

IEEE AP-S Distinguished Lecture Day

Date: November 13, 2025

Venue: Sorbonne Université – Laboratoire de Génie Electrique et Electronique de Paris (GeePs), Campus Pierre et Marie Curie, Paris, France

Prof. Guido VALERIO

Head of the Electromagnetics division, GeePs, Sorbonne Université

Email: guido.valerio@sorbonne-universite.fr

Prof. Levent Sevgi (Istanbul Technical University – Emeritus), IEEE AP-S DL Program Committee Chair and former Distinguished Lecturer (DL) visited the GeePs laboratory at Sorbonne University within the IEEE AP-S DL Program.

The lecture Prof. Sevgi proposed was entitled "*From Engineering Electromagnetics to Electromagnetic Engineering: Teaching/Training Next Generations*". It was given in the framework of a meeting of the "Electromagnetic" division at GeePs and its announcement had previously been spread through the usual dissemination channels by Prof. Valerio, who is the head of the division and organizes regular meetings at GeePs. Since GeePs has two sites (one in Paris, the other one in Saclay), the division meetings are always organized in a hybrid format, both on-line and in-site, and this was the case also on the day of Prof. Sevgi's visit. The announcement of the talk was also spread beyond Sorbonne University through usual communication channels (mailing lists, etc.) of the Parisian region. Since the lecture was given in hybrid format (in site at Sorbonne and on-line through a Microsoft Teams meeting) the attendance also included colleagues from nearby Universities who connected on-line.

Prof. Sevgi arrived during the break at the end of the first part (dealing with local administrative issues) of the division meeting. He was introduced to the participants in Paris. After a discussion on the GeePs activities and organization, he started his presentation as planned at 11am. He gave a complete overview of IEEE, its societies and specifically AP-S, the Distinguished Lectures program with the Lecturers selected in the last years. He invited everyone to get involved in AP-S activities, to apply to grants and Awards, and be active members of the society, by giving with examples of funded activities. He then presented his professional career, through the different academic and industrial positions and visits he did around the world and the projects he developed. This was useful to get a full vision of the wide skills and experiences of Prof. Sevgi. Also, later in the presentation these projects were cited thus making the audience feel an acquaintance of the speaker.

The main part of the presentation centered on how engineering electromagnetics has expanded into the broader field of electromagnetic engineering—driven both by the pervasive role of EM waves in modern life and by advances in methods and tools. Many examples from the research and teaching experiences of Prof. Sevgi were given. MATLAB tools have been developed for interactive educational purposes, (currently freely accessible for other universities) and research activities as well.

The presentation emphasized how crucial it is to correctly interpret electromagnetic models and measurements, illustrating common misunderstandings, typical sources of error, and the impact of limited accuracy in computational problems. These ideas were brought to life through practical examples, especially from the defense domain.

The session concluded with an exchange with the public on some of the scientific topics illustrated in the presentation, such as propagation problems solved with a development on a basis composed of Airy functions, ray tracing problems in complex environments,

localization and recognition of targets in difficult environment (e.g. on the sea), common beliefs on scattering and absorption problems.

In summary, Prof. Sevgi's Distinguished Lecturer visit at Sorbonne was highly fruitful and enriching, and unfolded in a very positive and collaborative atmosphere.

About Sorbonne University and GeePs:

Sorbonne University is a world-class research university, presenting the comprehensive disciplinary range of arts, humanities, social sciences, natural sciences, engineering and medicine. Close to 10 200 of its 55 600 students are international and 4 400 are in doctoral programs. SU research draws on more than 3 400 professor-researchers and another 3 100 research partners from major French research organizations. In addition to Nobel Prizes, Fields Medals and other awards, SU has exceptional transdisciplinary institutes. With 8 500 publications per year SU has approximately 10% of all publications in France and receives the largest number of EU grants among French universities: more than 190 H2020 projects, including 65 MSCAs and 30 ERCs. With its research partners, 108 H2020 ERC grantees have been hosted in SU's laboratories. SU is a member of the European University Association (EUA), the Network of Universities from the Capitals of Europe (UNICA), the International Alliance of Research Universities (IARU) and the League of European Research Universities (LERU).

GeePs is a joint research unit of CentraleSupélec, Sorbonne University, CNRS, and Paris-Saclay University. Created in 2015, is located on the CentraleSupélec campus of Paris-Saclay University in Gif-sur-Yvette and on the Pierre and Marie Curie campus of Sorbonne University in Paris. With 250 employees, including 130 permanent staff (researchers, teacher-researchers, engineers and technicians) and around 80 PhD students, it is one of the most important laboratories in the Ile de France region in the field of "Electrical Engineering".

The Electromagnetism Division at GeePs focuses on applied electromagnetism, covering a broad spectrum ranging from low-frequency couplings to high-frequency wave propagation. Composed of 40 collaborators, is divided into two teams: "Near Fields and Multiphysics Couplings" and "Waves and Propagation". Its objective is to create synergy between two distinct teams, enabling the exploration of both fundamental aspects and practical applications in engineering and electrical engineering.



Picture 1: A collection of photos from DL Day.