

Department of Civil, Construction, and  
Environmental Engineering

**48<sup>th</sup> Henry M. Shaw Lecture:**  
***SmartDrivingCars... Where have we been,  
where are we, and where are we going?***



Thursday September 12th  
Mann Hall Room 307  
Lecture at 3:00pm  
Reception in Lobby at 4:00pm

**Dr. Alain L. Kornhauser**

**Professor, Operations Research and Financial Engineering**  
**Faculty Chair, Princeton Autonomous Vehicle Engineering**



**Abstract:** Mobility is closely correlated with quality-of-life; better mobility with better quality-of-life. It is not surprising that technologists for centuries have looked to improving mobility as the beneficiary for emerging physical/analog technologies. It is not surprising that digital technologists have focused on mobility as their opportunity to make a difference. With IVHS (Intelligent Vehicle Highways Systems, 1991, evolving into ITS in 1994), digital technology began improving mobility. What started as a largely public-sector initiative has emerged into an investment bubble that has committed over \$100 Billion in the last 10 years from the private sector to the development of automated road vehicles, or what I've termed SmartDrivingCars. The perceived opportunity is to fundamentally disrupt the \$10Trillion/year mobility industry. The seminar will explore the visions that motivated the massive investment, where we are today, and the public policy implications of the range of realities that may emerge.

**Biography:** Alain Kornhauser is a Professor of Operations Research & Financial Engineering at Princeton University. He studied Aerospace Engineering at Penn State where he obtained a BS and MS and Princeton, earning a PhD. In 1971 he joined the Aerospace Engineering faculty at U of Minnesota where he applied automation, network analysis and optimal control to the design of Personal Rapid Transit (PRT) Systems. He returned to Princeton in 1972, to extend his pivotal work to more conventional forms of transportation and serve as Director of the Transportation Program.