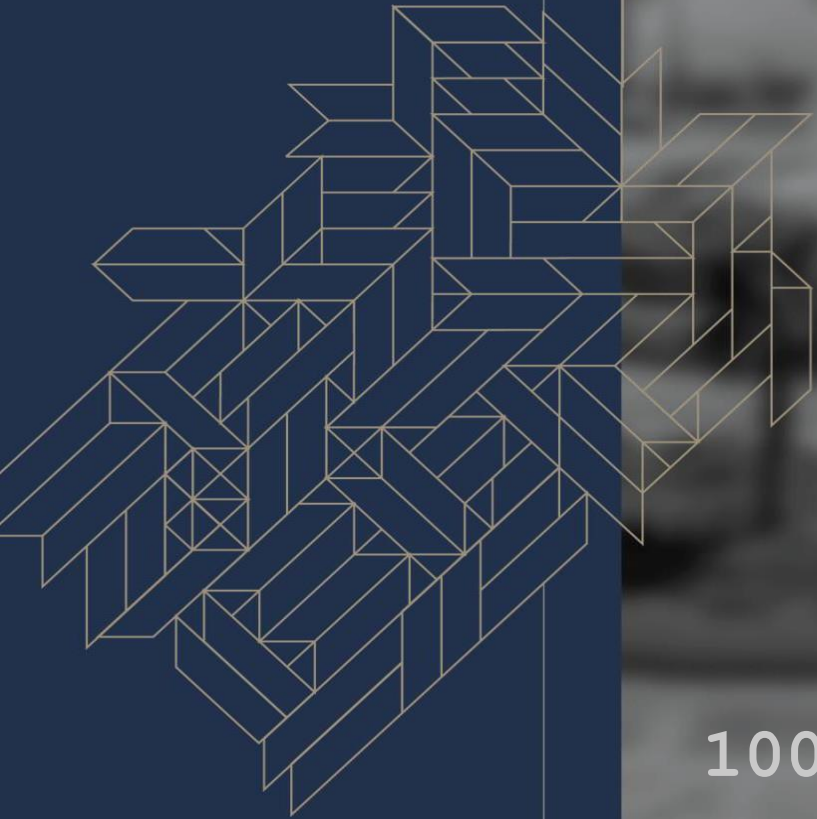




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SDG 7.4.2

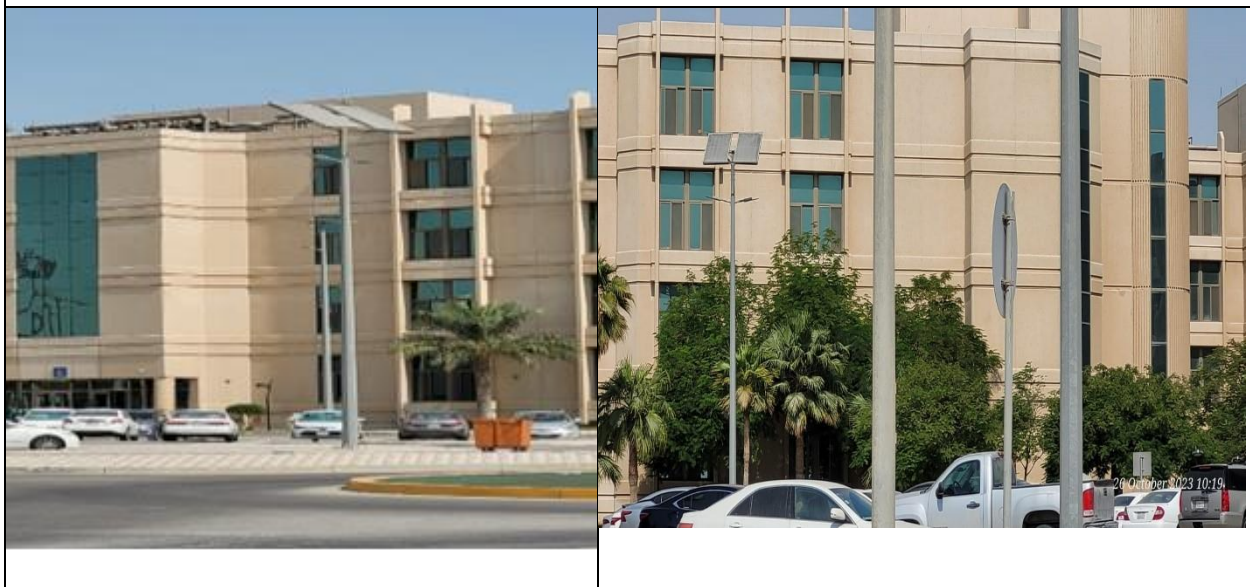
100% Renewable Energy
Pledge

2022-2023

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1. Renewable Energy Sources in IAU Campus





