

OECC/PSC 2025

30th OptoElectronics and Communications Conference/
International Conference on Photonics
in Switching and Computing 2025

June 29-July 3, 2025

Sapporo Convention Center,
Sapporo, Hokkaido, Japan



Important Dates

Paper Submission

Start: December 20, 2024
End: ~~February 28, 2025 (JST, UTC+9)~~
March 12, 2025 (JST, UTC+9)

Acceptance Notification

End of April, 2025

Author Registration Deadline

May 14, 2025

Early Registration

Start: April 1, 2025
End: May 31, 2025

Program Available Online

May 14, 2025

Post-deadline Paper Submission

Start: May 14, 2025
End: June 13, 2025 (JST, UTC+9)

Publication Date

June 23, 2025

Post-deadline Paper Acceptance Notification

June 30, 2025



Sponsored by :



IEICE Communications Society



IEICE Electronics Society

Technically
Co-sponsored by :



IEEE Photonics Society



Optica

In Cooperation with :



Communications and Information network Association of Japan
The Laser Society of Japan
IEEE Photonics Society Tokyo Section Chapter
IEEE ComSoc Tokyo Joint Chapter

► Conference Objectives

OECC/PSC 2025 will be held during June 29 to July 3, 2025, at Sapporo Convention Center, Sapporo, Hokkaido, Japan. It will be held jointly with the OptoElectronics and Communications Conference (OECC) and the International Conference on Photonics in Switching and Computing (PSC). This joint conference offers a great opportunity to seek out and explore a wide variety of R&D topics from basic research to system technologies.

- 30th OptoElectronics and Communications Conference (OECC2025)
- International Conference on Photonics in Switching and Computing 2025 (PSC2025)

The Organizing Committee anticipates that OECC/PSC 2025 will provide a wonderful and enjoyable opportunity for discussion.



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▶ Scopes

OECC

01. Core/Access/Data Center Networks and Subsystems

- Core/Metro network and subsystem
- Access network and subsystem
- Data center (DC) network, converged network and subsystem

02. Transmission Systems and Subsystems

- Transmission and propagation
- Digital signal processing, advanced modulation, coding and multiplexing
- Transmission subsystems

03. Optical Fibers, Cables, Fiber Devices and Fiber Sensing

- Fibers & cables for communication
- Fiber based devices
- Fiber sensing and other applications

04. Optical Active Devices and Modules

- Photonic integration*
- Advanced active devices
- Novel materials and structures

* The presentations of this topic will be programmed in Joint Sessions with Category O5.

05. Optical Passive Devices and Modules

- Photonic integration*
- Advanced passive devices
- Novel materials and platform for passive devices

* The presentations of this topic will be programmed in Joint Sessions with Category O4.

PSC

P1. Photonic Switching Devices, Systems and Networks

- Photonic switching devices and building blocks
- Photonics for switching and DC networks
- Photonic switching systems and networks

P2. Photonics for Computing and Deep Learning Applications

- Photonic devices for innovative computing
- Photonics for neuromorphic computing and deep learning
- Photonics for quantum computing and communication

► Plenary Speakers



Dalma Novak

Vice President of Engineering, Octane Wireless

The Future of Radio over Fiber Technologies



Wolfram Pernice

Professor, Heidelberg University

Hardware Accelerators Based on Photonic Computing



Budi Prawara

Research Organization for Electronics and Information, National Research and Innovation Agency (BRIN)

Expectations for Optoelectronics and Communications towards the Future of the Asia-Pacific Region



Takashi Saida

Vice President, Head of Device Innovation Center, NTT Corporation

Evolution of All Photonics Network toward 2030s ~ From Device Technology to Network Architecture ~

► Tutorial Speakers

Cat. O1: Masahiko Jinno (Kagawa University)

Spatial Channel Network (SCN): Concept, Architecture and Enabling Technologies

Cat. O1: Elaine Wong (University of Melbourne)

The Future of FTTx: Opportunities, Challenges and Emerging Solutions with Machine Intelligence

Cat. O2: Son Thai Le (Nubis Communications)

Low-Power Linear-Drive High-Density Optical Interface for ML/AI

Cat. O3: Francesco Poletti (University of Southampton)

Ultra-Low Loss Hollow Core Fibers: Progress and Outlook

Cat. O4: Suguru Akiyama (Dexerials Corporation)

High-Speed Modulator Technology: Material and Design Evolution (InP, Si, TF-LN)

Cat. O5: C. Martijn de Sterke (University of Sydney)

Nonlinear Optics in a Fiber Laser--Enhancement of Nonlinear Effects

Cat. P1: Marco Ruffini (The University of Dublin, Trinity College)

Optical Spectrum as a Service: Progress and Challenges

Cat. P2: Xiang Liu (Huawei Technologies)

