The 19th International Conference on IP / IoT & Processing + Optical Network (iPOP 2023)

NTT Musashino R&D Center,
Musashino-shi, Tokyo, Japan.

May 25th to 26th, 2023 Japan Standard Time (UTC+9:00)

iPOP 2023

IP+Optical Network
[IoT & Processing Network]+Optical

Welcome Message

Welcome back to Real in-Person iPOP2023!

Dear friends, presenters and supporters of iPOP Conference,

We have overcome the COVID-19 pandemic which had severely impacted all of us, we are delighted to have iPOP 2023 planned as a full real in-person conference being held May 25-26, 2023 with showcase and exhibitions.

This year marks the 19th anniversary of iPOP International conference, which has been founded and sponsored by Photonic Internet Labs (PIL) and ISOCORE. Since its inception, the conference has enjoyed well attendance with diverse and involved participants in person.

Naoaki Yamanaka,
Keio University, Japan

Takeshi Kuwahara,
NTT, Japan

Bijan Jabbari,
ISOCORE, USA

For this year's event, we are augmenting the existing central theme of the conference with forward-looking 6G networks and green/smart city which include backbone technology, platform and services. In 6G networks, not only huge bandwidth but also super-low latency with green technology are needed. New breakthroughs to support them are needed. In addition, we have networks topics for flexible service such as SDN, NFV and service chaining with the focus on reliable, manageable, flexible and cost-effective carrier and/or service provider networks. Of course, datacenter, mobile access network integration like 5G are hot topics. AI and data analytics support reliable and high-efficient network operation. All-Optical Networks which connect high-performance processing power with AI create new network paradigm. The iPOP conference venue this year happens to be at the heart of IOWN technology which is promoted by Intel SONY and NTT and also the starting point of iPOP conference 19 years ago, here in NTT Musashino R&D.

6 years ago, "iPOP which started as IP+Optical, will stand for intelligent and Processing over Optical networks" announced by Prof. N. Yamanaka at iPOP opening plenary. It is now becoming realistic!! It is also the target of 6G and IOWN.

We hope that you would be able to join us in person or online at iPOP 2023 with presentations which may be in parson. We look forward to your participation and support to make the event a great success!
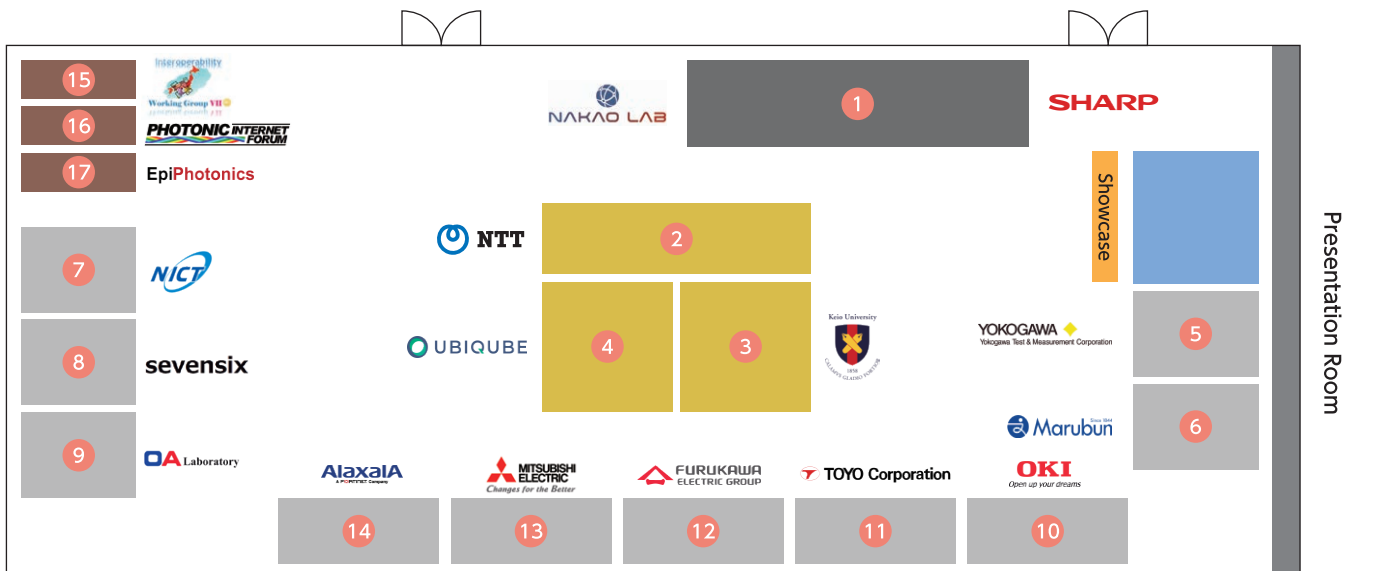
April 26, 2023
iPOP 2023 General Co-Chairs
Naoaki Yamanaka, Takeshi Kuwahara, Bijan Jabbari

