

Abstract:

Designers rely on data in building and urban design processes, as design is a highly data and information driven and complex process, that entails many relationships and interdependencies. Technology is more than ever available for providing designers with real-time data and information about many aspects of our environment, with the potential of being used in design processes to improve our built environment. Our goal is to take advantage of new and abundant forms of data, sensing technologies, and possibilities for interaction among people, communities and their physical environments. In this context, we ask ourselves “Can we integrate big data, user preferences, and designer knowledge for urban design and planning support?”

We use technology to foster evidence based design, and translate the rich and varied information sources to design support means. The research challenge lies in finding out which behavioral hypotheses can be drawn from specific urban data sets and their combination, and understanding the relationship of these hypotheses with spatial and organizational aspects of urban spaces.

This talk will present and discuss the current research of the Informed Design Group at Singapore University of Technology and Design (SUTD) on this subject, and focus on multi-source, multi-time and multi-scale data collection, analysis, and information visualization within design and decision support platforms for improving the livability of neighborhoods and cities.