INTERNATIONAL IMAGE SENSOR SOCIETY

FIRST CALL FOR PAPERS

ABSTRACTS DUE DEC 19, 2024

2025 International Image Sensor Workshop

Awaji Yumebutai Int. Conf. Center, Hyōgo, Japan
June 2 - 5, 2025

General Workshop Co-Chairs:

Yusuke Oike *
Sony, Japan

Shoji Kawahito
Shizuoka University and SUiCTE, Japan

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KU Leuven/Photolitics, Belgium

Jan Bogaerts
Gpixel, Belgium

The 2025 International Image Sensor Workshop (IISW) provides a biennial opportunity to present innovative work in the area of solid-state image sensors and share new results with the image sensor community. The event is intended for image sensor technologists; in order to encourage attendee interaction and a shared experience, attendance is limited, with strong acceptance preference given to workshop presenters. As is the tradition, the 2025 workshop will emphasize an open exchange of information among participants in an informal, secluded setting beside the Awaji Island in Hyōgo, Japan.

The scope of the workshop includes all aspects of electronic image sensor design and development. In addition to regular oral and poster papers, the workshop will include invited talks and announcement of International Image Sensors Society (IISS) Award winners.

Papers on the following topics are solicited:

Image Sensor Design and Performance
CMOS imagers, CCD imagers, SPAD sensors
New and disruptive architectures
Global shutter image sensors
Low noise readout circuitry, ADC designs
Single photon sensitivity sensors
High frame rate image sensors
High dynamic range sensors
Low voltage and low power imagers
High image quality; Low noise; High sensitivity
Improved color reproduction
Non-standard color patterns with special digital processing
Imaging system-on-a-chip, on-chip image processing
Event-based image sensors

Pixels and Image Sensor Device Physics
New devices and pixel structures
Advanced materials
Ultra miniaturized pixels development, testing, and characterization
New device physics and phenomena
Electron multiplication pixels and imagers
Techniques for increasing QE, well capacity, reducing crosstalk, and improving angular response
Frontside illuminated, backside illuminated, and stacked pixels and pixel arrays
Pixel simulation: optical and electrical simulation, 2D and 3D, CAD for design and simulation, improved models

Application Specific Imagers
Image sensors and pixels for range sensing: LIDAR, TOF, RGBZ, structured light, stereo imaging, etc.
Image sensors with enhanced spectral sensitivity (NIR, UV, IR)
Sensors for DSC, DSLR, mobile, digital video cameras and mirror-less cameras
Array imagers and sensors for multi-aperture imaging, computational imaging, and machine learning
Sensors for medical applications, microbiology, genome sequencing
High energy photon and particle sensors (X-ray, radiation)
Line arrays, TDI, very large format imagers
Multi and hyperspectral imagers
Polarization sensitive imagers

Image Sensor Manufacturing and Testing
New manufacturing techniques
Wafer-on-wafer and chip-on-wafer stacking technologies
Backside thinning
New characterization methods
Packaging and testing: reliability, yield, cost
Defects, noises, and leakage currents
Radiation damage and radiation hard imagers

On-chip Optics and Color Filters
Advanced optical path, color filters, microlens, light guides
Nanotechnologies for Imaging
Wafer level cameras

Submission of abstracts:

An abstract should consist of a single page of maximum 500-words text with up to two pages of illustrations (3 pages maximum), and include authors' name(s), affiliation, mailing address, telephone number, and e-mail address.

The deadline for abstract submission is **11:59pm, Thursday Dec 19, 2024** (**GMT**).
To submit an abstract, please go to: **https://cmt3.research.microsoft.com/IISW2025**
Above website should be open by Aug 1, 2024.

The first time you visit the paper submission site, you'll need to click on "Create Account". Once you create and verify your account with your email address, you will be able to submit abstracts by logging in and clicking "Create New Submission".

Please visit **https://imagesensors.org/CFP2025** for complete instructions and any updates to the abstract and paper submission procedures.

Abstracts will be considered on the basis of originality and quality. High quality papers on work in progress are also welcome. Abstracts will be reviewed confidentially by the Technical Program Committee.

Key Dates:
Authors will be notified of the acceptance of their abstract latest by **Feb 10, 2025**.
Final-form 4-page paper submission date is **Mar 22, 2025.**
Presentation material submission date is **May 1, 2025**.

Location:
The IISW 2025 will be held at the International Conference Center on Awaji Island in Hyōgo Prefecture, Japan. This beautiful hotel is about 1 hour from Kansai International Airport. Limousine Buses chartered by IISW will pick up attendees at JR Shin-Kobe Station and JR Sannomiya Station.

Registration, Workshop fee, and Hotel Reservation:
Registration details and hotel reservation information will be provided in the Final Announcement of the Workshop.

Forthcoming announcements and additional information will be posted on the **2025 Workshop page** of the International Image Sensor Society website at:

https://www.imagesensors.org/