Multimodal Image Exploitation and Learning 2022 (SI115)

Conference Chairs: Sos S. Agaian, College of Staten Island (United States); Vijayan K. Asari, Univ. of Dayton (United States); Stephen P. DelMarco, BAE Systems (United States)

Conference Co-Chair: Sabah A. Jassim, The Univ. of Buckingham (United Kingdom)

Program Committee: David Akopian, The Univ. of Texas at San Antonio (United States); Ravindrnath C. Cherukuri, CHRIST (Deemed to be Univ.) (India); Reiner Creutzburg, Fachhochschule Brandenburg (Germany); Arman Darbinyan, Russian-Armenian Univ. (Armenia); Johan Debayle, MINES Saint-Étienne (France); Yunbin Deng, BAE Systems (United States); Eliza Yingzi Du, Qualcomm Inc. (United States); Frederic Dufaux, Lab. des Signaux et Systèmes, CNRS (France); Erlan H. Feria, College of Staten Island (United States); Artyom M. Grigoryan, The Univ. of Texas at San Antonio (United States); Balvinder Kaur, U.S. Army Research, Development and Engineering Command (United States); Karen Panetta, Tufts Univ. (United States); Haleh Safavi, NASA Goddard Space Flight Ctr. (United States); Harin Sellahewa, The Univ. of Buckingham (United Kingdom); Jinshan Tang, Michigan Technological Univ. (United States); Thaweesak Trongtirakul, King Mongkut’s Univ. of Technology Thonburi (Thailand); Viacheslav Voronin, Don State Technical Univ. (Russian Federation); Shiqian Wu, Wuhan Univ. of Science and Technology (China); Yufeng Zheng, Alcorn State Univ. (United States)

This conference is designed to attract expert researchers and end users in multimedia field, secure communication, and their counterparts in the mobile and wireless field, with the aim of creating a framework to foster research in various aspects of processing, analysis, transmission, and classification of media objects. Current generations of programmable mobile devices are endowed with low-cost high-resolution digital cameras and can provide new opportunity for mass deployment in applications that involve the use of imaging in various scientific and engineering endeavors. The range of such applications is widening fast to include commercial, biomedical image analysis for diagnoses, crime and terrorism fighting, military, and industrial use. Video streaming over mobile devices, the use of PDA’s in m-health, transmission of image-based biometrics over mobile networks for crime fighting, and deployment of mobile secure communications in disaster areas are all but a few examples of such applications. The emphasis in many such applications is on security based efficient tools from cryptography and steganography. On the theoretical front, recent advances in compressive sampling provides new efficient tools to process extremely complex biomedical images of very high resolutions as well as deal with objects detection/recognition from low-resolution degraded images in surveillance scenarios. The constrained capabilities of mobile devices, the nature of wireless channels, and the severe degradation in image quality and resolution are a source of tough challenges in image processing and security of multimedia objects. The combination of commercial and security-related topics to be covered in this conference is designed to facilitate multidisciplinary discussions and collaboration on the algorithmic and technological issues. In addition, the conference welcomes contributions relating to other real-world applications and theoretical developments in the area of mobile multimedia/ imaging techniques in secure and pervasively computing environments.

Key topics discussed include, but are not limited to:

• multimodal image analytics
• multimodal deep learning algorithms and systems
• multimedia processing for mobile devices
• innovative multimodal image processing techniques (e.g., enhancement, detection, recognition, restoration, verification, and authentication)
• secure mobile communication
• homeland defense and crime-fighting applications
• biometrics-based authentication for mobile and wireless devices/ networks
• security and privacy of image-based identity data
• steganography, steganalysis, and watermarking
• fusion techniques for multimedia analysis
• computing architectures for multimodal imaging
• mobile image/video databases
• mobile imaging
• mobile deep learning applications
• content-based video indexing and retrieval
• virtual reality and multimodal imaging for navigation
• digital media and mobile forensics
• security, trust, and privacy issues in wireless ad hoc networks
• multimedia authentication, encryption, identification, fingerprinting, and copyright protection
• secure multimedia system design and evaluation benchmarks
• biometric key generation and data hiding in multimodal biometrics
• practical systems exhibiting data hiding
• mobile TV technologies
• compressive sensing
• superresolution
• multimodal imaging on encrypted domain
• multimodal classification of remote sensing
• multimodal learning of social image representation
• multimodal exploitation and sparse reconstruction
• multimodal exploitation and health monitoring
• multimodal image alignment

www.spie.org/SI115call
ANNOUNCING THE BEST PAPER AWARDS IN MULTIMODAL IMAGE EXPLOITATION AND LEARNING 2022!

The award will be given to a paper for its originality and contributions to the Multimodal Image Exploitation and Learning field.

The criteria for evaluation will include:
1. innovation
2. clarity and quality of the manuscript submitted for publication
   significance and impact of the work reported.

To be considered for a Best Paper Award, authors must:
1. choose “Nominate for best paper award” as one of their paper topics
2. present their oral presentation as scheduled
3. submit their manuscript on time.

To select the winners of the Best Paper Awards, the evaluation committee will go through a rigorous two-stage selection process:

In the first stage of the process, the submissions with the highest review scores by three committee members will be selected. Committee members will also read the corresponding paper reviews and rebuttal. Based on this investigation, the committee will select eight papers that stand out according to the reviewing criteria.

