# EECS/CASE Colloquium
# IEEE/EMC Society Distinguished Lecturer

## Sam Connor
IBM
Research Triangle Park, NC

**Wednesday, October 2, 2013**
**4-201 Center for Science and Technology – 1:00 PM**

## Automated EMC Design Rule Checking: Past, Present, and Future

**Abstract:** The complexity of circuit boards and systems has risen dramatically over the last couple decades, along with the data rates of the signals being used. At the same time, development cycles have compressed, and teams have been divided across time zones and continents. In the past, manual reviews of circuit boards and system wiring were possible in the time available, and EMC engineers could share design guidelines with board designers down the hall. Nowadays, design guidelines must be accessible worldwide, instantaneously, and they need to be checked in a repeatable manner to ensure quality. As technology changes, new rules must be developed quickly based on lessons learned and simulation results. These demands have driven the need for automated, customizable rule checking applications. Up until now, these applications have focused on electrical designs, as this is typically viewed as the source of EMC problems. Looking ahead, though, this methodology needs to be applied to all aspects of a system design if it is going to identify the system-level integration issues that often derail products during certification testing.

*************************

**Bio:** Samuel Connor is a Senior Technical Staff Member at IBM and is responsible for the development of EMC and Signal Integrity (SI) analysis tools/applications. Mr. Connor's current work activities and research interests also include electromagnetic modeling and simulation in support of power distribution and link path design for printed circuit boards. He holds three patents and has co-authored numerous papers in computational electromagnetics, mostly applied to decoupling and high-speed signaling issues in PCB designs. Papers that Mr. Connor has co-authored have won Best Paper honors at EPEP, DesignCon, and the IEEE EMC Symposium. He is a Senior Member of the IEEE and is currently the chairman of the Eastern North Carolina Chapter and the vice-chair of the TC-9 subcommittee of the IEEE EMC Society.

*Refreshments will be served.*

_____

Jointly Sponsored by Department of Electrical Engineering and Computer Science, CASE Center and **IEEE AP/MTT/EMC Society** http://lcs.syr.edu/our-departments/electrical-engineering-and-computer-science/events/