7th International Workshop on the Sustainable Actions for "Year by Year Aging" under Reliability Investigations in Photovoltaic Modules, 2026

SAYURI-PV 2026

Dear PV colleagues,

The organizing committee of SAYURI-PV 2026 is pleased to inform you that the 7th International Workshop on the Sustainable Actions for "Year by Year Aging" under Reliability Investigations in Photovoltaic Modules, 2026 (**SAYURI-PV 2026**) will be held.

With the increased affordability and rapid market expansion of PV, interests on the long-term reliability of PV modules have been growing among various stakeholders including users, investors and financial enterprises. With over 50% of PV modules having less than two years of field experience, research and development on the long-term reliability of emerging technologies such as TOPCon and perovskite is becoming increasingly active. In addition, the development of PV modules for new applications in buildings, vehicles, and balcony installations is also progressing, and their safety and reliability are becoming issues. It is necessary to build a research foundation for new PV technologies and their performance and long-term reliability in new applications, and to reconstruct the fundamental technology for sustainable development in the era of terawatt PV.

In this 7th SAYURI-PV Workshop, we will focus on the ***Reliability and Emergent PV technologies*** to assure the long-term reliability of PV modules/systems, ***including efforts toward their standardizations***. We believe that sharing information on PV module reliability technology and emerging PV technologies will significantly contribute to the sustainable growth of the PV sector.

We sincerely announce you to start the registration and the call for papers of this workshop. Please register and submit the abstract, according to the descriptions below.

We are looking forward to seeing you in the most beautiful season of Tsukuba, JAPAN.

SAYURI-PV 2026 Workshop: Overview

Date: **December 9 – 10, 2026**

Venue: **TSUKUBA International Congress Center, Hall 300**
2-20-3 Takezono, Tsukuba City, Ibaraki Prefecture 305-0032, Japan
https://www.epochal.or.jp/en/

Registration Fee: Free **Language**: English

Website: https://www.aist.go.jp/fukushima/en/

Further Information: sayuri-pv-sec-ml@aist.go.jp

SAYURI-PV 2026 Workshop: Topics & Invited Speakers

- Efforts toward standardization
- Measurement, Design & Safety standards, including perovskite PVs
- Extended stress test & PV module materials
- Field performance & durability tests
- New applications

Invited speakers
(*updated from time to time*):

Akihiro Takano (F-WAVE)
"Flexible Thin Film Silicon PV (safe and durable design, production and installation methods)"

Aziz Nairi (SERIS)
"Comparative study of four recovery methods and subsequent dark storage metastability in UV-induced degradation (UVID) affected TOPCon PV modules"

Chris Fell (CSIRO)
"The new IEC 60904-1-4 technical specification for current-voltage measurements of photovoltaic devices containing perovskite materials"

Christos Monokroussos (TÜV Rheinland)
"Testing and certification of PSK PV modules: performance and reliability"

Dana Kern (NLR)
"(TBA)"

Gernot Oreski (PCCL)
"PV modules optimized for different climate zones"

George Kelly (IEC TC82)

“IEC TC 82 Standards Development”

Hiroki Sugimoto (PXP)

“Investigation of Durability and Safety of Lightweight Perovskite and Chalcopyrite Solar Cells”

Hisashi Ishii (LIXIL)

“Evaluation methodology of SHGC for BIPV module take into account extracted electricity”

Izumi Kaizuka (RTS)

“PV Technology evolution and overview of IEA PVPS efforts on reliability issues”

Karolin Jiptner (Renewable Energy Institute)

“Making Plug-in Solar Mainstream: Lessons from Germany”

Kenji Kamide (AIST)

“Recent Research on Photovoltaics Reliability in AIST”

Masahiro Yoshita (AIST)

“Reliable performance measurement of perovskite PV devices”

Michio Kondo (Waseda University/Institute of Science Tokyo)

“Colored BIPV Modules with Honeycomb Structure for Smarter Cities”

Takashi Minemoto (Ritsumeikan University)

“Durability of Flexible Perovskite Solar Cell Modules under Multiple Stress Conditions”

Takeshi Sano (Yamagata University)

“Encapsulation Technologies for Securing Perovskite Solar Module Reliability:
A Review with Insights from OLED Barrier Solutions”

Takeshi Tayagaki (AIST)

“UV weathering and durability of photovoltaic modules”

Waqas Zia (Eternal Sun | WAVELABS)

“Accurate performance and stability characterization of commercial perovskite PV devices”

Yasuyuki Ota (Miyazaki University)

“Digital-Twin Simulation of Irradiance Distribution on Vehicle-Integrated Photovoltaic Modules”

SAYURI-PV 2026 Workshop: Registration

Click HERE to register.

