Title: Converging Technologies: Photonics and Semiconductors

Date/Time: Wednesday, July 25, 10:00 AM – 12:00 PM

Location: Westin DFW

Description: Semiconductor technology is enabled by photonics. Dr. John Souders from OP-TEC will provide an overview of the National Center for Optics and Photonics Education and describe how this newly funded NSF ATE center is developing curriculum and course materials to assist the semiconductor industry and other industries that are enabled by photonics. This presentation will focus on The National Skill Standards for Photonics Technicians and demonstrate how curriculum in these photonics enabled areas is being developed from these standards. Dr. Souders will be followed by Dr. Chrys Panayiotou, Indian River Community College, who will outline how he has revamped and revitalized his electronics program by infusing photonics into its curriculum. The presentation will end with Rod Wetterskog, Manager of University Relations at Texas Instruments, giving a perspective, using DLP technology as an example, on how photonics relates to the semiconductor industry.

Presenters:

Dr. Chrys Panayiotou is a professor and department head of Electronics Engineering Technology (EET) at Indian River Community College (IRCC), in Fort Pierce, Florida, and also holds the prestigious J. Douglas Steven teaching endowed chair. He is also a co-principal investigator of OP-TEC and specializes in the application of photonics in the areas of homeland security and biomedical instrumentation. Chrys worked in the industrial automation and controls industry for three years and upon completion of his MSEE degree, he worked in the telecommunications industry for four years before joining academia. At IRCC, Chrys established a strong EET program with specializations in Robotics/Automation, Telecommunications, Biomedical, and Photonics. With the very strong support from his industrial advisory board, Chrys has a vibrant program full to capacity with a waiting list for new students.

Dr. John Souders, Ph.D., is the Director of Curriculum for the National Center for Optics and Photonics Education (OP-TEC). Prior to his work with OP-TEC, Dr. Souders was the Executive Dean of Liberal Arts at Cedar Valley College in Dallas and the Vice President of Curriculum and Materials Development at the Center for Occupational Research and Development (CORD). He has also directed the development of an online curriculum for an information technology academy and managed the development/editing of photonics technology and "soft-skills" instructional materials. Dr. Souders received his Ph.D. in Nuclear Engineering from the Air Force Institute of Technology.

Rod Wetterskog is the Manager of the University Relations Programs at Texas Instruments. He has a B.S. in Physics from Penn State University, and an M.S. in Physics from the University of Oklahoma. Rod worked for Eastman Kodak in Rochester, New York for six years as an Optical Scientist, Test and Systems Engineer. The Superconducting Super Collider (SSC), a DoE high energy physics lab under development south of Dallas, drew him to Texas where he worked as an Applied Physicist until the project was terminated. Following the SSC, he served 6 years as the Director of the North Central Texas Tech Prep Consortium where he partnered high schools, colleges, universities and industry to help better prepare students entering technical careers. Since joining TI, Rod has continued developing partnerships between students and industry. Currently, he works with over 40 universities, their faculty, and TI engineers to give students pursuing BS, MS and PhD EE degrees opportunities to test their career interests while creating state-of-the art analog and DSP solutions.