Human-Aware Architecture

Until now, buildings have been considered as static containers in which people’s activities take place. As such, they do not often meet the dynamic and evolving needs of their inhabitants. Advancements in sensing, actuation, and communication technologies are converging into built environments enabling new types of interplay between people and buildings. These environments are progressively being transformed into active partners, which are aware of – and proactively cater to – the dynamic needs of their inhabitants. At present, however, architects, engineers, and planners can only represent static building information which does not account for the dynamic behavior of the people. This talk will discuss recent advancements in computational simulation of human behavior to predict and analyze the mutual interplay between people and buildings in ‘traditional’ as well as ‘technology-enhanced’ environments. By forecast the spatial, social, and operational implications of building design and management strategies, building stakeholders will be able to effectively contribute to the creation of environments that maximize the human potential.