KALASALINGAM
ACADEMY OF RESEARCH AND EDUCATION
(DEEMED TO BE UNIVERSITY)
Under sec. 3 of UGC Act 1956. Accredited by NAAC with "A++" Grade

THE - Impact Rankings 2026

SDG 7.2.3 Carbon Reduction and Emission Reduction Process:

The institution follows several programs and initiatives to reduce its environmental impact and support sustainability, helping to reduce carbon emissions both directly and indirectly. These are some of the common programs followed by KARE:

1. Usage of the solar energy panels in the campus to produce some of the energy for the campus needed.
2. Effective implementation of Rainwater harvesting system
3. Explicit policy on Energy
4. Academic programs on Energy and Climate change
5. Banning Entry vehicles inside the campus and usage of dedicated pedestrian paths.
6. Usage of Energy Efficient appliances
7. Usage of E-Vehicles for campus shuttle services
8. Research Initiatives towards Energy and Climate Change
9. Awareness programmes on Energy and Climate change

Description:

1. **Usage of the renewable energy sources through solar energy panels in the campus**
   To tap the alternate energy sources, KARE has installed 1124.22kWp rooftop solar power panels on top of nine blocks. About 45% of the energy consumption is met by the solar energy leading to the reduction in carbon foot print. The institution has also installed 152 solar street lights throughout the campus which amounts to a saving of about 9.56 kWh per annum. Further, solar water heaters are installed in the hostels and solar pumps are installed in the agriculture farms to tap solar energy.


Rooftop Solar plant

2. Effective implementation of Rainwater harvesting system

Considering the location of the institution, KARE has installed various rain water collection systems to sustainably manage the water requirements in the campus. The rain water collected is either used for recharging the ground water through water harvesting pits and trenches or stored in tanks and used.

The rainwater is harvested from the roof top of the academic buildings and hostels. The water is collected through pipes and the collected water is either used for recharging the ground water or taken through canals to the percolation ponds situated at three locations inside the campus.


Rainwater harvesting system (sample only)

3. Explicit policy on Sustainable Goals:

- The Institution has developed comprehensive sustainability plans and policies that include specific carbon footprint reduction targets and strategies. The list of plan and policies are listed below:

Policy URLs:

S.No	Policies/Plan	URL Link
1.	Energy Policy	https://www.kalasalingam.ac.in/wp-content/uploads/2025/10/Energy-Policy_v2.0.pdf
2.	E-Waste Policy	https://kalasalingam.ac.in/wp-content/uploads/2021/11/e-waste_policy.pdf
3.	Maintenance Policy	https://www.kalasalingam.ac.in/wp-content/uploads/2025/11/Maintenance-Policy_2.0.pdf
4.	Recycle Policy	https://kalasalingam.ac.in/wp-content/uploads/2021/11/Recycle-Policy.pdf
5.	Sustainable Environment	https://kalasalingam.ac.in/wp-content/uploads/docs/Sustainable_Environment.pdf
6.	Water Conservation Policy	https://kalasalingam.ac.in/wp-content/uploads/2021/11/Water-Conservation-Policy.pdf

4. Academic programs:

To ensure the success of its energy efficiency initiative, the institute offers various programs on energy and climate change. These programs aim to raise awareness among the student community.

- **M.Tech programme on Renewable Energy Technologies**

  URL: https://kalasalingam.ac.in/course/m-tech-renewable-energy-technologies/

- **Program Elective courses:** B.Tech., EEE Curriculum and syllabi

S.No	Course Code	Course Name	Dept
1.	MAN18R001	Environmental Science	Mandatory Course
2.	213AER2103	Wind Engineering	Aeronautical
3.	OEE18R006	Industrial Chemistry for Engineers	Automobile
4.	213BIT2108	Environmental Biotechnology	Biotechnology
5.	214BIT1104	Environmental Microbiology	Biotechnology
6.	214BIT1106	Biological Waste water treatment	Biotechnology
7.	CIV18R326	Air Pollution & Control	Civil
8.	CIV18R327	Environmental Management	Civil
9.	CIV18R328	Industrial waste water Management	Civil
10.	CIV18R329	Geo-Environmental Engineering	Civil
11.	CIV18R331	Disaster Management	Civil
12.	CIV18R421	Ecological Engineering	Civil
13.	CIV18R422	Environmental Impact Assessment	Civil
14.	213EEE3132	Solar Photovoltaic Systems	EEE
15.	213EEE3133	Wind Power Generation	EEE
16.	213EEE3134	Biomass Energy System	EEE
17.	213EEE3135	Geothermal and Ocean Energy Conversion	EEE
18.	213EEE3136	Industrial & Commercial Aspects of Renewable Energy Sources	EEE
19.	213EEE2137	Renewable Energy Sources	EEE
20.	213EEE3138	Fuel Cell Technology	EEE
21.	213EEE3139	Smart Grid	EEE
22.	213EEE2150	Solar and Wind Energy Conversion	EEE

