IEEE AP-S DL Day

Topic: Electromagnetic Scattering & Diffraction Modeling and Simulation
Date: April 8, 2026
Location: National Key Laboratory of Radar Detection and Sensing (Former National Key Laboratory of Antenna and Microwave Technology), **Xidian University**, Xi'an, China
Hybrid Attendance: 60 participants in-person
Audience Profile: Undergraduate, Master's, and Ph.D. students, Academic Researchers, and Industry Professionals.

Hosts:
Prof. Dr. Ying LIU
Xidian University, Xi'an - CN
Chair, IEEE Xi'an AP/MTT/VT Jt Chapter

Assoc. Prof. Dr. Yichen ZHONG
Xidian University, Xi'an - CN
IEEE Xi'an AP/MTT/VT Jt Chapter

Speaker:
Prof. Dr. Levent SEVGI
Istanbul Technical University (Emeritus)
Email: lsevgi@ieee.org

Executive Summary

On April 8, 2026, **Prof. Levent Sevgi**, Chair of the IEEE AP-S Distinguished Lecturer (DL) Program, delivered a lecture titled "***Electromagnetic Scattering & Diffraction Modeling and Simulation***" at Xidian University, at the invitation of **Prof. Ying Liu**. Prof. Liu is currently serving as an IEEE AP-S AdCom member and the Chair of the IEEE Xi'an Section AP/MTT/VT Joint Chapter. This event was co-hosted by the IEEE Xi'an Section AP/MTT/VT Joint Chapter and the National Key Laboratory of Radar Detection and Sensing.

The event was held at the Xidian University International Conference Center. Prior to the opening, Prof. Liu stated that since her election as an AP-S AdCom member, she has been dedicated to advancing the development of AP-S and its membership growth in China. She noted that inviting globally recognized experts to visit and give lectures is an essential method to facilitate exchange and improve member welfare, and she hopes to invite more internationally renowned scholars to China in the future.

Scientific Program

Electromagnetic Diffraction Modeling and Simulation:
Prof. Levent Sevgi (Emeritus, Istanbul Technical University, Turkey) highlighted the critical role of EM diffraction in designing antenna systems and predicting propagation path losses. He reviewed how High Frequency Asymptotics (such as GO, GTD, UTD, PO, and PTD) and numerical methods (like FDTD, MoM, and FEM) are applied to study both canonical structures and complex objects. Furthermore, he demonstrated how intelligently combining these

methods with newly developed EM virtual tools allows researchers to successfully distinguish specific wave components, such as scattered, diffracted, and fringe waves, to better visualize and understand complex wave-object interactions.

Networking and Academic Impact

This event attracted over 60 undergraduate, graduate, and doctoral students specializing in electromagnetic fields and antennas. Prof. Sevgi began his talk by introducing the IEEE and the IEEE AP-S before delivering an engaging academic lecture. Following the presentation, the attending students and faculty gathered for a group photo with Prof. Sevgi.

The lecture was enthusiastically received. Students expressed that the excellent presentation deepened their understanding of both the IEEE and the IEEE AP-S. Several students even registered as AP-S members on the spot, noting that the scholarships, awards, and conference opportunities provided by the society would be of great significance to their future career development.

Below is follow-up interviews conducted with several attendees by Dr. Yichen Zhong:

