IOWA STATE UNIVERSITY

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## ECpE Centennial

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## Seminar Details: Daniel A. Reed

## Centennial Celebration Seminar

All students, faculty, staff, alumni, and friends of the ECpE department are invited to attend the following Centennial Celebration Seminar:

Date: Monday, April 20

Time: 1 p.m.

Location: 3041 ECpE Building Addition

Seminar title: "Inventing the Future"

Speaker: Daniel A. Reed, Director of Scalable/Multicore Systems, Microsoft Research

Abstract: Ten years—a geological epoch on the computing time scale. Looking back, a decade brought the Web and consumer e-mail, digital cameras and music, broadband networking, multifunction cell phones, WiFi, HDTV, telematics, multiplayer games, electronic commerce, and computational science. It also brought spam, phishing, identity theft, software insecurity, outsourcing and globalization, information warfare and blurred work-life boundaries. What will the future bring? As Yogi Berra famously noted, "It's hard to make predictions, especially about the future."



Daniel A. Reed, Director of Scalable/Multicore Systems, Microsoft Research



Without doubt, though, scientific discovery, business practice, and social interactions are moving rapidly from a world of homogeneous and local systems to a world of distributed software, virtual organizations, and cloud computing infrastructure, supported by ever larger computing infrastructure. Where is the technology going and what are the research implications? What architectures are appropriate for 100-way or 1000-way multicore designs? How do we build scalable infrastructure and what is the role of government, academia, and industry? How do we optimize performance, power and reliability? This talk will examine how we define new capabilities and software to advance discovery.

Biography: Daniel A. Reed is Microsoft's Scalable and Multicore Computing Strategist, responsible for re-envisioning the cloud infrastructure of the future and for multicore research strategy. Previously, he was the Chancellor's Eminent Professor at UNC Chapel Hill, as well as the director of the Renaissance Computing Institute and the Chancellor's Senior Advisor for Strategy and Innovation for UNC Chapel Hill. Reed has served as a member of the President's Council of Advisors on Science and Technology and the President's Information Technology Advisory Committee. In 2007, he chaired a review of the federal networking and IT research portfolio. He currently serves as chair of the board of directors of the Computing Research Association.

Reed previously was head of the Department of Computer Science at the University of Illinois at Urbana-Champaign (UIUC). He also has been director of the National Center for Supercomputing Applications at UIUC, where he also led the National Computational Science Alliance. He was one of the principal investigators and chief architect for the NSF TeraGrid. He received his PhD in computer science in 1983 from Purdue University.

Additional details: Seminar will begin at 1:10 p.m. Reception to follow seminar; refreshments provided.