

IOT with Distributed Ledger Technology, A Review of Advantages and Challenges

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Abstract: *The way technology is evolving, in coming years the learning experience will be impacting in many ways. Internet of Things (IoT) is a new vision that continues to hold its ground for development of societies through the Information and Communication Technologies. IoT is an emerging topic and it is expected to grow rapidly. IoT works in a centralize model. Due to it's centralizing nature, it gets exposed to many problems like, security, privacy issues, operational cost, functional approach and scalability. To address this kind of challenges and keeping into account the IoT evolution of future, it is important to handle the information coming from the billions of sources. Blockchain an emerging key technology that has decentralization operational model is a better solution to this kind of issues. The technology is applied in many sectors were information and connectivity is the key. With the help of the blockchain the IoT data will be safely managed stored at various locations e.g. cloud. It will also eliminate the possibility of tampering or leaking the data. It's so robust and flexible that it will solve the scalability problem effectively. However current blockchain has several challenges with the IoT but that can be minimized or rectified in future. This paper will focus on the advantages of integrating blockchain with IoT and how it can benefit in higher education.*

Keywords: IOT, blockchain, security, distributed ledger, decentralization

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