

FACULTY OF

# ENGINEERING

& TECHNOLOGY

February 2026

Community Service & Environment Development Sector

Volume 1

## ELEVATE CONTINUING EDUCATION HUB

The ELEVATE Continuing Education Hub was finalized in Fall 2025 as a cornerstone for lifelong learning.

## CHILD CITY: INTERNATIONAL WORKSHOP

The workshop brought together a distinguished group of professors and researchers from France, Switzerland, Tunisia, and Morocco, alongside students from the National School of Architecture and Urbanism in Tunisia,

## BIOMEDICAL ENGINEERING SCIENTIFIC DAY 2025

## SPE NEWS- SOCIETY OF PETROLIUM ENGINEERING

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28 September 2025

## Eng. Donia Waheed Honored as The First Postgraduate

*The Department of Mechatronics Engineering proudly celebrated Eng. Donia Waheed, the Department's first postgraduate, and now a dedicated teaching assistant in the Department of Mechanics.*

This recognition marks a significant milestone for the College of Engineering, showcasing the success of its postgraduate programs and the commitment of its graduates to advancing both academic excellence and professional growth. Eng. Dunia's achievement stands as an inspiring example for current and future students, reflecting the College's vision of nurturing leaders in engineering education and research.



## Graduate Studies Sector Prepares for Committee Visit

In line with the Faculty of Engineering and Technology's mission to continuously enhance academic programs and ensure alignment with national quality standards, the Graduate Studies and Research Sector spearheaded preparations for the upcoming visit of the Engineering Education Committee. This committee is tasked with reviewing the equivalence of master's degrees offered in the Departments of Mechatronics, Structural Engineering, and Project Management.

These efforts from the Department of Structural Engineering and Project Management, and Vice Dean for Graduate Studies and Scientific Research, reaffirm the College's commitment to advancing postgraduate education and supporting graduates by ensuring that programs are nationally recognized. The initiative strengthens academic and research opportunities both within Egypt and internationally.

### Preparations included:

- A thorough review of program and course descriptions
- Documentation of targeted learning outcomes
- Compilation of academic files and statistical data demonstrating compliance with the Supreme Council of Universities standards
- Coordination with departments to update scientific evidence, accreditation documents, and laboratory/training content

## Strategic Plan Activation & Governance

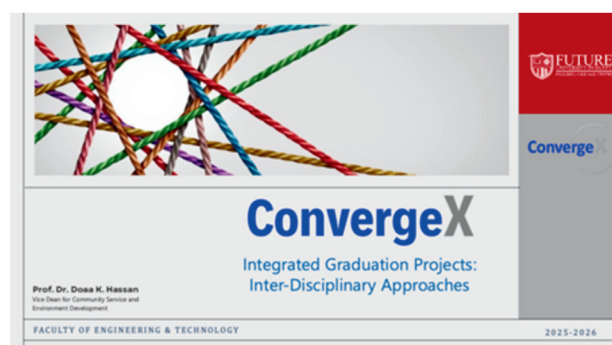
The Community Service & Environment Development Sector entered a pivotal phase in Fall 2025, moving from foundational planning to the systematic activation of its Strategic Plan. Under the oversight of the Vice Dean, the sector aligned its operations with the faculty's overall mandate, ensuring that community service and environmental objectives were translated into measurable actions.

- Community Service & Environment Development Survey (Nov 1–10, 2025): Targeted faculty staff and teaching assistants to measure awareness of the sector's role. Achieved a 61% participation rate among full-timers, providing structured feedback on coordination, communication channels, and community impact.
- Committee Governance: All four specialized committees (Community Service, Field Training, Occupational Safety, Alumni) held multiple meetings in October, November, and December, achieving a 75% activation rate of scheduled oversight sessions.

**This governance framework ensures that the sector's initiatives are data-driven, responsive, and strategically aligned with both institutional and community needs.**

## ConvergeX Initiative: Interdisciplinary Graduation Projects

Launched in Fall 2025, the ConvergeX Program promotes Integrated Graduation Projects (IGPs) by breaking down academic silos and encouraging interdisciplinary collaboration.



