



**Al-Karkh University of Science
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**SDG 17: Strengthen the means of implementation and
revitalize the Global Partnership for Sustainable
Development.**

Sustainable partnership focuses on achieving long-term environmental, social and economic goals through collaborative efforts. It involves shared commitments, resource efficiency, innovation, long-term benefits, and regulatory compliance, all of which are essential for successful and impactful collaboration.

Global partnerships are vital to sustainable development because they connect people around the world. In addition, global partnerships allow each party to share information, technology and resources. This allows for more meaningful connections of knowledge and ideas.

Reported by: Hind A.Ahmed
Employer: Dean's office

University link: www.kus.edu.iq
E-mail: info.coeng.2025@kus.edu.iq



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**Prevention Project (Mitigating the Effects of Sand and Dust
Storms in Southern Iraq and the Gulf Region)**

(Wednesday, May 20, 2026)

The Department of Civil Engineering / College of Engineering at Al-Karkh University of Science organized a panel discussion for the working group tasked with studying the international support model provided by the International Institute for Water and Resources Management, which was referred to us by the Ministry of Higher Education and Scientific Research / Department of Studies and Follow-up, for the purpose of identifying the scientific capabilities that can be contributed to the above project.

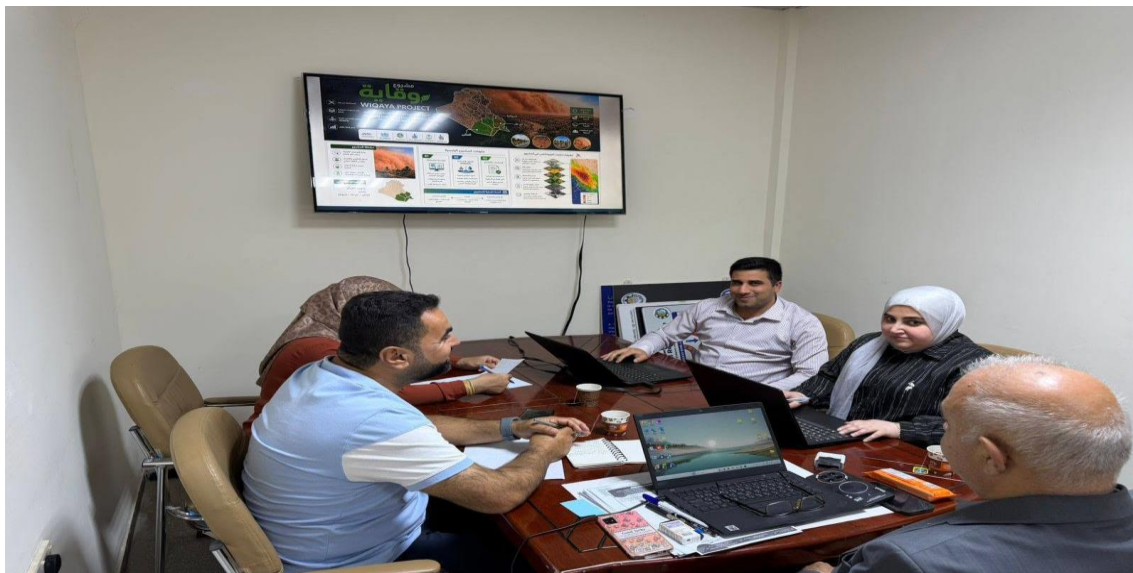


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SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

The importance of education is due to its decisive influence in shaping values and concepts, contributing to the development of skills and acquiring the appropriate tools for the current generations so that they can live appropriately. Education can be used to instill the principles of sustainable development from a young age, thus shaping the future and present of nations.

Education alone is responsible for achieving a number of the SDGs, most notably SDG 1 (poverty eradication), SDG 2 (hunger eradication), SDG 3 (good health and well-being), SDG 4 (quality education), and SDG 5 (gender equality).

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**Events of the 2025–2026 Academic Year's Cultural and Scientific
Season at the College of Engineering
(Tuesday, April 21, 2026)**

The events included a number of specialized and scientific workshops and lectures that addressed important topics, including a workshop titled “The Smart Future of Construction Materials – 3D Printing and Smart Materials), presented by Dr. Haider Mitham Hikmat. The lecture highlighted how to revolutionize construction technologies by reducing costs and time and achieving greater sustainability in engineering projects, reflecting future trends toward smarter cities.

The events also included a workshop titled “Applications of Artificial Intelligence in Engineering,” during which lecturer Osama Mohamed Nouri discussed the most prominent uses of artificial intelligence in improving engineering performance and solving complex technical problems.

This cultural season aims to strengthen scientific communication between departments and highlight the role of engineering in addressing the challenges of our time.

