PHOTONICS SEMINAR

Dr. Bahram Javidi

Three Dimensional Imaging, Visualization, and Display
Faculty Host: Dr. Selim Unlu

January 16, 2015

10-11 a.m.

Room 339

Photonics Center

8 Saint Mary's Street

Refreshments will be served!

New technologies that can be used to enhance sensing, communication, and visualization of real-world objects are always in demand. Traditionally, 2D imaging systems have been the dominant method of sensing and visualizing the world and have performed various information dependent tasks. In recent years, however, interest in multi-dimensional (3D and 4D+) imaging, display, and information processing systems has substantially increased. Various active and passive imaging systems are being investigated for different applications. Three dimensional (3D) imaging systems offer a more accurate representation of the real world than 2D systems and are highly desirable for reality communication. In this seminar, Dr. Javidi will present an overview of his work in 3D imaging, visualization, and displays, including augmented reality viewing devices, flexible 3D sensing and imaging, nano-scale 3D imaging, 3D visualization and 3D object recognition with very few photons, and applications in bio-medicine and healthcare. The seminar will address the challenges and potential of these systems for high performance imaging.

Dr. Bahram Javidi is the Board of Trustees Distinguished Professor at the University of Connecticut. His main research interests are optics for multi-dimensional imaging, visualization, and information processing, optics and photonics for information systems, 3D displays, optics for healthcare applications, and optics for authentication and security. He has over 400 peer reviewed journal articles, and over 425 conference proceedings, including over 120 plenary addresses, keynote addresses, and invited conference papers. His papers have been cited over 24,500 times according to Google Scholar (***h index=75; i10-index=407***). He is a fellow of several societies, including IEEE, Optical Society of America (OSA), and SPIE. In 2008, he received the John Simon Guggenheim Foundation Fellow award. He received the 2008 IEEE Donald G. Fink prize for the most outstanding survey, review, or tutorial paper published in the IEEE Transactions, Journals, Magazines, or in the Proceedings of the IEEE. In 2007, The Alexander von Humboldt Foundation awarded him with the Humboldt Prize for outstanding US scientists.

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