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Cognitive IoT for Future City: Architecture, Security and Challenges

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Abstract

Internet of things has little capacity of its own. It has
to be intellectual to reap the real benefits of IoT. The
challenges in this area have prompted researchers to
focus their attention on developing cognitive
strategies for IoT use. Cognitive Computing can make
IoT more advanced, smarter and immersive. This
article reflects on the integration of IoT with
Cognitive Artificial Intelligence. In addition to the

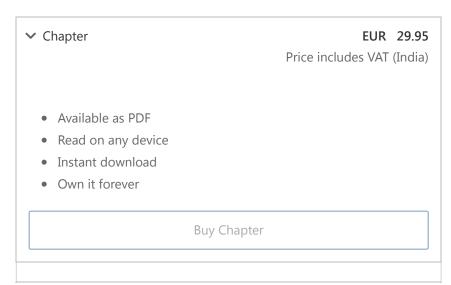presentation of the basic principle of Cognitive Computing, the paper touches on a variety of CIoT problems. There will be a special discussion on how automation has reached a new standard for CIoT. The difficulties in adopting CIoT, along with the social and ethical issues, were described and deeply addressed. In this sense, the market principles of CIoT and some potential implementations have been illustrated. In this article, we suggest a future city architecture using Cognitive Internet of Things. Finally, we recognize potential possible challenges and possibilities that could arise through the design of the planned architecture.

Keywords

Smart city   **Artificial intelligence**

Machine learning   **Encryption**   **Data analysis**

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