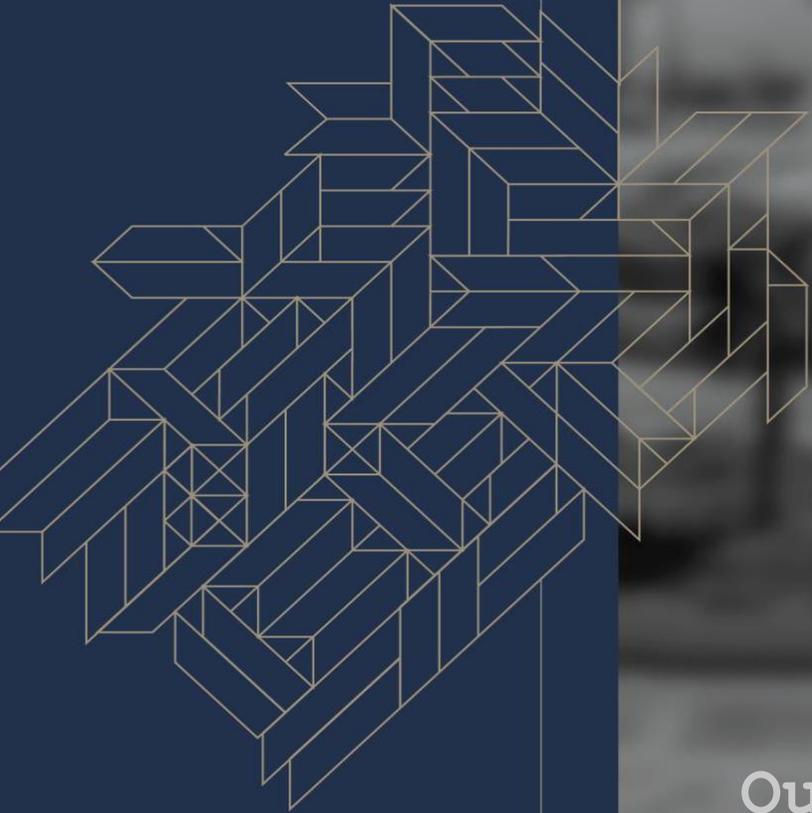




جامعة الإمام عبد الرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY



SDG 7.4.1

Local Community
Outreach for Energy
Efficiency

2024-2025

Table of Contents

1. IAU Hosts International Webinar on Higher Education and Sustainability.....	4
2. College of Engineering of IAU participated in the Solar Energy and Storage Exhibition.....	5
3. Awareness lecture on “The Impact of Smart City Applications in Combating Desertification” by IAU.....	6
4. Participation of College of Engineering Students of IAU in developing the High Concentrated Photovoltaic (HCPV) system.....	7
.....	7
5. Participation of College of Engineering Students of IAU in the events of the third Renewable Energy Symposium and Exhibition.....	8
6. Participation of College of Engineering of IAU in Energy Debate.	9
7. Participation of College of Engineering of IAU in Energithon Event at King Fahd University of Petroleum and Minerals.....	10
8. IAU Female Engineering Students achieved two positions at the Second Conference on a Sustainable Green Future.....	11
9. IAU Participation in “Green Homeland, Sustainable Tomorrow” forum	12
10. Approval for the Establishment of Saudi Building Code Academy by IAU	13
11. Mechanical and Energy Engineering Laboratories at IAU.....	14
12. Integrated Environmental Solutions and Consultancy Office.....	15
13. Research groups on Energy at IAU.....	19
14. Dialogue session on “Future Energy and 500 Days of Work” at IAU	20
15. Energy Efficiency related Courses offered by IAU to Student community.....	21
16. IAU College of Engineering Students won Second Place for Project producing Biofuel from Coffee Beans.....	22



