

**Workshop on**  
**“Applications of IoT in Contemporary**  
**Civil Engineering”**

**November 28-29, 2017**

**IISc Bangalore**

The Internet of Things (IoT) “connects people, data, things and processes in massive networks, creating vast amounts of information that, when analyzed and used intelligently, could create new innovations and efficiencies” (ASCE, 2016)<sup>1</sup>. The IoT has opened up a new paradigm of addressing issues that affect human society through many dimensions: from health to transport, from buildings to dams, bridges and airports, from natural resources to environment and climate and from agriculture to communications. The Civil Engineering profession, in particular, has greatly benefited from IoT in recent years. Problems dealing with structural health monitoring, construction management, building information systems, remote monitoring of geo-structural health, transportation systems, environmental pollution (including air, soil and water pollution), agricultural water management, water distribution systems and forecasting, monitoring and management of disasters (floods, droughts, earthquakes, landslides etc) among others, all have shown a great potential for application of IoT towards facilitating implementable and efficient solutions.

While the international status on IoT applications in Civil Engineering problems has evolved rapidly over recent years, progress in India on this front has been rather slow. This workshop is organised by the DST-SERB PAC on Civil and Mechanical Engineering, to discuss the work done in India on applications of IoT in various areas of Civil Engineering. A main objective of the workshop is to develop a list of topics cutting across various disciplines of Civil Engineering, for encouraging research by the PAC.



H2T : Humans to Things  
T2T : Things to Things

(Source for figure : Civil Infrastructures Connected Internet of Things, Lu et al., Current Advances in Civil Engineering, 2(1), 2014)

Participation in the workshop is by invitation only. The participants would consist of young researchers, industry representatives and government officials. Technical program of the workshop comprises of invited talks to provide broad overview of IoT, Big Data Analytics and a few application areas in Civil Engineering. A significant time in the workshop will be devoted to open discussions.

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<sup>1</sup>ASCE (2016) : “American Society of Civil Engineers Ponders the Potential of the Internet of Things”, Engineering News Letter, January 20, 2016.