- Foundation course on Sustainable development **(211MEC1401 - Sustainable Design and Manufacturing)** that aimed at educating the campus community about the importance of energy conservation:

5. Banning Entry vehicles inside the campus and usage of dedicated pedestrian paths.

1. KARE recognizes the importance of climate change and is dedicated to helping reduce greenhouse gas emissions to support nations' goals. KARE has **banned the entry of vehicles** inside the academic arena. This policy encourages walking or biking for short distances within the campus to cut down on fuel use and reduce carbon dioxide emissions.

Pedestrian-friendly pathways around the campus

6. Campaign on energy saving for reducing electricity consumption

Office equipment such as computers, printers, and copiers can contribute significantly to energy usage. Sign boards are kept to adopt the following practices to reduce their energy consumption:

Sign Boards placed in classrooms to adopt the practice among the students for Energy consumption

7. Usage of E-Vehicles for campus shuttle services

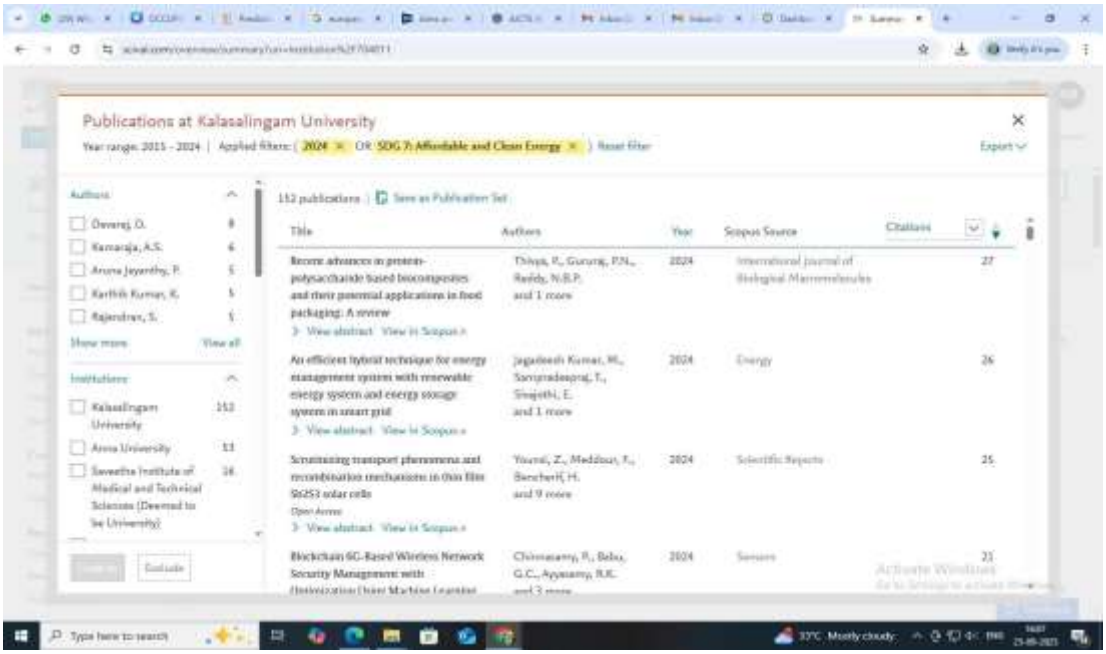
Faculty members and students are encouraged to use bicycles inside the campus. The parking lots for bicycles are provided at various locations in the campus. To reduce air pollution and save fuel, battery-powered vehicle facility is available in the campus. People can use the shuttle service that is provided with the use of electric vehicles.