Optical Modules and Networks for AI-Era Data Centers

► Special Symposia

- Digital Coherent Transmission Systems and Devices: Past, Present, and Future (O2, O4)
- Photonic Computing Solving the Bottleneck of Von-Neumann Computing (O5, P2)

► Workshops

Date: June 29 (Sunday), 2025

- Latest Trends in Space Optical Communication Technology and NTN (O1, P1)
- What are the Killer Applications of Advanced Network Monitoring and Fiber Sensing Technologies? (O1, O3)
- Can SDM Survive the Hollow Core Challenge? (O2, O3, P1)
- Evolution of Photonics-Electronics Convergence Technology - Can We Make It, How and When? (O4)
- Prospects and Enabling Technologies towards Multi-Tbps Long-Reach Transceivers (O4)
- Quantum Synergy: The Power of Optics in Next-Generation Quantum Information Technologies (O5)
- Recent Trends of Research Projects

► Invited Speakers

Details will be announced on our website soon.

► Paper Submission

Deadline: 23:59:59 ~~February 28, 2025~~ ^{March 12, 2025} (JST, UTC+9)

Guidelines *For details, please refer to the Paper Submission Guidelines on our website.

Step 1: Prepare your manuscript using the template

- Each author is requested to write a 35-word abstract and a three-page paper using the designated template. However, a reference page can carry over into the 4th page.

Step 2: Create PDF file

- Authors must create a PDF file to submit the manuscript.
- The PDF file MUST be IEEE Xplore compliant to be published on it. To ensure this, we strongly recommend to use the IEEE PDF eXpress. IEEE PDF eXpress can be accessed through the OECC/PSC 2025 website.

Step 3: Submission

- The submission will be made via the on-line submission system.

IEEE Xplore

The accepted and presented papers will be published in the OECC/PSC 2025 Proceedings and will be available on IEEE Xplore Digital Library. (No-show papers will not be published on IEEE Xplore.)

► Awards

OECC/PSC 2025 will present Best Paper Awards and Best Student Paper Awards. The eligibility to compete for Best Student Paper Award is that the principal author should be a student under 35 years old at the time of paper submission.

► Post-deadline Papers

Authors are encouraged to submit Post-deadline Papers when deemed appropriate, which must also be submitted via the OECC/PSC 2025 website. Submission periods for the Post-deadline Papers are **from May 14 to June 13, 2025 (JST, UTC+9)**. For more information, please visit our website.

▶ Registration

All payments must be made in Japanese Yen.

Category	Early Registration Fees	Regular Registration Fees
	from April 1 to May 31, 2025	from June 1, 2025
Members*	JPY 90,000	JPY 110,000
Non-Members	JPY 110,000	JPY 130,000
Students	JPY 30,000	JPY 40,000
Banquet	JPY 8,000	

*Members of any of the following organizations will apply members rates.

The Institute of Electronics, Information and Communication Engineers (IEICE)

Optica (formerly OSA)

IEEE Photonics Society

The Japan Society of Applied Physics (JSAP)

and other organizations (details will be announced on our website)

Note

- Registration fee includes the following:
 - Admission to all technical sessions
 - Entrance to exhibition
 - Conference Program book and Technical Digest (conference proceedings)
- Banquet is the optional and NOT included in the registration fee. It is not possible to apply only for banquet.
- Those who register under the MEMBERS category require to enter their membership number via online registration form.
- Students are required to upload a scanned copy of their student ID via online registration form.
- At least one author of each accepted paper must register for the Conference by the Speaker's Registration deadline for the paper to be presented in the Conference. If there is no author registered in Conference, the paper will not be published in the Technical Digest.
- Please note that the number of presentations per fully registered person is limited to three including invited papers.
- No-show papers will not be published on IEEE Xplore.
- VISA support information will be announced on our website later.

On-line Registration

Online registration will start in April.

▶ Social Events

Banquet: July 2 (Wed.), 2025

Details will be announced on our website soon.

▶ Exhibition / Sponsorship

There are various opportunities we would like to offer companies/ institutions to become involved in OECC/PSC 2025. For details of exhibition and sponsor prospectus, please visit our website. Please do not miss to take advantage of this good opportunity!

▶ OECC/PSC 2025 Secretariat

c/o JTB Communication Design, Inc.

Celestine Shiba Mitsui Bldg., 3-23-1 Shiba, Minato-ku, Tokyo 105-8335, Japan

E-mail: oeccpsc2025@jtbcom.co.jp

E-mail: oeccpsc2025-p@jtbcom.co.jp (inquiry for paper submission)

