The first paper is IoT Considerations, Requirements, and Architectures for Smart Buildings—Energy Optimization and Next-Generation Building Management Systems. It introduces some of the IoT applications for smart building such as energy managerment, lighting control, classifies building blocks of building management system and concludes some of the technical challenges faced by the IoT in the smart building. The picture shows the blocks of the BMS. First is sensors. These measure parameters such as temperature, humidity and lighting levels. The IoT plays a role in facilitating the injection of smart “things” in the environment. Second is Controllers. These develop the system’s response which is synthetized from the data that is collected by the sensors, by applying appropriate optimization algorithms. Third is output devices. These actually implement the commands received from the controller. Last three are communication media and supportive protocols, Data analytics and Dashboard which are used to accept user commands, analyze and display data.

The second paper is Big Sensor Data Systems for Smart Cities. It defines big sensor data systems, show the progress in the development and applications of big sensor data, classify smart city layers and finally discuss future applications of big sensor data systems.

The picture shows five layers of a smart city. The smart city consists of five interconnected core layers: 1) connectivity; 2) datacenter; 3) analytics; 4) applications; and 5) end-user layers. The connectivity layer provides the base networking technologies including sensors, collectors, and wireless communications [e.g., cellular networks, low power wide area network (LPWAN), and wireless personal area network (WPAN)]. The datacenter layer provides the repository and storage, which is often based on cloud technologies. The analytics layer gives the value generation and predictive analytics from different types of Big Data. The final end user layer absorbs the outcomes of the smart city. The five layers of the smart city framework provide a logical flow that enables the stakeholders in the smart cities to view the flow of information.