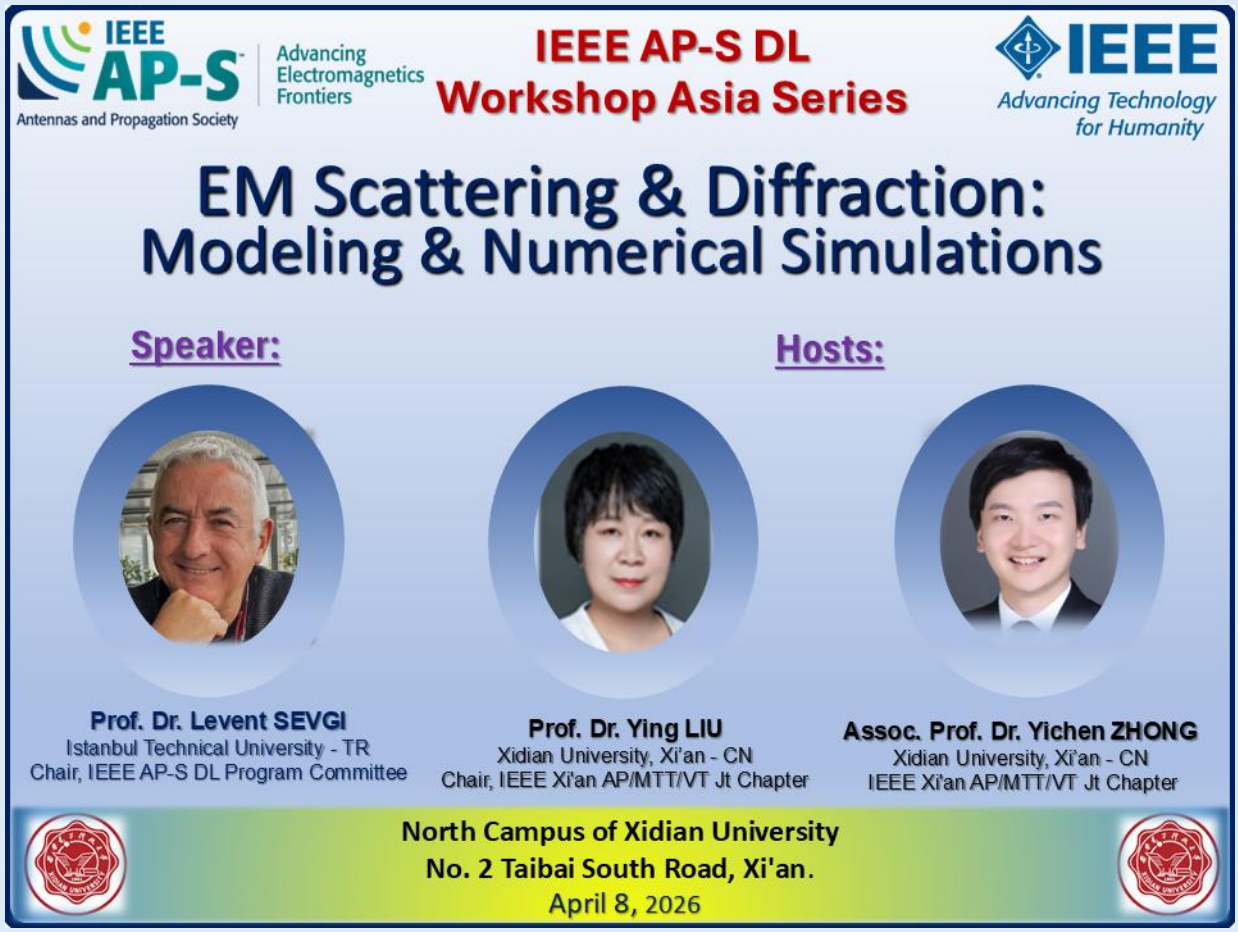
Postdoctoral Researcher Haoyu Lei: "Prof. Sevgi's lecture was absolutely brilliant. He explained the complex concepts of electromagnetic scattering and diffraction in a highly accessible way, using numerous animations and videos to demonstrate wave propagation, which was deeply impressive."

Master's Student Hui Wang: "Prof. Sevgi emphasized that outstanding electromagnetics researchers should know how to write code and build their own simulation programs, which inspired me greatly. In the past, I relied on commercial simulation software without fully understanding the underlying principles. I have now decided to start writing my own code."

Master's Student Yimeng Sun: "I wasn't very familiar with AP-S before, but Prof. Sevgi's lecture made me realize how beneficial the society is for career development, especially its support for women in engineering. I decided to register and join AP-S. I also hope to establish an AP-S Student Branch at Xidian University to fully utilize this platform to support our professional growth."

Conclusion

The DL event in Xidian University was a significant success, highlighting the synergy between the IEEE AP-S Distinguished Lecturer program and the Chinese academic community. The lecture provided a high-value experience for students and seasoned professionals alike. It successfully bridged advanced electromagnetic research with professional development, directly inspiring new AP-S memberships and future student-led initiatives.



Picture 1: *The Flyer of the IEEE AP-S DL Day.*

Picture 2: *Selection of group photos and selfies from the IEEE AP-S DL Day.*

Picture 3: *Another selection of group photos and selfies from the IEEE AP-S DL Day.*

Picture 4: *Dr. Sevgi and Dr. Zhong visiting Teracotta Warriors site and City Walls.*