SEMINAR ANNOUNCEMENT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
COLLEGE OF DESIGN AND ENGINEERING
Website: https://cde.nus.edu.sg/ece

Area: Communications and Networks (CN)

Host: Prof Zhang Rui

Co-Sponsor: IEEE Communications Society Singapore Chapter

TOPIC	:	**AI-RAN for Token Communication**
SPEAKER	:	**Jihong Park** **Associate Professor, Singapore University of Technology and Design**
DATE	:	**Tuesday, 17 November 2026**
TIME	:	**2:00PM-3:00PM**
VENUE	:	**EA-06-04**

ABSTRACT

Recent advances in AI technologies and hardware have given rise to the concept of the AI-based radio access network (AI-RAN). By replacing traditional RAN-specific custom processors with general-purpose GPU processors, AI-RAN natively implements AI-driven RAN functionalities, enabling site-specific RAN operations and improving KPIs. It also supports the concurrent hosting of non-RAN applications, enhancing profitability and fostering tighter integration with RAN operations. This vision aligns closely with the emerging paradigm of token communication, which connects intelligent agents such as small and large language models and general purpose robots through the fundamental AI processing unit, tokens. In this talk, I will highlight key challenges and opportunities in realizing token communication through AI-RAN.

BIOGRAPHY

Jihong Park is an Associate Professor and KITHCT Chair Professor at the Singapore University of Technology and Design (SUTD). He serves as Director of the MediaTek-SUTD Joint Laboratory and Deputy Director of Singapore's Future Communications Research and Development Programme. Before joining SUTD, he was a Lecturer at Deakin University, Australia, and a Postdoctoral Researcher at Aalborg University, Denmark, and the University of Oulu, Finland. He received his B.S. and Ph.D. degrees from Yonsei University, Seoul, South Korea, in 2009 and 2016, respectively. His research interests include AI-native and semantic communication, distributed machine learning, and networked physical AI. He chairs the AI-RAN Alliance's AI-on-RAN Working Group and serves as an Editor of IEEE Transactions on Communications, an Associate Editor of Elsevier Computer Networks, and Lead Guest Editor of the IEEE Vehicular Technology Magazine special issue on Task-Oriented and AI-Native Semantic Communication. He co-chaired the IEEE GLOBECOM 2023 Symposium on Machine Learning for Communications and the IEEE WCNC 2026 Track on Emerging Technologies, Network Architectures, and Applications, and co-organized workshops at ICML 2025 and AAAI 2026. His recent activities include demonstrations of AI-RAN-enabled humanoid robotics and distributed inference for embodied AI at MWC 2026 and NVIDIA GTC 2026. He was a co-recipient of the 2023 IEEE Communications Society Heinrich Hertz Award and the 2022 FL-IJCAI Best Paper Award.