CECS

CENTER FOR EMBEDDED & CYBER-PHYSICAL SYSTEMS

CECS Seminar Series

Presents

"Mitigating BTI-induced Device Degradation: A Circuit and System Perspective"

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Abstract:
Bias temperature instability which causes a shift in the transistor's threshold voltage and decreases circuit switching speed has become a major reliability concern. In this talk, I will introduce the techniques to mitigate device degradation at the circuit and system level, and provide design guidelines to deal with device degradation. The future trend on device degradation will be introduced as well.

Biography:
Prof. Ing-Chao Lin received his M.S. degree from Dept. of Computer Science and Information Engineering, National Taiwan University and Ph.D. degree from Dept. of Computer Science and Engineering, the Pennsylvania State University 2001 and 2007, respectively. From 2007 to 2009, he is a staff R&D engineer in Real Intent Inc., CA, USA, where he is working on Real Intent's automatic timing exception verifier.
His research interest includes reliable power-aware system, electronic design automation, and computer architecture. He has authored or co-authored more than 50 scientific papers and is a committee member of many technical conferences. He is a senior member of IEEE and he is the chair of IEEE Tainan Young Professional group. He is the recipient of 2015 Excellent Young Researcher Award by Chinese Institute of Electrical Engineering. He is currently a visiting scholar in Dept. of Electrical and Computer Engineering, University of California, Santa Barbara.

Monday, February 8, 2016 at 1:30 p.m.
Donald Bren Hall 3011
Host: Professor Nikil Dutt