SCIENCE CITATION INDEX EXPANDED
2020 JCR
IF
3.137
CLARIVATE ANALYTICS

Special Issue

Multimedia Steaming and Processing in Internet of Things with Edge Intelligence

Guest editors:

Lei Shu. Nanjing Agricultural University, China / University of Lincoln, UK. Email: lei.shu@ieee.org

Joel J. P. C. Rodrigues. Federal University of Piauí, Brazil. Email: joeljr@ieee.org

Anthony G Cohn. University of Leeds, UK. Email: A.G.Cohn@leeds.ac.uk

Qirong Mao. Jiangsu University, China . Email: Mao_qr@mail.ujs.edu.cn

Maozhen Li. Brunel University,UK. Email: maozhen.li@brunel.ac.uk

Summary

As Internet of Things (IoT) evolves further and expands into Internet of Everything (IoE), high-speed multimedia steaming data processing, analytics and shorter response times are increasingly becoming the need of the hour. Driven by the Internet of Things (IoT), a new computing model - Edge computing - is currently evolving, which allows IoT data processing, storage and service supply to be moved from Cloud to the local Edge devices such as smart phones, smart gateways or routers and base stations that can offer computing and storage capabilities on a smaller scale in real-time. However, current expansion of the IoT and digital transformation is generating new demands on computing and information processing. Multimedia steaming and processing in Internet of Things is one of the most outstanding problems. In nowadays, multimedia information refers to not only text, image, video or audio but also graphics, flash, web, 3D data, vibration signal etc. Hence, it is becoming challenging for Edge computing to deal with these multimedia information of IoT. In order to overcome this issue, there is a need for intelligent Edge or Artificial Intelligence (AI) powered Edge computing (Edge-AI) to manage all the new data needs from these sectors. AI with its machine learning (ML) abilities can be fused into Edge to extend its power for intelligently investigating, collecting, storing and processing these multimedia steaming of IoT to maximize the potential of data analytics and decision-making in real time with minimum delay.

Many network modeling methods, computing algorithms, and signal processing technologies have recently been successfully developed and applied to multimedia steaming and processing in IoT with Edge Intelligence. Motivated by the inclination to collect a set of recent advances and results in this research topic, we want to provide a platform for researchers to exchange their innovative ideas on modeling and computing solutions for Multimedia Steaming and Processing in Internet of Things with Edge Intelligence, and introduce interesting utilizations of modeling and computing algorithms for some application, such as agriculture IoT, video surveillance, self-predictive electric drives, and so on.

UNIR
LA UNIVERSIDAD
EN INTERNET

Special Issue

Multimedia Steaming and Processing in Internet of Things with Edge Intelligence

Eds.: *Lei Shu, Joel J. P. C. Rodrigues, Anthony G Cohn, Qirong Mao, Maozhen Li*

Suggested Topics

Papers are welcomed on the following topics but not confined to:

Methodologies and Techniques

- Adaptive multimedia transmission, broadcasting and communication
- Ubiquitous multimedia computing
- Multimedia sensor networks
- Multimedia network convergence
- Distributed multimedia processing
- Multimedia coding
- Multimedia semantic analysis
- Multimedia indexing and retrieval
- Multimedia data mining
- Multimedia interaction
- Multimedia content analysis and understanding
- Transfer learning of multimedia data & multimedia applications
- Speech and audio processing

Applications

- Intelligent surveillance
- Internet of things for agriculture
- Biomedical Signal Processing
- Natural Language Processing
- Speech and Audio Processing
- Image & Video Processing
- Remote Sensing

Important Dates

15 December 2021
First draft

15 January 2022
Notice of the first round review

31 January 2022
Revision due

7 February 2022
Final notice of acceptance

13 February 2022
Final manuscript due