On-Site Training for Industries

Process Heat Application for CST Technologies: System Integration, Design, Performance Assessment

Location: Fraunhofer Institute for Solar Energy Systems ISE
Heidenhofstrasse 2, 79110 Freiburg, Germany

Date: November 6 - 10, 2023

Target group: The course is designed for engineers, researchers and representatives from European CSP and SHIP industry and companies.

Course Language: English

Trainers: Scientists and specialists from Fraunhofer ISE and external parties

Objective: The training will cover various topics related to Solar Heat for Industrial Processes (SHIP). This will include:
- Concentrating and non-concentrating collectors
- Storage systems
- Process integration
- Measurement and performance assessment
- Certification
- Techno-economic assessment
- Business models
- Networking

For more details, please have a look at the agenda on page 2.

Application: The registration deadline is September 10th, 2023. Class size is limited to 15 participants. Eligible candidates will be informed until October 1st, 2023.

Standard health and safety measures defined by Fraunhofer ISE for visitors and meetings will apply (details to be given prior to the meeting depending on latest development of the covid-19).

Fees: No course fee is applicable. Accommodation and travel costs shall be covered by the participant. Lunch is offered by Fraunhofer ISE.

Contact: Peter Schöttl, +49 761 4588-5732, peter.schoettl@ise.fraunhofer.de
Gregor Bern, +49 761 4588-5906, gregor.bern@ise.fraunhofer.de
Thomas Fluri, +49 761 4588-5994, thomas.fluri@ise.fraunhofer.de

Participation: To apply, please fill out the application form found on SFERA III website (here) and send it to: anja.kruschinski@dlr.de

For more information, visit the SFERA-3 website.
The EU-funded research project - SFERA III - aims to boost scientific collaboration among the leading European research institutions in solar concentrating systems, offering European research and industry access to the best research and test infrastructures and creating a virtual European laboratory. Grant agreement 823802, funded under H2020-INFRAIA-2018-1.

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<th>Mon</th>
<th>Tue Nov 7</th>
<th>Wed Nov 8</th>
<th>Thu Nov 9</th>
<th>Fri Nov 10</th>
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<tbody>
<tr>
<td>09:00-12:00</td>
<td>Travel / Arrival</td>
<td>Introduction Fraunhofer ISE</td>
<td>Certification of flat-plate/concentrating solar thermal collectors: Solar Keymark</td>
<td>Visit TES+WT-Labs @ISE</td>
<td>Hands-on session: techno-economic assessment (tool: Solar Payback)</td>
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<td>Introduction of participants</td>
<td>Visit to Solar Thermal Testlab @ISE</td>
<td>Session on thermal storage integration in SHIP applications</td>
<td>Session on Heat Contracting / business models</td>
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<td>What is SHIP: technology overview, temperature levels, market overview</td>
<td>Visit High-Temperature Heat Pump-Labs @ISE</td>
<td>Networking session</td>
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<td>12:00-13:00</td>
<td>Lunch break</td>
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<td>13:00-17:00</td>
<td>Hands-on concentrating collector optics:</td>
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<td>Process design/integration:</td>
<td>Departure</td>
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<td>Reflectance/soiling measurement (PFLEX, VLABS)</td>
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<td>Hands-on session: Pinch Analysis (tool: PinCH)</td>
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<td>Shape assessment with deflectometry</td>
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<td>Success Stories: process integration for solar thermal collectors</td>
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<td>Laser scanning for CST applications</td>
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<td>Feasibility study and techno-economic optimization (ColSimCSP)</td>
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<td>Eve.</td>
<td>Social dinner</td>
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This is a draft agenda. Description and time slot of some items may be subject to changes.