- For the registration, please pay good attention to if all required information is correctly filled in.
- Registration fee is free to attend this workshop.

Privacy policy: The personal information you fill in in the application for participation, etc. will be used for correspondence regarding the holding of this workshop and for information on events related to our office. The personal information you enter is managed appropriately in accordance with the Personal Information Protection Regulations of the National Institute of Advanced Industrial Science and Technology (Japanese).

The registration deadline is November 25, 2026.

SAYURI-PV 2026 Workshop: Call for Papers

We accept the submission of abstract for the presentation in this workshop, which is related to the reliability investigation of PV modules/system.

Some slots of **oral presentation** (ca. 20 min/slot) in this workshop will be open for the author(s) who submitted the abstract(s) of highest interest. The selection of speakers of the oral presentations will be determined by the organizing committee of SAYURI-PV 2026 Workshop, based on the comments from the program committee. To apply to be selected for an oral presentation, submit a 200-word plain-text abstract when you register.

The closing date for open oral submissions is September 15, 2026.

And, the **poster presentation** is available also for the authors who submitted the noticeable abstract. To submit an abstract for this workshop, please register yourself described above. And, send an abstract.

- Title and all abstract must be in English.
- Please submit an abstract of no more than 200 words.
- No sales pitches will be accepted.

The abstract submission deadline is November 15, 2026.

SAYURI-PV 2026 Workshop
Location, Travel & Accommodations

Workshop Venue

TSUKUBA International Congress Center
2-20-3 Takezono, Tsukuba City, Ibaraki Prefecture 305-0032, Japan
https://www.tsukuba-icc.com/eng/index.html

Travel information

Overview: https://www.keiseibus.co.jp/en/express-bus/

The city of Tsukuba is easily accessible

by bus from Narita International Airport (NRT) to "Tsukuba Bus Terminal".
https://www.keiseibus.co.jp/en/express-bus/

by train "Tsukuba Express" from Tokyo (Akihabara) to "Tsukuba", "Kenkyu Gakuen" , or "Bampaku Kinen Koen"
https://www.mir.co.jp/en/access/

From Tsukuba center to Tsukuba International Congress Center: *About 8 min on foot.*
Go up the escalator to the pedestrian path, walk south along the path.

Hotel Information

Since it's the most beautiful season in JAPAN, it's best to reserve early for your travel to Tsukuba.

Some hotels are located in Tsukuba city. Please book your room by yourself, by internet service.

We recommend the hotel located near the "Tsukuba" station or "Kenkyu Gakuen" station for your convenience to access the workshop venue.

SAYURI-PV 2026 Workshop: Contact

When you need further information, please contact sayuri-pv-sec-ml@aist.go.jp

SAYURI-PV 2026 Workshop: Host

Renewable Energy Advanced Research Center (READ)
in National Institute of Advanced Industrial Science and Technology (AIST)

