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**Einladung zum Gastvortrag des Herrn
Prof. Yarovoy Olexander,
TU Delft**

Titel:

Waveform design for minimizing mutual interference in (automotive) radars

Wann:

Montag, 07.04.2025 um 13:30 Uhr

Wo:

Seminarraum (HF01092) Inffeldgasse 12, 8010 Graz. 1. OG, 8010 Graz

Abstract: Mutual and self interferences are considered to be important problems for (automotive) FMCW radars. Different signal processing techniques are proposed to mitigate the interference. An alternative to mitigation approach is a system approach with dedicated waveform design. An example of dedicated waveform for interference mitigation – phased-coded FMCW – is presented and the properties of the waveform for interference reduction are discussed.

Biography:

Alexander G. Yarovoy (FIEEE' 2015) graduated from the Kharkov State University, Ukraine, in 1984 with the Diploma with honor in radiophysics and electronics. He received the Candidate Phys. & Math. Sci. and Doctor Phys. & Math. Sci. degrees in radiophysics from the same university in 1987 and 1994, respectively.

In 1987 he joined the Department of Radiophysics at the Kharkov State University as a Researcher and became a Full Professor there in 1997. From September 1994 through 1996 he was with Technical University of Ilmenau, Germany as a Visiting Researcher. Since 1999 he is with the Delft University of Technology, the Netherlands. Since 2009 he leads there a chair of Microwave Sensing, Systems and Signals.

His main research interests are in high-resolution radar, microwave imaging and applied electromagnetics (in particular, UWB antennas). He has authored and co-authored more than 180 peer reviewed journal papers, 11 patents and 22 book chapters. He is the recipient of the European Microwave Week Radar Award for the paper that best advances the state-of-the-art in radar technology in 2001 (together with L.P. Ligthart and P. van Genderen) and in 2012 (together with T. Savelyev). In 2023 together with Dr. I.Ullmann, N. Kruse, R. Gündel and

Dr. F. Fioranelli he got the best paper award at IEEE Sensor Conference. In 2010 together with D. Caratelli Prof. Yarovoy got the best paper award of the Applied Computational Electromagnetic Society (ACES).

In the period 2008-2017 Prof. Yarovoy served as Director of the European Microwave Association (EuMA). He is and has been serving on various editorial boards such as that of the IEEE Transaction on Radar Systems. From 2011 till 2018 he served as an Associated Editor of the International Journal of Microwave and Wireless Technologies. He has been member of numerous conference steering and technical program committees. He served as the General TPC chair of the 2020 European Microwave Week (EuMW'20), as the Chair and TPC chair of the 5th European Radar Conference (EuRAD'08), as well as the Secretary of the 1st European Radar Conference (EuRAD'04). He served also as the co-chair and TPC chair of the Xth International Conference on GPR (GPR2004).