

University of Rochester
Department of Electrical and Computer Engineering
Colloquia Series
and
The Center for Emerging and Innovative Sciences
Industrial Seminar Series on “The Future of Imaging”

Disruptive Innovation: The Story of the First Digital Camera

Steven J. Sasson

Wednesday, October 24th

11:00 AM – 12:00 PM

Computer Studies Building (CSB) 209

Abstract: The creation of the first digital camera prototype in 1975 at the Eastman Kodak Company will be discussed as well as how the concept was demonstrated within Kodak during the following year. Subsequent technical innovations with megapixel imagers, image compression products in the mid 1980's, and the early commercialization of professional and consumer digital still cameras in the early 1990's will be discussed. The internal Kodak reaction to these developments will be highlighted as well as some of the learned observations about how to deal with disruptive innovation within an established corporate environment will be shared.

Bio: Steven was born and raised in the Bay Ridge section of Brooklyn N.Y. Throughout high school, he had an intense interest in electronics and was a major distraction to his parents' as he collected all manner of discarded TV's and radios from around the neighborhood so he could salvage electronic components for his home projects. With these parts and those purchased on his frequent trips to “Radio Row” in Manhattan, Steven designed and built radio receivers, stereo amplifiers and transmitters in his basement. He obtained his amateur radio license as a teenager and further challenged his parents by putting up large antennas on the roof of the family's rather small row house in Brooklyn. Steven attended Rensselaer Polytechnic Institute (RPI) in Troy N.Y. and in 1973; he graduated with a BS and a Masters degree in electrical engineering. During the summers of his college years ('68 –'73), he had several jobs that included being a “runner” on Wall Street (before Email!) After graduation Steven joined Eastman Kodak Company as an electrical engineer working in an applied research laboratory. He engaged in a number of early digital imaging projects. Among these was the design and construction of the first digital still camera and playback system in 1975. Steven continued to work throughout the 1980s in the emerging field of digital photography receiving over 10 key digital imaging patents. In 1989 he led the development of the first prototype mega pixel electronic digital camera utilizing DCT compression that stored images to flash memory cards. Steven continued his work throughout the 1990's by developing one of the first photographic quality thermal printing systems, derivatives of which are still in use in self-service imaging kiosks around the world today. Before retiring in 2009 Steven was a project manager in the Intellectual Property Transactions group at Kodak. Steven is married to Cynthia and they have two children, Michael (25) and Jennifer (22). The family lives in Hilton N.Y. Steven enjoys playing basketball and jogging, in spite of the present state of his 62 year old knees.

Industry Awards:

2001 Eastman Innovation Award
2006 Distinguished Scholar, School of Journalism & Communication, Peking University
2006 Progress Award, Photographic Society of America
2007 Visionary Award, Photographic Manufacturers and Distributors Association
2007 Inductee into the Consumer Electronics Hall of Fame
2008 Culture Award of the Photographic Society of Germany
2009 Rochester Intellectual Property Law Association Distinguished Inventor of the Year
2009 The Economist Magazine Consumer Products Innovation award
2009 Honorary Doctor of Science from The University of Rochester
2009 National Medal of Technology and Innovation
2010 Professional Photographers Association (PPA) Technology Impact Award
2010 George R. Stibitz Computer & Communications Pioneer Award (American Computer Museum)
2010 Stevens Institute of Technology Honor Award
2011 National Inventors Hall of Fame
2011 Rensselaer Polytechnic Institute Hall of Fame
2011 Davies Medal for Engineering Achievement (Rensselaer Polytechnic Institute)
2012 Honorary Doctor of Engineering from Rensselaer Polytechnic Institute
2012 Progress Medal, Royal Photographic Society
2012 Hurter and Drifffield Lecture Medal, Royal Photographic Society

Light Refreshments will be provided.