Selected Areas in Communications Symposium

Track on Cloud & Fog/Edge Computing, Networking and Storage

TRACK CHAIR:

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SCOPE AND MOTIVATION

Data storage is at the core of the information technology revolution, from the smartphones to data centers in the cloud. Flash memories, new non-volatile memory technologies, and distributed storage network technologies are combined to provide ubiquitous access to data and computing closer to storage devices. However, these new and existing systems pose novel problems of storage density, reliability, efficiency, security and privacy. Data detection, communications, signal processing and coding techniques are the foundation for solving these problems. While storage channel models are fundamentally communication channels and networks, the new devices and system architectures create new theoretical challenges in order to utilize their potential. This track covers fundamental theoretical aspects of the data storage and cloud computing.

TOPICS OF INTEREST

The organizing committee is soliciting original theory -supported research contributions on the topics related to data storage and cloud computing, including:

- Channel and noise characterization for flash memories and emerging memory technologies

- Error-correcting codes for storage channels and distributed storage networks

- Error correction decoding theory and techniques

- Information theory for data storage

- Network coding for distributed storage networks

- DSP/ECC for flash-based data storage systems

- Error correction coding and signal processing for flash-based data storage systems

- Theoretical concepts of cloud-based storage fog and edge computing

- Information and communication theory based approaches for decentralized storage in cloud and fog/edge computing systems

- Data storage channels and distributed storage networks

- Security and privacy in the cloud and fog/edge infrastructure, services and storage

- Energy-efficient designs for storage systems

- High throughput signal processing for data storage

- Circuit design for coding, detection and signal processing for data storage

- Novel and emerging storage media

- Digital signal processing for cloud and fog/edge computing and storage systems

- Design and analysis of algorithms and system architectures for networking and computing for cloud, fog and edge computing

IMPORTANT DATES

Paper Submission: 15 April 2020

Notification: 25 July 2020

Camera Ready and Registration: 1 September 2020

SECTION V: SUBMISSION INSTRUCTION

All papers for technical symposia should be submitted via EDAS through the following link: https://edas.info/N27054