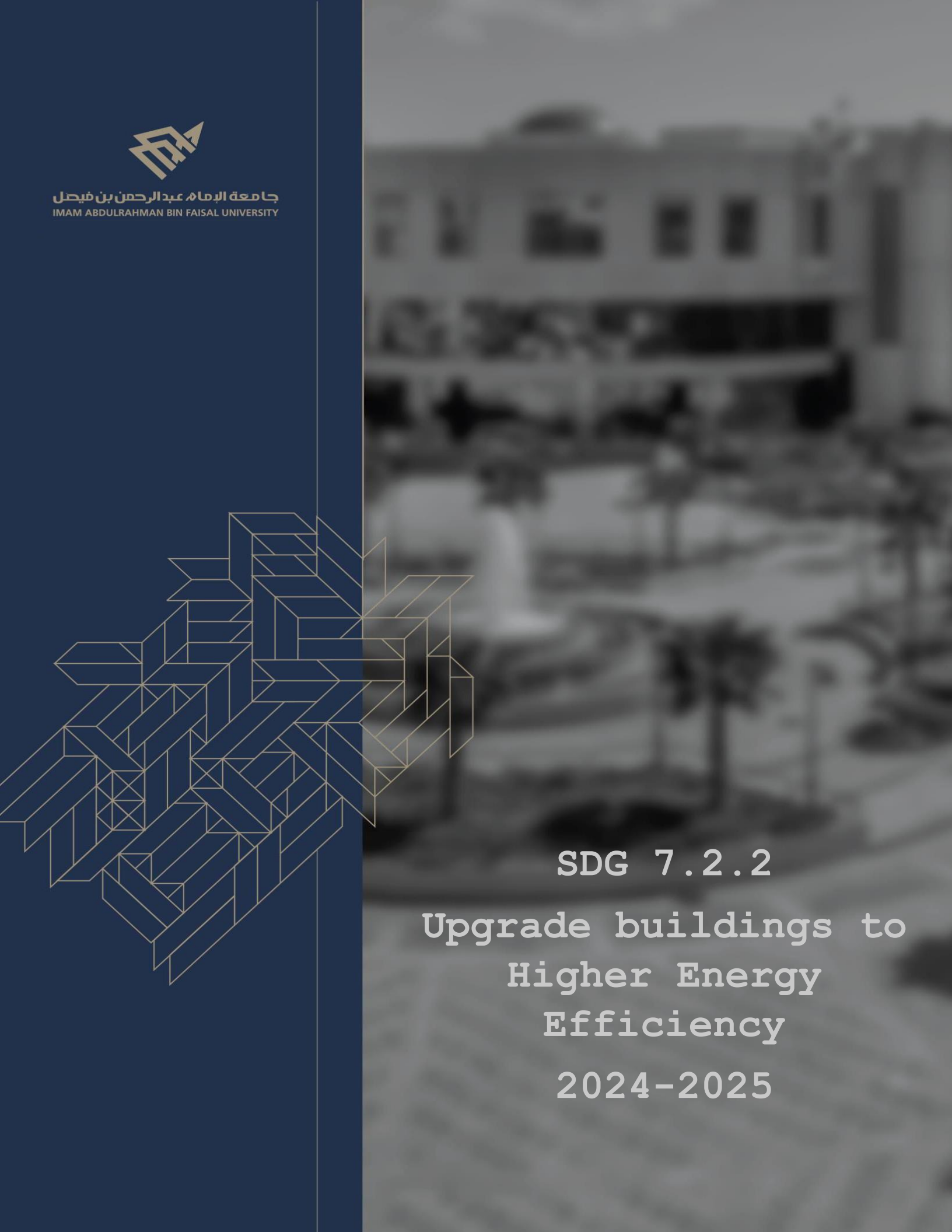
جامعة الإمام عبدالرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY



SDG 7.2.2

Upgrade buildings to Higher Energy Efficiency

2024-2025

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Imam Abdulrahman Bin Faisal University (IAU) upgrades its buildings to higher energy efficiency.

Find below some of our steps to upgrade buildings to higher energy efficiency.

