Article Summary

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A research article by Antar Shaddar Abdul-Qawy and his associates from KU College of Engineering presents a comprehensive view of the key aspects of the IoT. The objective of the study was to provide a general outlook of the IoT paradigm, its concept, principles and potential benefits. It is obvious that IoT is becoming a main part of our life important infrastructure.

A straightforward and clear method were used to bring out the overview of the IoT thoroughly. Numerous studies were cited in relation to and support of the study. Abdul-Qawy and his partners lead the reader from the concepts and vision of the IoT, through many technical-related elements, technologies and protocols, to the main applications and challenges of the IoT.

As a important living entity, Internet is constantly changing and evolving in order to emerge with new technologies, applications, protocols and algorithms. The acceleration of wireless communication trends brings an increasing innovation in Internet connectivity and mobile broadband. Non-infrastructure communication devices become ubiquitous, smart, powerful, connectable, smaller, cheaper, and easier to deploy and install. This opens up a new future in the society of ICT: the Internet of Things.

In this article, an overview study of the Internet of Things is presented introducing the vision, concepts, features and the promising future. Starting with the definition of the IoT: IoT is a nework-physical system that integrates billions of heterogeneous devices and smart objects. These are enabled by various technologies like identification, embedded sensors, intelligent management, protocols, data storage/processing/analytics, which was presented later in the article. Finally, authors covered the situation that a wide range of IoT applications have been adopted and deployed over the past few years.

Brief introduction of the key technologies, the newly developed protocols, and the most popular applications of the IoT were provided in this article. The research directions and future challenges were listed for more efforts in the near future. The study put emphasis on the emergency of the energy efficiency and time-synchronization as future concerns that need a considerable focus and more investigation. The major contribution of this paper is that it brought together the

main aspects of the IoT and its relevance in one article, presented in a simple and unobtrusive way.