

## Smart Data for EU Triangulum Lighthouse Cities

*Prof. Chunming Rong, Head, CIPSI Center, University of Stavanger, NORWAY*

**Date:** March 7, 2017 (Tuesday)  
**Time:** 5:15 pm (refreshment starts at 5:00pm)  
**Place:** 202 ECEC, NJIT

### About the Speaker



**Prof. Chunming Rong** is head of the Center for IP-based Service Innovation (CIPSI) at the University of Stavanger (UiS) in Norway, where his work focuses on data-intensive (big-data) analytics, cloud computing, security and privacy. He is an IEEE senior member and is honored as member of the Norwegian Academy of Technological Sciences (NTVA) since 2011. He is also an advisor for SINTEF ICT and has extensive contact network and projects in both the industry and academic. He was visiting chair professor at Tsinghua University (2011–2014) and served also as an adjunct professor at the University of Oslo (2005-2009). He is co-founder and chairman of the Cloud Computing Association (CloudCom.org) and its associated IEEE conference and workshop series. He is the chair of IEEE Cloud Computing, where he has been served as steering member since 2014. He is also the co-Editors-in-Chief of the Journal of Cloud Computing by Springer and associate editor of the IEEE Transactions on Cloud

Computing (TCC). He received award as Editor's Choice in Discrete Mathematics for 1999, ConocoPhillips Communication Award for 2007, and Sparebank-1 SR-bank Innovation Award for 2011. He coauthored a book titled "Security in Wireless Ad Hoc and Sensor Networks" published by John Wiley & Sons in 2009. Prof. Rong has extensive experience in managing large-scale R&D projects funded by both industry and funding agencies, such as the Norwegian Research Council and the European Framework and Horizon2020 Programs.

### About the Talk (registration: [https://meetings.vtools.ieee.org/meeting\\_registration/register/39423](https://meetings.vtools.ieee.org/meeting_registration/register/39423))

Supported by the Horizon 2020 on Smart Cities and Communities (SCC), the Triangulum project shall demonstrate how a systems innovation approach based around the European Commission's SCC Strategic Implementation Plan (SIP) can drive dynamic smart city development. The SIP shall be tested across three lighthouse cities: Manchester, Eindhoven and Stavanger, which represent the main typologies of European cities. They are complemented by our follower cities Prague, Leipzig and Sabadell. The suite of services developed will be based around zero/low energy districts, integrated infrastructures and sustainable urban mobility designed to deliver a range of cross-cutting outcomes across different sectors and stakeholders. This will provide the basis of recommendations on how to facilitate wider replication. The following impacts are expected: reduced energy consumption of buildings, increased use of renewable energies, increased utilization of electric vehicles, deployment of intelligent energy management technologies and the deployment of an adaptive and dynamic ICT data hub. The data hub provides access to data from the urban infrastructures and allowing for provisioning of value added services on top of it. The data might be available as streams of real-time sensor data, as (static) raw data originating from various data providers, or as enriched data which has been extracted and improved out of the raw data and/or the real-time sensor data with e.g. semantic relations or quality information. The Open Data and Service Engine consists of two layers: 1) the Analytics Layer that deals with real-time sensor data, raw data and corresponding enriched data, which are all in turn made available for the required smart city ICT services, and 2) the Service Layer that uses filtered and aggregated data and information from the Analytics Layer in order to provide corresponding services which are either used by urban managers, citizens and communities via Smart City Apps or that monitor, control and/or manage urban infrastructures, e.g. in order to assess, evaluate, and improve their quality.

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