

SEMINAR

**Thursday, March 25, 2010
2:00 – 3:30pm**

Seminar Room 4080 AIR Building

FROM TRANSPORTATION EMISSIONS CONTROL TO PUBLIC HEALTH – ARE WE DOING THE RIGHT THING, AND DOING IT RIGHT?

**H. Oliver Gao, PhD
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Transportation-related air pollution and energy problems are a significant issue in the U.S. and across the world. The World Health Organization estimates that urban air pollution causes 200,000 deaths per year worldwide. 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? Dr. Gao's research focuses on the nexus of transportation and environment/energy systems. In this talk Dr. Gao takes a phased approach looking into the inter-relationships of the following six intermingling topics that span across transportation, air quality, and energy systems: cleanup of the legacy diesel fleet-mathematical modeling in search for cost-effective environment abatement strategies; equity and environmental justice in the clean diesel programs; truck traffic and ozone weekend effect (OWE): emphasizing the nonlinear dynamics between transportation emissions control and ozone pollution; catching the moving targets: from PM mass to PM number; and environmental impacts of biofuels.