About Sapporo

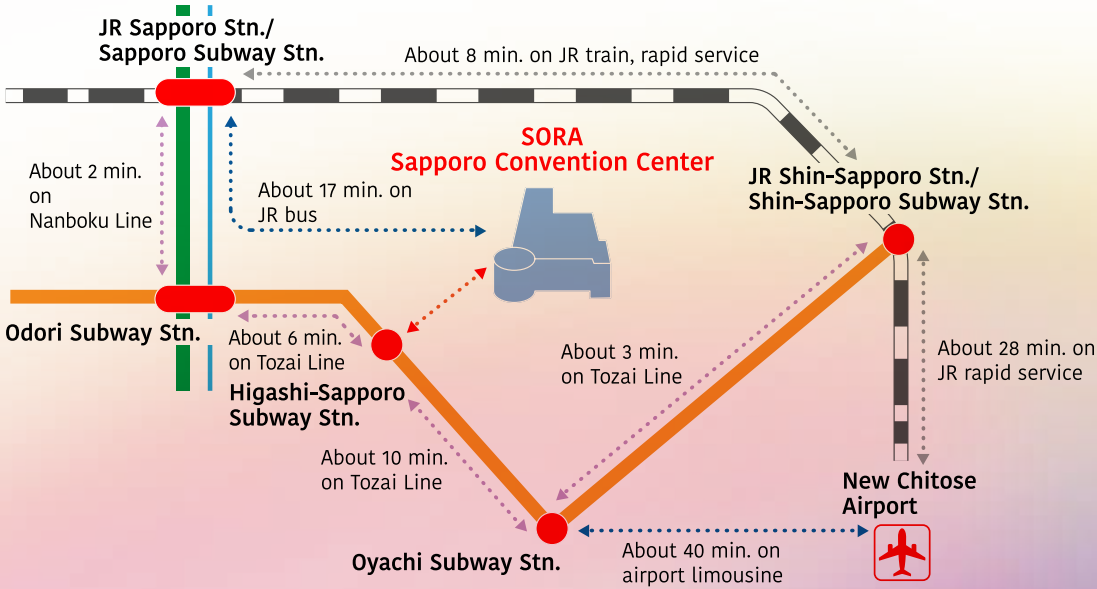
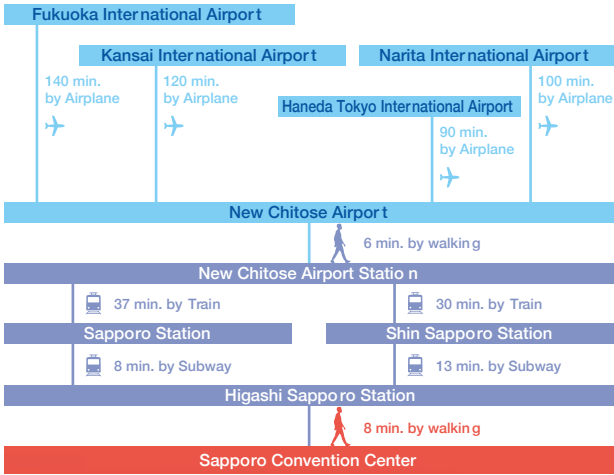
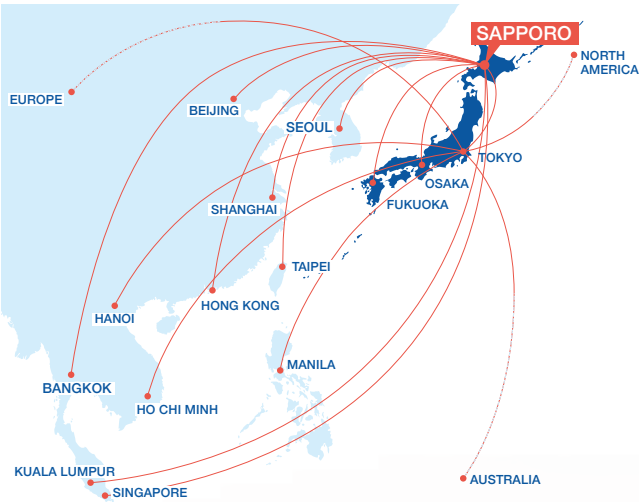
Located in one of the snowiest parts of the world (takes full advantage of its frosty weather), with a population of 1.9 million, Sapporo plays a dominant role as the economic and cultural center of Hokkaido, the largest and northernmost prefecture in Japan. The most special of Japanese cities maybe – its location on an island, which has 22% of the country’s landmass, but only 5% of its population, has a lot to do with it, is home to some of the world’s most breathtaking landscapes, unique wildlife, and year-round outdoor pursuits.

Climate and Attire (June/ July)

Daytime in June is pleasant with low humidity. A long-sleeved top is usually enough for a day of walking around town, but an extra layer such as a light cardigan or jacket can be useful as a backup. Carrying a folding umbrella is also recommended as in recent years there have been some days of continuous rain. With an average temperature of around 20°C (68°F) in July, short-sleeved clothing is enough during the day. However, as the temperature drops below the 20s in the evening, carrying a thin cardigan or long-sleeved top is recommended.



Access



OECC/PSC 2025

30th OptoElectronics and Communications Conference/
International Conference on Photonics in Switching and Computing 2025

June 29-July 3, 2025

Sapporo, Hokkaido, Japan