

Rod Alferness, University of California at Santa Barbara

Title: Optics and Photonics: A View to the Future

Abstract: The speaker served on a National Academies Committee that wrote a recently released report entitled. "Optics and Photonics: Essential Technologies for our Nation." The report emphasizes the importance of optics and photonics to the nation and offers recommendations on actions and directions for photonics and optics research. In this talk he will outline highlights of this report and provide some supporting research examples.

Biography: Rod C. Alferness is the Richard A. Auhll Professor and Dean of the University of California, Santa Barbara (UCSB) College of Engineering. He joined UCSB in September 2011 following a 35-year career at Bell Labs. Alferness is well known internationally for his work on integrated optical devices- especially lithium niobate waveguide modulators- optical switching technology, tunable lasers and wavelength-division-multiplexed (WDM) reconfigurable optical networks. His research has been central to the development and deployment of fiber optic communications networks that underpin the global Internet.

Alferness began work at Bell Labs in 1976, after obtaining a Ph.D. in physics from the University of Michigan. He served as Department Head of the Photonic Circuits and Photonic Networks Research Departments. He spent three years as Chief Technical Officer for the Lucent Optical Networking Business where he led the transfer of reconfigurable WDM networks to commercial products. He returned to Bell Labs as Senior Vice President of Optical Networking and Access. Later, as Senior Vice President of Research at Bell Labs, he had overall responsibility for Lucent's global Bell Labs research. With the merger of Alcatel and Lucent, Alferness became the Chief Scientist of Bell Labs where he oversaw long-term strategy, government and university partnerships, and research excellence programs

Alferness is a member of the National Academy of Engineering and a Fellow of the Institute of Electrical and Electronics Engineers (IEEE) and of the Optical Society of America (OSA). He received the 2005 IEEE Photonics Award and the 2010 OSA Leadership Award, and has served as President of the OSA and of the IEEE Photonics Society.