

Elektrotechnik-Elektronik-Informationstechnik

EEI KOLLOQUIUM

Making 5G New Radio (NR) a Reality

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Donnerstag, der 11.01.2018, 16³⁰ Uhr

Tennenlohe, am Wetterkreuz 15, Raum 00.071

Diskussionsleitung: Prof. Dr.-Ing. Wolfgang Gerstacker

The presentation offers an introduction to 5G New Radio (NR) – the unified air interface for the next decade and beyond.

5G is much more than enhanced 4G with even higher data rates and the addition of new spectrum. Instead 5G will introduce many new services, connect new industries and devices and empower new user experiences. This will be achieved by an unparalleled scalability and adaptability across a huge variation of requirements from very high data rate to very low latency and power consumption enabling enhanced mobile broadband, mission critical services and massive Internet of Things.

The presentation focuses on the new 5G NR technologies, including optimized OFDM-based waveforms, a common, flexible framework, and many advanced wireless technologies. We will first cover the 5G NR foundational technologies, and then get into the details of the different wireless technologies (e.g. mmWave, massive MIMO, and advanced coding design) and design principles that allows 5G NR to deliver more capabilities and higher efficiencies than today's networks across a huge variety of frequency bands and deployment scenarios.