Call for Papers

UAV-Enabled Mobile Edge Computing Symposium

The 17th International Wireless Communications & Mobile Computing Conference

IWCMC 2021 Website: http://iwcmc.org/2021/
Submission Link: https://edas.info/newPaper.php?c=27588

Harbin, China

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Scope:

With the explosive development of the Internet of Things (IoT) and 5G communications, mobile edge computing (MEC) has emerged as an effective solution to help mobile devices deal with computation-intensive and delay-sensitive applications. Meanwhile, unmanned aerial vehicles (UAVs)-enabled MEC has attracted lots of research attention due to UAVs' mobility, flexibility, and maneuverability. When the terrestrial infrastructures are damaged or communication traffics are congested, UAVs equipped with computation capability can be quickly deployed as aerial computation servers to meet the temporary and/or unexpected demands. Among the possible applications, the UAV-enabled MEC can particularly play an important role in disaster response, emergency relief or military scenarios, which are in the absence of available terrestrial infrastructures.

Despite many advantages for various applications, the UAV-enabled MEC also brings some challenges. For instance, the high mobility of UAVs leads to frequent handover operations, which cause severe transmission disruption, signaling overhead, and increased delay. Moreover, the wireless links to/from the UAV vary significantly over time, which hence requires elaborate design of the task transmission. Meanwhile, the limited battery of each UAV restricts its cruising distance. Therefore, the trajectory plan of UAVs is very important to guarantee the service requirements for multiple users. In addition, due to the limited computing ability of a single UAV, multiple UAVs are worth considering to simultaneously provide computing service, wherein the movement control, cooperation, and the resource allocation of multiple UAVs, all require elaborate design.

As one of the technical symposia of the 2021 International Wireless Communication and Mobile Computing Conference (IWCMC 2021), UAV-Enabled Mobile Edge Computing Symposium aims to bring together the latest researches and innovations on UAV-enabled mobile edge computing. This symposium covers research, development, application, and all other aspects of this field.

Accepted papers will be published in the IEEE IWCMC 2021 proceedings and submitted to the IEEE digital library (IEEE Xplore).

Topics of interest include, but are not limited to:

- New architectures, frameworks, and protocols for UAV-enabled MEC
- Computation offloading, trajectory design and resource allocation for UAV-enabled MEC
- Spectrum management and multiple access schemes for UAV-enabled MEC
- Energy efficiency, energy harvesting, and green operation for UAV-enabled MEC
- Joint optimization of computing, communication, caching, and control for UAV-enabled MEC
- Cooperative design and resource allocation for multiple UAVs
- Machine learning and artificial intelligence for UAV-enabled MEC
- Aerial computing for edge intelligence in large-scale sensor networks
- Security and privacy-preserving approaches for UAV-enabled MEC
- Design and optimization for the aerial-ground cooperative computing
- Aerial computing for industrial IoT applications
- Edge caching and computing for mobile AR/VR and tactile Internet

Submission Guidelines:

Prospective authors are invited to submit original technical papers—up to 6 pages of length, using the EDAS link for possible publication in the IWCMC 2021 Conference Proceedings, which will be submitted to the IEEE Xplore. Selected papers will further be considered for possible publication in three special issues in the following Journals. For more information, visit: http://iwcmc.org/2021/

1. The International Journal of Sensor Networks (IJSNet) http://www.inderscience.com/browse/index.php?journalCODE=ijsnet
2. The International Journal of Autonomous and Adaptive Communications Systems (IJAACS) http://www.inderscience.com/jhome.php?jcode=ijaacs
3. KSII Transactions on Internet and Information Systems: http://www.itiis.org/
4. Peer-to-Peer Networking & Applications: http://www.springer.com/engineering/signals/journal/12083

Note: There will be a Best Paper Award, Best Symposium Award, and Best Workshop Award.

Important Dates:

Submission:	10 Jan, 2021
Acceptance notification:	30 Mar, 2021
Camera-ready:	30 Apr, 2021
Registration:	30 Apr, 2021

TPC Members: to be added