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**Scientific Lecture at the College of Engineering on Magnetic
Cooling and Sustainable Technologies
(May 12, 2026)**

Dr. Ghayath Abbas Fadel, a faculty member in the Department of Civil Engineering, delivered a lecture covering the fundamentals of magnetism and magnetic materials, with a focus on magnetic cooling technology as a sustainable and environmentally friendly alternative to traditional cooling systems.

The lecture also reviewed the latest developments in this field and the challenges related to material costs and engineering complexity, while emphasizing the potential of this technology in future domestic, industrial, and medical applications.



Cooling with Magnets

Principles and Applications of the Magnetocaloric Effect

by

Dr. Ghaiath A. Fadhil, Dept. of Civil Engineering,
College of Engineering, KUS.
12 May 2026.

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“The Role of Engineering Geology in Dam Site Selection.”

(May 13, 2026)

A distinguished scientific seminar was presented by a group of female students from the department under the title: “The Role of Engineering Geology in Dam Site Selection.” This event was part of the department’s activities aimed at developing students’ scientific and practical capabilities, enhancing their skills in selecting applied engineering topics, and linking theoretical aspects to real-world engineering applications.

The seminar was held under the direct supervision of the Head of the Civil Engineering Department, Dr. Ammar Walid Saeed, who emphasized the importance of encouraging students to present meaningful scientific activities that link academic knowledge to practical reality and support the development of their professional capabilities.

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**SDG 7: Ensure access to affordable, reliable,
sustainable and modern energy for all.**

Goal 7 is about ensuring access to clean and affordable energy which is key to the development of agriculture, business, communications, education, healthcare and transportation.

Renewable energy solutions are becoming cheaper, more reliable and more efficient every day. Our current reliance on fossil fuels is unsustainable and harmful to the planet, which is why we have to change the way we produce and consume energy. Implementing these new energy solutions as fast as possible is essential to counter climate change, one of the biggest threats to our own survival.

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“Engineering Alternative Routes for Iraqi Energy Security”

(Thursday, April 16, 2026)

Under the patronage of the esteemed President of Al-Karkh University of Science, Prof. Dr. Jumaa Salman Jiyad, and the Dean’s Office of the College of Engineering organized a scientific lecture titled “Engineering Alternative Routes for Iraqi Energy Security” on Thursday, April 16, 2026.

The lecture was delivered by Dr. Furat Ata Saleh, a faculty member in the Department of Remote Sensing and Geophysics at our university.

The lecture addressed the relationship between artificial intelligence and energy security, as well as the potential for its use in addressing the crises and challenges facing Iraq under current circumstances. The event was well-attended by professors and those interested in scientific and engineering matters, including.

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SDG 11: Sustainable Cities and Communities.

The world's population is constantly increasing. To accommodate everyone, we need to build modern, sustainable cities. For all of us to survive and prosper, we need new, intelligent urban planning that creates safe, affordable and resilient cities with green and culturally inspiring living conditions.

Smart cities: are committed to systemic sustainability, transform energy systems and devise mobility options to counteract climate change, offering optimal quality of life to their citizens with minimum use of resources; additionally, engaging their inhabitants in co-developing new business models in support of the transition to energy-efficiency and a circular economy

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Training Workshop on Smart, Green, and Sustainable Cities (June 29, 2026)

Under the patronage of Prof. Dr. Jumaa Salman Jiyad, President of Al-Karkh University of Science, the College of Engineering / Al-Karkh University of Science, in collaboration with the College of Engineering / Al-Mustansiriya University, organized an online training workshop titled “Smart, Green, and Sustainable Cities.”

The lecture was delivered by Dr. Marwa Muhammad Ahmad (College of Engineering, Al-Mustansiriya University), and the workshop was moderated by Assistant Professor Rafe' Abbas Hassan, (College of Engineering, Al-Karkh University of Science).

The training workshop addressed the concept of smart, green, and sustainable cities as one of the most important modern trends in urban planning and urban development. The workshop aims to highlight how modern technology and artificial intelligence can be integrated with the principles of environmental sustainability in order to develop cities that are more efficient, resilient, and provide a better quality of life for residents. It also discusses mechanisms for improving resource

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management, reducing pollution, promoting the use of renewable energy, and supporting sustainable urban planning in line with the requirements of modern urban development.



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Activities of the College of Engineering

**Training Workshop at the College of Engineering to Support
Global Rankings and Environmental Sustainability**

(April 14, 2026)

Pursuant to the directives of the esteemed President of Al-Karkh University of Science, Prof. Dr. Jumaa Salman Jiyad. The Quality Assurance Department, in collaboration with the Quality Assurance Division at the College of Engineering, held a training workshop on Green Metric requirements after the university achieved high rankings in the latest assessment. The workshop included a set of guidelines to intensify efforts to transform the university's buildings, curriculum, and activities into a sustainable university that aligns with environmental requirements and sustainable development goals, and to achieve high rankings in the rankings.



