

Thermosense XXX (DS27)

Part of the SPIE International Defense and Security Symposium

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Conference Chairs: **Vladimir P. Vavilov**, Tomsk Polytechnic Univ. (Russia); **Douglas D. Burleigh**, Surfside Consulting

Program Committee: **Lee R. Allen**, Allen Applied Infrared Technology, Emeritus Member; **Nicolas P. Avdelidis**, EBETAM S.A. (Greece); **Pierre Bremond**, Cedip Infrared Systems (France); **Antonio Colantonio**, Public Works and Government Services Canada (Canada); **Fred Colbert**, Colbert Infrared Services; **K. Elliott Cramer**, NASA Langley Research Ctr.; **Ralph B. Dinwiddie**, Oak Ridge National Lab.; **Ermanno G. Grinzato**, Consiglio Nazionale delle Ricerche (Italy); **Sheng-Jen Hsieh**, Texas Agricultural & Mechanical Univ.; **Herbert Kaplan**, Honeyhill Technical Co.; **Timo T. Kauppinen**, VTT (Finland); **Dennis H. LeMieux**, Siemens Corporate Research; **Sven-Åke Ljungberg**, Univ. of Gävle, Emeritus Member (Sweden); **Robert P. Madding**, FLIR Systems, Inc.; **Xavier P. V. Maldague**, Univ. Laval (Canada); **G. Raymond Peacock**, Temperatures.com, Inc.; **Piotr Pregowski**, Pregowski Infrared Services (Poland); **Austin A. Richards**, FLIR Systems; **Andrés E. Rozlosnik**, SI Termografia Infrarroja (Argentina); **Morteza Safai**, The Boeing Co.; **Takahide Sakagami**, Osaka Univ. (Japan); **Steven M. Shepard**, Thermal Wave Imaging, Inc.; **John R. Snell, Jr.**, Snell Infrared; **Gregory R. Stockton**, Stockton Infrared Thermographic Services, Inc.; **Lisa West Åkerblom**, FLIR Systems AB (Sweden)

On-site Proceedings Manuscript Due Date: 7 January 2008

ThermoSense Mission Statement

ThermoSense promotes the worldwide exchange of information about the uses or applications of thermal infrared sensing, imaging and measuring instruments through papers, workshops and short-courses. Over the past twenty-nine years these activities have included topics from the fundamentals of imaging and calibration to virtually all civilian applications of infrared equipment with special emphasis on problem solving and reduction to practice.

Thermal/infrared related papers are solicited in the areas listed and are also welcome in other areas:

Aerospace Applications

- NDT & quality control (also see NDT)
- corrosion/FOD/fatigue
- aging aircraft
- spacecraft & satellites Automotive Industry
- manufacturing— process applications
- predictive maintenance
- process monitoring —automation
- testing, measurement QA, R&R and validation.

Environmental and Resource Monitoring

- agriculture & water conservation
- fish & wildlife migration
- geology
- pollution & storm water outflow
- remote detection & environmental sensing.

Food Processing and Agriculture

- foreign object detection & characterization
- process monitoring & automation
- quality control
- safety.

Infrastructure

- airports & harbors
- building surveys, historic studies
- roads & bridges
- thermal performance of buildings.

IR Image Fusion Applications

- biological & medical
- field/security
- process
- structural.

Manufacturing and Processing Industries

- composites industry (also see NDT)
- glass & ceramics
- machine vision
- metals processing
- petroleum & chemical
- plastics
- predictive maintenance applications
- pulp & paper
- quality control applications
- semiconductors & microelectronics.

Materials Evaluation and NDT

- fatigue analysis
- sonic IR

- thermal properties of materials
- thermal stress analysis (TSA).

Medical

- calibration of IR thermometers
- screening for human body temperature
- veterinary applications of IR.

Miscellaneous

- resource & maintenance management
- economic impact, justifications studies
- equipment, software, & practices guides
- professionalism, standards, & certification.

NDT (Nondestructive Testing)

- subsurface flaws
- composite materials & structures
- metallic structures
- underground anomalies
- electronic components.

Power Generation and Distribution

- field measurement issues
- plant heat-rate efficiency
- predictive maintenance
- safety & records.

Research and Development

- animal applications
- enhanced spatial resolution
- enhanced time resolution
- image interpretation
- medical applications
- microscopy
- new methods
- thermal modeling & FEA.

Security

- disease screening
- fire & rescue
- law enforcement
- surveillance in civilian applications.

In case of multiple submissions, the Program Committee reserves the right to allow only one oral presentation per author group while transferring the others to the poster session. During the Symposium, authors are expected to attend their respective sessions to enable interaction with the audience. Unless otherwise requested by authors, authors and abstracts will be posted at <http://www.thermosense.org>

Up-to-date and Session Chair information is available at: <http://www.thermosense.org>

Monday Evening Exhibitor Vendor Session

What's New in Infrared Imaging Hardware and Software

(Presentations by equipment and service vendors)

This session is now in its fourth year and has become very popular. This venue provides an early opportunity for exhibitors to showcase their latest technology and products to the Thermosense and IR community prior to the opening of the exhibit. This is a casual meeting with ample time for questions and answers.

