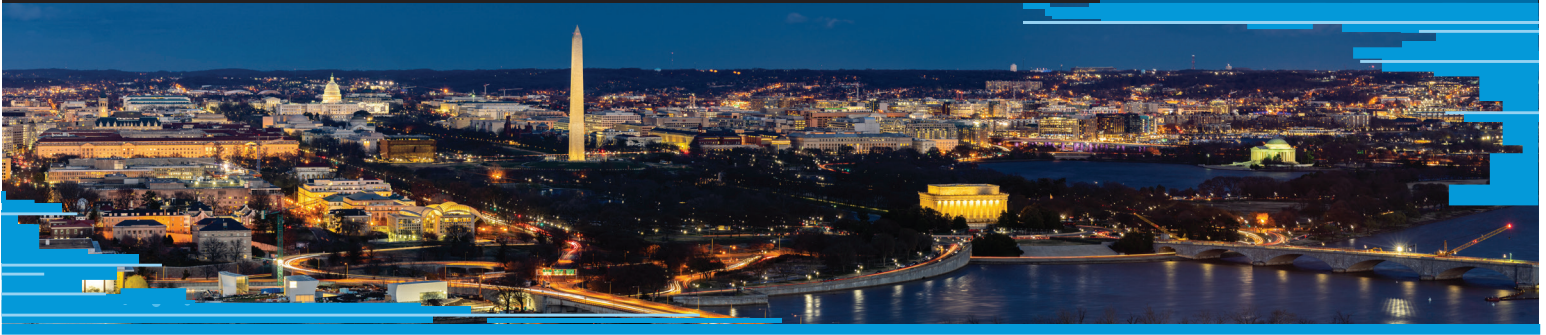


**SPIE. DEFENSE+
COMMERCIAL
SENSING**
21 - 25 April 2024
 Gaylord National Resort &
 Convention Center
 National Harbor, Maryland, USA

 Submit abstracts by
11 October 2023


Big Data VI: Learning, Analytics, and Applications (DCS113)

Conference Chairs: **Panos P. Markopoulos**, The Univ. of Texas at San Antonio (United States)

Conference Co-Chairs: **Bing Ouyang**, Florida Atlantic Univ. (United States), Harbor Branch Oceanographic Institute (United States);
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Modern ubiquitous sensing produces immense data collections (big data) that offer unprecedented opportunities for knowledge extraction, inference, and learning. However, due to their sheer size and complexity, big data also pose non-trivial challenges in terms of their storage, processing, and analysis. The objective of this conference is to provide a consolidated forum for exploring and promoting advances in the broader area of big data. Original papers are invited in the following areas.

BIG DATA AND MACHINE LEARNING FOUNDATIONS

- theory
- computational methods
- quality, trust, resilience
- security, privacy
- visualization
- synthetic data models and optimization.

BIG DATA SENSING, INFRASTRUCTURE, AND RESOURCES

- sensing platforms
- datasets
- software and architectures (e.g., cloud/grid/stream computing)
- acquisition, integration, fusion, cleaning.

CHALLENGING DATA

- limited data but high-dimensional data
- corrupted and adversarial data
- imbalanced and biased data
- multimodal data.

BIG DATA APPLICATIONS (PROCESSING, LEARNING, AND ANALYTICS)

- computer vision and image/video processing
- ubiquitous sensing and the internet of things (IoT)
- wireless communications, networking, and connected autonomous systems
- remote sensing and geospatial intelligence
- healthcare, medicine, and social good
- security, cybersecurity, and defense.

BEST STUDENT PAPER AWARD

One paper will be selected for the best student paper award among the papers of this conference (accepted, presented, and published) that has a first author marked as student during submission. The selection will be made by a designated award sub-committee, comprising three members of the conference program committee and/or chairs. All eligible papers will be evaluated for technical quality and merit. The criteria for evaluation will include: 1) innovation; 2) clarity and quality of the manuscript submitted for publication; and 3) the significance and impact of the work reported.

In order to be considered for the award, one of the student presenter must make their oral presentation and submit their final manuscript as scheduled and according to the due date. There is no monetary prize for this award.

CONTINUED NEXT PAGE →

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

Abstracts Due	11 October 2023
Registration opens	8 January 2024
Authors notified and program posts online	15 January 2024
Submission system opens for manuscripts and poster PDFs*	19 February 2024
Poster PDFs due for spie.org preview and publication	27 March 2024
Manuscripts due	3 April 2024
Advance upload deadline for oral presentation slides**	19 April 2024

*Contact author or speaker must register prior to uploading

**After this date slides must be uploaded onsite at Speaker Check-in

What you will need to submit

- Title
- Author(s) information
- Speaker biography (1000-character max including spaces)
- Abstract for technical review (200-300 words; text only)
- Summary of abstract for display in the program (50-150 words; text only)
- Keywords used in search for your paper (optional)
- Check the individual conference call for papers for additional requirements (i.e. extended abstract PDF upload for review or 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/DCS113call
- 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.

If your submission is related to an application track below, indicate the appropriate track when prompted during the submission process.

Application tracks

Listed below are the application tracks available for this meeting. An application track is a grouping of presentations on a topic of interest across all conferences. During submission of the abstract, the submitting author should select an application track if it is relevant to their research.

AI/ML: Papers that showcase the use of artificial intelligence, machine learning, and deep learning to create and implement intelligent systems

Microelectronics: Papers that highlight advances in materials, design, fabrication, integration and applications of silicon or compound semiconductor microelectronics for use in the security and defense sectors and the commercial marketplace.

Sustainability: Papers that feature solutions to achieving net zero energy consumption, waste, and carbon emissions within optics and photonics

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: recording and publication of your onsite presentation (slides synched with voice) for publication in the Proceedings of SPIE in the SPIE Digital Library
- Poster presenters: submit a poster PDF by the advertised due dates for publication in the Proceedings of SPIE in the SPIE Digital Library; poster PDFs may also be published and viewable in the spie.org program during and immediately after the event. Each poster must have a unique presenter; one person may not present more than one poster
- Email messaging for the conference series
- Submit a manuscript by the advertised due date for publication in the Proceedings of SPIE in the SPIE Digital Library
- Obtain funding for registration fees, travel, and accommodations
- 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

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