- Heritage Preservation Project: Led by Prof. Dr. Yehya Serag, this proposal focuses on the adaptive reuse of the Qurqumas and Inal Complex in Cairo. It integrates architectural, structural, mechanical, and electrical expertise to transform a neglected Mamluk-era site into a sustainable community asset. Innovations include renewable energy-based ventilation systems and structural stabilization techniques.
- Pharmaceutical Equipment Manufacturing Project: A collaboration between the Faculties of Pharmacy and Engineering to design and locally produce specialized laboratory equipment for tissue engineering. The project involves developing a 30kV High-Voltage DC source and an electrified jet nozzle, with contributions from Mechatronics and Electrical Power departments.

Two active interdisciplinary projects exceeded the target, demonstrating the faculty's commitment to holistic problem-solving and innovation.

# Field Training Committee: Expanding Industry Linkages

The Field Training Committee made significant strides in modernizing student training programs:

- Regulatory Framework: Implementation of the new organizational regulations for field training. The field training system is currently being developed and digitized.
- Evaluation Quality: Developing student satisfaction surveys, employer feedback forms, and standardized training report templates.
- training specifications: Work underway to finalize training specifications tailored to each academic specialization.

## Occupational Health, Safety & Crisis Management

**Safety Documentation & Crisis Readiness were a major focus in Fall 2025:**

These initiatives demonstrate the faculty's commitment to safety, sustainability, and crisis readiness.

- Safety Documentation & Crisis Readiness: The University's "Safety & Security Document" was adopted, tailored, and approved as the 'Emergency Plan for the Faculty of Engineering and Technology' during the Faculty Board meeting on December 17th.
- Facility Readiness – Safety & Maintenance: Biannual completion of the "Laboratory Safety Form" (January & August) was established to verify maintenance by the Engineering Maintenance Department. A comprehensive laboratory audit report was submitted to the Faculty Dean and University President. The "Safety Standards Verification Form" was approved for monthly review by the Building Manager.
- Emergency Drills: A successful evacuation drill was conducted on October 22, 2025, with full evacuation achieved in 6 minutes. A post-drill evaluation report was issued following a faculty-wide awareness campaign.
- Waste Management: A proposal for a comprehensive Waste Management Protocol was submitted, including a potential partnership with "Bekia" to support safe disposal and recycling, promote sustainability, and provide practical learning opportunities for students.

These efforts strengthen the faculty's ability to bridge academic learning with industry demands, preparing students for global job markets.

## Strengthening Graduate Relations

The Alumni Committee advanced several initiatives to enhance graduate engagement:

- **Benchmarking:** Held a meeting with Ain Shams University's Alumni Unit on December 3, 2025, via Microsoft Teams, to develop a comprehensive alumni management system.
- **Database Expansion:** Work underway to grow the graduate database and improve communication channels.
- **Continuing Education Integration:** Alumni activities are being linked to the faculty's ELEVATE Hub, ensuring lifelong learning opportunities.

These efforts aim to build a sustainable alumni network that supports employability, skill development, and institutional growth.



## Continuing Education: Launch of the ELEVATE Hub

The ELEVATE Continuing Education Hub was finalized in Fall 2025 as a cornerstone for lifelong learning.

The Strategic Blueprint guides the ELEVATE Hub, aligning with Future of Jobs 2025 and focusing on market insights, program creation, operations, and branding. It features specialized tracks like HVAC, Quality Control, and Interior Design, promotes faculty-led innovation, and aims for three courses each semester, with two set to launch in December 2025.

**FUTURE**  
FACULTY OF ENGINEERING & TECHNOLOGY

### Future of Lifelong Learning

Strategic Blueprint for the Faculty of Engineering & Technology Continuing Education

Future of Jobs Report 2025 – WORLD ECONOMIC FORUM

Cross-Institutional Study of Continuing Education Centers

Institutional Capacity Assessment: Faculty of Engineering, Future University

DEVELOPED BY  
Prof. Dr. Doaa Kamal Eldin Kamel Hassan  
Vice Development/Dean of Community Service and Environment

UNDER THE AUSPICES OF  
Prof. Dr. Mohammed Abdulmetaal  
Dean of the Faculty of Engineering & Technology

**ELEVATE**  
Continuing Education Hub

Elevate Your Skills  
Elevate Your Future

Faculty of Engineering & Technology  
Tel: 16383 (16FUE) Fax: +202 20186111 [www.fue.edu.eg](http://www.fue.edu.eg)

## Performance Indicators (KPIs) – Fall 2025

- Emergency Response Efficiency: Evacuation drill completed in **6 minutes**.
- Safety Verification Compliance: Monthly safety forms approved, **starting January 2026**.
- Survey Engagement: **61% participation rate** in the Community Service Survey.
- Committee Governance Activation: **75% conduction** of scheduled meetings.
- Laboratory Safety Audit: **Completed** December 16, 2025.
- Interdisciplinary Integration: 2 active ConvergeX projects (**target: 1**).
- Continuing Education Courses: 2 courses offered (**target: 3**).

