Call for Papers

The First International Conference on Urban Reasoning (UrbReas):

Organized by: IBM, UCD, MIT

Dublin (Ireland): 14 September 2018 **Venue:** Croke Park, Dublin

THEME AND AIMS OF THE CONFERENCE

The theme of the workshop is "Urban Reasoning" which focuses on reasoning from complex challenges in cities. Urban reasoning is a process that empowers and extends the urban computing's vision as well as its applications. Urban computing aims to help us understand the nature of urban phenomena and predict the future of cities. Urban reasoning aims in extending this vision with a focus on providing insights about the reasons of the major challenges that our cities face (e.g., crowd congestions, increased network demand, air pollution, water floods, etc.). Urban reasoning relies on a multi-stage analytics process employing advanced machine learning and data mining techniques to provide deeper insights and new type of applications to various stakeholders where the initial data analytics stage(s) is applied on a city-wide scale for deriving context information while the following stage(s) focuses on the analytics related to a certain domain challenge. The context information derived from the first stage(s) analytics is further fused in to the following stage(s) with the aim of providing insights and reasoning behind certain domain challenges that cities face. Urban reasoning relies on other traditional fields like environmental engineering, civil engineering, network engineering, transportation, and sociology in the context of urban spaces.

The topics of interest include, but are by no means limited to:

- Machine Learning and Artificial Intelligence for Smart Cities.
- Anomaly detection and event discovery in urban areas.
- Reasoning behind patterns in urban settings.
- Making sense of multiple & diverse spatio-temporal data.
- Data fusion from data across different domains.
- Spatio-temporal applications.
- Deep Learning applied to spatio-temporal data.
- City management problems.
- Mining Data from Location-based Social Networks.
- Recommender systems for urban planning.
- Mining Data from Location-based Social Networks.
- Mining urban environmental and pollution data.
- Image and Video Analytics for urban analytics.
- Large-scale visualization of urban data.
- Smart buildings, grids, transportation, and utilities.
- Streaming/real-time processing of spatio-temporal data.

Important Dates

Submission Deadline:
02/07/2018

Notification of Acceptance:
17/07/2018