

## Special Issue

# Blockchain in the Internet of Things: Opportunities, Challenges and Solutions

### Message from the Guest Editors

The Internet of Things (IoT) is experiencing exponential growth in research and industry, but it still suffers from security vulnerabilities. Conventional security approaches tend to be inapplicable for IoT, mainly due to its decentralised topology and the resource constraints of the majority of its devices. Blockchains (BC) have recently been proposed to provide security, data immutability, and non-repudiation in peer-to-peer networks with similar topologies to IoT. Due to their truly decentralised nature, BC-based solutions could be, in many aspects, superior to the current IoT ecosystem, which mainly relies on centralised cloud servers. However, many BC technologies have computational, communication, and energy costs that may challenge the resources of the average IoT device. This Special Issue calls for research articles related to novel secure and lightweight BC-based architectures for IoT, which eliminate the overhead of BC while maintaining most of its security benefits. Original contributions that report on real experiences in BC-based solutions and architectures for the IoT which highlight potentialities and limitations are also encouraged.

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### Guest Editors

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### Deadline for manuscript submissions

closed (31 January 2020)



## Sensors

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