Heterogeneous Multi-access Mobile Edge Computing and Applications

Organized in conjunction with IEEE ICPADS 2020

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The explosive development and deployment of 5G and Beyond 5G (B5G) networks have yielded a variety of emerging and promising smart city applications, e.g., virtual reality/augmented reality, unmanned driving, and smart factories. Most of these applications are latency-sensitive and computation-intensive, leading to a great pressure on wireless terminals with limited resources for storage, computing, and communications. Multi-access mobile edge computing (MA-MEC), which deploys extensive resources at the edge of networks, has provided an efficient approach to address the scarcity of computation-resources at conventional wireless terminals. Thanks to the feature of heterogeneous architecture of 5G/B5G networks, wireless terminals can even exploit the heterogeneous small-cell architectures and flexibly offload their computation workloads to several edge-computing servers with different computation/storage capacities, leading to the promising paradigm of heterogeneous MA-MEC. Nevertheless, there still exists many open issues in exploiting heterogeneous MA-MEC for efficiently enabling mobile Internet services with different quality of service requirements. Thus, this workshop aims at soliciting contributions of system/network/algorithm design, performance evaluation and analysis, as well as test-beds and real platforms regarding heterogeneous MA-MEC with its applications. Researchers are encouraged to submit original research contributions in all related areas, which include, but not limited to:

* Advanced 5G/B5G technologies (e.g., NOMA, Massive MIMO) for heterogeneous MA-MEC
* Cooperative/non-cooperative resource sharing for heterogeneous MA-MEC
* Communications, computing, and storage resources management for heterogeneous MA-MEC
* Hybrid MA-MEC, fog computing, and cloud computing
* QoS/QoE management for heterogeneous MA-MEC
* Green design and energy-efficiency for heterogeneous MA-MEC
* Security and privacy-preserving for heterogeneous MA-MEC
* Artificial intelligence and deep learning for heterogeneous MA-MEC

* Emerging paradigms (e.g., UAV, V2X, Air-ground networks) for heterogeneous MA-MEC

* Network architectures and protocols for heterogeneous MA-MEC

* Test-beds and platforms of heterogeneous MA-MEC

* Emerging applications of heterogeneous MA-MEC

Paper Submission and Publication

Submissions should include author information, abstract, 5-10 keywords, and be in PDF format. Each submission must not exceed 10 pages in the IEEE 8.5" x 11" two-column format with 10-point font, including tables, figures and references. The final version will be limited to 6 pages in IEEE proceedings format for conference papers. Up to 2 extra pages may be purchased. The templates can be found here:

LaTeX: https://www.computer.org/cms/CPS/app/8x11-2/IEEECS_confs_LaTeX.zip

MS Word: https://www.computer.org/cms/CPS/app/8x11-2/instruct8.5x11x2.doc

Once accepted, the paper will be included into the IEEE conference proceedings published by IEEE Computer Society Press (indexed by EI). Authors (at least one) of any accepted paper are requested to register at the conference.

Important Dates

Paper submission: Aug. 15, 2020

Notification of Paper Acceptance: Sep. 22, 2020

Camera ready due: Oct. 7, 2020

Organization Committee

- **Workshop General Co-Chairs**

Professor Weijia Jia,

University of Macau, Macao China

jiawj@um.edu.mo

Professor Yuan Wu,

University of Macau, Macao China

yuanwu@um.edu.mo

- **Workshop Technical Program Co-Chairs:**

Professor Liping Qian,
Zhejiang University of Technology, Hangzhou, China

Professor Bin Lin,
Dalian Maritime University, Dalian, China

Professor Mianxiong Dong,
Muroran Institute of Technology, Japan

Professor Bo Ji,
Temple University, USA

Professor Zhiguo Shi,
Zhejiang University, Hangzhou, China

Dr. Zehui Xiong ,
Alibaba-NTU Singapore Joint Research Institute, Singapore