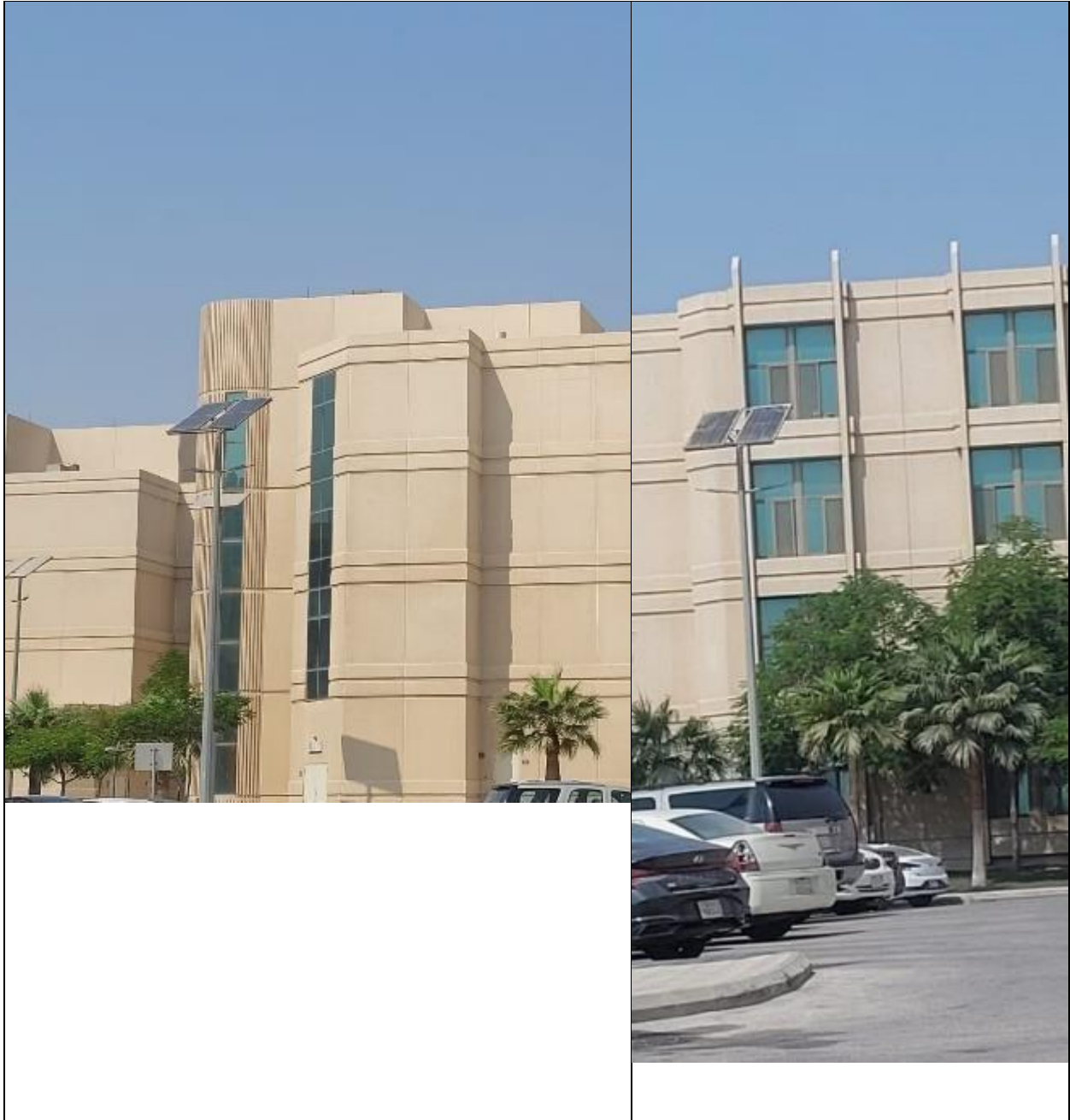
Solar Panels spread at IAU Campuses

SDG 7.4.2

100% Renewable Energy Pledge



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





Description:

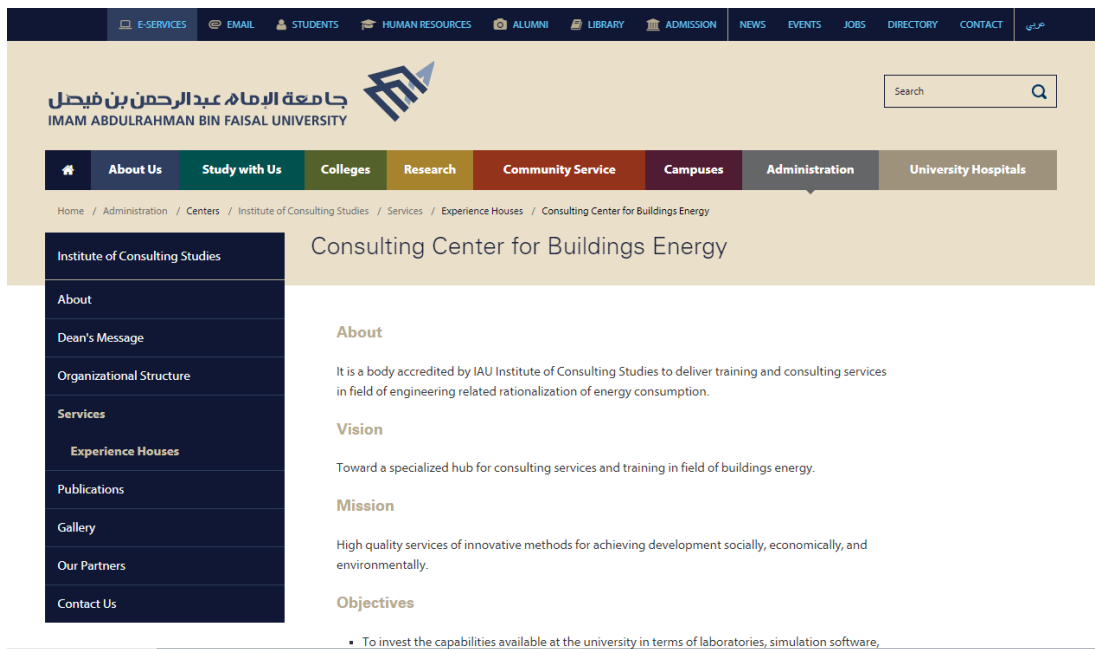
Currently, **solar energy** is used only for campus lights and signage in main campus.

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.

2. 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.