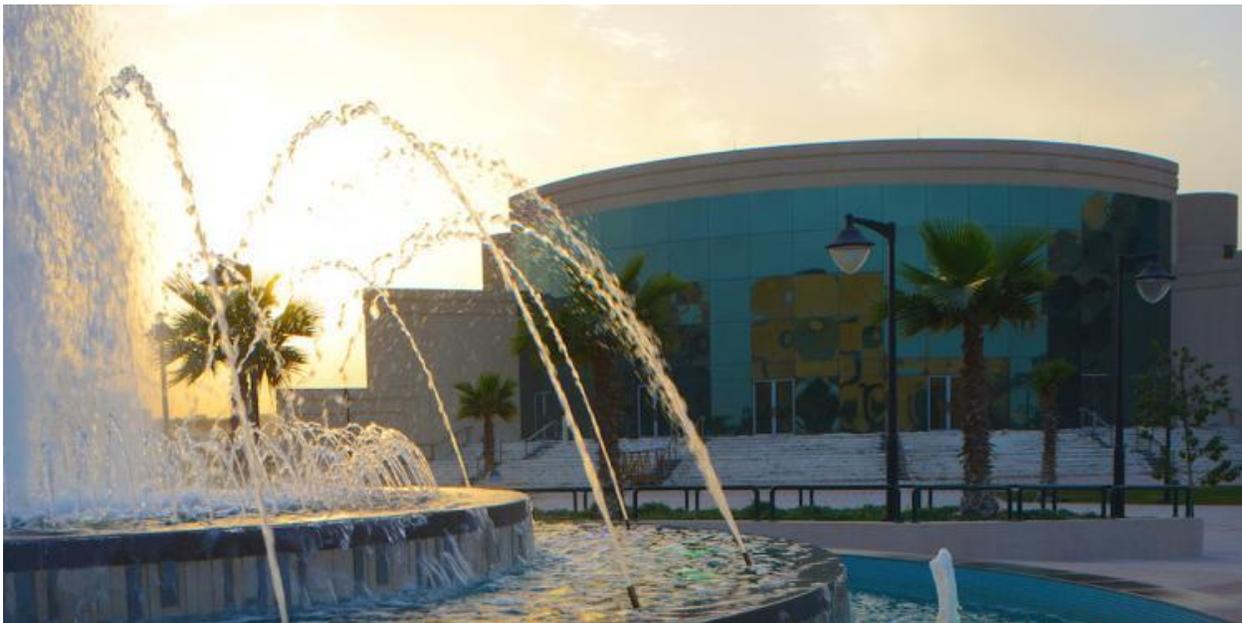
Imam Abdulrahman Bin Faisal University (IAU) participates in local community outreach activities for Energy efficiency

Find below some of our local community outreach activities for Energy efficiency.

1. 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>

2. College of Engineering of IAU participated in the Solar Energy and Storage Exhibition

Dean of College of Engineering of IAU, Prof. Dr. Fahd Al-Omari, and Head of the Mechanical and Energy Engineering Department, Dr. Mosaid Al-Zahrani, participated in the Solar Energy and Storage Exhibition, and presented two scientific papers that enhance the college's research and industrial role in sustainable energy in support of the Kingdom's Vision 2030.



https://x.com/CE_IAU_SA/status/1983180226118201404

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. 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.

المخلص التنفيذي اقتصاد منساع النمو مجتمع متمكن وجهة حيوية رائدة رؤية مستدامة عام ملي، بالتحديات

تطوير نظام الطاقة الكهروضوئية المركزة (HCPV)

استكمال ونجاح للمشروع

بشراكة بين مدينة الملك عبد الله للطاقة الذرية والمتجددة، وجامعة الإمام عبد الرحمن بن فيصل، والشركة الأمريكية "أرزون سولار"

ما هي مميزاتة؟

- قفزة نوعية مصممة لتحمل الظروف الصحراوية القاسية ودرجات الحرارة المرتفعة
- تقنية متطورة بعدسات عالية الكفاءة لتركيز ضوء الشمس على خلايا شمسية متعددة الطبقات
- 40% هي كفاءة التحويل



إطلاق مشروع المسح الجغرافي لمشروعات الطاقة المتجددة

1,200 محطة لرصد الطاقة الشمسية وطاقة الرياح في مختلف مناطق المملكة

أسندت عقود تنفيذ المشروع إلى شركات وطنية

323

٢٥٨/٢٢٢

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

5. Participation of College of Engineering Students of IAU in the events of the third Renewable Energy Symposium and Exhibition

The #College_of_Engineering of IAU concluded the events of the third Renewable Energy Symposium and Exhibition, after days filled with scientific contributions and fruitful workshops, thanking all participants and supporters for their contributions to the success of this event.



https://x.com/CE_I AU_SA/status/1912930146014703621

6. Participation of College of Engineering of IAU in Energy Debate

#College_of_Engineering of IAU proudly participates with its teams in the Energy Debate at King Fahd University of Petroleum and Minerals, where the college team secured second place 🏆 among the universities of the Eastern Region.



https://x.com/CE_I AU_SA/status/1884486325786604026

7. Participation of College of Engineering of IAU in Energithon Event at King Fahd University of Petroleum and Minerals

As #College_of_Engineering of IAU proudly shares, its team participated in the "Energithon" event at King Fahd University of Petroleum and Minerals as the only team from outside the university, achieving second place 🏆.