1. IAU Strategic Plan 2018-2025

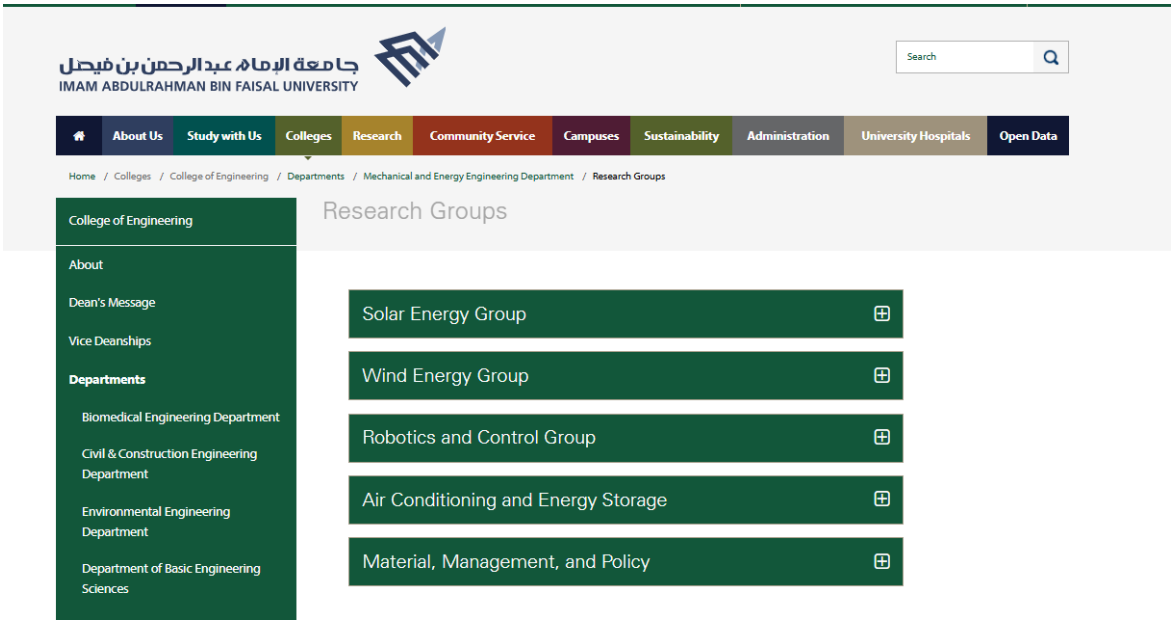
The given webpage link shows the Strategic plan of IAU 2018-2025. This plan explained its alignment between KSA Vision 2030 and IAU strategic goal V-Sustain IAU campus environment.

Under IAU Strategic Goal V, refer page no. 100, 101, 144, and 147, which describes about the energy efficiency:

- Initiative 5.1.1.5,
- KPI 5.1.1.5,
- Initiative 2.4.1,
- Initiative 3.2.1,
- Initiative 3.2.4,
- Initiative 3.2.5

https://www.iau.edu.sa/sites/default/files/iau_straplan_en_20jun2019.pdf

2. Research groups on Energy at IAU



https://www.iau.edu.sa/en/colleges/college-of-engineering/departments/mechanical-and-energy-engineering-department/research-groups

3. Awareness lecture on "The Impact of Smart City Applications in Combating Desertification" by IAU

In conjunction with the launch of the #Green_Homeland_Sustainable_Tomorrow #Our_Environment_is_a_Treasure event, I was delighted today to represent @IAU_Arch at the kind invitation of @IAU_DCP and in collaboration with @ncvcksa , where IAU delivered an awareness lecture titled: The Impact of Smart City Applications in Combating Desertification.

https://x.com/Aboodkoa/status/1920386053124296992

4. Approval for the Establishment of Saudi Building Code Academy by IAU

The happiness of the Dean of #College_of_Engineering, Dr. Murad Al-Thubaity, appreciates the Cabinet's approval for the establishment of the Saudi Building Code Academy, which will mark a qualitative leap in the development of engineering education, and enhance the academic and technical efficiency of students and engineers in the civil engineering sector.

https://x.com/CE_IAU_SA/status/1899946964969476345

5. Energy Efficient Building Practice at IAU

The given PDF link describes energy efficient usage in IAU in the following Parts:

- PART A: Sustainable system for Outdoor Signage
- PART B: Optimized Eco-friendly Buildings

Energy Efficient Appliances Usage in all the Buildings of IAU: Use of LED & fluoracent lighting and lamps with central clock system, centralized speaker & LCD Announcement screen

	
(Precast Concrete insulated panels and Curtain wall) Administration Building- IAU	**IAU implement and abide by Saudi Building Code in its all Construction and Electricity plan**

