IOT Systems Based On FPGA

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Contents

Abstract: Text

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1 Internet of things

The most profound technologies are those that disappear, said Mark Weiser, and this remains true in our ever-changing technological landscape. The Internet of Things (IoT) has arisen as a transformational notion, with technology significantly woven into our daily lives. IoT enhances connectivity by merging everyday "things" and integrating them into the digital realm.

The name Internet of Things (IoT) is derived from the words Internet and "Things ". The Internet, a global network of networked computers, has grown pervasive, with billions of users around the world. IoT, on the other hand, goes beyond traditional devices, integrating objects that were previously thought to be part of the physical world [Ma15].

In the Internet of Things, "Things"can refer to a wide range of objects, both living and non-living. These objects are becoming seamlessly linked to the digital realm, linking the physical and virtual worlds.

It is difficult to define IoT because there is no single globally accepted concept. Nonetheless, IoT can be viewed as a global network that allows communication between humans, humans and objects, and even objects themselves, each with a unique personality.

This research paper investigates the Internet of Things (IoT) landscape, with a particular focus on the crucial role of Field-Programmable Gate Arrays (FPGAs) in shaping this technology. As adaptable hardware systems, FPGAs play an important role in the integration of "Thingsïnto IoT, allowing these items to become smart, linked entities in our increasingly digital environment.

8 Declaration of Originality

I, Maria Cron, herewith declare that I have composed the present paper and work by myself and without the use of any other than the cited sources and aids. Sentences or parts of sentences quoted literally are marked as such; other references with regard to the statement and scope are indicated by full details of the publications concerned. The paper and work in the same or similar form have not been submitted to any examination body and have not been published. This paper was not yet, even in part, used in another examination or as a course performance. I agree that my work may be checked by a plagiarism checker.

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Bibliography

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