

Colloquium

Department of Computer Science

Dr. Khaled Ahmed

Khaled Ahmed is a clinical assistant professor in Computer Science department, College of Science at Southern Illinois University. He was an associate professor, College of Computer Science and Information Technology, Saudi Arabia from Sept. 2007 till June 2018. Moreover, he was an assistant professor of Computer Science at Department of Mathematic, Computer Science division, Ain Shams University, Egypt. He joined Department of Computer Science, Tokyo University in 2005 as postdoctoral position. He has worked as research scientist in Computer Science Dept., Technical University of Chemnitz, Germany in 1999-2001. He has worked in Ain Shams University, Cairo Egypt in 1990-1999 as assistant lecturer. He received his B.Sc., M.Sc. degrees in Computer Science from Ain Shams University, Cairo, Egypt in 1990, 1999, respectively and Ph.D. degree in Computer Science from Tokyo Institute of Technology in 2004. His research interests include high performance computing, parallel processing, autonomous decentralized systems, Big data, Peer-to-Peer Computing, web-services, application-level multicast, pattern recognition, machine learning and Intelligence transportation systems.

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REAL-TIME BIG DATA VIDEO STREAMING APPLICATION

Abstract

In 2021 it is expected to deploy about 626 million surveillance video cameras in China and about 50 million in the US. They will be deployed on roads, malls, banks, buildings, etc and producing enormous sizes of videos. Consequently, the demand for video stream processing is increasing as the size of video streams is moving into Zettabytes/Yottabytes in the near future. By 2020 every second for every person on the planet will generate about two Megabytes of data. Therefore, the expected total amount of data generated will exceed 40 Zettabytes. This talk will elaborate the needs for designing a real-time big data video streaming framework to analyse the video streams to label videos, intercept human needs, emotions (Facial expression), actions, moves and non-verbal communications. There is wide area of applications that certainly acquire benefits from such framework such as vehicle automation, behavioural recognition and gait analysis, to identify people from surveillance footage, etc.