PART B

OUTDOOR SIGNAGE IN C1-EAST CAMPUS

Example of Energy Efficient Appliances Usage: Solar energy for map direction and board and light outside

EXAMPLES OF SIGNAGE & SOLAR LIGHTS IN IAU CAMPUS

https://www.iau.edu.sa/sites/default/files/resources/energy_efficient_building.pdf

6. IAU Hosts International Webinar on Higher Education and Sustainability

Dammam – Imam Abdulrahman Bin Faisal University (IAU), represented by the Deanship of Academic Development, hosted an international webinar titled "University Education for Sustainability: Building Skills for Lifelong Impact" on Tuesday, November 26, 2024. The event was attended by Dr. Abdullah Al-Muhaidib, Vice President for Academic Affairs, who emphasized the university's commitment to sustainability through education and its role in empowering faculty members.

The webinar aimed to advance the integration of sustainability in higher education and enable faculty members to adopt practices that align with the Sustainable Development Goals. The event drew 245 participants, including faculty members and national and international experts.

https://www.iau.edu.sa/en/news/iau-hosts-international-webinar-on-higher-education-and-sustainability

7. Participation of College of Engineering Students of IAU in developing the High Concentrated Photovoltaic (HCPV) system

Supported by #ImamAbdulrahmanBinFaisalUniversity, #Engineering College participated in developing the High Concentrated Photovoltaic (HCPV) system in collaboration with King Abdullah City for Atomic and Renewable Energy and the American company "Arzon Solar," achieving highly efficient results under harsh desert conditions and high temperatures.

https://x.com/CE_IAU_SA/status/1916507044275798342

8. Consulting Center of IAU towards Sustainable Built Environment

The given webpage link (refer 2nd paragraph first 4 lines) describes about a consultancy center established by College of Architecture and Planning of IAU. This center aims to take a leading role in directing the community towards a more sustainable built environment. It organizes a number of short training courses and offers professional services to both the public and private sectors.

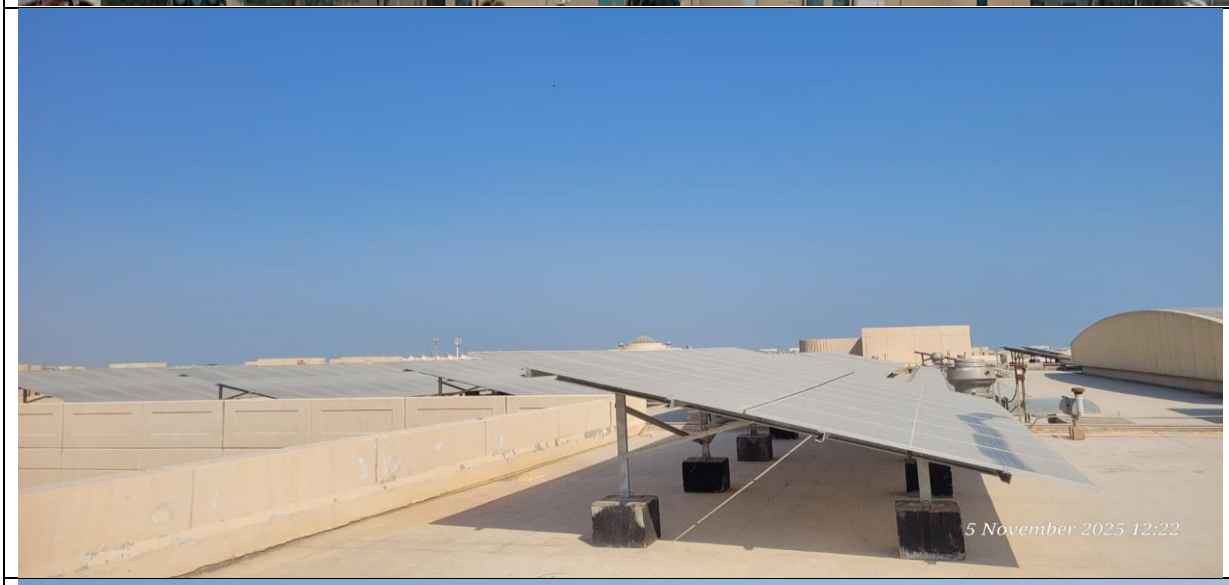
https://www.iau.edu.sa/en/colleges/college-of-architecture-and-planning/deans-message

