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) and the Fraunhofer Institute for Solar Energy Systems ISE (Germany) are proud to invite to the 2020 SOPHIA-workshop 'PV-Module Reliability' in Neuchâtel, Switzerland. The 2020 workshop will feature reliability aspects of innovative PV applications in service life prediction modelling and standardization. Aspects of the influence of reliability on sustainability will be presented and further information on the EU-Project SolarTrain provided.

This year's topics of the workshop are:

- **Building Integrated PV (BIPV)**
  With increasing regulatory pressure, such as the European nearly zero-energy
  BIPV will play a significantly increasing role in energy systems. Their
  environment vary greatly from typical PV systems, and lon
- **Novel applications: special and innovati**
  New applications of PV modules a
  with specific operational cond ific
  conditions be addressed?
- **Bifacial modules**
  Bifacial modules are more and m
  technology in future. The special ted effects on materials and impacts on module
  reliability will be in the focus of th casts expect further growth of this
- **Advancements in lifetime modeling**
  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 experts and further developed in roundtable sessions and discussions.

Block 1: Reliability from science to finance
a) Reliability as a science
b) Latest standards developments > Toni Sample, JRC
c) Taking into account the value of reliability > Eward His, CFA
d) Eco label/design

Block 2: Bifacial Solar Modules
a) Operating temperature and performance testing of bifacial modules > Juan Lopez-Garcia, JRC
b) Reliability of clear backsheets for bifacial modules > A orne, Dupont
c) Current market situation and challenges for bif

Block 3: BIPV & Reliability
a) Introductory Informati
b) Certification otta, KIWA
c) Certif

WORKSHOP POSTPONED!
New date and information will follow soon
STAY HEALTHY!

nce evolution – Everything is connected
research topics and results:
ted operation conditions of PV systems
ation of PV materials: natural and artificial ageing
characterization of PV modules
eld 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

Fraunhofer ISE
EPFL

Organizer
Fraunhofer ISE, Dr. Karl-Anders Weiß

Host
EPFL, Dr. Alessandro Virtuani

For questions please contact
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