SOPHIA
European Research Infrastructure

Announcement (2)

10th SOPHIA Workshop PV-Module Reliability

May 28th – 29th, 2020,
EPFL École Polytechnique Fédérale de Lausanne, Neuchâtel, Switzerland

OBJECTIVES:

REQUIREMENTS OF NEW AND UPCOMING PV APPLICATIONS FOR MATERIAL SELECTION AND RELIABILITY ASSESSMENT

The École Polytechnique Fédérale de Lausanne EPFL (Switzerland) Solar Energy Systems ISE (Germany) are proud to invite to Reliability' in Neuchâtel, Switzerland. The 2020 wo applications in service life prediction modelli sustainability will be presented and further

This year's topics of the workshop are:

- **Building Integrated PV (BIPV)**
  With increasing regulatory pressure, such as BIPV will play a significantly increasing role in environment vary greatly from typical PV syste
- **Novel applications: special and innovative**
  New applications of PV modules and systems lik ted PV or Agro-PV come along with specific operational conditions and loads. H ct reliability and how can the specific conditions be addressed?
- **Bifacial modules**
  Bifacial modules are more and more present in the market and forecasts expect further growth of this technology in future. The special load conditions and related effects on materials and impacts on module reliability will be in the focus of this session.
- **Advancements in lifetime modelling**
  How can reliability and degradation models be improved to predict the development of PV modules and plants?
- **Sustainability**
  Interdependence of Reliability and Sustainability and legislative effects, including the outcomes of the EU EcoLabel preparatory study.
- **Recent failure mode testing**
  Recent failure modes like LeTID call for adapted testing to be developed and validated.

Regular Registration fees : 430 EUR – Early Bird Discount until April 15th: 380 EUR
Registration fees for Students: 330 EUR – Early Bird Fee for Students until April 15th: 280 EUR

For more information and for **registration** please visit the workshop's website:

www.pv-reliability.com

Structure

These program topics will be presented by expert oundtable sessions and discussions.

Block 1: Reliability from scien
a) Reliability as a scien
b) Latest stan
c) T

-Garcia, JRC

Votta, KIWA

Procedure
allenges for BIPV modules
& Discussion

SolarTrain: Materials, Climate, Performance evolution – Everything is connected
SolarTrain Post Graduates presenting their research topics and results:
a) Understanding the climate related operation conditions of PV systems
b) Advanced charcterization of PV materials: natural and artificial ageing
c) Testing and characterization of PV modules
d) Field performance losses and service life prediction
e) Moisture ingress in PV modules > Stefan Mitterhofer, Uni Ljubljana

Block 5: Integrated PV & novel applications
a) Floating PV
b) Reliability of flexible CIGS modules > Eleonora Annigoni, FLISOM
c) Lightweight PV modules for multiple applications > Fabiana Lisco, EPFL

Block 6: Recent technology developments and failure modes
a) SHJ, passivated contacts
b) LeTID > Daniel Philipp, ISE
c) Roundtable Session „Novel applications, technologies and testing requirements" & Discussion

Block 7: Field experiences
a) Assessment of multiple PV systems' reliability in desert environment in Doha Qatar > Vinod Madhavan, QEERI
b) Field module characterization > Andrew Fairbrother, EPFL
c) Challenges of Operation and Maintenance

Final Roundtable session, discussion and sum up

Optional Block 8: Labtour at EPFL

THE WORKSHOP IS POSTPONED UNTIL SPRING 2021.
We thank you for your interest with a short webinar, which will be held on 28 and 29 May 2020. Further information will be available here shortly.
STAY HEALTHY!

Fraunhofer ISE
EPFL

Organizer
Fraunhofer ISE, Dr. Karl-Anders Weiß

Host
EPFL, Dr. Alessandro Virtuani

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