

The Chinese University of Hong Kong
Department of Geography and Resource Management
Institute of Future Cities

jointly organize a seminar

by

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Investigating Spatial Variability in Air Quality and Its Influential Urban Morphological Factors Using Land Use Regression Approach

Abstract:

In high-density cities, optimization of compact urban forms is important for the enhancement of pollution dispersion, improvement of the air quality, and healthy urban living. A better understanding of spatial variability in air quality and its influential urban morphological factors is essential to health risk assessments and urban planning implementation but challenging in a high-density environment due to the sparsely distributed air quality monitoring stations and the highly diverse urban features. This presentation illustrates several precursive investigations of the fine-scale spatial pattern of air pollution in a high-density and heterogeneous urban environment using land use regression technique. Based on the meteorological records, sounding data and microscale geographic predictors in Hong Kong, a group of estimation models were developed. The results indicate that the spatial pattern of air quality is largely determined by the building geomorphometry in the high-density built environment of Hong Kong. The study outputs enable the integration of environmental consideration into healthier urban planning and development strategies.

About the Speaker:

Yuan SHI is Postdoc Fellow in School of Architecture, The Chinese University of Hong Kong. Before receiving his Ph.D. in CUHK, he practiced as an urban planner and designer in Beijing, China. He has both practical experience in urban planning/design areas and research experience in urban climate. Now he focuses on the research of interactions between urban environment and urban planning/design, as well as the relevant environmental and health impacts. He is particularly interested in: (1) geospatial modelling of urban climate and air pollution; (2) spatiotemporal assessment of human exposure to air pollutants and heat; (3) urban planning/design improvement based on environmental considerations. He has participated in international cooperation projects such as the Green4cities (G4C) Project – A project about urban green infrastructure funded by the European Union and local government funded research projects, etc.

Language: English

Date: 28 March 2019 (Thursday)

Time: 4:30-6:00pm

Venue: Room 221

**Chen Kou Bun Building
Chung Chi College**

~All are Welcome~

For any inquiries, please contact Prof. Li Jing (Tel. 3943 6537 or Email: victorli@cuhk.edu.hk).