



**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 2025

7 AFFORDABLE AND  
CLEAN ENERGY



Ensure access to affordable, reliable,  
sustainable and modern energy for all

### SDG 7.2.2 Upgrade buildings to higher energy efficiency

The institution has developed extensive policies and regulations to ensure all renovations or new builds are following energy efficiency standards within these buildings, as well as energy-saving and carbon-reduction practices to be followed by all users of the buildings, facilities, and equipment on campus. Further details are mentioned below.

- 80 % of our University's lightning system is energy efficient; LED Lights are used in most of the university's buildings with motion sensor.
- The institution has the **Automatic fire alarms sensor, Emergency lights system** where both are turned on automatically if a fire occurred or the electricity went down.
- The Institution follows **NBC 2016 (National Building Code of India - 2016)** design guidelines for the construction of new buildings and the improvement of existing ones

Implementing energy-efficient appliances is a strategic move that included to promote sustainability, reduce energy costs, and minimize environmental impact. KARE (Kalasalingam Academy of Research and Education) is committed to reducing its carbon footprint and promoting energy conservation by implementing energy-efficient appliances across the campus. The usage of energy efficient appliances reduces the energy consumption up to 35%. The lower the consumption, and thus increased energy efficiency, significantly reduces operating costs and contributes substantially to climate and environmental protection.



KARE has implemented the following practices towards Energy and climate change:



Energy efficient BDLC fan



LED Lights



Solar streetlights



Solar water heater





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Side Door Panel Made from Waste Materials  
Fixed in Door



Concrete Bricks in Different Models







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Maximizing Daylight using square shape construction

- 1. Upgrading to Energy-Efficient BLDC Fans:** The university has replaced its old ceiling fans, which consumes 75 watts of power, with new BLDC (Brushless Direct Current) fans that only consume 25 watts. This change helps reduce energy use significantly.
- 2. Replacing CFL bulbs with LED Lighting:** The institution has replaced LED lights throughout the campus, including academic buildings, hostels, and outdoor spaces. LED lights are known for being energy-efficient and providing effective illumination while being environmentally friendly.
- 3. Sensor based Energy Conservation using Solar Street Lights:** Institute has taken efforts to save energy by installing sensor-based equipment from the kitchen to common areas in the campus. To highlight some of the major initiatives, around 152 automatic day-light sensors are installed in the street lights.



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4. **Upgradation of energy efficient appliances:** Solar water heater with a temperature sensor facilitates ON & OFF switching of the pump and circulation of water. Sensor-based automatic light switching is interfaced with the movement of persons. Movement sensed automatic door opening-closing system is installed in the administrative building to conserve energy. Some of the hand wash pipes are upgraded to sensor-based. Apart from the commercially available equipment, faculty members of the institute have taken special efforts to develop sensor-based passive air coolers and air-conditioners.
5. **Maximizing Daylight using square shape construction:** Most of the campus buildings are designed in a square shape, with an open space or courtyard at the center. This architectural design allows natural sunlight to penetrate the building, the need for artificial lighting is significantly reduced, promoting energy efficiency. Additionally, the open courtyard enhances ventilation, creating a cooler and more comfortable indoor environment. This design not only supports sustainability goals but also contributes to the well-being of the building's occupants by providing ample natural light.
6. **Sustainable Building Materials:** All buildings on campus are constructed using environmentally friendly materials like Fly ash, marble dust, granite dust, Ground Granulated Blast-furnace Slag (GGBS) and paper burnt ash. This approach makes use of local resources, such as soil and laterite from excavations, and helps keep indoor temperatures comfortable due to the natural cooling properties of laterite bricks.