INTERNATIONAL

INVITED SESSION SUMMARY

Title of Session:
Edge Computing Technologies for Mobile Computing and Internet of Things (2nd Edition)

Name, Title and Affiliation of Chair:

Chair:
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Co-Chaired by
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Details of Session (including aim and scope):

With the rapid development of mobile internet, cyber-physical systems (CPS), and the Internet of Things (IoT) applications, conventional centralized cloud computing is encountering severe challenges, such as high latency, low Spectral Efficiency, and non-adaptive machine type of communication. To help address these issues, the concept of edge, or fog computing, has been proposed. Edge Computing uses "gateway servers, cloudlets, fog nodes, and microdata centers," all of which are highly advanced and sophisticated technologies. In addition, the world has seen many breakthroughs in machine learning and artificial intelligence research. By integrating the advances in smart devices and edge systems with the advances in machine learning, the future role of smart edge systems, networks, and applications is becoming limitless, and it's expected to revolutionize the future of the world within the next few years.

The objective of this special session is to be a forum for discussing the recent developments in Fog/Edge Computing that represent challenges and opportunities for CPS, machine learning, big data, mobile computing, wireless networks, embedded systems and IoT.

The topics of interest include, but are not limited to:

• Architecture of edge systems.
• Resource Management Solutions Involving the Edge/Fog/Cloud.
• Experimental evaluation of edge computing.
• Co-existence of wireless technologies at the edge.
• Data collection and analytic techniques for mobile systems and applications.
• Edge systems, applications and services.
• Human factors for edge computing.
• Interactions between the edge, and the cloud.
• Emerging Fog Communication Technologies and Protocols (Time-Sensitive Networking, 5G).
• Machine learning for Internet of Things (IoT) devices, smart cities, and CPS.
• Self-driving and connected vehicles, V2V/V2X.
• Fog Computing Security, Data Privacy and Trust.
• Theoretical foundations of machine learning for edge systems and applications.
• Wireless communications and networking architecture for edge systems.

Important deadlines
– Submission deadline: To follow
– Acceptance/Reject notification: To follow
– Camera-ready: To follow
– Author Registration: To follow
– Conference Sessions: 20-22 June 2022

Submission

The material must be unpublished and not under submission elsewhere. Submissions will be accepted based on their originality, quality, significance, and relevance. All papers should comply with a guide length of 10 pages in publisher format. Papers longer than this will be subject to an additional charge for each extra page. Submissions must be in PDF format for review purposes, but authors are required to upload editable word-processor files (LaTeX or MS Word) at the end of the review process. Submissions must be submitted in PDF form through the **PROSE online submission.**

Publication
The Full Papers conference proceedings will be published by Springer as book chapters in a volume of the KES Smart Innovation Systems and Technologies submitted for indexing in Scopus and Thomson-Reuters Conference Proceedings Citation Index (CPCI) and the Web of Science. The Short Papers and Abstracts conference proceedings will be published online and will not appear in the Springer volume.
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