Stanford

Rishee Jain

Assistant Professor of Civil and Environmental Engineering

CONTACT INFORMATION

- **Administrator**

  Sharyn Nantuna - Program Administrator

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Bio

BIO

Professor Jain's research focuses on the development of data-driven and socio-technical solutions to sustainability problems facing the urban built environment. His work lies at the intersection of civil engineering, data analytics and social science. Recently, his research has focused on understanding the socio-spatial dynamics of commercial building energy usage, conducting data-driven benchmarking and sustainability planning of urban buildings and characterizing the coupled dynamics of urban systems using data science and micro-experimentation. For more information, see the active projects on his lab (Stanford Urban Informatics Lab) website.

ACADEMIC APPOINTMENTS

- Assistant Professor, Civil and Environmental Engineering

HONORS AND AWARDS

- Science, Engineering and Education for Sustainability (SEES) Fellow, National Science Foundation (2014)

LINKS

- Urban Informatics Lab Website: http://www.uil.stanford.edu/

Research & Scholarship

PROJECTS

- Data-driven Sustainable Upgradation of Dharavi Informal Settlement (Mumbai, India) - Stanford University

Teaching

COURSES

2017-18

- Intro to Urban Sys Engrg: CEE 243 (Aut)
- Network Analysis for Urban Systems: CEE 345 (Spr)

2016-17

- Intro to Urban Sys Engrg: CEE 243 (Aut)
- Network Analysis for Urban Systems: CEE 245 (Spr)

STANFORD ADVISEES

Doctoral Dissertation Advisor (AC)

Andrew Sonta

Master's Program Advisor

Charu Srivastava

Publications

PUBLICATIONS

- **OESPG: Computational Framework for Multidimensional Analysis of Occupant Energy Use Data in Commercial Buildings** *JOURNAL OF COMPUTING IN CIVIL ENGINEERING*
  Sonta, A. J., Jain, R. K., Gulbinas, R., Moura, J. M., Taylor, J. E.
  2017; 31 (4)
- **Data-driven planning of distributed energy resources amidst socio-technical complexities** *Nature Energy*
  Jain, R. K., Qin, J., Rajagopal, R.
  2017
- **Modeling the determinants of large-scale building water use: Implications for data-driven urban sustainability policy** *SUSTAINABLE CITIES AND SOCIETY*
  Kontokosta, C. E., Jain, R. K.
  2015; 18: 44-55
- **BizWatts: A modular socio-technical energy management system for empowering commercial building occupants to conserve energy** *APPLIED ENERGY*
  Gulbinas, R., Jain, R. K., Taylor, J. E.
  2014; 136: 1076-1084
- **The impact of combined water and energy consumption eco-feedback on conservation** *ENERGY AND BUILDINGS*
  Jeong, S. H., Gulbinas, R., Jain, R. K., Taylor, J. E.
  2014; 80: 114-119
- **Big Data plus Big Cities: Graph Signals of Urban Air Pollution** *IEEE SIGNAL PROCESSING MAGAZINE*
  Jain, R. K., Moura, J. M., Kontokosta, C. E.
  2014; 31 (5): 130-136
- **Forecasting energy consumption of multi-family residential buildings using support vector regression: Investigating the impact of temporal and spatial monitoring granularity on performance accuracy** *APPLIED ENERGY*
  Jain, R. K., Smith, K. M., Culligan, P. J., Taylor, J. E.
  2014; 123: 168-178
- **Network Ecoinformatics: Development of a Social Ecofeedback System to Drive Energy Efficiency in Residential Buildings** *JOURNAL OF COMPUTING IN CIVIL ENGINEERING*
  Gulbinas, R., Jain, R. K., Taylor, J. E., Peschiera, G., Golparvar-Fard, M.
  2014; 28 (1): 89-98
- **Can social influence drive energy savings? Detecting the impact of social influence on the energy consumption behavior of networked users exposed to normative eco-feedback** *ENERGY AND BUILDINGS*
  Jain, R. K., Gulbinas, R., Taylor, J. E., Culligan, P. J.
  2013; 66: 119-127
- **Investigating the impact eco-feedback information representation has on building occupant energy consumption behavior and savings** *ENERGY AND BUILDINGS*
  Jain, R. K., Taylor, J. E., Culligan, P. J.

2013; 64: 408-414

- **Block Configuration Modeling: A novel simulation model to emulate building occupant peer networks and their impact on building energy consumption** *APPLIED ENERGY*
  Chen, J., Jain, R. K., Taylor, J. E.
  2013; 105: 358-368

- **Assessing eco-feedback interface usage and design to drive energy efficiency in buildings** *ENERGY AND BUILDINGS*
  Jain, R. K., Taylor, J. E., Peschiera, G.
  2012; 48: 8-17