## Computer Science Colloquium

# Systems and Software Engineering at Siemens Corporate Research

### Brian Berenbach Siemens Corporate Research, Princeton

**Abstract:** In a corporate research environment there is always a tension between providing services to the Siemens business units, and performing short and long term research. The systems and software engineering department at SCR in Princeton performs applied research while providing both technical and management consulting services to Siemens business units and government agencies. When performing research, Siemens often partners with university colleagues from many different countries. Much of the research and work is challenging and interdisciplinary, cutting across sales, marketing, engineering and application domains.

This talk will describe some of the challenges faced in executing very large projects, typically with a mix of hardware and software, while conducting research to improve engineering processes and support tools. Ongoing research in systems and software engineering will be described in the context of very large projects SCR has and is continuing to support, in such domains as rail transit, postal systems, integrated health care networks, automotive systems and medical products.

#### Bio:

Brian Berenbach is a senior member of the technical staff at Siemens Corporate Research in Princeton. He is an ACM Distinguished Engineer and has published extensively on software and requirements engineering. His textbook Software Systems Requirements Engineering: In Practice was recently published by McGraw-Hill. Mr. Berenbach received his M.Sc. from Emory in 1967.

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