



# Introducing the Aerospace and Electronic Systems Society Short Course Program

## About the Program

The AESS Short Course Program has been running since 2017 as a means of providing training to our members, earning income for the local chapters, and serving the local membership. While the desire is for short courses to be in-person and open to all members, they may be run virtually or exclusively for a specific company. To date, short courses have been run on four different continents, with a mixture of openly run in-person, virtual and exclusive offerings.

## Benefits

- **Training:** Many IEEE members are more interested in tutorials or short courses, rather than a single lecture. This is because IEEE members are typically engineers, students, or researchers who prefer to spend a block of time developing skills as part of a training course. Also, the local industry is more willing to pay to send their employees for training/tutorial classes rather than a single lecture.
- **Income for Chapters:** Chapters that are willing to host a Short Course, provide local support, manage logistics, manage attendees, etc. will be able to raise some revenue for future IEEE activities.
- **Serving the society membership:** The Short Course Initiative will bring together many areas in the society: Membership, Education, Technical Panels, and Industry.

If there is a topic that is not listed that you are interested in for your group, please contact [admin@ieee-aess.org](mailto:admin@ieee-aess.org).

## Short Course Topics

- Artificial Intelligence / Autonomous Systems and Human Autonomy Teaming
- Basic Algorithms for Target Tracking
- Cognitive Electronic Warfare: An AI Approach
- Deep Learning for Radar Target Recognition
- Foliage Penetration Radar
- Ultra Wide Band Surveillance Radar
- Inertial Navigation Systems and Aiding
- Introduction to Airborne Radar
- Introduction to Electronic Warfare
- Radar Systems Prototyping
- Introduction to Systems Engineering
- Introduction to Track-to-Track Fusion and the Distributed Kalman Filter
- Machine and Deep Learning for Data Fusion
- Over-The-Horizon Radar
- Passive Radars - New Frontiers and Challenges
- Radar Fundamentals
- Softwarization and Virtualization for Satellite Communications and Services