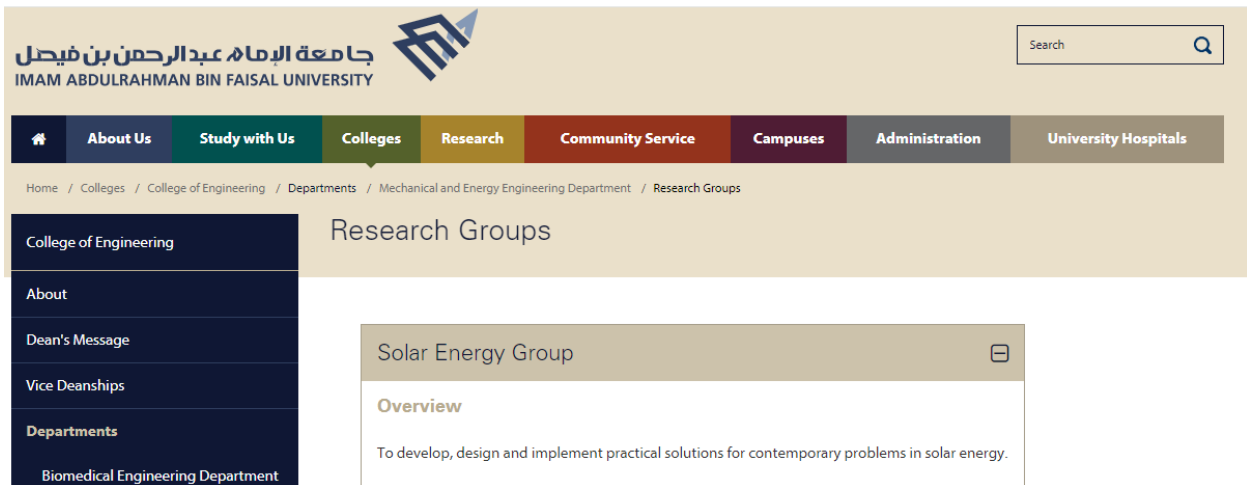


The screenshot shows the website interface for the Consulting Center for Buildings Energy. The header includes navigation links such as E-SERVICES, EMAIL, STUDENTS, HUMAN RESOURCES, ALUMNI, LIBRARY, ADMISSION, NEWS, EVENTS, JOBS, DIRECTORY, CONTACT, and عربي. The main navigation menu includes About Us, Study with Us, Colleges, Research, Community Service, Campuses, Administration, and University Hospitals. The breadcrumb trail is: Home / Administration / Centers / Institute of Consulting Studies / Services / Experience Houses / Consulting Center for Buildings Energy. The page title is "Consulting Center for Buildings Energy". The left sidebar contains a menu with links: About, Dean's Message, Organizational Structure, Services, Experience Houses, Publications, Gallery, Our Partners, and Contact Us. The main content area includes sections for About, Vision, Mission, and Objectives. The "About" section states: "It is a body accredited by IAU Institute of Consulting Studies to deliver training and consulting services in field of engineering related rationalization of energy consumption." The "Vision" section states: "Toward a specialized hub for consulting services and training in field of buildings energy." The "Mission" section states: "High quality services of innovative methods for achieving development socially, economically, and environmentally." The "Objectives" section lists: "To invest the capabilities available at the university in terms of laboratories, simulation software,"

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

3. Research Groups at IAU for Renewable Energy

The given webpage link (refers to research groups section) shows the presence of the **research groups** in the College of Engineering of IAU. The research groups include **solar energy group, wind energy group, and air conditioning and energy storage group**. These research groups aim to develop, design, and implement **practical solutions for contemporary problems** in solar energy, wind energy, and air conditioning and energy storage. The objectives of these groups encompass conducting **market-relevant commercial research**, supervising students, cooperating with research, and publishing high-quality papers.



The screenshot displays the website interface for Imam Abdulrahman Bin Faisal University. At the top, the university's name is written in Arabic and English, accompanied by its logo. A search bar is located in the top right corner. Below the header is a navigation menu with various categories: Home, About Us, Study with Us, Colleges, Research, Community Service, Campuses, Administration, and University Hospitals. The breadcrumb trail indicates the current location: Home / Colleges / College of Engineering / Departments / Mechanical and Energy Engineering Department / Research Groups. The main content area is titled "Research Groups" and features a sidebar on the left with links to "College of Engineering", "About", "Dean's Message", "Vice Deanships", "Departments", and "Biomedical Engineering Department". The main content area shows a card for the "Solar Energy Group" with an "Overview" section that states: "To develop, design and implement practical solutions for contemporary problems in solar energy."

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



4. Mechanical and Energy Engineering Laboratories at IAU

The given webpage link (refer to Mechanical and Energy Engineering Laboratories) shows the presence of the **Mechanical and Energy Engineering Laboratories** in the College of Engineering of IAU. Among various labs, **the renewable energy lab** is the one that has essential equipment with full instrumentation to allow students to investigate the effective use of **solar energy** as a renewable, environmentally friendly energy source.

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Search

Home / Colleges / College of Engineering / Labs and Equipment / Mechanical and Energy Engineering Laboratories

College of Engineering

Mechanical and Energy Engineering Laboratories

- Thermodynamics Lab
- Fluid Mechanics Lab
- Refrigeration and Air Conditioning Lab
- Heat and Mass Transfer Lab
- Renewable Energy Lab
 - overview
 - The Renewable Energy lab houses some essential equipment with full instrumentation to allow

<https://www.iau.edu.sa/en/colleges/college-of-engineering/labs-and-equipment/mechanical-and-energy-engineering-laboratories>

5. 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>

6. 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 **Renewable Energy**

- Initiative 3.2.4,
- Initiative 3.2.5



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



7. 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>

8. 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.



3:21 PM - Oct 24, 2022

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

9. 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

Part A



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



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

PART B

<p>GATEWAY SIGNS</p> <p>DIRECTIONAL SIGNS</p> <p>CAMPUS MAPS</p> <p>BUILDING IDENTIFIERS</p>	
<p align="center">OUTDOOR SIGNAGE IN C1-EAST CAMPUS</p>	



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

10. 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:

SHUTTLE OPTION 1

Shoud V Electric Transit Buddy 18 Passenger LE Hand Door Shuttle



SHUTTLE OPTION 2

Marsheel DM-38C Series 18-Seater Enclosed Electric Resort Car



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

