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**K1-51, Seminar Room**

## An Industrial Perspective on 6G with a focus on security

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**Abstract:** In 6G, we expect a seamless integration of the digital, physical, and human worlds, empowered by the transformative potential of Artificial Intelligence and Quantum Computing. From day one, 6G will deliver an evolved architecture and new advancements that provide immediate operational and economic benefits. These initial innovations will not only lay a strong foundation for future 6G developments but also address critical challenges faced today. In this talk, an industrial perspective on 6G security will be given from research and standardization angles. Lessons learnt from 5G leading to a new design philosophy for 6G security will be presented. New requirements and challenges in securing 6G networks and applications will be explained with a detailed look into security and privacy aspects for Integrated Sensing and Communication (ISAC).



**Bio:** Dr. Emrah Tomur is heading up security research and standardization in Nokia since 2024 based in Munich, Germany. He has more than 25 years experience in the field of information and communication security in both academia and private sector. Before joining Nokia, he took various roles in industry including Head of Security Research, R&D Manager, and Technology Transfer Director. He also taught several undergraduate and graduate courses, and supervised several master's and PhD theses into successful completion in different universities in Turkiye and in the UK. Dr. Tomur has numerous research papers published in journals and conference proceedings in the area of security and holds many granted international patents. He worked in various national and international research and development projects funded by EU or national agencies. Emrah Tomur received the B.S. and M.Sc. degrees in Electronics Engineering from Bilkent University, Turkiye, in 1999 and 2001, respectively, and the Ph.D. degree in Information Systems from METU, Turkiye, in 2008.