In the second stage of the process, these papers will be presented in a special session, and one of the eight papers will be selected to receive the Best Paper Award. A panel of experts will evaluate all the papers for technical quality and merit.

Conference Chairs will not participate in the evaluation process of the papers. The evaluation committee will make all decisions regarding the selection of the best paper.
Present your research at SPIE Defense + Commercial Sensing

Below are abstract submission instructions, the accompanying submission agreement, conference presentation guidelines, and guidelines for publishing in the Proceedings of SPIE on the SPIE Digital Library. Submissions subject to chair approval.

**Important dates**

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract submission deadline</td>
<td>6 October 2021</td>
</tr>
<tr>
<td>Author notification</td>
<td>3 December 2021</td>
</tr>
<tr>
<td>Submission system opens for presentations and manuscripts*</td>
<td>31 January 2022</td>
</tr>
<tr>
<td>Manuscript due</td>
<td>9 March 2022</td>
</tr>
<tr>
<td>Oral presentation videos due</td>
<td>9 March 2022</td>
</tr>
<tr>
<td>Post PDF and preview videos due</td>
<td>9 March 2022</td>
</tr>
<tr>
<td>Oral presentation slide deadline</td>
<td>1 April 2022</td>
</tr>
</tbody>
</table>

*Authors must register prior to uploading.

**What you will need to submit**

- Title
- Author(s) information
- 250-word abstract for technical review
- 100-word summary for the program
- Keywords used in search for your paper (optional)
- Check the individual conference Call for Papers for additional requirements (for example, some conferences require 2- to 3-page extended summary for technical review, or have instructions for award competitions)

Note: Only original material should be submitted. Commercial papers, papers with no new research/development content, and papers with proprietary restrictions will not be accepted for presentation.

**How to submit your abstract**

- Visit the conference page: [www.spie.org/SI115call](http://www.spie.org/SI115call)
- You may submit more than one abstract but submit each abstract only once.
- Click the “Submit An Abstract” button on the conference page.
- Sign in to your SPIE account or create an account if you do not already have one.
- Follow the steps in the submission wizard until the submission process is completed.

**Submission agreement**

All presenting authors, including keynote, invited, oral, and poster presenters, agree to the following conditions by submitting an abstract:

- Register and pay the author registration fee.
- Oral Presenters: Submit a presentation video by the advertised due date, or agree to the presentation capture of your presentation on site, for online conference viewing during the event and publication in the Proceedings of SPIE on the SPIE Digital Library.
- Poster Presenters: Submit a Poster PDF and optional preview video by the advertised due date, for online conference viewing during the event and publication in the Proceedings of SPIE on the SPIE Digital Library.
- Submit a 4-page-minimum manuscript by the advertised due date, for online conference viewing during the event and publication in the Proceedings of SPIE on the SPIE Digital Library.
- Obtain funding for registration fees, travel, and accommodations, independent of SPIE, through their sponsoring organizations.
- Ensure that all clearances, including government and company clearance, have been obtained to present and publish. If you are a DoD contractor in the USA, allow at least 60 days for clearance.
- Attend the meeting.
- Present at the scheduled time.

**Review and program placement**

- To ensure a high-quality conference, all submissions will be assessed by the Conference Chair/Editor for technical merit and suitability of content.
- Conference Chairs/Editors reserve the right to reject for presentation any paper that does not meet content or presentation expectations.
- Final placement in an oral or poster session is subject to chair discretion.

**Publication of Proceedings in the SPIE Digital Library**

- SPIE will publish all presentations for viewing during the conference, as well as permanently archive all presentations in the conference proceedings on the SPIE Digital Library.
- SPIE retains rights to distribute and market the official SPIE recording of the presentation, presentation video, and/or poster.
- Most SPIE conferences follow an onsite publication model, meaning that manuscripts received by the advertised due date will be published for online viewing during the event, as well as archived in the SPIE Digital Library.
- A select few of SPIE conferences may elect to follow a Post-Meeting model of publication in order to conduct a more thorough review of manuscripts. In this model, manuscripts will be published 2-4 weeks after the event in the SPIE Digital Library, and may not be published for online viewing during the event.
- Authors must be authorized to transfer copyright of the manuscript to SPIE, or provide a suitable publication license. Authors retain the right to prepare derivative publications based on the paper.
- Conference Chairs/Editors may require manuscript revision before approving publication and reserve the right to reject for publication any paper that does not meet acceptable standards for a scientific publication.
- Conference Chairs/Editors decisions on whether to allow publication of a manuscript are final.
- Only papers, presentations, and posters presented at the conference and received according to publication guidelines and due dates will be published in the conference Proceedings of SPIE on the SPIE Digital Library.
- SPIE partners with relevant scientific databases to enable researchers to find the papers in the Proceedings of SPIE easily. The databases that abstract and index these papers include Astrophysical Data System (ADS), Ei Compendex, CrossRef, Google Scholar, Inspec, Scopus, and Web of Science.
- More publication information available on the [SPIE Digital Library](http://www.SPIEDigitalLibrary.org).

**Contact information**

**QUESTIONS?**

[AuthorHelp@SPIE.org](mailto:AuthorHelp@SPIE.org)

[www.spie.org/SI115call](http://www.spie.org/SI115call)