

## IEEE AP-S Distinguished Lecturer Visit to Thessaloniki

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As part of the IEEE Antennas and Propagation Society (AP-S) Distinguished Lecturer (DL) Program, I delivered a DL talk hosted by the IEEE Greece Section ED/MTT/AP Joint Chapter at Aristotle University of Thessaloniki on 25 May 2026. The event was organized at the Faculty of Engineering, School of Electrical and Computer Engineering, and featured two IEEE AP-S DL talks, forming a compact and very fruitful DL workshop together with Prof. Richard W. Ziolkowski. The event brought together students, researchers and academics working in electromagnetics, antennas and propagation, microwave engineering, and computational methods. (See **Picture 1**)

My lecture, entitled “*Advanced Computational Electromagnetics – Beyond the Standard Numerical Modeling Techniques*,” focused on the need for advanced, hybrid, and problem-adapted computational approaches in electromagnetics. In the talk, I discussed why standard numerical methods, although powerful and well established, may become insufficient for electrically large, multiscale, complex, or strongly coupled electromagnetic problems. I also presented examples from hybrid computational electromagnetics, domain decomposition, absorbing boundary techniques, and physically informed modeling strategies.

The visit to Thessaloniki was scientifically very valuable and personally meaningful. Thessaloniki has a special place in Turkish collective memory, as the birthplace of Mustafa Kemal Atatürk, the founder of the Republic of Türkiye. In that sense, being in Thessaloniki added a historical and emotional dimension to the academic visit. The city also has a cultural atmosphere that feels very close to İzmir; one may even say, in a gentle and informal sense, that Thessaloniki and İzmir are like sister cities across the Aegean, sharing a familiar Mediterranean spirit, openness, and warmth.

Immediately after the DL workshop in Thessaloniki, I also participated in the ACES (Applied Computational Electromagnetics Society) Conference, where I delivered a plenary talk entitled “*Hybridization as a Paradigm in Computational Electromagnetics*.” In this plenary lecture, I further expanded on the idea that hybridization in computational electromagnetics should not be viewed merely as the coupling of two numerical solvers, but rather as a broader conceptual framework for organizing complexity, combining physical insight with numerical efficiency, and developing more flexible simulation strategies. I also had the honor of participating in the panel chaired by Prof. Raj Mittra on “*CEM Simulation Challenges*,” where current and future challenges in computational electromagnetics were discussed with leading experts in the field. (See **Picture 2**)

Overall, the Thessaloniki DL visit and the subsequent ACES activities provided an excellent opportunity to disseminate advanced topics in computational electromagnetics, interact with the international

electromagnetics community, and strengthen scientific connections across the IEEE AP-S, MTT-S, and broader ACES communities.

I would like to express my sincere gratitude to Prof. Zaharias D. Zaharis for hosting and organizing the DL event in Thessaloniki. I would like to thank Prof. C. J. Reddy, Chair of IEEE AP-S, and Prof. Levent Sevgi, Chair of the IEEE AP-S DL Program, for providing me with this valuable DL opportunity and for their continuous support of the program. I also sincerely thank Prof. Richard W. Ziolkowski for accompanying the DL event in Thessaloniki and for his inspiring presence and contributions.

I am also grateful to the ACES Conference Chairs, Prof. John L. Volakis and Prof. Atef Z. Elsherbeni, for their kind invitation to deliver the plenary talk. I am deeply honored to thank Prof. Raj Mittra, one of the true heroes of electromagnetics, for inviting me to participate in his panel on CEM simulation challenges. Finally, I would like to extend my warm thanks to all the distinguished electromagnetics experts, colleagues, researchers, students, and true enthusiasts of our field who attended the lectures, participated in the panel discussions, listened to my presentations, and shared thoughtful conversations throughout these events.



**Picture 1:** Photos from DL workshop in Aristotle University of Thessaloniki.



**Picture 2:** Photos from ACES Conference (Left: plenary talk, middle: special panel, right: gala dinner).