## 2023년 한국전자파학회 하계종합학술대회

## 특별초청강연

## 일자 2023년 8월 25(금) 장소 델피노리조트, 그랜드볼룸I (소노캄 B2F)

시간	발표제목	발표자
11:50~12:20	Next-generation millimeter-wave GaN technologies	<b>Dr. Jeong–Sun Moon</b> (HRL Laboratories (former Hughes Research Lab))



## Next-generation millimeter-wave GaN technologies

Dr. Jeong-Sun Moon (HRL Laboratories (former Hughes Research Lab))

Realizing high-performance mm-Wave systems will require transistors with higher linearity and efficiency than current technology options. As current RF and mm-Wave amplifier performance has approached near saturation and current practices trade off the output power, linearity, and efficiency. While GaN HEMTs offer excellent power density, their limited linearity and efficiency compromise overall system performance. We will talk about recent progress in next-generation GaN technologies in mm-wave frequencies, which has become a very active area of research.

Dr. Jeong-Sun Moon is a Principal Scientist at HRL Laboratories, Malibu, CA and a Fellow of IEEE as of 2014. He has been with HRL since 2000 and has been a PI for numerous contracts from DARPA, ONR, and NASA. Before joining the HRL, he worked at the Sandia National Laboratories. He received the 2014 George Abraham Outstanding Paper Award from Government Microcircuit Applications and Critical Technology Conference (GOMACTech), and NASA SPACE ACT Board Award in 2009. He published three book chapters and authored or co-authored more than 200 papers and holds 30 patents, and served as an Editor of a top-notch IEEE journal, Electron Device Letters. He also gave numerous invited conference and workshop presentations and tutorials/ short courses. His work was featured in various magazines including IEEE Spectrum, Compound Semiconductor, NASA Tech Briefs, Microwave Journal, and MIT Technology Review. At HRL, his research focuses on emerging materials, high-speed devices, RF circuits, and electro-optical applications.

