

Applications Open for SolarTwins' 1st Summer School

Fundamentals of Concentrating Solar Thermal (CST) Systems



Line-Focus Systems

Sept. 20-24, 2021

Prof. Dr. Eduardo Zarza Moya

R+D Technical Coordinator
CIEMAT-PSA, Spain



Point-Focus Systems

Oct. 4-8, 2021

Dr. Reiner Buck

Head Solar High Temperature Technologies
DLR Solar Research, Germany

Class Schedule

Line-Focus Systems, Sept. 20-24, 2021	Daily, Monday-Friday Session 1: 10.00-12.00 Turkish Time (9.00-11.00 CET) 1-hr Break: 12.00-13.00 Turkish Time (11.00-12.00 CET) Session 2: 13.00-15.00 Turkish Time (12.00-14.00 CET)
Point-Focus Systems, Oct. 4-8, 2021	Daily, Monday-Friday Session 1: 10.00-12.00 Turkish Time (9.00-11.00 CET) 2-hr Break: 12.00-14.00 Turkish Time (11.00-13.00 CET) Session 2: 14.00-16.00 Turkish Time (13.00-15.00 CET)

About the SolarTwins 1st Summer School	The SolarTwins 1 st Summer School will cover fundamentals related to point- and line-focus Concentrating Solar Thermal (CST) systems, which are the two main classes of CST technologies.
Online Format	This Summer School will be held Online due to COVID.
Apply	Apply for one or both weeks at https://forms.gle/jMkoPFWpVi4Erfst6 .
Admissions and Target Audiences	This Summer School is specifically targeting engineers with at least a BSc degree including graduate students, academics, and researchers in industry. The course capacity for each week is 70 students. Registration priority will be given to: <ol style="list-style-type: none"> 1. METU researchers collaborating with CIEMAT or DLR experts through the SolarTwins project; 2. METU researchers performing research aligned with SolarTwins; 3. The Turkish ODAK_{TR} CST community; 4. Female researchers and engineers from any institution to support the UN's Sustainable Development Goal (UN SDGs) for Gender Equality; 5. Researchers and engineers with connections to countries that often lack access to scientific courses sponsored by the EU and other major scientific funding agencies with a specific focus on Nigeria and Pakistan.
About the Instructors	Eduardo Zarza is the R+D Technical Coordinator at Plataforma Solar de Almería (PSA), which is part of Spain's Center for Energy, Environment and Technological Research (CIEMAT). He has been working for 35 years on CST systems. His expertise is in the technology of parabolic trough

	collectors, including development of components, investigation of new working fluids for solar receivers (direct steam generation, sCO ₂ , etc.) and solar thermal systems applications. He is member of the Scientific Committee of ESTELA, and the Spanish representative for the SolarPACES's Executive Committee. He is presently collaborating or previously collaborated with METU-GUNAM on the following EU H2020 and FP7 Projects: 1) SolarTwins; 2) HORIZON-STE; 3) SFERA-III; 4) INSHIP; and 5) EU-SOLARIS.
	Dr.-Ing. Reiner Buck is a Mechanical Engineer and has received his PhD in 2000 from the University of Stuttgart on "Mass Flow Instabilities in Volumetric Receiver-Reactors". He has worked with DLR since 1986 on different solar thermal technologies, with focus on solar tower systems. Since 2011 he is leading the Department "Point Focusing Systems" within the DLR Institute of Solar Research, which in 2020 became the Department "Solar High Temperature Technologies". His expertise is on solar thermal systems including receivers, heliostats and simulation tools. He has developed several simulation tools for solar power systems (ray-tracing tools for heliostat fields, thermal performance analysis for various types of receivers). He has a sound experience in testing of receivers and innovative concentrators. He has also led and participated in numerous national and international collaboration projects on CSP.
About the SolarTwins Project	SolarTwins is an EU Horizon 2020 (H2020) project. The aim of the SolarTwins project is to step-up the scientific excellence of the promising CST Research Division ODAK of METU-GÜNAM (Coordinator) in collaboration with the internationally leading CST institutions CIEMAT-PSA (Spain) and DLR (Germany). SolarTwins includes 4-weeks of CST summer schools at METU taught by leading experts from CIEMAT-PSA and DLR, and METU graduate students co-advised by experts from CIEMAT-PSA and DLR. An expected impact is the establishment of competitively-funded METU-CIEMAT and METU-DLR Joint Research Lines.
About ODAK_{TR}	ODAK _{TR} is a Turkish CST initiative catalyzed by SolarTwins and led by METU-GÜNAM. The objectives of ODAK _{TR} are to <ul style="list-style-type: none"> 1. Support Turkey's Clean Energy Transition through the development and commercialization of CST technologies; 2. Strengthen Turkey's CST Research and Innovation (R&I) capacities, including by creating globally competitive CST research opportunities at Turkish universities. 3. Catalyze domestic CST economic activity by supporting growth in markets, industrial capacities, and industrial activities; One of ODAK _{TR} 's main strategies to achieve these objectives is through harmonization of national activities with EU CST initiatives by strengthening and exploiting synergies created by METU-GÜNAM's participation in 5 on-going or recently completed EU H2020 projects: 1. SolarTwins; 2. HORIZON-STE; 3. SFERA-III; 4. INSHIP; and 5. GeoSmart.

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