TBIS

Topic of the Speech:
TopoGeoKG-Agent: A Geographic Knowledge Graph Guided LLM Agent Framework for Spatial Data Analysis

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Dr. Jianquan Cheng is a Reader in Urban Health and Analytics in the School of Engineering and Environment at Manchester Metropolitan University (MMU), and Deputy Director of the Manchester Metropolitan Crime and Well-being Big Data Centre. He is also a Professor at the Key Laboratory of Environment Change and Resources Use in Beibu Gulf (Ministry of Education), Nanning Normal University, China.

His research expertise spans sustainable urbanisation — including urban growth, geographical mobility, spatial accessibility, energy consumption, and gentrification — as well as sustainable and healthy cities, with a particular focus on urban wellbeing, health inequality, sports infrastructure, and physical exercise. His work applies GIS (Geographic Information Science and Systems), big data analytics, artificial intelligence (AI), and virtual reality (VR) approaches.

His recent research projects focus on analysing and modelling the impacts of physical and built environments on public health and wellbeing across multiple spatial scales in both Chinese and British cities. The aim is to generate data-driven evidence and frameworks to support spatial interventions and urban planning for healthier and more sustainable cities.

Jianquan Cheng also serves as an Associate Editor for Humanities and Social Science Communication, PLOS One, and Frontiers in Sustainable Cities. He is a member of the ESRC Peer Review College and a panel member of the British Council International Science Partnerships Fund (ISPF).