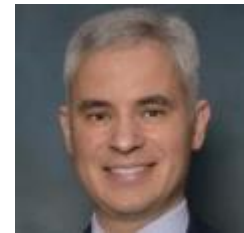AESS started the lead, but we need to add more useful information

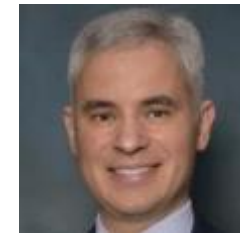# Resource Center: What can we add?

- conference presentation videos
- conference presentation slides
- tutorials
- webinars
- short courses
- keynote presentations
- technical panel sessions
- interviews
- Distinguished Lectures
- Technical Data

RSP Initiative: Create a MOOC through the IEEE Learning Network

- RSP (Stralka/Charlish) is leading this effort
- IEEE rate = $10k / hour of content developed
  - discount for multi-hour programs
- Hosting is $4/person in blocks of 250 people
- Material could be:
  - Bob O'Donnel (MIT)
  - Radar Summer School

IEEE Learning Network

The One-Stop Site for Discovering IEEE Continuing Education

Recommended Host Platform: IEEE Learning Network (ILN)

- IEEE launched the "IEEE Learning Network (ILN)" in July 2019
    - open to all IEEE members
        - but no free option
    - ILN built upon Meridian Learning Management System (LMS)
        - allows societies to offer the course right in ILN
        - allows discovery of educational content from across IEEE
        - points users to other platforms if the society is hosting the course someplace else
        - no discussion forums or integrated online programming or simulation tools

MOOC Info

- Development
  - Society has to use a 3rd-party developer for course creation
    - $10k - $15k per hour of course content
  - Learning Library TV (LLTV)
    - IEEE rate = $10k / hour of content developed
- Hosting:
  - ILN charge for hosting course is $4/person (license) in blocks of 250 people
    - May not charge if we just "link" content (Bob O Donnel already there!!)
- Process
  - Identify subject matter experts (SMEs)
  - Write script and storyboard
  - Develop "talking head" lecture
    - record SMEs
  - Create animations
- Time frame
  - 1 hour of high-quality content = 6 weeks of development time

Objective Description
Distinguished Lecture Program

S – Establish DL Termination / Disengagement Rules, including Certificates.

M – Rules Approved by EdCom, BoG and Posted on Website.

A – EdCom

R – DL

T – Next BoG Meeting

Objective Description
Distinguished Lecture Program

S – Establish Criteria for DL Selection that include technical and regional diversity.

M – Rules approved by EdCom

A – EdCom

R – DL

T – Next BoG Meeting

16 DL Submissions!!

Objective Description
Engineering Scholarship Award

S – Formally Include the "Engineering Scholarship Award" in the Education Committee

M – Award is handled by EdCom

A – EdCom

R – "Develop programs that support students and YP"

T – end 2020

Objective Description
Distinguished Lecture Program

S – Establish Semiannual Call for DL to all Chapter Chairs

M – Email sent

A – Lorenzo Lo Monte

R – "Chapter First DL" program

T – Jun 2020

Objective Description
Chapter Handbook
for Distinguished Lecturers

S – Create a Section on the Chapter's Handbook describing how to request DL.

M – Chapter is added

A – EdCom and Member Services

R – Relevant to which goal(s) and how?

T – Time period for performance

Objective Description
Robert Hill Process

S – Formalize the Submission and Selection process of the Robert Hill Award, including

- English Requirement
- Prior submission to AESS conferences

M – Rules will be published on the website

A – EdCom

R – "Improve Submission for Hill Award"

T – Next BoG

Objective Description
Faculty Development Award

S – The Faculty Course Development Award ($10,000) is to support and encourage faculty members to develop a new course with specific focus on AESS, taught in an accredited (in accordance to the accepted rules of the country of applicant) engineering curriculum

M – Present Proposal to **Fall** BoG

A – EdCom

R – "Develop Educational Programs

T – End 2020

Objective Description
AESS Resource Center

S – Organize Resources in a more natural fashion, including linking slides with videos

M – New allocation will be posted online

A – EdCom

R – "Ensure Online Presence is well supported and current"

T – Next BoG Meeting

Objective Description
AESS Resource Center

S – Create the figure of "AESS Tutorial Liaison," a POC responsible of engaging all tutorial chairs and help them setting up video recording.

M – Person will be appointed by next BoG

A – EdCom and Conferences

R – "Develop Fundamental Tutorials"

T – Next BoG Meeting

Objective Description
AESS Resource Center

S – Upload our first MOOC on ILN.

M – Course will be available on ILN

A – RSP and EdCom

R – "Develop Fundamental Tutorials"

T – end of 2020