*The Fall 2025 Achievement Report highlights a successful transition toward interdisciplinary integration, safety readiness, alumni engagement, and lifelong learning. With initiatives like ConvergeX and the ELEVATE Hub, the sector is preparing for Spring 2026 with a focus on launching new courses, formalizing industrial partnerships, and continuing to bridge academic excellence with societal impact.*

## Hosting distinguished architect and consultant, Prof. Dr. Tamer El-Gabaly

proudly hosted an inspiring architectural lecture at the Faculty of Engineering & Technology, delivered by the distinguished architect and consultant, Prof. Dr. Tamer El-Gabaly.

Titled “An Architect’s Ever-Evolving Journey: A Generative Methodology for a Redefined Architectural Vision,” the lecture offered valuable insights into professional growth, generative design concepts, and innovative methodologies shaping the future of architecture.

The event reflected FUE’s continuous commitment to academic excellence, knowledge exchange, and exposing students to real-world professional expertise.



# Architecture Department

## Child City: International Workshop

27 November – 1 December 2025

The poster features a vertical purple-to-orange gradient bar on the left with the text 'INTERDISCIPLINARY PROJECT' and 'funded by Leading House MENA'. The main text includes the event title 'CHILD'S CITY VILLE À HAUTEUR D'ENFANT 2025' and lists the patronage of Prof. Ebada Sarhan, Prof. Abdel Wahab El-Ghandour, and Prof. Mohamed Abdel-Motaal. It also mentions the organizing department and the date '27 NOV 2025, AT 1:30PM'. A QR code for registration is provided, along with logos for various partner institutions like Hes SO, Leading House MENA, Soundscape, NS/AG, AAU, Fenau, and Anaspaces.

The workshop brought together a distinguished group of professors and researchers from France, Switzerland, Tunisia, and Morocco, alongside students from the National School of Architecture and Urbanism in Tunisia, Ain Shams University, and Future University in Egypt.

The Department of Architecture at the Faculty of Engineering proudly organized an international workshop entitled “Child City” as part of a global research project funded by the LHMENA. The workshop, held from 27 November to 1 December 2025, was supervised by Prof. Dr. Noha Gamal with the support of Arch. Mohamed El-Sayed and Arch. Mariam Maged.

**Over the five-day program, participants engaged in a variety of activities designed to blend theory with practice:**

### Activity 1: keynote speech

Including a keynote by renowned French architect Salima Naji, celebrated for her pioneering work in sustainable local construction using natural materials.

The poster features a purple-to-orange gradient bar on the left with the text 'ARCHITECTURE TALKS' and 'ARCHITECTURE AND LANDSCAPE OF CARE'. The speaker is identified as 'SALIMA NAJI'. The text describes the event as a public lecture organized by Future University in Egypt and the Faculty of Engineering, scheduled for '27 NOV 2025, AT 2:00PM' at the 'UNIVERSITY MAIN THEATER'. A QR code for registration is provided, along with logos for partner institutions like Hes SO, Leading House MENA, Soundscape, NS/AG, AAU, Fenau, and Anaspaces.

### Activity 2: Workshops & Research Discussions

Focused on analyzing urban environments from a child's perspective, with emphasis on inclusivity and safety.



