中国科学院半导体研究所

黄昆半导体科学技术论坛

第 369 期讲座

Title: High-speed optoelectronics for underwater optical wireless communication

Speaker: Prof. Boon S. Ooi (King Abdullah University of Science & Technology)

Abstract: The ocean is key to human survival, providing natural resources, most of the global oxygen supply, and economic development through mineral, gas, and oil deposits. Although the sea is primarily considered a silent world, it is abundant with the natural sounds of marine life communication and geological processes. Human activities, especially active sonars, water polluting, shipping traffic, and underwater vehicles, have significantly affected the aquatic ecosystem and environment. In this talk, recent development and advances in underwater wireless optical communication will be presented. I will focus my discussion on optoelectronic device and system challenges facing long distance, multiple-Gbps underwater wireless optical communication. The future perspective of the underwater photonics will also be discussed.

Biography: Boon S. Ooi (Fellow of NAI, IEEE, OSA, SPIE and InstP) is a Founding Professor of Electrical and Computer Engineering at KAUST. He was Director of KACST-Technology Innovation Center at KAUST from 2013-2021. His research interests include high-speed optoelectronics, and optical wireless communications. He has trained a total of 36 PhD students and 17 postdocs, and placed them in top places in academia, industry, and government. He is an inventor/co-inventor of 37 issued US Patents. He received the following selected awards and honors: Khalifa International Award (UAE, 2023); PIFI Distinguished Scientist Award (CAS-China, 2021); Nokia Open Innovation Challenge (Finland, 2019). He served as Associate Editor then Senior Editor of the IEEE Photonics Journal, and Associate Editor of the Optics Express; served on the technical program committee of CLEO, IPC, Photonics West, ISLC, and IEDM. He has served (or is serving) on the following selected award committte: IEEE Fellow Committee; SPIE Fellow Selection Committee, etc. Presently, he is Editor-in-Chief of the IEEE Photonics Technology Letters.

时　间：2023年8月23日（星期三）下午15:00

地　点：中国科学院半导体研究所学术会议中心

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