https://x.com/CE_IAU_SA/status/1884528765310517480

8. IAU Female Engineering Students achieved two positions at the Second Conference on a Sustainable Green Future

Female students from the College of Engineering (Environmental Engineering Department) at #Imam_Abdulrahman_Bin_Faisal_University achieved two positions among the top three at the Second Conference on a Sustainable Green Future in the Kingdom 2025, organized by the Center for Environment and Marine Studies at King Fahd University of Petroleum and Minerals.



https://x.com/IAU_KSA/status/1886644022736724043

9. IAU Participation in "Green Homeland, Sustainable Tomorrow" forum

Under the patronage of His Excellency the **President of #Imam_Abdulrahman_Bin_Faisal_University**, Prof. Fahd bin Ahmad Al-Harbi, #College_of_Engineering was honored by the Vice President of the University for Development and Community Partnership, Prof. Asim bin Abdulrahman Al-Ansari, in recognition of its environmental initiatives and participation in **the accompanying corner of the "Green Homeland, Sustainable Tomorrow" forum.**



https://x.com/CE_IAU_SA/status/1919419153871405218



10. 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



11. 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.

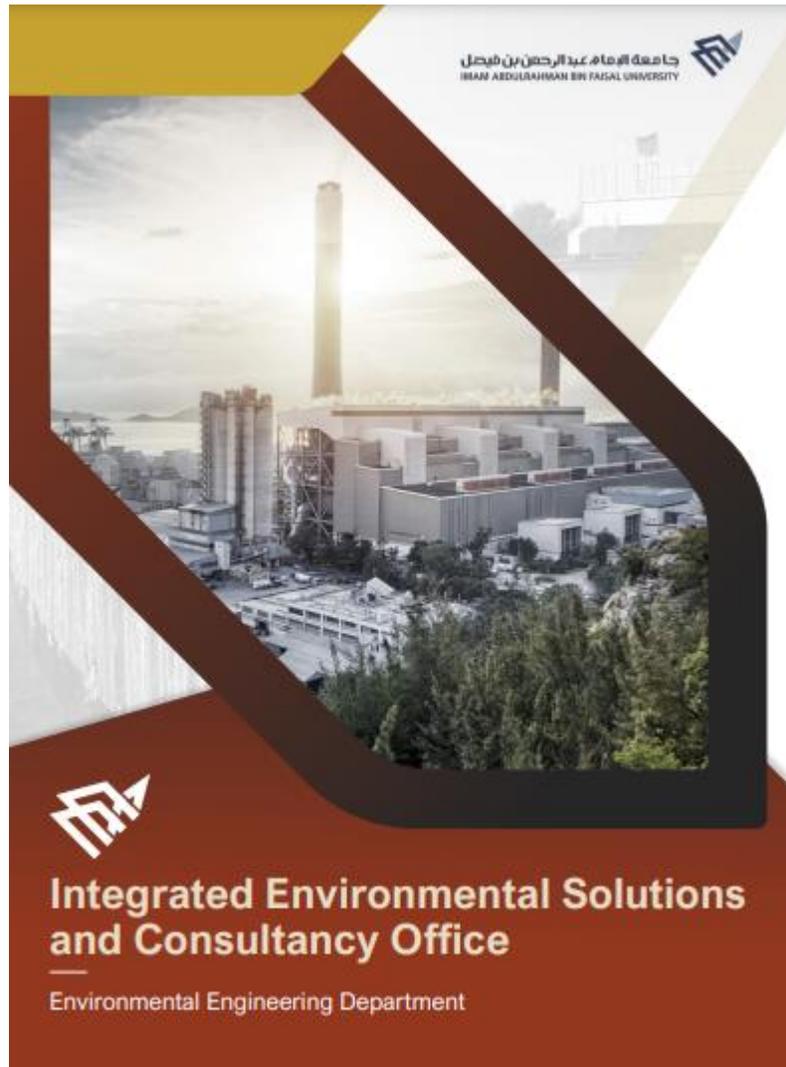
The screenshot shows the website for Mechanical and Energy Engineering Laboratories at Imam Abdulrahman Bin Faisal University. The page has a navigation bar with the following items: Home, Colleges, College of Engineering, Labs and Equipment, Mechanical and Energy Engineering Laboratories. The main content area is titled 'Mechanical and Energy Engineering Laboratories' and lists the following labs:

- Thermodynamics Lab
- Fluid Mechanics Lab
- Refrigeration and Air Conditioning Lab
- Heat and Mass Transfer Lab
- Renewable Energy Lab

The Renewable Energy Lab section includes an 'overview' and a brief description: '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>

12. Integrated Environmental Solutions and Consultancy Office





INTEGRATED ENVIRONMENTAL SOLUTIONS AND CONSULTANCY OFFICE (GAMEP Authorized)



The department of environmental engineering is considered as a pioneer since it is the first department to offer the bachelor's degree environmental engineering in the kingdom of Saudi Arabia.