# Architecture Department

## Activity 3: Exhibition:

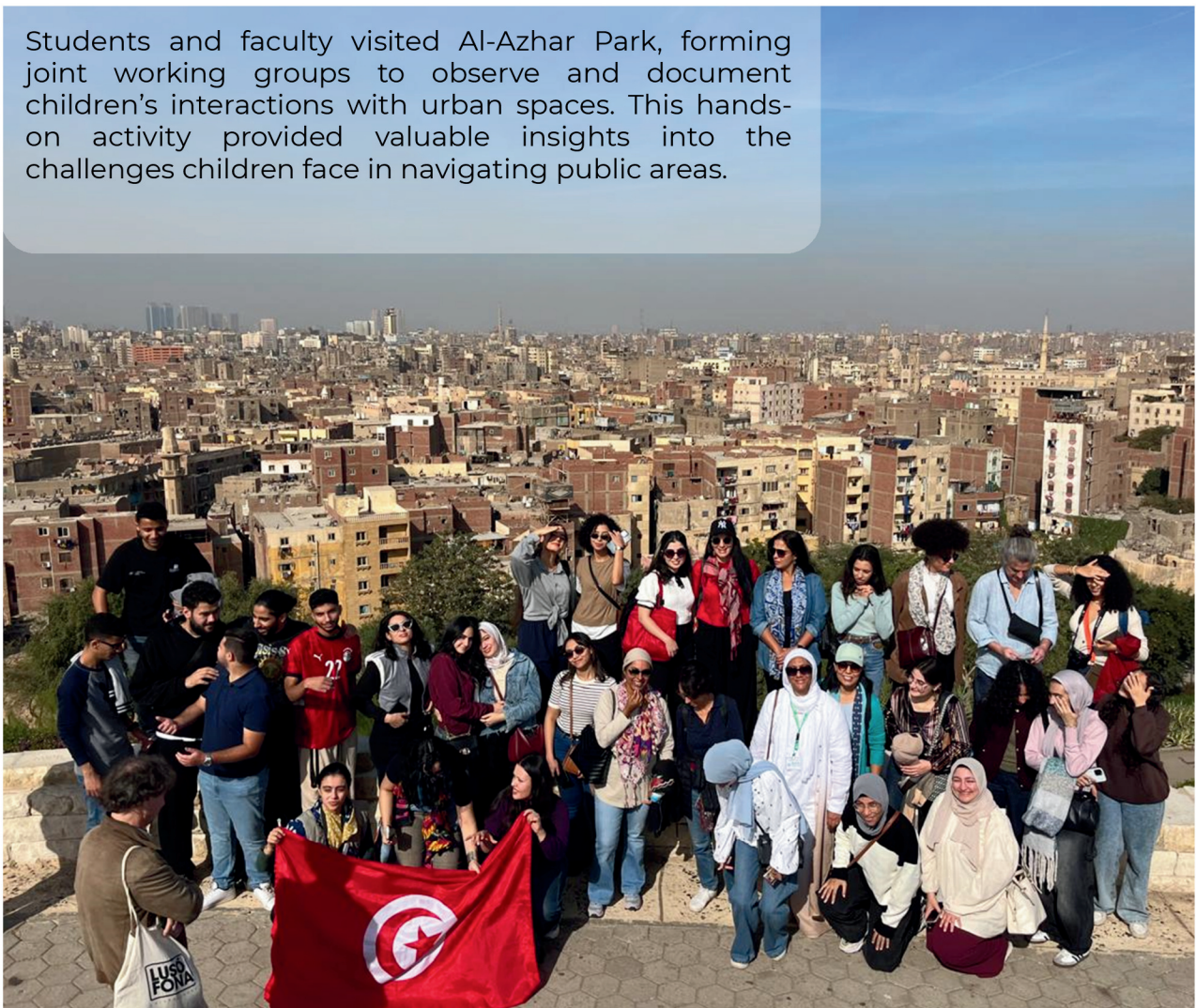


Hosted at Future University, showcasing innovative student projects from multiple countries. Creative methods such as caricatures, storytelling, animations, films, and interactive urban pathways were used to express research findings in child-friendly and engaging ways.



## Activity 4: Field Visit

Students and faculty visited Al-Azhar Park, forming joint working groups to observe and document children's interactions with urban spaces. This hands-on activity provided valuable insights into the challenges children face in navigating public areas.



# Architecture Department

## Tunis Village as a Living Classroom

15 October 2025

Offering students a unique opportunity to connect theoretical knowledge of environmental design with real-world applications in local architecture.

The visit aimed to move beyond classroom concepts of passive design and immerse students in the lived experience of environmentally responsive architecture. By observing traditional techniques in situ, students gained a deeper understanding of how local wisdom can inform modern sustainable design.