Exhibiting vendors who wish to participate are invited to submit a descriptive title and tentative presenter identification by the Abstract Due Date of 3 September 2007. An abstract of the presentation submitted by the Manuscript Due Date will facilitate publication of a Vendors Listing in the Program Summary and within the Proceedings of the ThermoSense conference.

8th Annual Infrared Imaging Gallery

Chairs: **Ralph B. Dinwiddie**, Oak Ridge National Lab. and **Nicolas P. Avdelidis**, IRT & Materials Consultancy (Greece)

Authors and Thermographers are invited to post Professional, Artistic, Unique, or Interesting thermographs. All thermographs to be in presentation form. First, Second, and Third place winners are awarded ribbons. Categories include but are not limited to Aerial, Art and Portraiture, Medical, Military Applications, Surveillance, and Historical Structures.

Student Poster and Poster Briefing Session

Chairs: **Jonathan J. Miles**, James Madison Univ.; **Morteza Safai**, Boeing Co.

ThermoSense XXX will again feature a Student Poster Session. The session is intended to promote awareness of, and encourage undergraduate and graduate research pertaining to, the ThermoSense conference. The oral sessions are open to students who wish to present their work as a manuscript for oral presentation. In order to take part in the Student Poster Session: (1) an abstract must be submitted electronically to SPIE via the web on or before the SPIE abstract due date of 3 September 2007 (a Tracking Number will be forwarded after submission); then (2) the abstract must be e-mailed to the session chair, Jonathan Miles, at milesjj@jmu.edu with the paper confirmation number (i.e. DSS08-DS27-XX); (3) the lead author must be a student; and (4) the student author must commit to attending the symposium and presenting his or her poster.

Abstract Due Date: 3 September 2007
On-Site Manuscript Due Date: 7 January 2008

Submission of Abstracts for SPIE Defense and Security Symposium

Abstract Due Date: 3 September 2007
On-Site Proceedings Manuscript Due Date: 7 January 2008

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Network with your colleagues.

PUBLISH YOUR WORK

Publish your work—fast. Your work will appear in SPIE Digital Library 2 to 4 weeks after the meeting
Contribute to and gain visibility in the most extensive resource available for optics and photonics content—200,000+ journal articles and proceedings manuscripts
Proceedings of SPIE are referenced in leading scientific databases and indices
SPIE Digital Library has the highest number of citations for patent applications in optics and photonics.

1. By submitting an abstract, I agree to the following conditions:

- An author or coauthor (including keynote, invited, and solicited speakers) will register at the reduced author registration rate, attend the meeting, and make the presentation as scheduled. (Current SPIE Members receive an additional discount on the registration fee.)
- Authors and coauthors attending the meeting will obtain funding for their registration fees, travel, and accommodations, independent of SPIE, through their sponsoring organizations before submitting abstracts.
- All clearances, including government and company clearance, have been obtained to present and publish. If you are a DoD contractor, allow at least 60 days for clearance.
- SPIE is authorized to circulate your abstract to conference committee members for review and selection purposes.
- Accepted abstracts may be published in printed and web programs promoting the conference. Please submit only 250-word abstracts that are suitable for publication.
- A full-length manuscript (8-12 pages) for any accepted oral or poster presentation will be submitted for publication in the SPIE Digital Library and conference Proceedings.

2. Prepare to submit:

- Have all contact information (full names, affiliations, addresses, phone numbers, and emails) for your coauthors ready.
- Only original material should be submitted.
- Abstracts should contain enough detail to clearly convey the approach and the results of the research.
- Commercial papers, papers with no new research/development content, and papers where supporting data or a technical description cannot be given for proprietary reasons will not be accepted for presentation in this conference.

3. Submit your abstract online at:

<http://SPIE.org/events/dss>

Browse to locate the conference to which you are submitting or review all conference calls to find the right fit for your abstract.

You will be prompted to sign in to the MySPIE system. If you have a MySPIE account, sign in using your username and password. First-time users of MySPIE can create a new account by clicking on the [create new account](#) link.

Review, Notification, Program Placement

- To ensure a high-quality conference, all abstracts and Proceedings manuscripts will be reviewed by the Conference Chair/Editor for technical merit and suitability of content. Conference Chair/Editors may require manuscript revision before approving publication, and reserve the right to reject for presentation or publication any paper that does not meet content or presentation expectations. SPIE's decision on whether to accept a presentation or publish a manuscript is final.
- Applicants will be notified of abstract acceptance and sent manuscript instructions by e-mail no later than 10 December 2007.
- Final placement in an oral or poster session is subject to the Chairs' discretion. Instructions for oral and poster presentations will be sent to you by e-mail.

Proceedings of SPIE and SPIE Digital Library

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