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# Advanced Plastic Optical Fiber Technologies for Beyond 5G Society

**Prof Yasuhiro Koike**

*Director and Founder of Keio Photonics Research Institute (KPRI), Keio  
University, Japan*

**Friday 30 September 2022 - 2:30 pm**

**Sala Shannon (meeting room in front of Classroom 12)**

At Keio Photonics Research Institute (KPRI), Keio University, we have developed a plastic optical fiber that exhibits nearly no communication errors (hereinafter, "Error-free POF"), which typically occurs in short-distance communication involving data centers, cars, medical care, and other applications. In addition, we have successfully transmitted data at 53 gigabits per second without using current error correction techniques typically required when using PAM4 as a next-generation standard technology in data center communications. The details will be described in my talk.

*Dr. Yasuhiro Koike Distinguished Professor, Keio University and Director, Keio Photonics Research Institute (KPRI), Keio University*

*Prof. Yasuhiro Koike is highly regarded as the inventor of Graded-Index Plastic Optical Fiber (GI POF), and the General Chair of the International Cooperative of Plastic Optical Fiber (ICPOF) which is the mother body for the International conference on POF that is held every year.*

*He was invited as the Research Consultant at AT & T Bell Laboratories in 1989-1990. He has been Professor of Keio University since 1997. During his career at Keio University, he also served as Affiliate Professor of University of Washington in 2009-2018. He was conferred as Honorary Doctorate of Eindhoven University of Technology in 2007.*

*Prof. Koike conducted number of government supported research projects such as JST ERATO, ERATO-SORST, the Cabinet Office of Japan's "FIRST Program", etc. His achievements have been recognized as many awards such as "the International Engineering and Technology Award" of the Society of Plastics Engineers in 1994, the 42nd Fujihara Award in 2001 as the youngest prize winner, the Award of the Society of Polymer Science in 2003, Medal with Purple Ribbon from the Imperial Palace in 2006, The 2007 MOC Award, SID Special Recognition Award in 2015, SPSJ Award for Outstanding Achievement in Polymer Science and Technology in 2020.*

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