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DEPARTMENT OF GEOGRAPHY AND RESOURCE MANAGEMENT
SEMINAR

CO-ORGANISED WITH CENTRE OF LAND RESOURCE AND HOUSING POLICY,
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Urban Sustainability Assessment and Learning from Best Practices

ABSTRACT

Urbanization, especially in developing countries, has led to numerous concerns, such as air pollution, traffic congestion and habitat destruction. Within this context, it is important to evaluate whether urban development is sustainable, and various sustainability assessment methods have been developed, including fuzzy logic approaches. However, these approaches used predefined fuzzy rules and simple linear membership functions, which are largely based on the knowledge of subject experts. An adaptive neuro-fuzzy inference systems (ANFIS) approach was introduced for urban sustainability assessment. With collected training samples from the Urban China Initiative, the ANFIS approach was used to rank 185 selected cities in China. The results show that the ANFIS approach is flexible and adaptable to dynamic changes in the assessment of urban sustainability, and the nonlinear membership functions fit the training samples better than the linear membership functions. Furthermore, various sustainable urban development policies and methods had been implemented within China. Some of these policies and methods have been found to be successful in improving the sustainability of cities in China. These practices can be defined as the best practices of sustainable urbanization, which can provide useful references for future urban development. Combining the methods of content analysis and social network analysis, a comprehensive study on 150 best practices of sustainable urbanization was conducted in China. The methods and outcomes of the 150 best practices are identified. The research findings reveal the statistics of categories, methods and outcomes of the 150 best practices and the main adopted methods.

LANGUAGE

English

DATE

18 Mar 2021 (Thu)

TIME

4:30 – 6:00 pm (GMT+8)

ZOOM MEETING

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<https://cuhk.zoom.us/j/97360375790>

(no password required)

ABOUT THE SPEAKER

Dr. Yongtao Tan obtained his PhD degree in Construction Management from The Hong Kong Polytechnic University. Currently, he is a Senior Lecturer in Civil and Infrastructure Engineering Discipline, School of Engineering, RMIT University, Australia. He is the program manager of the Civil and Infrastructure program (Hong Kong). His current research interests are sustainability and leadership in the built environment, green retrofit, modular construction, low carbon building, infrastructure resilience, sustainable urbanization. Dr. Tan is Council Member of the Chinese Research Institute of Construction Management (CRIOCM), Member of the American Society of Civil Engineers (ASCE), and Member of the Chartered Institute of Building (CIOB).

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