



# Seminar Experience

ELECTRICAL & COMPUTER ENGINEERING

Friday, Mar. 20

11 am—12 pm

FIU Engineering Center

EC Room # 1105

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## *“The Future of Asynchronous Logic”*

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North Dakota State University

### **ABSTRACT**

ITRS 2012 states that asynchronous circuits account for 22% of logic within the multi-billion dollar semiconductor industry, and predicts that this percentage will more than double over the next 10 years. Asynchronous logic has been around for the past 50+ years; but, until recently, synchronous circuits have been good enough to meet industry needs. However, as transistor size continues decreasing, asynchronous circuits are being looked to by industry to solve power dissipation and process variability issues. This talk will discuss the state-of-the-art of asynchronous logic, how asynchronous circuits are currently being utilized in industry, and the future of asynchronous logic.

### **BIOGRAPHY**

Scott C. Smith received B.S. degrees in both Electrical Engineering and Computer Engineering and an M.S. degree in Electrical Engineering from the University of Missouri, Columbia, in 1996 and 1998, respectively, and a Ph.D. degree in Computer Engineering from the University of Central Florida, Orlando, in 2001.

He is currently Professor and Department Chair of Electrical and Computer Engineering at North Dakota State University (since August 2013), and was previously a professor at University of Arkansas (2007 – 2013) and Missouri University of Science & Technology (2001 – 2007). He has authored more than 80 publications in refereed journals and conferences, and holds 6 U.S. patents, all of which can be viewed on his website: <http://www.ndsu.edu/pubweb/~scotsmit/>. His current research interests include asynchronous logic design, computer architecture, CAD tool development, embedded system design, VLSI, FPGAs, trustable hardware, self-reconfigurable logic, wireless sensor networks, and cyber physical systems.

Dr. Smith is an IEEE Senior Member, and a member of the National Academy of Inventors, Sigma Xi, Eta Kappa Nu, Tau Beta Pi, and the American Society for Engineering Education.