University of Pavia

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Ph.D. School of Electrical and Electronics Engineering and Computer Science
Ph.D. School in Microelectronics

Image sensors: challenges and applications

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Abstract: Image sensors are among the main electronic elements demonstrating a sustainable need in different fields of science and consumer applications. Today, different forefronts are accelerating advanced image sensor technologies such as automotive applications, cell-phone industry and biomedical applications. The presentation is going to overview the main image sensor types and figures of merit from an electronic engineer point of view. More specifically Single-Photon Avalanche Diode (SPAD) imager challenges are going to be discussed. Furthermore, state-of the art applications of SPAD imagers are reviewed.

Bio: Dr. Mohammad Karami got his Master's degree in Electronics from University of Tehran, working on modeling of optical clock distribution networks in 2007. In 2011 he received the PhD degree in Electronics from the Technical University of Delft, the Netherlands, with the demonstration of first operational Single Photon Avalanche Diode (SPAD) in 90nm and 65nm CMOS technologies. He also had the opportunity of implementing optoelectronic device in CMI (EPFL) and DIMES (Delft) cleanrooms. Since 2011 he is an assistant professor and since 2017 an associate professor in the school of electrical engineering in Iran University of Science and Technology (IUST), Tehran. He is the head of single-photon sensors lab conducting research in design and implementation of image sensors.

Organizer

Prof. Lodovico Ratti

Ph.D. Coordinator.

Proff. Torelli e Di Barba

The seminar will take place in English
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