

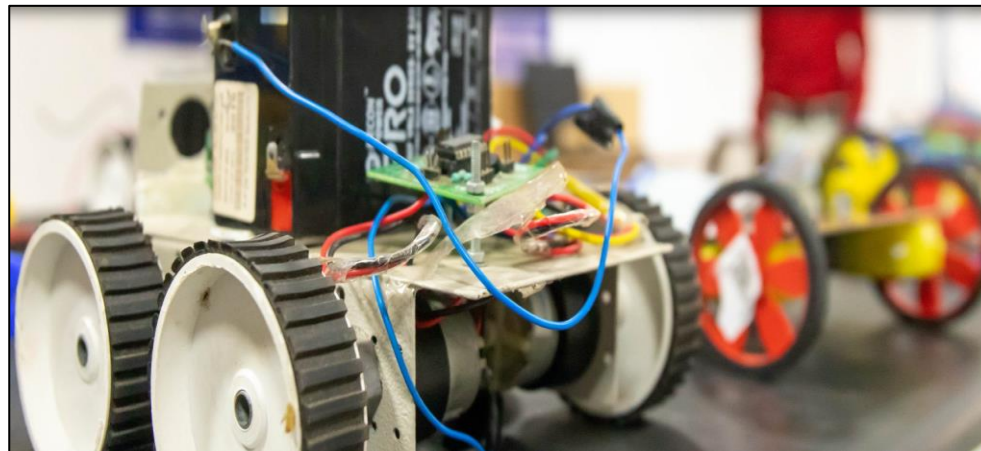


## Online Short-Term Course (e-STC)

**“Recent Developments in Renewable  
Energy, Fuels Generation, Building  
Cooling and Energy Storage Technologies”  
(RDRFBE-2025)**

**12–16 May, 2025 (Five days)**

**Organized by**



**Department of Mechanical Engineering  
School of Mechanical, Aero, Auto and Civil Engineering  
(SMACE)**

**Kalasalingam Academy of Research and Education  
(KARE), Krishnankoil, Tamilnadu-626126**

<https://www.kalasalingam.ac.in/school/school-of-automotive-and-mechanical-engineering-same/>

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## **Online Short-Term Course (e-STC)**

An Initiative of  
**Department of Mechanical Engineering,  
KARE, Tamilnadu**



### **About the Institute**

Kalasalingam Academy of Research and Education (KARE) (Deemed to be University) formerly Arulmigu Kalasalingam College of Engineering was established in 1984 by Kalvivallal Thiru T. Kalasalingam under the trust Kalasalingam and Anandam Ammal Charities, Founder Chairman who was a freedom fighter and Philanthropist. KARE is Located at the pristine foothills of scenic Western Ghats of southern Tamilnadu and obtained the Deemed to be University status in 2006. KARE has been serving the society for thirty seven long years and offers UG, PG and PhD programs in various disciplines of Engineering, Science, Technology, Applied Health Science, Architecture, Agriculture, Law and Humanities. The Institution continues to do indefatigable work in getting projects and research centers.



It has received DST funding to establish the National Center for Advance Research in Discrete Mathematics. KARE has established the state of the art International Research Centre (IRC) in 2014, a research facility of international standards to carry out the advanced research in the broad areas of materials science, life sciences, energy and computing. KARE has been re-accredited by NAAC with 'A++' grade and recognized in the top ranked institutions with **36<sup>th</sup>** in engineering and **50<sup>th</sup>** in overall in the **NIRF-2024**. KARE has been ranked within 801-1000 (World), 301-350 (Asia) and 251-300 (Young) in **THE University Ranking 2024**.

### About the Department

The Department of Mechanical Engineering at KARE was established in 1984 and it is one of the oldest and the most prominent departments, dedicated to building a strong fundamental foundation and a thorough engineering orientation. The Department is equipped with various research centres such as the Centre for Composite Materials, Centre for Advanced Thermal Studies, Centre for Bio-Composites, and Centre for Surface Engineering for students to carry out in-depth research activities and learn practically which helps the UG, PG and PhD students to get exposure and experience on the advanced machines. The Department has established Robert Bosch Center, Materials Processing Laboratory, Advanced Machining and Machine Dynamics & Condition Monitoring Laboratory under Level 1 of the DST-FIST program. The Department currently has 9 ongoing research projects (INR. 18.16 Lakhs) and completed 12 research projects (INR. 234.6 Lakhs).

### Objectives and Scope

The main objective of online short-term course (e-STC) is to provide (to UG/PG students, research scholars, academic faculties, industry participants and R&D lab staffs) a comprehensive knowledge/overview of recent advanced technologies developing from the renewable energy sources for different applications and their benefits/role in climate change as well as emission reduction. Further, this e-STC will also encourage and help to the early career faculties, research scholars, R&D lab staffs and industry experts to develop more advanced technologies by providing them the ideas in their areas of expertise.

### Topics to be Covered

- Renewable energy technologies
- Building cooling and efficiency
- Alternative fuels (biodiesel etc.) generation
- Phase change materials
- Solar thermal technologies
- Energy efficient air-conditioning systems
- Hydrogen production and storage
- Thermal energy storage technologies
- Biomass and biofuels for sustainable energy
- Advanced desalination process
- Fuel cells and electric vehicle
- Climate change and emission mitigation
- Power generation technologies

### Persons/Speakers

Faculties/Experts from IITs, NITs, CFIs, and other premier Institutions/Organizations will deliver the lectures/talks on their areas of expertise.

### Targeted Participants

UG/PG students, research scholars, Faculties, R&D lab staffs, and employee of industries across the country

### Number of Participants

Number of participants is limited to 100 for this e-STC with *first-cum-first serve basis*.

### Certificate

e-Certificates will be provided to the participants having attendance atleast 80%.

### Registration Fee Details

Participant/member type	Registration fees (Rs.)
UG/PG (student)	200
PhD Research scholars (student)	300
Faculty from Academia/R&D Labs	500
Participant from Industry	800

### How to Apply

The account (or UPI) details for paying the fees are provided in the registration form and the last date for registration is **10 May, 2025**. Please visit/click on the below link for registration, <https://forms.gle/JR3LHbt8S5istmzN8>