



IEEE Aerospace Electronic Systems VP Education

Alexander Charlish

AESS BoG Meeting

21st – 22nd October 2022

*Facilitate quality **in-person events** while expanding **online educational resources**.*

Main Activities:

- ▶ Online educational resources
- ▶ Distinguished lecturer program
- ▶ Educational events
- ▶ Awards

▶ Strengths

- Virtual distinguished lectures have been a huge success.
- Educational events organized by the technical panels (e.g. Radar Summer School - RSP).

▶ Weaknesses

- Resource center and IEEE Learning Network usage.

▶ Opportunities

- Capitalize on experience gained organizing online educational events.
- Capitalize on experience gained organizing educational events (e.g. RSS & Radar Challenge - RSP).

▶ Threats

- Necessity to change educational offerings in order to meet current demands.

Online Educational Resources

IEEE Learning Network (ILN)

- ▶ AESS Resource Center has not been highly used by AESS members.
- ▶ Current goal is increasing the content on ILN and encouraging its usage by AESS members.

Progress

- ▶ Videos from the resource center have been transitioned to ILN.
- ▶ Virtual distinguished lectures are continuously being added to ILN.
- ▶ We have worked with IEEE ILN to eliminate delays.

Near-term strategy:

- ▶ Continue to add virtual distinguished lectures to ILN.
- ▶ Add Radar Summer School and RadarConf (2022 and 2021) tutorial videos to ILN.
- ▶ Obtain more resources from virtual conferences.



▼ Course Provider

- Educational Activities (350)
- Smart Grid (196)
- Power & Energy Society (114)
- Aerospace and Electronic Systems (96)
- Power Electronics Society (78)

[Show 32 more](#)

Advertising ILN

- ▶ Current goal is increasing the content on ILN and encouraging usage by AESS members.
- ▶ Also necessary to increase the awareness of ILN within AESS members.

Progress:

- ▶ Publicity is on hold while the content is increased and problems with delays are resolved.

Near-term Strategy:

- ▶ Standard advertising planned for 2023 (e.g. QEB website, one paper for the magazine, flyer for conferences,...). Usage statistics from ILN can be used for gauging success.
- ▶ Invite speakers for new webinars and virtual DLs in 2023 to contribute a teaser video.

Webinar Series

- ▶ Virtual distinguished lectures have been incredibly successful and have highlighted the demand for online educational resources.
- ▶ Goal is to launch a series of webinars in addition to the virtual DLs.

Progress

- ▶ Trial series to run in January and February (potentially also March) with invited speakers, before the virtual DL webinars start.
- ▶ Education committee didn't have suggestions for speakers.
- ▶ Current call out to the BoG for speaker recommendations.

Near-term strategy:

- ▶ Run the series in January and February 2023.
- ▶ Assess future viability. Is it easier to rely on distinguished lecturers to provide webinars?



Distinguished Lecturer Program

Distinguished Lecturer Program

- ▶ Current program offers both regular webinars and in-person lectures.

Progress

- ▶ Virtual DL webinars have been held on average every two weeks since June with often more than 100 participants. In 2022 distinguished lecturers were invited to offer different topics in addition to their official topics.
- ▶ Dale Blair offered a special talk for students: “Engineering in the Real World”.
- ▶ Lower number of in-person distinguished lectures also after Covid times.
- ▶ Call for 2023 – 2024 term distinguished lecturers is currently active with nominations due on 1st December. Existing lecturers are required to reapply. New distinguished lecturers are required to give virtual DLs.
- ▶ Ongoing work on documents regarding the expectations of a distinguished lecturer as well as the distinguished lecturer assessment criteria.

Near-term Strategy:

- ▶ Continue running virtual distinguished lectures on average every two weeks for 2023 and 2024.
- ▶ Virtual distinguished lectures will be added to ILN.
- ▶ New distinguished lecturers will be announced in December.

Educational Events

Facilitate new Summer School events

- ▶ Recent summer school and boot camp events have been a great success.
- ▶ A current goal is to help support other conferences in organizing such events.

Progress

- ▶ Obtained a best practice document and reports from previous radar summer schools.
- ▶ In a coordinated effort Braham and I have reached out to panel chairs to offer support for organizing events.
- ▶ Support comprises a best practice document, reports on previous events, the opportunity to apply for financial support, and a mentor to answer any questions that may arise.

Near-term strategy:

- ▶ Wait for feedback from technical panels.
- ▶ Approach specific conferences if necessary.
- ▶ Potentially in the future: expand to challenge events.

