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강연제목: 효과적인 정보 획득을 가능하게 하는 이미지 센서 기술

Image sensor technologies for efficient information sensing

Abstract:

Imaging is one of the most important sensor technologies for the acquisition of medical and biological information. Continuous development over the past decades has perfected image sensor technology, and today's imagers are reaching the theoretical limits of classical photography. Thanks to the evolution of information processing, the applications of image sensors are now expanding even further. Moreover, with the tremendous progress in the development of imaging technologies, image sensors are becoming more and more versatile; extending the absorption wavelengths to the near infrared (NIR) and even the shortwave infrared (SWIR), capturing 3-dimensional images, fluorescence decay time, etc. In this presentation, state-of-the-art image sensing technologies for efficient information acquisition will be presented with a view to biomedical applications.

Brief Biosketch

Jiwon Lee received a Ph.D. degree from the Department of Electrical Engineering, Korea Advanced Institute of Science and Technology (KAIST), Daejeon, South Korea, in 2013. From 2013 to 2018, he was a senior researcher at Samsung Electronics, Yongin, South Korea. From 2018 to 2022, he was a Principal Member of Technical Staff at imec, Leuven, Belgium. From 2022 to 2023, he was an associate professor in the Department of Photonics and Nanoelectronics in Hanyang University (ERICA Campus). Since 2024, he has been an assistant professor at the Department of Semiconductor Engineering at Postech. He is a guest professor at IMEC, Leuven, from 2023 for topics related to novel image sensors. His research interests include the development of novel image sensor pixels for various applications.