

22nd IEEE International Symposium on Multimedia (IEEE ISM 2020)

December 2-4, 2020

<http://www.ieee-ism.org>

Paper Submission Deadline

The deadline for paper submission is extended to August 31, 2020.

COVID-19 Information

The ISM 2020 conference will be held as planned (December 2-4). Due to the global pandemic which shows no sign of improvement, unfortunately, the conference will be fully virtual. For questions, contact ism@uci.edu.

Aims and scope

Research in multimedia computing is generally concerned with computer support for the combination of several media, one of which is usually time-dependent. Examples for media include canned or life-streamed audio and video, 3D visualizations, social data, and data collected from various sensors, etc. Examples for computer support comprise transformation and compression, storage and transmission, presentation and interaction, synchronization and scheduling, protection and analysis, etc.

The technical program of ISM2020 will consist of invited talks, paper presentations, and panel discussions. Submissions are solicited for full papers, short papers, and workshop papers. Topics for submission include but are not limited to:

Systems and Architectures

- Mobile multimedia systems and services
- Pervasive and interactive media systems including mobile systems, pervasive gaming, and digital TV
- Multimedia data in the Cloud
- GPU-based multimedia architectures and systems
- Software development framework using multimedia techniques

Communications and Streaming

- Multimedia networking and QoS
- Mobile audio/video streaming
- Wireless broadcasting and streaming
- Scalable streaming
- Peer-to-peer media systems and streaming
- Sensor networks
- Internet telephony technologies and systems
- Video teleconferencing

Multimedia Interfaces

- Information visualization and interactive systems
- Multimodal user interfaces: design, engineering, modality-abstractions, etc.
- Tools for media authoring, analyzing, editing, browsing, and navigation
- Intelligent agents for content creation, distribution, and analysis
- Novel interfaces for multimedia: touch, tangible, wearable, virtual, 3D, etc.
- User interfaces for mobile devices

Media Coding, Processing, and Quality Measurement

- Signal processing including audio, video, image processing, and coding
- Coding standards
- Scalable and Multi-view coding
- Multi-resolution or super-resolution algorithms
- Maintenance of perceptual quality with further compression
- Developing novel quality measures

Multimedia Security and Forensics

- Data security including digital watermarks and encryption
- Copyright issues for multimedia data
- Surveillance and monitoring methods
- Face detection and recognition algorithms
- Human behavior analysis from motion images/videos
- Multimedia-based computer forensics (e.g., crime scene investigation, user profiling)
- Multimedia Captchas, including attacks and counter-attacks
- On forensic use of biometrics
- Data hiding, stenography, and steganalysis
- Trust and privacy issues in media systems

Content Understanding, Modeling, Management, and Retrieval

- Media meta-modeling techniques
- Storage systems, databases, and retrieval
- Data segmentation
- Image, audio, video, genre clustering & classification
- Video summarization and story generation
- Speaker identification, recognition, and location
- Object, event, emotion, text detection and recognition
- Mosaic, video panorama and background generation
- Media semantics, ontologies, annotation, concept detection and learning
- Personalization and user preferences
- 3D and depth information
- Viewer perception, emotion analysis and visual attention
- Multimedia datasets and open source code for research

- Multimedia recommender systems
- Fake multimedia detection

Mobile Media

- Mobile and location-based media techniques
- Mobile visual search
- Social networks for mobile users
- Augmented reality for mobile users
- Content delivery in mobile networks (e.g., 3G, 4G and future 5G)
- Mobile applications

Applications

- Big data
- 3D data: graphics, displays, sound, broadcasting, interfaces
- Media composition and production: capture, authoring, digital art, animations, etc.
- Gaming
- Virtual and augmented reality
- Robotics
- Media interfaces for the Web
- Media in social network analysis
- Rich media enabled E-commerce and E-shopping
- Media systems for handicapped
- Collaborative systems
- Interdisciplinary media applications: Bioinformatics, Transportation systems, Wild-life monitoring and analysis, etc.
- Deep learning of multimedia data

Important Dates

- Paper Submission: (extended) August 31, 2020
- Notification of Acceptance: (extended) October 4, 2020
- Workshop Submission Deadline: (extended) October 11, 2020
- Camera ready and registration deadline: October 30, 2020

Organizing Committee

General Co-Chairs

Dick Bulterman, Vrije Universiteit Amsterdam, The Netherlands

Mohan S. Kankanhalli, National University of Singapore

Max Muehlhaeuser, Technische Universitaet Darmstadt, Germany

Fabio Persia, Free University of Bolzano, Italy

Phillip Sheu, University of California, Irvine, USA

Jeffrey Tsai, Asia University, Taiwan

Program Co-Chairs

Daniela D' Auria, Free University of Bolzano, Italy

Mouzhi Ge, Masaryk University, Czech Republic

Vishy Swaminathan, Adobe, USA

Atsuo Yoshitaka, Japan Advanced Institute of Science and Technology, Japan

Workshop Co-Chairs

Ramazan Savas Aygun, University of Alabama in Huntsville, USA

Marco Bertini, Università di Firenze, Italy

Rodrigo Guido, UNESP, Brazil

Kristen Li, Hong Kong Baptist University, China

Robert Mertens, SW University of Applied Sciences, Hamelin, Germany

Mustafa Sert, Başkent University, Turkey

Tiberio Uricchio, Università di Firenze, Italy

Publicity Co-Chairs

Joao Ascenso, Instituto Superior Técnico, Portugal

Ivan Bajic, Simon Fraser University, Canada

Petr Elias, Masaryk University, Czech Republic

Frode Sandnes, Oslo and Akershus University, Norway

Heiko Schuldt, University of Basel, Switzerland

Finance Chair

George Wang, CSUN, USA

Publication and Registration Chair

Fabio Bettini, University of Naples, Italy

Kyle Li, University of California, Irvine, USA