EXHIBITION & BOOTH LAYOUT

No.	Participants	Title
1	SHARP CORPORATION, THE UNIVERSITY OF TOKYO	Development of Customizable SoC and SDR in the Beyond5G Era
2	NTT	Photonic Exchange -Optical Node to Achieve Ultra High Capacity and High Flexibility-
3	Yamanaka Laboratory, Keio University	Next-Generation Optical Network Concept and Application for towards in the 6G Era
4	UBiqube (Ireland) Limited	IT infrastructure & Cloud Automation - We make Cloud Easy -
5	Yokogawa Test & Measurement Corporation	Optical Test Equipment
6	MARUBUN CORPORATION	MARUBUN x Optical Network Solutions
7	NICT	Autonomic Service Management
8	Sevensix Inc.	FSR 12 to 18 GHz tunable Optical Frequency Comb / Super C-band Programmable optical filter
9	OA LABORATORY CO.,LTD.	Next Generation Edge computing by FPGA network solution (Tentative)
10	Oki Electric Industry Co., Ltd.	PON Slicing Technology for Next Generation All Photonics Network
11	TOYO Corporation	800G/400G/100G Test and Analysis Solutions
12	Furukawa Electric Co., Ltd.	Converged Optical Access Node
13	Mitsubishi Electric Corporation	Open Optical Transport System
14	ALAXALA Networks Corporation	Network Visualization and Control Solution
15	Kei-han-na Interoperability Working Group & Open Optical Network (O2N) Working Group	Activities of Interoperability Working Group and Open Optical Network (O2N) Working Group
16	Photonic Internet Forum	Introduction of the PIF Standard Promotion Committee
17	EpiPhotonics Corp.	EpiPhotonics Photonic Switching Solutions

PROGRAM at a Glance

Thursday 25, May 2023		
Event		*Presentation*

	10:00 – 12:20	***iPOP Plenary***
		    - Presider: Hiroaki Harai, NICT, Japan
		  Opening address
		    - Naoaki Yamanaka, General Co-Chair, Keio University, Japan
		    - Bijan Jabbari, General Co-Chair, ISOCORE, USA
		  Keynote
		  K-1 : *"Technologies toward digital twin enabled societies in IOWN"*
		    Mr. Kenichiro Matsumoto, NTT, Japan
		  K-2 : *"Future Network Technologies for Ultra-High Capacity and Ultra-Wide Coverage"*
		    Mr. Emmanuel Le Taillandier de Gabory, NEC, Japan
		  iPOP Exhibition introduction
		  - iPOP Exhibition Co-Chair
		  Local Arrangement
		  - iPOP Local Arrangement Co-Chai

Exhibition 12:20 – 17:45 *Showcase*	12:20 – 13:30	***Exhibitor Networking Lunch Session & Break***

	13:30 – 15:10	***Technical Session 1:***
		    - Chair: Kozo Satoda, NEC, Japan
		
		  T1-1: Masaki Kotoura, Tokyo City University, Japan
		  T1-2: Yutaro Suda, Tokyo City University, Japan
		  T1-3: Koki Muramatsu, Keio University, Japan
		  T1-4: Cengiz Alaettinoglu, Ciena, USA

