

IEEE GLOBECOM 2023

4-8 December 2023 // Kuala Lumpur, Malaysia

IEEE GLOBECOM Workshop on Reconfigurable Intelligent Surfaces-Empowered 3CLS for 6G and Beyond Communications

Call for Workshop Papers

The upcoming sixth-generation (6G) wireless networks aim to provide a multi-purpose system that can deliver multiple services, including communications, computing, control, localization, and sensing. In the context of 6G, the integration and management of these functions will play a crucial role in the development of various applications such as Multisensory XR Applications, Connected Robotics and Autonomous Systems (CRAS), Wireless Brain-Computer Interactions (BCI), Blockchain and Distributed Ledger Technologies (DLT), and more. To enable these advanced applications, we propose a workshop on reconfigurable intelligent surfaces (RISs) aided 3CLS for 6G networks. RISs are intelligent surfaces that can reconfigure the electromagnetic environment and offer unprecedented flexibility in wireless system design. In this workshop, we will explore the potential of RIS-aided 3CLS in enabling novel applications and use cases in 6G.

This full-day workshop aims for bringing together academic and industrial researchers to share the recent breakthroughs related to RIS and discuss the major technical challenges arising in RIS-aided networks. The workshop will also focus on the latest research advances and challenges related to 3CLS-aided systems, such as channel estimation, resource allocation, beamforming design, and optimization techniques. The target audience of this workshop includes researchers, engineers, and practitioners from both academia and industry who are interested in the development of 6G networks and applications. We invite original research papers, as well as review articles, that address the following topics (but not limited to):

- Reconfigurable intelligent surfaces for 3CLS-enabled wireless communication systems.
- RIS architectures, implementation, and deployment aspects.
- Control and sensing techniques for reconfigurable intelligent surfaces in 6G networks.
- Machine learning and artificial intelligence approaches for reconfigurable intelligent surfaces in wireless communication.
- Energy-efficient and sustainable design for reconfigurable intelligent surfaces in wireless communication networks
- Performance analysis and optimization of 3CLS-enabled wireless communication systems.
- Security and privacy challenges in reconfigurable intelligent surfaces for wireless communication networks.
- Applications of reconfigurable intelligent surfaces in multisensory XR, CRAS, BCI, DLT and other 6G use cases.
- Hardware and implementation challenges, PoC for reconfigurable intelligent surfaces in 6G networks.
- Standardization trends and regulatory aspects of reconfigurable intelligent surfaces in 6G wireless communication systems.
- Integration of reconfigurable intelligent surfaces with other 6G technologies like mobile-edge computing, cognitive radios, wireless localization, ISAC, etc.

Workshop Co-Chairs

- Keshav Singh, National Sun Yat-sen University, Taiwan, keshav.singh@mail.nsysu.edu.tw
- Mayur Katwe, Nanyang Technological University, Singapore, mayur.katwe@ntu.edu.sg
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- Chongwen Huang, Zhejiang University, Hangzhou, China, chongwenhuang@zju.edu.cn

Technical Program Committee Co-Chairs

- Prof. Lajos Hanzo, University of Southampton, UK
- Prof. Tiejun Cui, Southeast University, China
- Prof. A. Lee Swindlehurst, University of California at Irvine, USA
- Prof. Robert Schober, Friedrich-Alexander University of Erlangen-Nuremberg, Germany
- Prof. Octavia A. Dobre, Memorial University of Newfoundland, Canada

Key-note Speakers

- Prof. Rui Zhang, National University of Singapore, Singapore
- Prof. Marco Di Renzo, Universit'e Paris-Saclay, France
- Prof. Shi Jin, Southeast University, China

Important Dates

- Paper submission deadline: July 29, 2023
- Decision announcement: September 15, 2023
- Final Paper Submission: October 1, 2023

Submission Guidelines

The workshop accepts only original and previously unpublished papers. All submissions must be formatted in standard IEEE camera-ready format (double column, 10pt font). The maximum number of printed pages is six including figures without incurring additional page charges (6 pages plus 1 additional page allowed with a charge for the one additional page of USD 100 if accepted)