

LSGI Talk Series: Emerging Topic in Geospatial and Urban Science

Urban Visual Intelligence: Perceiving Cities with AI and Street-level Imagery

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Time: 10:00 - 11:00

Venue: Online @ zoom

Language: English



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Bio:

Dr Fan Zhang is a Senior Research Associate at MIT and the lead of the Urban Visual AI group at the MIT Senseable City Lab. His research sits at the intersection of GIScience, urban data science, and GeoAI. Dr Zhang is now an associate editor of Transactions in Urban Data, Science, and Technology, a guest editor of ISPRS Journal of Photogrammetry and Remote Sensing, and a reviewer for over 40 journals in the field. He is BOD member of CPGIS and has been a session chair in AAG, ACSP, and Geoinformatics, etc. He won the Global Young Scientist Award in Frontier Science and Technology at WGDC 2020.

Abstract:

The last decades have witnessed an increasing penetration of digital technologies in the physical space. This ushered in a series of radical changes in how we understand, conceive, design, and live the city. More recently, the emergence of geospatial big data and advances in artificial intelligence have opened up new opportunities to sense urban dynamics and evaluate the processes and consequences of urbanization. In this talk, we will focus on four key issues in perceiving the urban physical environment: 1) How to observe urban physical environment on a large scale? 2) How to derive semantic information from street-level imagery? 3) How to quantify the physical environment of a place? And 4) How to understand the interactions between the built environment, urban dynamics, and the socio-economic environment at the human scale? We discuss these issues and approaches through a conceptual framework, 'Urban Visual Intelligence', that illustrates how new image data sources and deep learning techniques can reshape the way we perceive cities, enabling us to study their built environments and their interactions with human dynamics at different scales, and facilitate the development of sustainable smart cities.

All are welcome. To register, please [click here](#) for the details.

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