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DEPARTMNET OF COMPUTER ENGINEERING

&

DEPARTMENT OF INFORMATION TECHNOLOGY

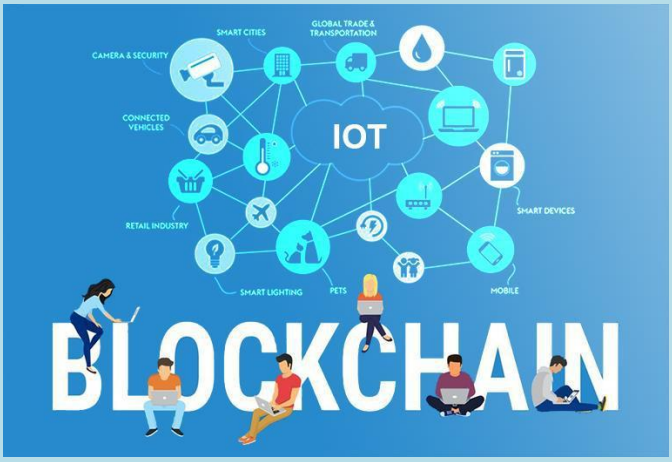
COMPUTER SOCIETY OF INDIA

STUDENTS CHAPTER (IO1893)

THEME TOPIC

Blockchain IoT (BIoT)

What is it ? Blockchain and Internet of Things (IoT) are both poised to be **world-changing technologies**, just at the beginning of their adoption curve. Internet of things (IoT), involves adding smart sensors to connected devices so that users can do things like asking Amazon's Alexa digital assistant to turn off the lights or order a pizza. And Blockchain, (one of the underlying technologies for the hot cryptocurrency bitcoin) can make IoT devices even more useful by creating a digital record across hundreds or thousands of computers, vastly **reducing the risk of hacking**. Now merge them together and you can create a **verifiable, secure and permanent method of recording data processed by "smart" machines**. This network of interconnected devices will be able to interact with their environment and make decisions without any human intervention!



Why BIoT? Since in their current form, IoT devices are **astoundingly insecure**. Hackers have thus far managed to control implanted cardiac devices, entirely disable cars remotely, and launch the world's largest DDoS attack.**The security issue is one of the most compelling reasons for utilising blockchain.**

What will it Do? By using blockchain to manage access to data from IoT devices any attacker would have to **bypass an additional layer of security** that is underpinned by some of the most robust encryption standards available. In addition, because there's no centralized authority, single-point failure concerns become a distant memory, no matter how populated a particular network is.

With data transactions taking place between multiple networks owned and administered by multiple organizations, a permanent, immutable record means custodianship can be tracked as

data (or even physical items) pass between points in the supply chain. Machines will record details of all transactions that take place between themselves, with no human oversight. Without the private keys giving write-access to the blockchain (which in this case would be held by machines), no human will be able to overwrite the record with inaccurate information.

Future of BIoT*:* There is even an opinion that blockchain and IoT convergence will become **a** necessity at some point. Some of the projects for BIoT are: *** RuffChain — trusted interoperability and paid interoperability between different IoT device systems, using these devices' computing power to build an open ecosystem. * IoT Chain — decentralized infrastructure where users information and decentralized have no central point of collection.**

NEWS OF THE WEEK

INDIA: REGULATION OF CROSS BORDER DATA FLOWS

India has proposed **regulating cross border data flows**, locating computing facilities within India to ensure job creation and setting up a dedicated **'data authority'** for issues related to sharing of community data. In its draft National e-Commerce Policy, India has said that the data generated in the country is a **national asset**, and citizens and the government have a sovereign right over it. The policy bars "sensitive" data collected and processed here but stored abroad from being shared with foreign governments and other business entities outside India. It has suggested a three year period for companies to setup data storage here and advocates a review of the current practice of not imposing custom duties on electronic transmissions. .

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Why Laugh Alone?