Awards

IEEE AESS Robert T. Hill Best Dissertation Award

- ▶ Call for nominations is active with submission due on 31st October.
- ▶ Judging process will be the same as last year.

IEEE AESS Michael C. Wicks Radar Student Travel Grant

- ▶ Award is planned for RadarConf 2023.

- The AES Scholarship Program was initiated in 2017 for the 2018 school year
- Scholarships are available for both undergraduate as well as graduate students
 - The undergraduate field of study is Electrical/Electronics/Computer engineering
 - The graduate field is Systems Engineering, so established to promote that underserved field
- Scholarship Selection Committee is Kathleen Kramer, High Griffiths, and Bob Rassa
- The scholarships are now at \$10,000 each
- For 2022, we only had 5 undergraduate scholarship applications, zero graduate level
 - Usually we have 10-12 applicants
- Undergraduate winners for 2022 were John M. D. Pipes, attending Union College, Schenectady, NY, and David Rhoades, attending DeVry University, Phoenix AZ.
- Recommend we determine ways to better advertise the scholarship program. Merely online at the AES website is not adequate. We should continue including this in the quarterly email, perhaps have an info sheet available at our conferences, and reach out to the universities worldwide to ask for their help in promoting the scholarship availability.

- ▶ Purpose of the grant is to support YPs attending AESS conferences to further their professional development.
- ▶ Goal is to help YPs overcome the financial challenges involved in attending AESS conferences.
- ▶ Particularly aimed towards YPs from developing countries, as reflected in the judging.

Proposal

- ▶ Give a budget of \$5000 to three AESS conferences in 2023. Total budget of \$15000 for 2023.
- ▶ YPs can receive items with value of \$1500 if presenting, or \$750 if not presenting.
- ▶ Grants can only be used for conference items such as hotel accommodation, registration, tutorials etc.
- ▶ Recipients must be IEEE AESS YPs at the time of nomination.
- ▶ Judging round 1 ensures a need and a motivation. Round 2 allocates grants based on distance to travel and GDP purchasing power parity.

Motions

- ▶ Fund the IEEE AESS YP Travel Grants for 2023.
 - As described in the proposal document.
- ▶ Pros:
 - Advance the professional development of YPs.
 - Help engage YPs from typically underrepresented regions who face greater financial challenges in attending conferences than YPs from developed countries.
 - Attract new AESS YPs and retain existing YPs.
 - Increased conference participation.
- ▶ Cons:
 - Cost and effort.
- ▶ Financial Implications: \$15000 USD

Motion: Alex Charlish moves to fund the IEEE AESS Young Professionals Travel Grants for 2023 in the amount of \$15,000.

- ▶ Provide financial support to the Radar Boot Camp at the IEEE Radar Conference 2023.
 - The Radar Summer School has been rebranded as the Radar Boot Camp.
 - Two day event offering short introduction talks and demonstrations on radar systems to new members of the radar community.
- ▶ Pros:
 - Event has proven highly effective for networking and welcoming new members to the community.
 - Well received educational event that provides significant value for relatively little cost.
- ▶ Cons:
 - Cost
- ▶ Financial Implications: \$3000 USD

Motion: Alex Charlish moves to provide financial support to the Radar Boot Camp at the IEEE Radar Conference 2023 in the amount of \$3,000.

- ▶ Provide financial support for a YP reception for the IEEE Radar Conference 2023.
 - Informal gathering offering drinks and refreshments
- ▶ Pros:
 - Networking between YPs attending the conference.
 - Networking between YPs and established members of AESS community
 - Supports the mentoring program
 - Raise awareness for AESS offerings
- ▶ Cons:
 - Cost
- ▶ Financial Implications: \$3500 USD

Motion: Alex Charlish moves to provide financial support for a YP reception for the IEEE Radar Conference 2023 in the amount of \$3,500.

- ▶ Provide financial support to the Radar Challenge event
 - The radar challenge is a series of events aimed at building a community and giving participants a hands-on radar experience.
 - Previous years the events were forced to be held virtually, in 2023 a live event is being planned.
- ▶ Pros:
 - Allow participants to have a hands-on experience during the conference.
 - Help to build a community of home-brew radar engineers.
 - Increase in conference participation and networking between challenge participants.
- ▶ Cons:
 - Cost
- ▶ Financial Implications: \$1500 USD

Motion: Alex Charlish moves to provide financial support to the Radar Challenge event in the amount of \$1,500.