

ISES（国際太陽エネルギー学会） Solar World Congress（SWC2023）参加報告

Participation report of ISES Solar World Congress (SWC2023)

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The Solar World Congress (SWC), organized biannually by the International Solar Energy Society (ISES) since the 1970s, took place between October 30 and November 4, 2023, in New Delhi, India, which hosted the SWC 50 years ago as well. The conference has successfully returned to the style of the on-site meeting after 4 years as the world is recovering from the coronavirus disease spread globally. In total, 260 participants from 38 countries gathered at the conference venue to discuss in detail the various aspects of solar energy, categorized into 13 different themes of technical oral and poster sessions. In addition, plenary sessions and keynote speeches by experts provide an overview of the current trends, advances, and challenges in the solar energy market around the world. For instance, the importance of solar heating and cooling is mentioned several times since it constitutes approximately 50-70% of the final energy demand. Also, energy storage was one of the hot topics owing to its capability to assist the system to work in a balance of supply and demand despite the unstable solar irradiance condition.

The highlight of the congress was that the 6th session of the International Solar Alliance (ISA) assembly occurred simultaneously (See Fig.1 (a)) with the SWC 2023. While the latter focused on the technical side, such as research and development, the former was more into international collaboration in terms of policy and decision-making. The ISA led by India came online in 2015 at the COP 21 meeting to cope with climate change by means of harnessing solar energy efficiently and collaboratively on a global scale. Currently, under the ISA initiative, 95 countries have joined its mission, and Japan is already a member. Still, it is expected that more countries will become a member in the future due to the fact that already 116

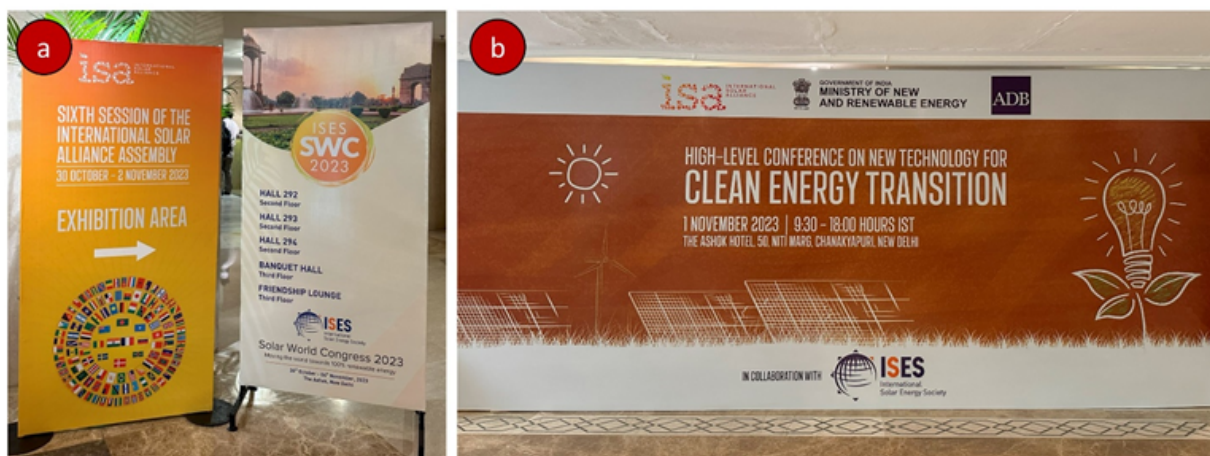


Fig.1 Joint sessions with the International Solar Alliance (ISA).

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countries have signed the agreement, and some are waiting for it to be approved. As a collaboration of ISA and ISES, one full day is dedicated to the joint session (See Fig.1 (b)) to discuss the global transition towards clean energy with the partnership of the Asian Development Bank (ADB) and the Ministry of New and Renewable Energy, Government of India.

