



Texas A&M University-Kingsville Environmental Engineering Presents

Human Exposure to Indoor Pollutants: Effects of Source Characteristics and Ventilation System

By

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5:00 – 5:50 pm, Nov. 18 (Wednesday), 2009, Engineering Complex room 136

Abstract: Inhalation exposure to indoor airborne pollutants has potential health hazards such as sick building symptoms, respiratory diseases, and spread of infectious disease. Building environmental conditions such as 1) air distribution and speed and 2) contaminant sources position and intensity are the important factors that influence occupant exposure. The objective of the presentation is to present basic concept of gaseous and particulate pollutant transport from sources to occupants. The special focus will be on the effects that ventilation system and occupant's thermal plume have on spatial and temporal pollutants distributions. The presentation will provide examples of how personal exposure depends on indoor airflow and source characteristics in commercial and residential environments. Also, the presentation will show advanced modeling methods applied in indoor environmental science.

Dr. Atila Novoselac is assistant professor in Civil, Architectural and Environmental Engineering at the University of Texas at Austin. He received his Ph.D. from The Penn State University in Architectural engineering before joining the University of Texas faculty in 2005. Dr. Novoselac's area of expertise includes pollutant transport analyses, building ventilation systems, indoor air quality studies, and energy efficiency analyses. He published more than 40 journal and conference papers and his current research work includes: assessment of human exposure to pollutants, particle resuspension analyses, advancement of computational fluid dynamics (CFD), development of models for building heat transfer analyses, and development and experimental validation of models for combined thermal and airflow analyses.