# Design Meets Reality: Halloumi Factory Visit Inspires Future Architects

16 October 2025

*A valuable educational visit to the Halloumi Factory and Exhibition for Furniture Manufacturing in Alexandria for the Interior Design Program, led by Dr. Basant Abu Shal, Arch. Aya Ahmed and Arch. Mariam Maged.*

# Architecture Department

## Exploring Cairo's

### Urban Heritage: Ain

### Al-Sira to Heliopolis

23 October 2025

Led by Dr. Dina Maarouf Ahmed and Eng. Salma Al-Gendy, architecture students participated in a scientific trip designed to connect classroom theory with real-world urban environments. The visit formed part of the Urban Design and Housing Project, giving students the chance to analyze cultural landmarks, historic neighborhoods, and modern planning concepts.



At the Village of Pottery (Al-Fakhareen), students explored workshops and exhibition halls, engaging directly with artisans and their crafts. The final stop was Heliopolis (Roxy and El Korba), where students observed iconic streets and landmarks tied to the historic planning of the district, reinforcing lessons from earlier lectures on the emergence of Heliopolis.

The trip began at the Museum of Civilizations in Ain Al-Sira, where students studied interior galleries, circulation paths, and external spaces, with special focus on parking and access points. They then toured adjacent lands including Ain Al-Sira Lake, Fustat Park, Fustat Antiquities, Fustat Market, Amr Ibn Al-Aas Mosque, and the Complex of Religions, examining how redevelopment projects—such as the Arabesque Housing Project—can revitalize neglected areas and raise land value.



# Biomedical Department Shaping the Future of Dentistry: AI Meets Clinical Practice

The American University successfully hosted a two-day workshop titled “Artificial Intelligence in the Field of Dentistry” on December 19–20, 2025, highlighting the growing role of AI in advancing dental education and practice.

The workshop brought together a diverse group of academics and professionals from the College of Dentistry, the College of Computer Science, and the College of Engineering and Technology, all united by a shared interest in interdisciplinary innovation at the University of the Future.

Participants in the workshop received hands-on training in developing an AI program to classify optimal patient treatment options by analyzing past cases. This promoted interdisciplinary knowledge exchange and highlighted AI's role in healthcare decision support. Certificates of completion were awarded to attendees, marking progress in integrating AI into dental and medical practices.

The College of Engineering and Technology was represented by distinguished participants, including:  
Prof. Dr. Mohamed Tariq Al-Wakdad, recognized for his precise specialization in mechanics and biomaterials in dentistry.  
Assoc. Prof. Dr. Nevin Saleh Khalil, whose work includes extensive research on the application of artificial intelligence in medical engineering.



# Biomedical Department

## Bridging Academia and Industry: Biomedical Engineering Scientific Day 2025



### iMed inc VISION

- iMed-Inc aims to establish itself as a leading company in the Radiology Market by covering a vast area, thereby earning the distinction of MARKET LEADERSHIP in innovative, high-quality, and cost-effective medical imaging and healthcare services across the MENA region.

### iMed inc MISSION

- Establish a strong presence in the market by delivering exceptional customer satisfaction through our medical solutions and after-sales services. Simplify the process of engaging with our medical solutions and after-sales services.
- To realize our vision, it is essential to accomplish these objectives.

### iMed inc OBJECTIVES

- Our goal is to recognize and appreciate the exceptional values of our customers, while also ensuring that we capture those values in return. We are committed to
- sourcing the highest quality in design and cutting-edge technology for our machines, providing the medical market with the appropriate solutions to ensure customer satisfaction. We aim to foster successful and profitable
- relationships by offering the most advanced technology in our machines, enabling doctors to deliver precise diagnoses for their patients.

#### CONTACT US

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On December 8, 2025, the Department of Biomedical Engineering at the Faculty of Engineering, Future University organized its Scientific Day for the 2025–2026 academic year, with the participation of leading companies and industry experts in the biomedical engineering field.



### Internship program and job fair



# Electrical Department Future University Showcases Research at IEEE CPERE 2025

28–30 September 2025 | Aswan

The Faculty of Engineering and Technology proudly announces the participation of Dr. Mostafa Salah, lecturer in the Department of Electrical Engineering, at the prestigious IEEE Conference on Power Electronics and Renewable Energy (CPERE 2025) held in Aswan.

Dr. Salah presented a paper entitled “Semiconductor Organic Solar Cell Using SCAPS”, a research project developed in collaboration with three students from the department. This work represents one of the key outcomes of the Semiconductor Devices course within the Electronics and Communications Program, highlighting the strong link between academic coursework and cutting-edge research.