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Knowledge Economy Conference
(April 15, 2026)

Faculty of Engineering Staff Participate in the Knowledge Economy Conference On Wednesday, April 15, 2024, faculty members from the College of Engineering at Al-Karkh University of Science participated in the Knowledge Economy Conference organized by the Ministry of Higher Education and Scientific Research under the theme “The Knowledge Economy... Pioneering Universities and a Sustainable Economy.”

This participation was part of the college’s commitment to strengthening ties with the industrial and technological sectors and keeping pace with the latest trends in the development of engineering education and its connection to the job market. The conference included discussions on important topics related to science parks and technology incubators.



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Events of Renewable Energy and Sustainable Development Week

(April 21, 2026)

Under the patronage of Prof. Dr. Jumaa Salman Jiyad, the esteemed President of the University, and under the supervision of the Chairman of the Renewable Energy and Sustainability Committee, Prof. Dr. Ihab Naji Abbas, Al-Karkh University of Science launched the Renewable Energy and Sustainable Development Week in collaboration with the College of Engineering, as part of the university's efforts to promote environmental awareness and support sustainability concepts.

The first day of the event featured a number of awareness-raising workshops that highlighted key issues in the field of environmental protection and sustainable development. The first workshop, titled "The Role of Law in Environmental Protection" by Assistant Professor Dr. Saddam Baddin Rahima from the College of Law, which addressed the legal frameworks and legislation supporting environmental conservation and the importance of implementing them in society.

The event also included a workshop titled "The Role of Engineering Disciplines in Advancing the Sustainable Development Goals," presented by Assistant lecturer Hind Abdel-Baqi Ahmed from the College of Engineering, during which she highlighted the contributions of engineering disciplines to finding innovative solutions to environmental challenges and achieving comprehensive development.

The workshop was moderated by Dr. Nour Samir Abdel-Jabbar, Director of the Quality Assurance and University Performance Department at the university, who

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emphasized the importance of such activities in promoting environmental awareness and strengthening the university's role in serving the community.



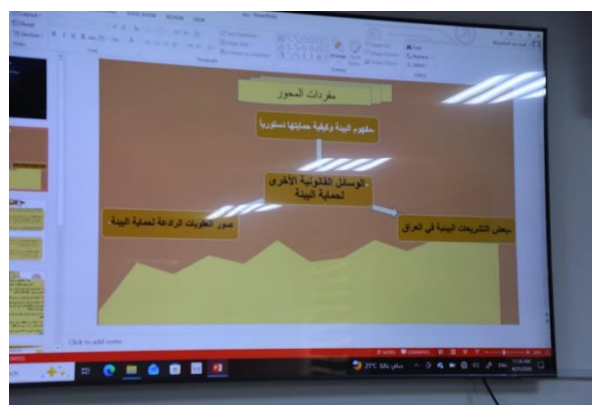
برعاية
الأستاذ الدكتور جمعة سلمان جبار
رئيس جامعة الكرخ للعلوم
وبمناسبة أسبوع الاستدامة
تنظم لجنة الطاقة المتجددة والاستدامة – جامعة الكرخ للعلوم

ورشة توعوية حضورية

المحور الأول: دور القانون في حماية البيئة
أ.م.د. صدام بدن رحيمة ... كلية القانون

المحور الثاني: دور التخصصات الهندسية في تعزيز تحقيق أهداف التنمية المستدامة
م.م. هند عبد الباقي أحمد ... كلية الهندسة

الثلاثاء 21/4/2026 11:30 - 12:30 صباحاً	إدارة الورشة د. نور سمير عبد الجبار	كلية الهندسة - قاعة الندوات موقع الجامعة الثاني- ابوغريب
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**A tree-planting campaign and an awareness campaign on the Sustainable
Development Goals to mark Sustainability Week**

(April 22, 2026)

As part of Sustainability Week activities, the College of Engineering organized a tree-planting campaign on Wednesday, April 22, 2026, within the college's corridors, coinciding with an awareness campaign on the Sustainable Development Goals, with the participation of a number of faculty members, staff, and students.

The tree-planting campaign aims to enhance green spaces on campus and raise environmental awareness about the importance of preserving the environment and achieving ecological balance, as well as to foster a culture of volunteerism among students.

The awareness campaign also highlighted the Sustainable Development Goals and their importance in building a better future, through the distribution of informational posters and the provision of a simplified explanation of the role of individuals and institutions in supporting these goals and implementing them in practice.

This initiative aligns with global trends toward sustainability and reflects the college's commitment to actively contributing to sustainable development and community service.

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