



Call for Papers

IEEE Real-Time Communications Conference (RTC) 2024
An IEEE International Conference at Illinois Tech @ Chicago, IL, USA - October 8-10, 2024

The functions and scope of real-time mixed media applications are expanding as these applications are integrated with IoT, ML/AI, blockchain, voice- and financial technologies, and more. While there are conferences devoted to each of these technologies separately, and to the underlying networks and platforms that support them, the RTC Conference Research Track is specifically interested in exploring the issues, opportunities and challenges associated with the integration of these disparate technologies. The online version of this Call for Papers can be found [here](https://www.rtc-conference.com/2024/research-track-cfp/) (<https://www.rtc-conference.com/2024/research-track-cfp/>).

The RTC Research Track invites paper submissions in interactive multimedia communications describing architectures, design, theoretical results, experiments, innovative systems, prototyping efforts, and case studies. Papers that are accepted and presented at the conference will be submitted for publication in IEEE Xplore.

We are interested in works at the intersection of multimedia interactive communications with technologies in internet of things, vehicular networking, confidential computing, machine learning, network management, programmable network services, security, privacy, machine learning, voice technologies, blockchain, gaming, and robotics. The Technical Program inherits the 16-year legacy of the IPTComm Conference which evolved from a focus on Voice over IP to include some topics listed above. The archive of IPTComm publications is located at [archive](http://iptcomm.org/archive.html) (<http://iptcomm.org/archive.html>).

We invite paper and poster submissions including but not limited to the following topics of interest:

- **Evolving Technologies and their impact on- and use within RTC Applications, including:**
 - Innovations in WebRTC applications and algorithms
 - Augmented and virtual reality, gaming, and robotics
 - Video / audio codecs
 - Innovative applications to sectors including finance, energy, healthcare, education and social services
 - Automated driving and autonomous transportation
 - Vehicular and other transportation networking
 - Programmable networks and edge computing
 - 5G/6G networks – applications and research
 - IoT networks
 - Industrial communication networks
- **AI/ML in RTC Applications and Services, including:**
 - Large language models & conversational AI frameworks
 - Natural language engines: optimizations & explanation
 - Voice/Video biometrics and authentication
 - Network threat detection and intelligence
 - Adversarial ML attacks and countermeasures
 - ML Operations

- **Impact of Security and Privacy methods on RTC, including:**
 - Identity management and privacy
 - IoT security and privacy models
 - Privacy-aware computation
 - Intrusion detection and prevention
 - Forensics and diagnostics
 - Watermarking and steganography
 - Autonomous security operations
 - Blockchains in communication
 - Disinformation: challenges and models
- **Network Management and Resilience methods and their effect on RTC applications, including:**
 - Scaling, monitoring and management
 - Reliability engineering
 - Cloud-native computing
 - Network Function Virtualization (NFV) and Software Defined Networks (SDN)
 - GPU computing
 - Performance benchmarking
 - Quality of Experience (QoE)
 - Autonomous network management

Submission Guidelines

Paper submissions must describe original research, not published nor currently under review for another conference or journal. The program committee will referee all papers. At least one author of each paper must be registered and present their paper at the conference.

- All paper submissions must be done through [EDAS](https://edas.info/N32106) (<https://edas.info/N32106>)
- Regular paper submissions should follow the guidelines and use the formatting tools available at the [IEEE Manuscript Templates](#) page.
- Regular papers are limited to 8 pages, double-column IEEE format, including figures, references and appendices.
- Work-in-progress papers should have no more than 4 pages in IEEE double-column format, including figures, references and appendices. Work-in-progress papers must include "Work in Progress" in the title.

Important Dates

- **Paper submission deadline:** Monday, July 8, 2024 - 1200 CDT
- **Notification of acceptance:** Monday, August 5, 2024 - 1200 CDT
- **Final camera-ready submission:** Monday, September 2, 2024 - 1200 CDT
- **Conference Dates:** October 8-10, 2024 (at Hermann Hall, [IIT Main Campus](#), Chicago, IL, USA)

Conference Chairs

- Carol Davids (Illinois Institute of Technology & School of Applied Technology, USA)
- Vijay K Gurbani (Vail Systems, Inc. & Illinois Institute of Technology, USA)

Technical Program Committee Chairs

- [Ronald Marx](#) (Huawei German Research Center, Germany)
- [Jose Aguerre](#) (Evercast & University of the Republic, Uruguay)

Technical Program Committee

- TBD