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ΠΡΟΣΚΛΗΣΗ

Το Ελληνικό Παράρτημα Τεχνολογίας Οχημάτων (VTS)
και Αεροδιαστημικής και Ηλεκτρονικών
Συστημάτων (AESS)
του διεθνούς Ινστιτούτου Ηλεκτρολόγων και Ηλεκτρονικών Μηχανικών (IEEE)
σας προσκαλεί στη διάλεξη του:

Dr. George Schmidt
IEEE Fellow
VP Technical Operations of AESS

με θέμα:

**“Navigation Sensors and Systems in GNSS Degraded
and Denied Environments (Or How I Learned to Stop
Worrying About GPS)”**

Η εκδήλωση θα πραγματοποιηθεί:

στην Θεσσαλονίκη την Δευτέρα 21 Οκτωβρίου 2019, ώρα 17:00,
στην αίθουσα Β₁, του κτηρίου Β του Διεθνούς Πανεπιστημίου της Ελλάδος,
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Η διάλεξη θα δοθεί στα Αγγλικά

* Επισυνάπτεται περίληψη και σύντομο βιογραφικό σημείωμα

Navigation Sensors and Systems in GNSS Degraded and Denied Environments (Or How I Learned to Stop Worrying About GPS)

by

**Dr. George Schmidt, IEEE Fellow
AESS Distinguished Lecturer**

Abstract:

Position, velocity, and timing (PVT) signals from Global Navigation Satellite Systems (GNSS) are used throughout the world. However, the availability, reliability, and integrity of these signals in all environments have become a cause for concern for both civilian and military applications. International news reports about a successful GPS spoofing attack on ships navigating the Black Sea in June 2017 have caused concerns. Prior to that, reports about a successful GPS spoofing attack on a civilian UAV in the USA increased questions over the planned use of UAVs in the national airspace and the safety of flight in general. Jamming of GPS by the North Koreans has interfered with ship and aircraft navigation for several years. Recently, the Russians have apparently equipped cell towers with GPS jamming devices as a defense against attack. All of these incidents have led the navigation community to search for reliable solutions in the face of spoofing and jamming. Based on his own experiences with navigation systems since Sputnik and Apollo, the presenter will give an historical and personal perspective on what is required for civilian and military navigation applications now and in the future.



George T. Schmidt is a consultant in avionics, guidance, navigation, and control systems. He has previously served on the AESS Board of Governors as VP Member Services and is now VP Technical Operations. As an AESS Distinguished Lecture, he has lectured and visited chapters around the globe. He is the founding AESS representative to the annual Saint Petersburg Russia International Conference on Integrated Navigation Systems, now in its 26th year. He received his SB and SM degrees in Aeronautics and Astronautics from MIT and his ScD in Instrumentation, also from MIT.

He is a Life Fellow of the IEEE and an AIAA Fellow. In 2007, he retired after 46 years at the MIT Instrumentation Laboratory and the Draper Laboratory, Cambridge, Massachusetts. His final position was as the Draper Director of Education. Prior to that position he was the Leader of the Guidance and Navigation Division and Director of the Draper Guidance Technology Center. He made an original contribution in the first application of Kalman filtering to the prelaunch alignment/calibration of the Apollo GN&C System which was used throughout the program. Now the technique is used in virtually all inertial systems prior to their mission.

He was a member of several important US government study teams, including the influential Defense Science Board Task Force on GPS that helped define GPSIII. In 2013, he retired after 17 years as Editor-in-Chief of the American Institute of Aeronautics and Astronautics (AIAA) Journal of Guidance, Control, and Dynamics. In 2001, he received the AIAA International Cooperation Award.

For many years he was a Lecturer in Aeronautics and Astronautics at MIT teaching estimation, control, navigation and advising thesis students, retiring in 2010.

He is an author or contributing author of more than 100 technical papers, reports, encyclopedia articles, and books. He has been the Program Chair, Technical Chair, Track Chair, and Organizer of numerous IEEE, NATO, AIAA, and ION conferences and NATO Lecture Series. He has been the plenary speaker at several international conferences.