e-Health Technical Committee NewsLetter

August 2020

On behalf of the e-Health Technical Committee (TC) of the IEEE Communications Society (ComSoc), we wish all our members a very instructive reading of this letter.

Members of the e-Health community are invited to contact the author for further information or collaborations.

We also welcome all our members to share their research activities and field experiences through this open newsletter and to open up new opportunities for discussions and collaborations.

Editor: Dr. Nada Philip (Kingston University London, UK)

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Call for Papers

IEEE Internet of Things Journal Special Issue on "Towards Intelligent Internet of Medical Things and Its COVID-19 Applications and Beyond"

IEEE Internet of Things Journal Special Issue on "Towards Intelligent Internet of Medical Things and Its COVID-19 Applications and Beyond" The Internet of Medical Things(IoMT) is an extension and specialization of that original Internet of Things(IoT) concept, and applies to the interconnectedness of devices, software applications, and data which are specific to the medical industry. IoMT can add smart technologies to medical devices to monitor the progression of a disease away from the doctor's office and learn things that could impact future care guidelines and patients. It can also provide a better way to care for our elderly by tracking vitals and heart performance, glucose and other body systems, and activity and sleeping levels. During outbreak of pandemic(e.g. COVID-19), IoMT can even be used to detect main symptoms ubiquitously using intelligent sensors and trace the origin of outbreak based on aggregated IoT data (e.g., geographic mobile data, purchase history). Although most of contemporary IoMT systems can measure risks, make decisions and take actions automatically,the lack of Emotion-Aware abilities will be an obstacle to more harmonious human-machine interaction and more efficient medical process. Besides, mental disorders, such as depression, schizophrenia and anxiety, have become a more noticeable cause of suffering. The integration of Emotion-Aware abilities into IoMT can also contribute to monitor emotional dysregulation continuously in subjects with mental disorders or undergoing serious pandemic such as COVID-19, and give these patients personalized therapy recommendations. Research on Affective computing has defined a framework to recognize, interpret and process human affects, but more research is needed to investigate its application to biomedical applications, especially "in the wild" and over extended periods of time, and how to integrate Emotion-Aware abilities into IoMT organically is still an open question. This special issue aims to create a platform for researchers, developers and practitioners from both academia and industry to disseminate the state-of-the-art results and to advance the Emotion-Aware Ubiquitous Computing in IoMT. IEEE ComSoc e-health committee endorsed the special issue.

Important Dates

Submission Deadline: October 15, 2020
First Review Due: December 30, 2020
Revision Due: February 15, 2021
Sec. Review Due/Notification: March 15, 2021
Final Manuscript Due: March 31, 2021
Publication Date: 2021

Guest Editors

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Further details on the call can be found here: https://ieee-iotj.org/wp-content/uploads/2020/05/IoTJ_COVID_CFP.pdf

Call for Papers

IEEE Network Magazine Special Issue on AI-Enabled Networking Technologies for Tackling Epidemic Diseases

With the outbreak of the coronavirus COVID-19 pandemic, the whole world has been facing the greatest challenge of the global health crisis. This crisis has put a heavy burden on the network community with regards to unprecedented challenges in terms of massive network data traffic and optimization of resources. The next-generation networking (NGN) technologies (5G, B5G, and the upcoming 6G) driven by artificial intelligence (AI) and machine learning (ML) has the potential to address these challenges by providing powerful computational processing, ultra-massive machine-type communications with ultra-low latency along with a very high bitrate. AI algorithms/techniques have huge potential for handling the massive volume of pandemic data, predicting the live pandemic crisis and initiating new research directions to have better network insights to tackle the serious threat of this pandemic and alike.

Despite the huge potential of AI-enabled NGN technologies in response to the current global health crises, many challenges still need to be addressed to fight against the pandemic and beyond. This Special Issue (SI) aims to explore recent advances and disseminate state-of-the-art research on AI-enabled networking technologies for combatting epidemic diseases and beyond through promising networking techniques, including new architectures, design, resource optimization and performance models.

Important Dates

Manuscript Submission Deadline: 31 October 2020
Initial Decision: 31 December 2020
Revised Manuscript Due: 31 January 2021
Final Decision: 28 February 2021
Final Manuscript Due: 31 March 2021
Publication Date: May 2021

Guest Editors

- M. Shamim Hossain, King Saud University, Riyadh, Saudi Arabia
- Nadra Guizani, Washington State University, USA
- Ammar Rayes, Cisco Systems, USA
- Victor C.M. Leung, Shenzhen University, China and University of British Columbia, Canada
- Honggang Wang, University of Massachusetts Dartmouth, USA
- Cheng-Xiang Wang, Southeast University, China & Purple Mountain Laboratories, China

Further details on the call can be found here: https://www.comsoc.org/publications/magazines/ieee-network/cfp/ai-enabled-networking-technologies-tackling-epidemic