



UTC Project Information – Cooperative Mobility for Competitive Megaregions (CM²)

Project Title	Develop a GIS-based Megaregion Transportation Planning Model
University	Texas Southern University
Principal Investigator	Qisheng Pan, Bumseok Chun
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Funding Source(s) and Amounts Provided (by each agency or organization)	U.S. Department of Transportation: \$122,000 Texas Southern University: \$65,537
Total Project Cost	\$187,537
Agency ID or Contract Number	UTDOT Grant number: 69A3551747135
Start and End Dates	5/1/2017 - 8/31/2020
Brief Description of Research Project	Create a model that will address planning issues within a metropolitan area.
Describe Implementation of Research Outcomes (or why not implemented)	Dr. Pan published an article titled "Comprehensive Geographic Information Systems" with other researchers in the Elsevier Journal in 2018. Dr. Pan also presented this research at Wuhan University in China and Cambridge University in the U.K. in the summer of 2018. The presentations were titled "The Development and Research and Applications of Regional and Urban Smart Models." Dr. Pan also presented "Problems and Opportunities for Urban Growth and Transportation Development at the Southwest Jiaotong University in July of 2018 in Chengdu, China. Dr. Pan also presented at a PhD forum at Tongji University in China in July 2018 and presented "The Driving Forces Explaining Change of employment Centers in Large US Metropolitan Areas: A Comparison Study of Houston and Dallas." Finally, Dr. Pan's research was published with other researchers in the 2018 Urban Studies Journal. The article is titled
Impacts/Benefits of Implementation (actual, not anticipated)	The leader of this research team has developed and maintained the Southern California Planning (SCPM), which is a Lowry-type spatial planning model combining the functions for economic impact analysis, spatial allocation, and transportation modeling. The SCPM
Web Links (to reports, project website, etc.)	https://www.sciencedirect.com/science/article/pii/B9780124095489100284?via%3Dihub



The Development and Applications of Regional Planning Models

Profesor Qisheng Pan

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Texas Southern University



As an example of regional planning model, Southern California Planning Model (SCPM) incorporates economic input-output analysis to a spatial allocation model and reports results in considerable spatial detail. This presentation will demonstrate the development of various versions of SCPM to address the complex problem of spatial economic impact analysis. It will also introduce the applications of SCPM in the estimate of the indirect and induced effects of a plan, project or policy in Los Angeles and other regions, including the cost-benefit analysis of advanced stormwater treatment, the economic impacts of man-made and natural disasters, the effects of peak-load pricing, and the economic impact analysis for airport development projects, etc.

Qisheng Pan is a Professor in the Department of Urban Planning and Environmental Policy at Texas Southern University. He is also a visiting chair professor in the College of Architecture and Urban Planning, Tongji University. Prof. Pan's research focuses on regional planning models, economic impact analysis, and the applications of GIS in urban planning. Recently he received grants from USDOT UTC program to examine megaregion mobility. He was also a founding member of the first planning department in Houston and served as the department chair in 2008-2016.

When? 10am, Friday 27 July, 2018

Where? Board Room, Department of Architecture
1-5 Scroope Terrace, Cambridge, CB2 1PX