



Department of Civil Engineering and Engineering Mechanics  
Columbia University

**Tuesday, April 12, 2011 (3:00-4:00 pm)**  
**644 Mudd**

## **Underground, Infrastructure and the Built Environment**



**Dr. Priscilla Nelson**

*Professor*

*Department of Civil and Environmental Engineering  
New Jersey Institute of Technology*

Dr. Priscilla Nelson will offer a personal perspective on sustainability, resilience, complexities and interdependencies of our critical infrastructure systems (CIS). She will argue for the importance of establishing a valuation for underground as an urban space resource, and introduce and develop the concept of performance response functions as a way to conceptually capture resilience characteristics of our communities and infrastructure systems.

### **Biosketch**

Dr. Nelson has a national and international reputation in geological and rock engineering, and the particular application of underground construction. She has more than 20 years of teaching experience, has mentored many students, and has more than 120 technical and scientific publications to her credit. She served as provost of NJIT from 2005-2008, and was appointed to the faculty in civil engineering at The University of Texas at Austin from 1983 through 1996, rising from Assistant through Associate and Full Professor ranks. Her previous experience includes 11 years at the National Science Foundation (NSF) concluding her service as senior advisor to the director of NSF. During her time at NSF, she acted in many capacities, including program director for the Geotechnical Engineering program, director for Professional Opportunities for Women in Research and Education Program, director of the Civil and Mechanical Systems (CMS) Division, and as program manager for the NEES (Network for Earthquake Engineering Simulation). She received the NEES Community Visionary Award in 2005. Her honors and awards include Exxon Teaching Fellowships at The University of Texas at Austin (1985-1987), the Case Studies Award from the U.S. National Committee for Rock Mechanics (NAE, 1988), the Halliburton Education Foundation Award of Excellence (1991), the Basic Research Award from the U.S. National Committee for Rock Mechanics (NAE, 1993), and election to The Moles, an association of the heavy construction industry (1995), and induction into Tau Beta Pi as an Eminent Engineer (2007). At the National Science Foundation, she received the Director's Award for Integrative Collaboration four times, and she received the Director's Award for Meritorious Service in 1997. In 1999, she was appointed to the Senior Executive Service. Also in 1999, she received the Director's Award for Superior Accomplishment from the NSF. In 2008, she received the Kenneth Andrew Roe Award from the American Association of Engineering Societies, and was honored in the Executive Women of New Jersey (EWNJ) Salute to the Policy Makers. In 2011, she received the Henry L. Michel Award for Industry Advancement of Research from ASCE.