



Prof. Silvio Hrabar

University of Zagreb Tokyo, Croatia

Prof. Silvio Hrabar was born in Trogir, Croatia, in 1962. He received the Dipl. Ing. and M.Sc. degrees in electrical engineering from the University of Zagreb, Croatia, in 1986 and 1991, respectively, and the Ph.D. degree in electrical engineering from Brunel University, London, United Kingdom, in 1999. Until 1988, he worked at Institute of Radio Industry Zagreb, Croatia, as R&D Engineer, involved in the development of UHF synthesizers, modulators and antenna systems. In 1988, he joined Faculty of Electrical Engineering and Computing, University of Zagreb, working in applied electromagnetics and microwave electronics. In 1995 he joined Electronic Systems Research Group at Brunel University of West London, where he was involved in research projects concerning electromagnetic compatibility and electrostatics. In 1999, he came back to the Faculty of Electrical Engineering and Computing, University of Zagreb, where he holds a position of Full Professor of Applied Electromagnetics and the Chair of Metamaterials group. His main research interests include applied electromagnetics, nano-electromagnetics, radiofrequency and microwave measurements, antenna technology, and metamaterials. He made several important contributions in the field of metamaterials: theoretical explanation and experimental verification of subwavelength propagation in metamaterial waveguide, the first experimental demonstration of subwavelength resonator in the world, the first experimental demonstration of broadband non-Foster active metamaterial in the world, the first experimental demonstration of broadband superluminal group velocity in non-Foster metamaterial in the world. He is author and co-author of many journal papers, book chapters, scripts, conference contributions and studies and he is serving as a reviewer in dozen of scientific journals.

Areas of expertise and interest

Current research focus

- Metamaterials, metasurfaces, and periodic structures
- Nanoelectromagnetics and metatronics
- Non-Foster networks

Broader areas of expertise

- Applied electromagnetics
- Antennas
- Microwave electronics
- Radiofrequency and microwave measurements

Honors and Awards

- University of Zagreb, FER "Award for outstanding achievement in research and innovations in a period of five years and for the contribution in understanding the physics of electromagnetic metamaterials and their engineering applications". 2012.