

Overview of Jitter Measurement for High-speed Digital Signals

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Wednesday, October 20th, 2004 at 6:30 p.m.
Kalkin 003, University of Vermont
(Kalkin is next to Votey and this room is in the basement)

FREE PIZZA WILL BE SERVED!

Register with Jim Monzel (jmonzel@ieee.org, 802-769-6428) by Friday, October 15th.

Abstract: As the frequency/speed of ICs becomes higher and higher, more room to budget timing events is needed and therefore less jitter is required. Jitter measurement is a hot topic right now, and it will become even more important in the future. Many papers/articles have been published in the last few years on this topic. This seminar will give an overview of jitter measurement in high speed digital signal. It will include the following subjects:

A. Jitter Fundamentals

- a. Background on Jitter
- b. Jitter definition and models.

B. Survey of Jitter Measurement Techniques

- a. Off-chip jitter measurement technique
- b. On-chip jitter measurement technique

Speaker Bios:

Randy Wolf was born in Georgia, USA, in October 1967. He received an electronic technical degree through the US Navy in 1988, then his BS degree in 1997 from Drexel University, Pennsylvania, USA and is currently pursuing an M.S. degree in Advance Microwave Systems and Electronics from University of Massachusetts, USA. He joined IBM microelectronics in 1989 as an electronic technician, then worked for Sprint in 1997 as a staff engineer, and rejoined IBM microelectronics as an advisor engineer in 1999. Randy Wolf received the International Test Conference (ITC) Best Paper Award, September 2003.

Tian Xia received the B.E. degree in Electrical Engineering from Huazhong University of Science and Technology, Wuhan, China in 1994, the M.S. degree from Nanjing University of Posts and Telecommunications, Nanjing, China in 2000, and the Ph.D. degree in Electrical and Computer Engineering from the University of Rhode Island, Kingston, RI, in 2003. He is currently an Assistant Professor in the University of Vermont. In 2002 and 2003 summers, he worked in PICA group at IBM T. J. Watson Research Center, Yorktown Height, New York. His main research interests are in mixed-signal VLSI design and test.

Jing Li received his PhD degree in 2001 from Duke University, North Carolina. He also received the B.S. and M.S. degree in Automatic Control and System Engineering from Xian JiaoTong University, China, in 1993 and 1996, respectively. He joined IBM microelectronics as a staff engineer in 2001 and became an advisor engineer in 2004. He is currently an IEEE member and SIAM member. He is also a team member of SERDP DARPA project of year 2000.

*A joint meeting of the IEEE student chapter at UVM and
the Green Mountain Computer Society chapter*