

2017-2018 FUTURE CITY Seminar Series



Department of Civil, Environmental & Construction Engineering (CECE)
University of Central Florida (UCF)

SMART WATER AND WASTE MANAGEMENT:
Drinking water purification,
Water recycling and
landfills

SMART HEALTH:
Air pollution
monitoring and
healthy urban
communities

SMART TRANSPORTATION:
Autonomous and Connected
Cars (V2V, V2I), Integrated
Arterial Traffic Management,
Sustainable Planning and
Ridesharing

**SMART INFRASTRUCTURE
SYSTEMS:** Smart Buildings,
Structural Health
Monitoring, Building
Information Modeling

**SMART DISASTER
MANAGEMENT:**
Hurricane and Flood
Prediction, monitoring
and evacuation
management

**SMART INTER-DISCIPLINARY
TECHNIQUES:**
Artificial Intelligence,
Big Data, Internet of Things,
Cyber Security, Virtual,
Augmented and Mixed Reality

72°F



8:45PM



This seminar series features external high-level science, technology and policy leaders to discuss eclectic topics of **FUTURE CITY (Fostering Smart Urban Transformation and Ubiquitous Resilience with Connected Infrastructure and Technology)**. The series provides opportunities for the University of Central Florida faculty, students, researchers and partners to gain perspectives on advances and challenges in the rising area of “Smart Cities”. We extend our invitation to different stakeholder groups who are interested in Smart Cities initiatives, including government, universities, entrepreneurs and business communities, and non-government/profit organizations (NGOs/NPOs).

The proportion of urban population in the world is expected to increase from 54% currently to 70% by 2050. A majority of Americans also reside in urban regions - according to the 2010 census 80% of Americans reside in urban areas. Given the large number of urban citizens in the world (and US) it is imperative that we identify solutions to improve the quality of life for urban residents and economic vitality of our cities. The recent technological advances in the fields of computing, sensing and embedded technologies, transportation, mobile and cloud applications, sharing economy, tourism and data analytics offer substantial opportunities to researchers and policy makers.

The FUTURE City initiative at UCF is a group of researchers who have a vision to synergistically explore the wide-ranging technological advances in the service of urban residents. The initiative is unique due to its interdisciplinary composition, strong team of reputed experts, access to rapid economic and population growth, and nexus of world-class simulation, space technology and tourism industries co-located in Central Florida region. The Smart Cities initiative provides a blue print for future urban populations to optimally allocate limited resources while meeting sustainability and resilience goals and promoting social justice, equity, and fairness.

The UCF CECE department houses centers and laboratories as a leading research entity in Smart Cities topics. The Center for Advanced Transportation Systems Simulation (CATSS) was established in 1998 and over the last seventeen years it has attracted more than \$25 million in sponsored research related to traffic operations, traffic safety, human centered simulation, and ITS deployments. CATSS is a member of four University Transportation Centers’ consortiums that include the National Center for Transportation Systems Productivity and Management (NCTSPM) at Georgia Tech, the Southeastern Transportation Center (STC) at University of Tennessee, the Safer-Sim center at University of Iowa, and the Electric Vehicle Transportation Center (EVTC). The CECE department faculty maintains diverse, active, and successful research programs. Learn more about the CECE department at www.cece.ucf.edu.