EV Transport Service inside the campus

Faculty is allowed to use their own E-Vehicles inside the campus.

8. Research Initiatives on Energy and Climate Change:

KARE actively contributes to climate change mitigation and adaptation through impactful research, innovation, and projects. Faculty and students have published research papers in reputed journals addressing renewable energy, sustainable practices, and climate-resilient technologies. Over 152 Research Publications and 11 Patents have been filed and published for innovative solutions that support energy efficiency and environmental sustainability during 2024-25. These initiatives reflect our commitment to advancing knowledge, fostering innovation, and creating practical solutions for global climate challenges and sustainable development.



List of Patents Published:

S. No	Application No.	Title of the Invention	Filing Date	Published Date	Name of the Applicant
1.	202341013363 A	Portable Climate Controller for Mushroom Cultivation using IoT	2/28/2023	01-05-2024	1)Dr. V. Muneeswaran 2)Shaik Javed 3)Satram Raghu 4)Vanapalli Vaswanth 5)Somala Priyanka Kalasalingam Academy of Research And Education
2.	202341005319 A	Automated and Energy Efficient Dosa	1/27/2023	02-02-2024	1)R. Raja Subramanian, 2)R. Raja Sudharsan

		Preparation and Delivery Machine			Kalasalingam Academy Of Research and Education
3.	202411032277 A	Pyrolysis-Based Plastic Waste to Energy Conversion System	4/24/2024	05-10-2024	Dr. J R Jessy Michla Kalasalingam Academy of Research and Education
4.	202441042263 A	Electric Heater With Customizable Heating Area For Improved Energy Efficiency In Commercial Kitchens	5/31/2024	6/14/2024	1)S. Shasi anand 2)P.Jayakumar Kalasalingam Academy of Research & Education
5.	202441052613 A	Implementation Of Distributed Renewable Energy Systems Through Machine Learning By Newton Raphson Me	07-10-2024	7/19/2024	1) M.K. NAGARAJAN, Kalasalingam Academy of Research & Education
6.	202441093021 A	Integration Of Triboelectric Nano Generators (Tengs) Into Smartphone Screens For Enhanced Energy Efficiency	11/28/2024	12/27/2024	1)Dr. Shashi Kant Dargar, 2)Charles J.Pravin, 3)Dr. Abha Dargar, 4)Logadharani K

9. Awareness programmes on Energy and Climate change

Name of the Sustainable Development Goals: Quality Education			
1.	Name of the Workshop	:	One day National Level seminar on "Energy Resources for Environmental Remediation"
2.	Date of the Workshop	:	02.12.2023
3.	Name of the department Organized	:	Chemistry
4.	Name of the School Organized	:	School of Advanced Science
5.	Category (Entrepreneurship, IPR, Skill Development, Research Methodology)	:	Skill Development
6.	No. of Participants	:	210
7.	Name of the Resource Person	:	1. Dr. Mannam Krishnamurthy,Chief Educative Dean,Varsity Education (P) Ltd., Hyderabad 2. Dr. M. Matheswaran, Professor, National Institute of Technology, Tiruchirapalli 3. Dr. Naresh Kumar Sharma, Associate Professor, Department of Biotechnology, KARE.

Presidential address by Chancellor, Dr. K. Sridharan

Book release and distribution

Receiving book copy by CEO,Saithanya group of institutions,Madurai

Seminar Delegates

Name of the Sustainable Development Goals: Industry, Innovation, and Infrastructure			
1.	Name of the Workshop	:	Digital Control of Power Electronic Converters for Renewable Energy Systems
2.	Date of the Workshop	:	07.06.2024
3.	Name of the department Organized	:	Electrical and Electronic Engineering
4.	Name of the School Organized	:	School of Electronics, Electrical and Biomedical Technology
5.	Category (Entrepreneurship, IPR, Skill Development, Research Methodology)	:	Skill Development
6.	No. of Participants	:	27
7.	Name of the Resource Person	:	1.Dr. Ganesh Kumar Pugalenthi, Assistant Professor/EEE Anna University, Coimbatore 2. Dr.P.Raja, Associate Professor/EEE, NIT,Trichy