SAYURI-PV 2026 Workshop: Agenda

As of : 2026/11/16

December 9th			Session	Presenter		Title / Remarks
9:00	Registration/ Hanging Your Poster					
9:30	0:05	1	General Introduction	AIST	Takeshi Tayagaki	SAYURI-PV 2026
9:35	0:30	2	General (chair: T. Oozeki, K. Sakurai)	IEC TC82	George Kelly	IEC TC 82 Standards Development
10:05	0:30	3		RTS	Izumi Kaizuka	PV Technology evolution and overview of IEA PVPS efforts on reliability issues
10:35	0:30	3		Waseda University/ Institute of Science Tokyo	Michio Kondo	Colored BIPV Modules with Honeycomb Structure for Smarter Cities
11:05	0:35	4		CSIRO	Chris Fell	The new IEC 60904-1-4 technical specification for current-voltage measurements of photovoltaic devices containing perovskite materials
11:40	1:35	Lunch				
13:15	0:20	5	Measurement & Testing (chair: T. Tayagaki, Y. Chiba)	AIST	Masahiro Yoshita	Reliable performance measurement of perovskite PV devices
13:35	0:35	6		Eternal Sun | WAVELABS	Waqas Zia	Accurate performance and stability characterization of commercial perovskite PV devices
14:10	0:35	7		TÜV Rheinland	Christos Monokroussos	Testing and certification of PSK PV modules: performance and reliability
14:45	0:45	Poster session & Coffee Break				
15:30	0:30	8	Module testing (chair: S. Ishizuka, M. Yoshita)	Ritsumeikan University	Takashi Minemoto	Durability of Flexible Perovskite Solar Cell Modules under Multiple Stress Conditions
16:00	0:30	9		F-WAVE	Akihiro Takano	Flexible Thin Film Silicon PV (safe and durable design, production and installation methods)
16:30	0:30	10		PXP	Hiroki Sugimoto	Investigation of Durability and Safety of Lightweight Perovskite and Chalcopyrite Solar Cells
17:00	End of 1st Day					

December 10th			Session	Presenter		Title / Remarks
9:00	Registration					
9:30	0:30	11	New applications (chair: H. Mizuno, Y. Chiba)	Miyazaki University	Yasuyuki Ota	Digital-Twin Simulation of Irradiance Distribution on Vehicle-Integrated Photovoltaic Modules
10:00	0:30	12		LIXIL	Hisashi Ishii	Evaluation methodology of SHGC for BIPV module take into account extracted electricity
10:30	0:35	13		REI	Karolin Jiptner	Making Plug-in Solar Mainstream: Lessons from Germany
11:05	0:20	14		AIST	Kenji Kamide	Recent Research on Photovoltaics Reliability in AIST
11:25	1:35	Lunch				
13:00	0:35	15	PV materials & modules (chair: S. Takahashi, K. Kamide)	PCCL	Gernot Oreski	PV modules optimized for different climate zones
13:35	0:30	16		Yamagata University	Takeshi Sano	Encapsulation Technologies for Securing Perovskite Solar Module Reliability: A Review with Insights from OLED Barrier Solutions
14:05	0:20	17		Panasonic	Takahiro Nakamura	Long-Term Damp Heat Reliability Assessment of Glass-Backsheet TOPCon Modules for Japanese Residential Applications
14:25	0:15	Coffee break				
14:40	0:35	18	Module testing (chair: H. Sai, T. Tachibana)	SERIS	Aziz Nairi	Comparative study of four recovery methods and subsequent dark storage metastability in UV-induced degradation (UVID) affected TOPCon PV modules
15:15	0:35	19		TBA	TBA	TBA
15:50	0:20	20		AIST	Takeshi Tayagaki	UV Weathering and Durability of Photovoltaic Modules
16:10	0:05		Closing			
16:15	Adjourn					
16:15	End of 2nd Day					

Poster presentation

Decemer 9th						
14:45	0:45	1	Poster session	Alpha Precision Systems Inc	Katsumi Araki	Effect of Vacuum Quenching Configuration on Crystallization and Performance of Slot-Die-Coated Perovskite PV Modules
		2		Miyazaki University	Kenji Araki	A Minimal Circuit Framework for Temperature- and Illumination-Dependent IV Behavior in Perovskite Solar Cells
		3		Miyazaki University	Kenji Araki	Why Androids Generate Less Power Than Expected: A Polygon-Based Analysis of Curved-Surface PV
		4		AIST	Hitoshi Sai	Impact of Nanoscale Pyramidal Textures on the Mechanical and Device Performance of Si Bottom Cells for Perovskite/Si Tandem Solar Cells
		5		AIST	Takuto Ikeda	A Study on Recycling and Regeneration of Silicon Heterojunction Solar Cells from Easily Disassembled Modules
		6		NIMS	Masatoshi Yanagida	Degradation mechanism of metal halide perovskite solar cells
		7		AIST	Hidenori Mizuno	Evaluation of VIPV Modules by Electroluminescence
		8		AIST	Takahiro Tamakatsu	Comparing AI and NWP Solar Irradiance Forecasts at Sites in Japan
		9				
		10				