Furthermore, there were other side events that would be especially helpful for early career researchers and students, such as a workshop for authors and solar speed dating. The well-known Elsevier Publishing ran a workshop (See Fig.2 (a)) to help authors effectively disseminate their research findings by submitting a manuscript to an academic journal. The participants had an opportunity to ask a question directly from the editor of Solar Energy Advances Journal, Dr. Dionysia Kolokotsa, who joined the session online. Also, there was a panel discussion to encourage the participation of women in the solar energy community (See Fig.2 (b)), where successful female specialists with different backgrounds share their experiences and lessons learned. Moreover, at the solar speed dating event (See Fig.2 (c)), participants had a chance to converse for 90 minutes with 3 experts (30 minutes for each) of their choice who work in distinct fields of solar energy. Additionally, participants experienced the diverse Indian culture, such as tasting delicious Indian cuisines at lunch break and watching traditional Indian dance performances during the GALA dinner. The latter also coincides with the awarding of the Renewable Transformation Challenge (RTC) 2023 to the Solar Sister, which aims to empower women in Nigeria, Africa by providing them with the education of solar energy that further allows them to do small-scale businesses. Last but not least, the conference organizers offered several technical tours that allowed participants to see by themselves the solar energy utilization in India. For example, the Akshardham temple (See Fig.2 (d)), famous for its delicate architecture, light and water show, incorporated solar parking to self-supply some of its energy demand. Finally, at the closing ceremony, it was announced that the next SWC will be held in Fortaleza, Brazil, in November 2025.

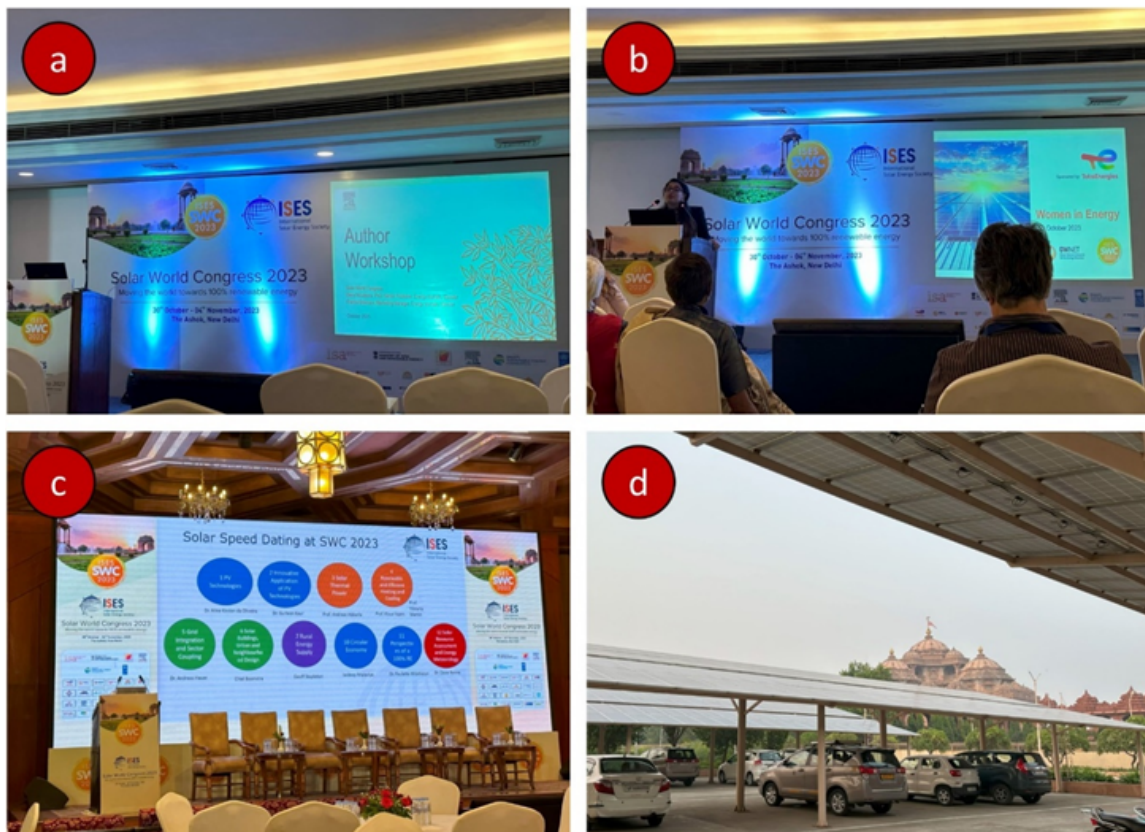


Fig.2 Side events: a) Elsevier workshop for authors, b) Women in solar energy panel discussion, c) Solar speed dating, and d) Technical tour to Akshardham Temple.