

IEEE EUC 2022

Workshop on The Ubiquitous Intelligence for 6G Communications, Networking and Computing

Call for Papers:

Nowadays, researchers start to conceptualize 6G, with the vision of connecting everything and realizing full synergy and high automation of communications, networking, and computing. In recent years, novel artificial intelligence (AI) technologies have continued to emerge and been integrated with communications, networking, and computing, which bring about the ubiquitous intelligence revolution with emerging fields, such as autonomous driving networks and AI-native wireless communications. In particular, ubiquitous intelligence brings an unprecedented paradigm shift and is expected to be the key enabler of 6G.

However, ubiquitous intelligence is still in its infancy and needs further research. On the one hand, we need to explore the use of emerging AI methods, such as federated learning, reinforcement learning, meta-learning, imitation learning, and multi-task learning, etc., to design and optimize 6G communications, networking, and computing systems in a more efficient and accurate way. On the other hand, AI technologies also require flexible communication, network, and computing resource utilization, which poses challenges to the practical implementation of AI algorithms in 6G systems.

To promote the research of ubiquitous intelligence for 6G, this workshop solicits original work of emerging ideas, approaches, theories, frameworks, and practices to tackle the challenging issues related to Ubiquitous Intelligence for 6G Communications, Networking, and Computing. **Topics of interest include, but are not limited to following Topics:**

- Novel theories, concepts, and paradigms of the convergence of AI, communications, networking and computing
- Integrated communication, networking and computing design for 6G
- AI-enabled end-edge-cloud collaborative computing for 6G
- Space-air-ground integrated networking for 6G
- Distributed machine learning for 6G
- AI-enabled multi-dimensional resource management
- Security and privacy protection in 6G
- AI-enabled deterministic network traffic scheduling in 6G
- Meta-learning and meta reinforcement learning in 6G
- Edge intelligence in 6G
- Digital twin and metaverse in 6G
- Testbed design for AI-enabled 6G communications, networking and computing system

Submission Guideline: Authors are invited to submit manuscripts reporting original unpublished research and recent developments in the topics related to the workshop. The length of the papers is up to 6 pages (or with 4 additional pages with over length charge, using IEEE Computer Society Proceedings Manuscripts style: two columns, single-spaced), including figures and references, using 10 fonts, and number each page. Papers should be submitted electronically in PDF format (or postscript) by sending it as an email attachment to Dr. Ruibin Guo (RbGuo_Bjtu@163.com). All papers will be peer reviewed and the comments will be provided to the authors. The accepted papers will be published together with those of other UI6G 2021 workshops by the IEEE Computer Society Press (indexed by EI).

Important Dates:

Submission Deadline: 20 June, 2022

Notification: 30 June 2021

Camera-ready: 10 July 2021

Workshop Organizers::

Weiting Zhang, Beijing Jiaotong University, China

Haixia Peng, University of Waterloo, Canada

Chuan Zhang, Beijing Institute of Technology, China

Enfang Cui, Beijing Jiaotong University, China