9. IAU Consulting Center for Buildings Energy

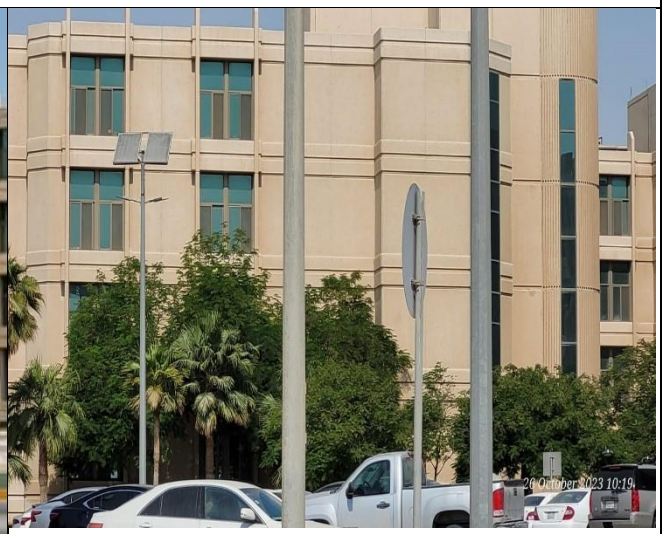
The given webpage link (refer to About section and Scope of work section) describes about the "consulting center for buildings energy", a body accredited by IAU Institute of Consulting Studies to deliver training and consulting services in field of engineering related rationalization of energy consumption. Its scope of work includes training, education and workshops in the areas of sustainability, green buildings and energy conservation. It also includes energy efficiency studies and audits of existing buildings; consultations about the efficiency of air conditioning systems; and consultations about the solar energy.

https://www.iau.edu.sa/en/administration/centers/institute-of-consulting-studies/services/experience-houses/consulting-center-for-buildings-energy

10. Renewable Energy Sources in IAU Campus



In all IAU Campuses the roofs of the buildings are installed with Solar panels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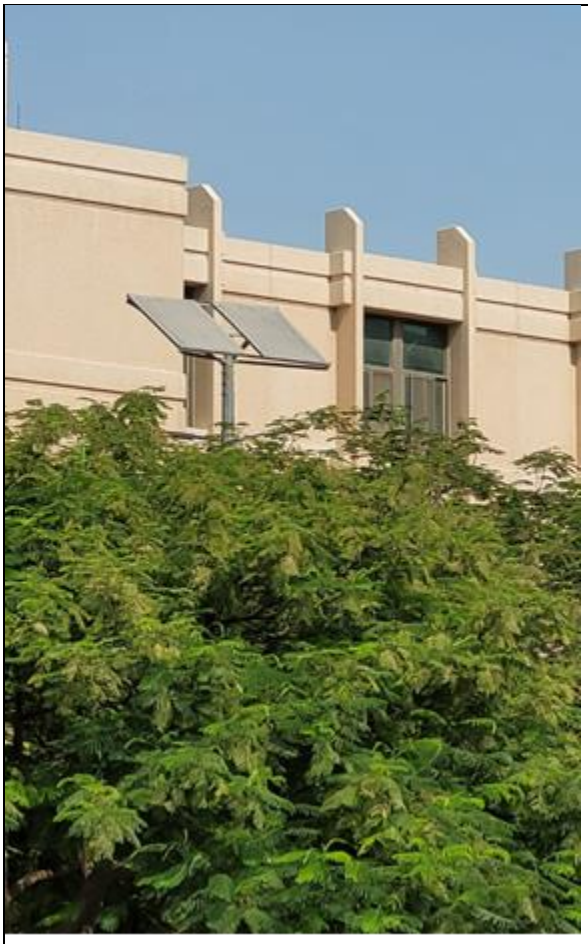


Solar Panels spread at IAU Campuses

Solar Panels installed all over the campus to provide energy for the purposes of lighting, heating, cooling, running university laboratories, etc.

