



Electrical Engineering Colloquium
Dallas Chapter of IEEE Signal Processing Society Presents

Image Signal Processor for Camera Phones

Dr. Francis Yoo
Texas Instruments

11am, Thursday, March 6, 2008, ECSS 2.102 (TI Auditorium)

In the last five years, the camera has quickly evolved from a niche functionality to a major feature for mobile handsets. Together with the CMOS image sensor, an Image Signal Processor (ISP) defines the image quality and the speed performance of the camera subsystem in a mobile handset. In this talk we will introduce ISP for camera phones. We will also discuss technical challenges that camera phone systems have seen and how such challenges have been addressed in today's camera phone ISP's using Texas Instruments ISP product examples. Finally we will discuss new trends of the camera phones that will drive next generation ISP's.

Youngjun Francis Yoo received the Ph.D. degree from the University of Southern California and the BS and MS degrees from Seoul National University. He is currently a Senior Member Technical Staff at Texas Instruments (TI) where he heads development of Image Signal Processor for mobile camera and digital still camera applications. Since he joined TI in 1998, Dr. Yoo has contributed to image and media processor IP development and SOC implementation as well as multimedia codec software and application firmware development for digital camera and multimedia products. Dr. Yoo published numerous papers, technical articles, and holds several patents in the areas of image signal processing and source coding algorithms and architectures.

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