学术报告

报告题目：Transportation, Environment, and Energy Systems
From Transportation Planning/Management to Air Pollution and Public Health—Are We Doing the Right Thing, and Doing it Right?

报 告 人：H. Oliver Gao, Ph.D., P.E. (Cornell University)

报告时间：7 月 22 日上午 9:00-11:00 (周一)

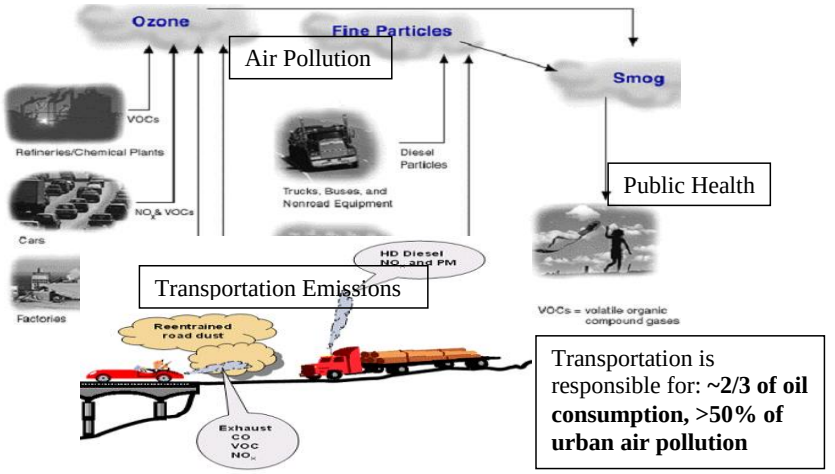
报告地点： 安中大楼 A-326

报告人简介：

Dr. Gao is an Associate Professor (with tenure) with the School of Civil and Environmental Engineering at Cornell University. His research focuses on quantitative modeling and development of engineering systems solutions for sustainable and intelligent infrastructure and lifeline systems, low carbon and low emission transportation systems, and the closely related environment (especially air quality and climate change)-energy systems. He is a member of Transportation Research Board Committee on Transportation and Air Quality (ADC20), an academic member on the Federal Advisory Committee of US EPA MOVES model development, a member of Transportation Research Board Committee on Maintenance Equipment (AHD60), and a member of the Cornell Atkinson Center for a Sustainable Future (ACSF).

报告内容简介：

Transportation-related air pollution, GHG emissions and energy problems are a significant issue in China, the U.S. and across the world. The World Health Organization estimates that urban air pollution causes 200,000 deaths per year worldwide and that it will be responsible for 8 million premature deaths from 2000 to 2020. Sacrificing transportation needs for environmental quality is simply infeasible since transportation provides a vital wheel for economic development. How do we meet the transportation needs in the age of development without sacrificing environment and energy sustainability?



Gao's research and teaching focus on the nexus of transportation and environment/energy systems. The overarching goal of his research predicates on a multi-disciplinary system-driven approach to novel basic research, applied research and implementation discoveries that will advance the understanding of the transportation-air quality-energy nexuses, where the lack of science and knowledge is the biggest barrier to sustainable transportation, air quality and energy management strategies. In this talk Dr. Gao takes a phased approach looking into the depth and their inter-relationships of the following six intermingling topics that span across transportation, air quality, and energy systems: cleanup of the transportation system—mathematical modeling in search for cost-effective environment abatement strategies; equity and environmental justice in green transportation programs; transportation emission and ozone pollution: emphasizing the need to integrate transportation and air quality modeling; the new Chinese PM2.5 standards and transportation; and environmental impacts of alternative transportation fuels.