NIGHTVIEW OF SOLAR OUTDOOR SIGNAGE IN IAU CAMPUS

DAY-VIEW OF SOLAR OUTDOOR SIGNAGE IN IAU CAMPUS

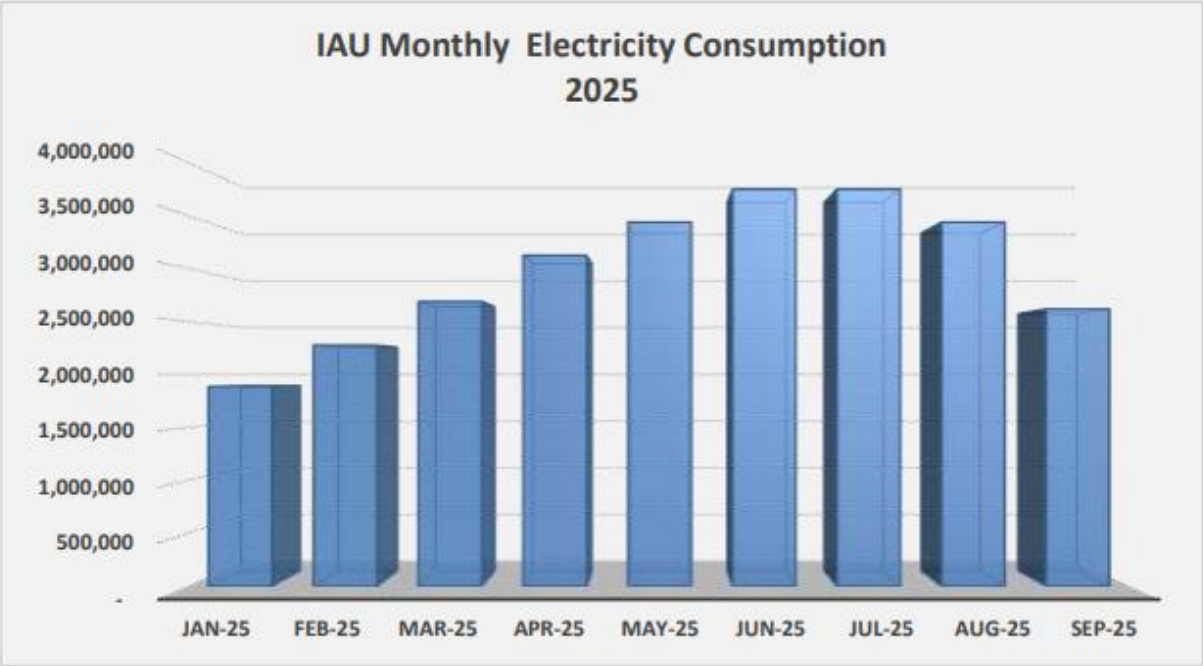
Description:

Currently, solar energy is used only for campus lights and signage in main campus.

The mega project is in pipeline to install solar panels in the university to have an alternate source of energy, which will help to be less dependent on electricity and reduced the electricity consumption.

Wind power plants are installed in IAU Campus as part of alternate sources of energy. Based on the initial observations and usage relevance to IAU campus many Wind power plants are going to be installed on the open spaces of IAU.

11. Electricity Usage per Year (in Kilowatt hour)



Description:

The total electricity usage of IAU all campuses in 2024-2025 was 31,241,574 kWh and the monthly average usage is 2,996,115 kWh.

After the Installation of Solar panels on the IAU buildings rooftops the electricity usage has drastically reduced compared to the last year.

On the main campus area of IAU University electricity is used for lighting, cooling, heating and laboratory appliances.

12. IAU Initiatives to achieve higher Energy Efficiency

The given PDF link explains the initiatives taken by IAU to achieve higher energy efficiency.

Photo solar systems installation initiative to reduce monthly electricity bill payments:

Electric and affordable shuttle buses for the student and faculty

https://www.iau.edu.sa/sites/default/files/resources/reduce_overall_energy_consumption_2022.pdf

13. Signed a memorandum of understanding with the Gulf Laboratory Company for Electrical Equipment Inspection.

His Excellency the President of IAU Prof. Dr. Abdullah Al-Rubaish, signed a memorandum of understanding with the Gulf Laboratory Company for Electrical Equipment Inspection. The company was represented by CEO Eng. Saleh Al-Omari, in the presence of the Dean of the College of Engineering, Dr. Murad Al-Thubaiti.

https://twitter.com/IAU_KSA/status/1584520569055490048

14. IAU Active Participation in Global Event to the rationalization of Energy Consumption

The given IAU Webpage link (refer to 1st paragraph) shows the participation of IAU in Earth Hour, a global event by turning off external and unnecessary lights of the university campuses buildings for one hour. This attempt contributes to the rationalization of energy consumption to confront global warming.

https://www.iau.edu.sa/en/news/iau-participates-in-earth-hour-by-turning-off-buildings-lights