	15:10 – 16:00	***Showcase Presentation & Break***

	16:00 – 17:15	***Technical Session 2:***
		    - Chair: Kiyoshi Onohara, Mitsubishi Electric, Japan
		
		  T2-1: Daisuke Hasegawa, Tokyo City University, Japan
		  T2-2: Taichi Soma, Tokyo City University, Japan
		  T2-3: Kota Nishiyama, NTT, Japan

	17:15 – 17:45	***Break***
	17:45 – 19:00	***Exhibition Chair's Networking Event***
Friday 26, May 2023		

Exhibition
9:30 – 15:00
 	
Showcase
	9:30 – 10:45	***Technical Session 3:***
		    - Chair: Eiji Oki, Kyoto University, Japan
		
		  T3-1: Hanami Yokoi, NTT, Japan
		  T3-2: Koki Miura, Kagawa University, Japan
		  T3-3: Kana Masumoto, NTT, Japan

	10:45 – 11:00	***Break***
	11:00 – 11:40	**Sponsor Session:**
	11:40 – 13:00	***Exhibitor Networking Lunch Session & Break***

	13:00 – 14:30	***Special Panel Session***
		   Theme: Network Security toward Beyond 5G era
		  Moderator:
		   Norihito Fujita, NEC, Japan
		  Panelists:
		   Yoshiaki Nakajima, NTT, Japan
		   Ayumu Kubota, KDDI Research, Japan
		   Katsunari Yoshioka, Institute of Advanced Sciences Yokohama National University, Japan
		   Shoji Tenma, Fujitsu, Japan

	14:30 – 15:00	***Break***

	15:00 – 16:00	***Invited Session:***
		    - Chair: Takehiro Tsuritani, KDDI Research, Japan
		  I-1 : ***"A Jabberwocky on Network Transformation: Bringing Cloud Principles to Networking Practice"***
		    Dr. Diego R. Lopez,Telefonica, Spain

	16:00 – 16:20	***Closing*** - Satoru Okamoto, Keio University, Japan

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PIL Photonic Internet Lab.
http://www.pilab.jp/

ISOCORE
http://www.isocore.com/

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PHOTONIC INTERNET FORUM
http://www.scat.or.jp/photonic/english/

Interoperability Working Group VII
http://www.khn-openlab.jp/bunkakai-gw/shinsedai-nw/wg1/english.html

SCAT
http://www.scat.or.jp/english/index.html

LOCATION

NTT Musashino R&D Center,

3-9-11 Midori-cho, Musashino-shi,
Tokyo 180-8585, Japan

Take a bus at the North Exit of Mitaka Station on the JR Chuo Line.
There are some options:

At bus stop No.1, take a bus bound for "Kitaura",
"Musashiseki-eki" or "Tanashi-hashiba" and get off at "Musashino Shiyakusho-mae".
It takes 5 minutes to walk from the bus stop to the Center
(Altogether, it takes about 15 minutes from Mitaka Station to the Center).

At bus stop No.4, take a bus bound for "NTT Musashino Kenkyukaihatsu Center",
and get off at "NTT Musashino Kenkyukaihatsu Center(terminus of a bus route)".
You are in front of the Center. It takes about 10 minutes from Mitaka Station to the Center.

Walk for 15 minutes from the South Exit of Higashi-Fushimi Station on the Seibu Shinjuku Line.

← Tanashi   Kitaura   Shinjuku →
NTT R&D
NTT Musashino Kenkyukaihatsu Center
Ome Highway
Musashino Clean Center
Musashino Shiyakusho-mae
Apartment complex
Musashino Shiyakusho-mae
Musashino City Hall
Musashino Jutaku-mae
Itsukaichi Highway
JR Chuo Line
Mitaka Station
← Tachikawa   Shinjuku →

https://www.pilab.jp/ipop2023/