

Guest Editorial

Special Issue on “Computational Approaches in Cloud Based IoT”

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Internet of things (IoT) and cloud computing plays a vital role in information and computational technologies (ICT). Internet of things is used to connect millions and billions of device to communicate and share the information to all users. Cloud computing provides high stability and reliability to network users with high quality. Security, scalable, reliable, intelligent and dynamic architecture are the major requirements in IoT and that will be compensated by using cloud computing technologies. There are two convergences are possible with IoT and Cloud computing such as cloud centric IoT brings the IoT functionalities in cloud architecture and IoT centric cloud computing brings the cloud storage applications in IoT architecture. This special issue focused to collect the challenges involved in the computational approaches in cloud based IoT. This will improve the computer cost, high performance, instant updates, data reliability and secure communication for high speed computational approaches.

The first manuscript entitled “Efficient Hybrid Clustering Scheme for Data Delivery Using Internet of Things Enabled Vehicular Ad Hoc Networks in Smart City Traffic Congestion”, authored by Sharif et al. Author discussed the IoT enabled VANET data forwarding approach that prevents unnecessary multipath creation. This proposed approach used the data forwarding zone and that helps to determine the eligibility for the receiver-based contention. The proposed technique applied in cluster based routing aids in transmitting packets in a network even with low vehicle density efficiently.

The second article entitled “Cluster Based Multi-Layer User Authentication Data Center Storage Architecture for Big Data Security in Cloud Computing”, authored by Ramasamy and Gnanamurthy. The proposed work used the multilayer user authentication mechanism for big data security. User is authenticating in each layer using different authentication techniques. The proposed multifactor or multilayer authentication provides more security for information in cloud when compared with the existing approaches and it minimizes the computation and communication cost of the third party auditor and Cloud Storage Providers.

The next manuscript entitled “ES-DAS: An

Enhanced and Secure Dynamic Auditing Scheme for Data Storage in Cloud Environment”, authored by Daniel and Vasanthi. This research article based on Elgamal signature on conic curve over ring Z_n and homomorphic function. The proposed work provides the data owner’s integrity assurance of detecting accidental or intentional data modifications using a trusted third party auditor and cloud storage providers.

The last article entitled “Advanced Indoor and Outdoor Navigation System for Blind People Using Raspberry-Pi”, authored by Anandan et al. This research work focused on the automatic detection system for blind people and it utilized the Oriented FAST and rotated BRIEF (ORB) for local feature detection. The proposed system handles the high dimensional data stream and obtains effective and efficient results for blind people.

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Guest Editors



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