Scalable Interconnects for AI/ML Workloads

Featuring Dr. Ashkan Seyedi
Principal
Silicon Photonics Products
at NVIDIA

Thursday, November 9, 2023
11:00 a.m. - Noon
Location: TSRB 118 Auditorium

Abstract: AI Factories of the future will push the capability limits of signal integrity, mechanical and thermal design and stress interconnects in unprecedented ways. This talk will outline the hardware demand for future AI/ML workloads and outline system requirements for packaging to enable dense electrical I/O, cooling solutions for heat extraction of high-power ASICs. We will also review the requirements for mechanical design of scalable fiber-to-chip solutions for optical interconnects and various challenges and benefits of optical solutions for both pluggable and co-packaged interconnects.

Bio: Ashkan Seyedi received a dual bachelor's in electrical and computer engineering from the University of Missouri-Columbia and a Ph.D. from University of Southern California working on photonic crystal devices, high-speed nanowire photodetectors, efficient white LEDs, and solar cells. With a decade of industry experience at Intel,Hewlett Packard Enterprise and now nVidia, Dr. Seyedi has been working on developing high-bandwidth, efficient optical interconnects for exascale, and high-performance computing applications.

Host: Stephen E. Ralph

Pizza and soda will be available post seminar