The Integrated Environmental Solutions and Consultancy Center established by Imam Abdulrahman Bin Faisal University in 2020 and Authorized by the Presidency of General Authority of Meteorology and Environment Protection (GAMEP).



The distinguished experience, expertise, and capabilities are utilized to develop engineering solutions that meet the customers' needs and local standards. The services include providing optimum air quality management and solutions on the indoor/outdoor air pollution and industrial emissions from oil and gas, energy, mining, and minerals sectors.



The Consulting and Engineering Office is dedicated to working with clients to implement compliance solutions using innovative approaches and advanced technologies. The measurement and analysis are conducted following stringent environmental laboratory protocol and best quality practice.



The multi-disciplinary consultants engineering office includes:

01 Environment services including environmental studies, design, and supervision	05 Physical, chemical, and biological procedures and mechanisms accountable for the proclamation, conveyance, alteration and preservation of pollutants.
02 Professional training for environmental specialists and technicians	06 Pollutant control procedures (predominantly the exclusion of trace & toxins or pollutants).
03 Short and long Certificate programs in environmental specialists and engineering field	07 Basic ideologies of physical, chemical, and biological conduct know how for water, wastewater and solid wastes scums or residues from different sources.
04 Third-party inspection and opinion work to ensure compliance with the project specifications, codes, and standards.	08 Pollutant control measures for Air, other contaminants removal from air & its monitoring (gases, Particulate matters & Meteorological parameters etc.).



1. Division of Solid and Hazardous Waste Management

This consultation office offers consultation services, conducting studies, third-party testing, inspection, and training in the field of environmental engineering and waste management, including industrial, medical among all other types of solid waste. In Addition, we offer short courses related to the area of solid waste management. The office is part of the Integrated Environmental Solutions and Consultancy Center established in 2020 by Imam Abdulrahman Bin Faisal University. All laboratory analysis are conducted following an approved environmental laboratory protocol.




Our services include:

- Inspecting, analysis, and assessment of all types of hazardous waste.
- Industrial waste collection and disposal
- Landfill and incineration design
- Medical waste management, disposal, and incineration
- Best applicable technology
- Radioactive waste management
- Oil waste management and reuse
- Contaminated solid purification



2. Division of Wastewater Treatment and Reuse:

water/wastewater team in IAU consultation office specializes in providing solutions for the industry's water/wastewater treatment challenges. We can guide you for the operations of wastewater system, provide troubleshooting, and can help or manage your analytical testing. We offer consulting services for both water and wastewater treatment plants. We offer consultation services, conducting studies, measurements, and training in the field of wastewater engineering, treatment, optimization, reuse, and design.



Our consultation services and laboratory analysis are authorized by the Presidency of Meteorology and Environment (GAMEP).

- Conducting analysis and modelling on the existing design of wastewater engineering systems and finding cost-saving opportunities that provide a return on investment.
- Designing, implementing, and upgrading wastewater treatment systems
- Advice on best practicable and cost-effective solutions for wastewater treatment.
- Wastewater analysis and characterization
- Marine pollution and deep discharge design
- Blue flag services and consultation
- Water footprint calculations and simulations
- Wastewater plant modelling and simulation studies



3. Division of Air Quality and Emission Control

Offering consultation services, conducting studies, third-party testing, inspection, and training in the field of environmental engineering, indoor and outdoor air quality assessment, emission inventory calculation, dispersion modeling, health risk assessment, dose calculation.

