

5G Internet of Things and Changing Standards for Computing and Electronic Systems

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Internet of Things: A Broader View of Architecture, Key Technologies, and Research Opportunities ⓘ

Payaswini P. (Goa University, India)

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Section 1

Computing and Software Engineering

Chapter 1

Internet of Things: A Broader View of Architecture, Key Technologies, and Research Opportunities	1
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Payaswini P., Goa University, India

The Internet of Things (IoT) is an emerging computing paradigm that supports the interconnection of objects. With the rapid growth in smart technologies, IoT is gaining popularity from industry and academia focusing on communication and networking of smart objects. It is assumed that in a typical IoT application, the smart sensors are capable of directly delivering a service with no or minimal human involvement. There are many new technologies that are driving the development of IoT, which include cloud computing, wireless sensor networks, and 5G, etc. On the other hand, there are many research challenges that need to be addressed such as identity management of billions of devices connected to the internet, standardization, privacy, energy management, security of the information, space to store and process the information, etc. In this regard, the main focus of this chapter is to present IoT in a broader perspective and its associated technologies and applications along with a review of the work published in these areas.

Chapter 2

AssessLIFE Software for Automation of Asset Degradation to Estimate Asset Life and Degradation Drivers	30
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Emenike Raymond Obi, RaySoft AssetAnalytics, Canada

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The AssessLIFE software is a solution platform that analyzes and reveals if industrial physical assets made of metals, alloys, and welds can survive their exposure or