IEEE Aerospace Electronic Systems Short Course Program

Luke Rosenberg

2022 AESS Fall Board of Governors Meeting

21-22 October 2022

Edinburgh, UK

- Website refresh
  - All text updated
  - Short course and budget guides updated and available for download

- Articulation of different short courses
  - In-person/hybrid course run at a public venue, open to everyone
  - Virtual course open to everyone - more attractive for chapters with less money.
  - Industry focused short course, run for a specific company.

- Contacted distinguished lecturers – resulted in 5 new short courses.
  - Deep Learning for Radar Target Recognition, Uttam Kumar Majumder
  - Cognitive Electronic Warfare: An AI Approach, Karen Haigh
  - Foliage Penetration Radar, Mark E. Davis
  - Introduction to Track-to-Track Fusion and the Distributed Kalman Filter, Felix Govaers
  - Passive Radars - New Frontiers and Challenges, Krzysztof Kulpa

Short Course Program

- Communication
  - Contacted all AESS chapters
    - Some interest in running courses, but some expected the AESS to run the course for them!
    - Further communication required to explain how to setup and run a course.
  - Met with AESS industry group to explore ideas for running industry based courses.
  - Amanda has done a great job promoting short courses on social media
  - Short course survey in South Australia with 21 respondents. Top two courses include:
    - Radar Fundamentals, Maria Sabrina Greco
    - Introduction to Systems Engineering, Robert Rassa

- Upcoming short courses
  - Sabrina Greco – Radar Fundamentals, Nov 2022. Running in both Brisbane and Adelaide, Australia
  - Subrata Das – Machine and Deep Learning for Data Fusion – Columbia section (details TBC)

▸ Ideas going forward
  – Easier and cheaper to give courses with local presenters
  – Rather than wait for AESS chapters to contact presenters, encourage presenters to reach out to local AESS chapters and/or industry directly
  – Work with AESS industry group to test out this newer working model
  – Further outreach to AESS chapters – talk at the region summits

▸ 3 year goal - run at least one short course in each IEEE region.
  – Online training session for each region
  – AESS sponsored lecture series to provide a few half day short-course length courses
    • Follow the NATO lecture series model – visit 3-4 locations with a group of presenters
    • Suggestion is for 4 half-day short-courses / tutorials
    • Currently no short courses on drone applications, cyber security, distributed remote sensing.
    • Some Distinguished lecturers for drone applications – Vince Socci, Hongbo Sun.
    • Call for interest from AESS presenters or could extend to broader AESS members – need to decide scope
    • Call for interest from local AESS chapters to host, two from R9 and two from R10.