

**College of Engineering Announces Spring 2010
Eminent Scholar Lecture Series Lineup**

Tampa, Fla. (Final Update February 4, 2010) – Six dynamic scientists will participate in this year’s Eminent Scholar Lecture Series with topics ranging from the exploration of Mars to innovation and global competitiveness. The lecture series presented by the USF College of Engineering is held annually each spring. All lectures will be held Fridays, 2-3:30 p.m. on the USF Tampa Campus in the Marshall Center Theater. They are free and open to the public. For more information, please go to <http://www2.eng.usf.edu/esl/>.

January 15 - Dr. Mark W. Powell Mark Powell is a Senior Member of the Technical Staff in the Mobility Systems Concept Development Section at the Jet Propulsion Laboratory, Pasadena, CA since 2001. His dissertation work was in the area of advanced illumination modeling, color and range image processing applied to robotics and medical imaging. At JPL his area of focus is science data visualization and science planning for tele-robotics. He is currently serving as software and systems engineer for technology program and flight program activities, both ongoing and new. Mark is a member of the Maestro development team. Dr. Powell earned a BS, MS and PhD in Computer Science and Engineering from USF.

January 29 - Dr. Leonard Polizzotto Mr. Polizzotto is head of Strategic Business Development and Marketing for Draper Laboratories, Cambridge, Mass. His lecture topic is “Innovation and Engineering Design: Turning Ideas into High Value Products.”

Abstract: You have a really cool idea. You get a patent with it. Now what? Most new ideas, and new products, fail in the market place. They fail not because of technology problems, but because no one wants them. Innovation is developing products and services that people want and that solve an important need. We will look at how to innovate, how to establish market needs which lead to customer requirements, and how customer requirements lead to product specifications. And, once you know what your product needs to do, how to define what technology is needed to make it happen and what your business plan should entail.

February 12 - Dr. Jerald L. Schnoor Dr. Schnoor is Professor of Civil and Environmental Engineering and Center for Global and Regional Environmental Research at The University of Iowa. His lecture topic is “Environmental Grand Challenges.”

Abstract: Environmental problems are many indeed. But which problems are the most important, the most intractable, and will require the greatest ingenuity to solve? Where can we contribute as environmental engineers, scientists, and policy experts? This lecture will reflect on four Environmental Grand Challenges in this century judged from the standpoint of sustainability.

- Water, our most precious resource
- Climate Change and the New Economy
- Energy Choices and Biofuels
- Global Poverty and Sustainability

The challenges and the technological and social/cultural advances which are necessary to become more sustainable over the next few decades will be discussed.

February 26 - Mr. Norman Augustine Mr. Augustine is Chairman of the Review of US Human Space Flight Plans Committee and the retired chairman and CEO of Lockheed Martin, and a formerly held a faculty position at Princeton University. His lecture topic is global competitiveness.

March 26 - Dr. Mark Somerville Dr. Somerville is an Associate Professor of Electrical Engineering and Physics, and Associate Dean of Academic Programs and Curricular Innovation at the Franklin W. Olin College of Engineering in Needham, Mass. His lecture will focus on rethinking engineering education.

Abstract: From the Engineering Deans' Council *Green Report* in the mid 90's to Thomas Friedman's *The World is Flat* to the National Academy of Engineering's recent *Engineer of 2020*, there has been a growing consensus of the need to rethink what it means to educate an engineer for the 21st century. Today, many institutions are heeding these calls and taking steps — large and small — to redefine engineering education. In this talk, he will review the calls for change in engineering education, discuss some of the challenges and opportunities that these calls pose, and examine some examples of successes and failures in the quest to educate engineers for tomorrow.

April 12 - Dr. Ramesh Jain Dr. Jain is the first Bren Professor in the Bren School of Information and Computer Science at The University of California Irvine. He is a researcher, entrepreneur and teacher of Experiential Computing and Next Generation Search. Dr. Jain is a Fellow of ACM, IEEE, IAPR, AAAI, and SPIE.

Abstract: The Web has changed the way we live, work, and socialize. More importantly, it has encouraged and facilitated entrepreneurship at many levels resulting in the highest number of self-made wealthiest young people in history. Web-thinking has been influencing how we understand, design, and solve important problems and build complex systems. For centuries, emergence has been considered an essential property underlying the way complex systems and patterns emerge out of relatively simple interactions among different components. The Web has compellingly demonstrated results of emergence in action. Recent rapid advances in sensor technology, Web 2.0, Mobile devices, and Web technologies have opened further opportunities to understand large complex dynamic systems using emergence and apply this to solve emerging challenging problems. In this talk, we will discuss how Web technology can be extended to deal with challenging problems in building complex dynamic systems and demonstrate our ideas using examples. We will also discuss attractive entrepreneurship opportunities created by this new Web.

USF

The University of South Florida is one of the nation's top 63 public research universities and one of only 25 public research universities nationwide with very high research activity that is designated as community engaged by the Carnegie Foundation for the Advancement of Teaching. USF was awarded \$380.4 million in research contracts and grants in FY 2008/2009. The university offers 232 degree programs at the undergraduate, graduate, specialist and

doctoral levels, including the doctor of medicine. The USF System has a \$1.8 billion annual budget, an annual economic impact of \$3.2 billion, and serves more than 47,000 students on institutions/campuses in Tampa, St. Petersburg, Sarasota-Manatee and Lakeland. USF is a member of the Big East Athletic Conference.

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