

Kim Roberts of Ciena is Named 2019 John Tyndall Award Recipient

Industry leader is recognized for significant contributions to fiber optic technology

[The Optical Society](#) (OSA) and the [IEEE Photonics Society](#) have named Kim Roberts of Ciena the 2019 [John Tyndall Award](#) recipient. Roberts is recognized “for pioneering contributions to the development of practical coherent communication systems.”

“Kim Roberts’ innovations are widely recognized to have transformed optical transmission systems. His work was key to providing a new level of technical solutions in our daily communications needs,” said Elizabeth Rogan, CEO of The Optical Society.

“The John Tyndall award recognizes outstanding contributions in any area of optical-fiber technology that have stood the test of time. Kim Roberts’ contributions to the development of practical coherent communication systems are exemplary of this prestigious award,” added Doug Razzano, Executive Director of the IEEE Photonics Society.



Claudio Mazzali (Corning), Kim Roberts, Chennupati Jagadish (IEEE Photonics Society 2018-2019 President), Connie Chang-Hasnain (OSA 2021 President)

The award, one of the top honors in the fiber optics community, is named for John Tyndall, a 19th century scientist who was the first to demonstrate the phenomenon of total internal reflection. It recognizes an individual who has made pioneering, highly significant, or continuing technical or leadership contributions to fiber optic technology.

The Tyndall Award was presented to Roberts at the 2019 Optical Fiber Communication Conference and Exhibition ([OFC](#)), the world’s leading conference and exhibition for optical communications and networking professionals.

Corning, Inc. sponsors the Tyndall Award, which consists of a specially commissioned glass sculpture that represents the concept of total internal reflection, a scroll and an honorarium. The award is jointly presented by OSA and the IEEE Photonics Society.

Roberts holds a Bachelor’s degree in Electrical Engineering with an emphasis on mathematics, and a Master’s degree in Electrical Engineering on the topic of processing of brain signals, both from the University of British Columbia.

He has been a major force in the field of digital signal processing (DSP) for optical transmission systems, and played a key role in virtually every optical innovation developed by Nortel. These range from the Superdecoder (the use of electronic signal processing of optical signals), the OC-48 regenerator, and the original OC-192 (10-Gbit/s) system, to terrestrial optical amplifiers and the revolutionary WaveLogic-1 precompensating transmitter.

Building on these breakthroughs, Roberts helped develop the DSP-assisted coherent transceivers that are at the heart of coherent 40, 100, and 400 Gb/s optical systems that are deployed around the world. Today he is Vice President of WaveLogic Science at Ciena, leading an R&D team focused on pushing the optical boundaries even further in terms of speed, distance and cost.

In recognition of the pioneering role he has played in the industry, Roberts was named an IEEE Fellow and a Nortel Fellow, and received the Outstanding Engineer medal in 2008 from IEEE Canada.

About The Optical Society

Founded in 1916, The Optical Society (OSA) is the leading professional organization for scientists, engineers, students and entrepreneurs who fuel discoveries, shape real-life applications and accelerate achievements in the science of light. Through world-renowned publications, meetings and membership initiatives, OSA provides quality research, inspired interactions and dedicated resources for its extensive global network of optics and photonics experts. For more information, visit: osa.org.

About IEEE Photonics Society

The IEEE Photonics Society forms the hub of a vibrant technical community of more than 100,000 professionals dedicated to transforming breakthroughs in quantum physics into the devices, systems and products to revolutionize our daily lives. We organize, contribute to and participate in technical conferences, journals and other activities covering all aspects of photonics in order to share and disseminate our breakthroughs. And provide our members with professional growth opportunities, publish journals, sponsor conferences and support local chapter and student activities around the world. Learn more at <http://www.photonicsociety.org>.