- Mobile station air quality monitoring for EIA studies
- Stack Gas Monitoring
- Designing Innovative Air Pollution Control Technologies
- Optimizing Current Air Pollution Control Technologies
- Short courses and training
- Calibration and maintenance
- Bioserosol Sampling and Analysis
- Noise Pollution Monitoring, Mapping, Modeling, and Control
- Monitoring of Meteorological Parameters
- Air Toxics Health Risk Assessments
- Dispersion Modelling
- Source Apportionment Modelling
- Air Quality Program Management
- Air Pollution and Air Quality Mapping
- GIS maps for measured pollutants
- Source and stack emission monitoring
- Ambient air quality studies
- Mobile lab services
- Environmental management plan (EMP)
- Environmental impact assessment studies (EIA)
- Life cycle assessment studies (LCA)
- Pollutants dispersion modelling (AREMOD)
- Risk assessment and dose calculation
- Auditing and inspection
- Energy efficiency
- Carbon footprint
- Global warming and greenhouse gases
- Ambient/Indoor Sampling, Monitoring, Analysis of Air Pollutants



Mobile Air Quality Monitoring Station



جامعة الإمام عبد الرحمن بن فيصل
IMAM ABDULRAHMAN BIN FAISAL UNIVERSITY

Integrated Environmental Solutions and Consultancy office

One-Stop-Shop.
Backed up with our well-equipped laboratories enables us to test and diagnose prior to consultation

FLIP LINK
<https://simplebooklet.com/Y3PjySVJ0PTkaCE6vOKo5y>

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https://www.iau.edu.sa/sites/default/files/resources/general_introduction-compressed.pdf



13. Research groups on Energy at IAU

The screenshot shows the website of Imam Abdulrahman Bin Faisal University (IAU). The header includes the university's name in Arabic and English, a search bar, and a navigation menu with categories like About Us, Study with Us, Colleges, Research, Community Service, Campuses, Sustainability, Administration, University Hospitals, and Open Data. 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 lists five groups: Solar Energy Group, Wind Energy Group, Robotics and Control Group, Air Conditioning and Energy Storage, and Material, Management, and Policy. A sidebar on the left provides navigation for the College of Engineering, including About, Dean's Message, Vice Deanships, and a list of departments.

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

14. Dialogue session on "Future Energy and 500 Days of Work" at IAU

An aspect of the dialogue session "Future Energy and 500 Days of Work" Hosted by Professor Dr. Fahad Al-Omari and in partnership with the Cultural Club, the session addressed important and enriching topics in the field of energy and its sources.



https://x.com/coec_iau/status/1788278005501976664



15. Energy Efficiency related Courses offered by IAU to Student community

The given links describes the courses offered by IAU on Energy Efficiency.

The courses are:

1. Energy and Environment
<https://www.iau.edu.sa/en/courses/energy-and-environment>
2. Renewable Energy
<https://www.iau.edu.sa/en/courses/renewable-energy>
3. Energy Efficiency for Sustainable Development
<https://www.iau.edu.sa/en/courses/energy-efficiency-for-sustainable-development>
4. Energy Markets
<https://www.iau.edu.sa/en/courses/energy-markets>
5. Energy Storage
<https://www.iau.edu.sa/en/courses/energy-storage>
6. Energy & Environmental Policy
<https://www.iau.edu.sa/en/courses/energy-environmental-policy>
7. Solar Power System Design
<https://www.iau.edu.sa/en/courses/solar-power-system-design>
8. Hybrid Energy System
<https://www.iau.edu.sa/en/courses/hybrid-energy-system>
9. Tidal & Wave Energy
<https://www.iau.edu.sa/en/courses/tidal-wave-energy>
10. Petrochemical Energy
<https://www.iau.edu.sa/en/courses/petrochemical-energy>
11. Environmental Engineering and Energy Systems 1
<https://www.iau.edu.sa/en/courses/environmental-engineering-and-energy-systems-1>
12. Introduction to Energy Efficiency
<https://www.iau.edu.sa/en/courses/introduction-to-energy-efficiency>
13. Energy Efficiency for Sustainable Development
<https://www.iau.edu.sa/en/courses/energy-efficiency-for-sustainable-development>
14. Energy and Form in Architecture
<https://www.iau.edu.sa/en/courses/energy-and-form-in-architecture>
15. Renewable Energy Projects Management
<https://www.iau.edu.sa/en/courses/renewable-energy-projects-management>

16. Renewable and Sustainable Energy

<https://www.iau.edu.sa/en/courses/renewable-and-sustainable-energy>

17. Energy Policy and Analysis

<https://www.iau.edu.sa/en/courses/energy-policy-and-analysis>

16. IAU College of Engineering Students won Second Place for Project producing Biofuel from Coffee Beans

We are proud of the Achievement of the students of #College_of_Engineering from the Department of Mechanical Engineering and Energy, Abdullah Al-Harbi, Jarrah Al-Qassim, Saud Al-Sarhani, Ibrahim Al-Yousifi, and Ghazi Al-Otaibi, who secured second place in the CITethon Hackathon with their project to produce biofuel from coffee beans.



https://x.com/CE_IAU_SA/status/1912918031505686531