## Electrical Engineering Research Shines in Japan- Africa Conference

15–17 December 2025 | Borg El Arab

The Faculty of Engineering and Technology proudly announces the participation of Dr. Mohamed Moussa, Lecturer in the Department of Electrical Engineering, at the 13th International Japan-Africa Conference on Electronics, Communications and Computations (JAC-ECC 2025) hosted by the Japanese University in Borg El Arab.

The paper was discussed with international attendees and professors specializing in renewable energy and semiconductor technologies.

The project highlights the faculty's commitment to mentorship and student involvement in high-level research, ensuring that classroom learning translates into global academic contributions.

### Research Contribution

Dr. Moussa presented and published a peer-reviewed paper entitled: “Study of Organic Solar Cell Performance with Variations of Different Parameters.”

This research was co-authored by three students from the department, reflecting the strong integration of student projects into internationally recognized research. The study originated from coursework in the Semiconductor Devices program, supervised jointly by Dr. Mohamed Moussa and Dr. Mustafa Salah.



# Mechanical Department Academic

## Promotions:

The Department of Mechanical Engineering extends heartfelt congratulations to Dr. Mohamed Abdel Bar Shams El-Din and Dr. Amr Ismail on their promotion to Assistant Professor by the Supreme Council of Universities.



Dr. Amr Ismail



Dr. Mohamed Abdel

After fulfilling their eligibility period, they applied for promotion to Assistant Professor. Their research was recognized for its quality and impact, leading the Council of Future University to endorse their promotion to Assistant Professor in Mechanical Engineering on September 24, 2025.

## International Publication: Research in Q1 Journal

Graduates of the Mechatronics Engineering program achieved a milestone by publishing their graduation project in a Q1-ranked international journal (Scopus).

The paper, focusing on AI and machine learning applications in micro-wind turbine design, demonstrates the faculty's leadership in renewable energy and applied mathematics.

**Authors:** Raneem Mansour, Saifuddin Osama, Hazem Ahmed, Mohamed Nasser, Nourhan Mahmoud

**Supervisors:** Dr. Amr Ismail, M.M. Amira Al-Qadama

## ITIDA Support for Wind Turbine Project

A graduation project supervised by Dr. Zakaria Mustafa Maarouf received financial support from ITIDA under the Graduation Projects Support Initiative.

The project focuses on improving renewable energy efficiency using Savinius wind turbines, showcasing the faculty's role in driving innovation with national industry support.

## Hands-On Learning: Microcontrollers Course Projects



Mechanical Engineering students completed the "Introduction to Microprocessor" course (Spring 2025) with impressive projects using the AVR ATmega 328p microcontroller. Notable projects included an Automatic Filling Machine, Fire Extinguisher, Voting Machine, and Two-Way Traffic Lights, supervised by Dr. Mohamed Abdel Barr and Eng. Donia Wahid.

# Mechanical Department Energy Conversion Systems Projects Praised by Experts

Fifth-level students showcased innovative renewable energy solutions in the Energy Conversion Systems course (Spring 2025) supervised by Dr. Zakaria Mostafa Maarouf.



# Academic Milestone: Dr. Rana Saleh Promoted to Lecturer

Ph.D. Awarded – 14 October 2025 |  
Lecturer Appointment – 25 October  
2025



# Student Achievement: Special Jury Award at Ibdaa Festival 2025

15–17 December 2025 | Borg  
El Arab

The Faculty of Engineering proudly celebrates the success of its students whose graduation project, “Improving the Efficiency of the Electric Vehicle Using Solar Panels”, won the Special Jury Award at the Ibdaa Festival for University Youth (Season 13, 2025).



The Department of Mechanical Engineering proudly congratulates Dr. Rana Saleh on her outstanding academic achievement. Dr. Rana Saleh successfully obtained her Ph.D. in Mechanical Engineering from the Faculty of Engineering at Cairo University on 14 October 2025.

# Petroleum Department Career Camp 2025: Discover Your Path, Build Your Future

Future University in Egypt is hosting Career Camp, an interactive on-campus event organized by the SPE (Society of Petroleum Engineers) – FUE Student Chapter, with supervision from the Faculty of Engineering and Technology.

Career Camp 2025 took place on November 22, 2025, at the Faculty of Engineering, Future University in Egypt, organized by the AMPP Egypt Student Chapter and AMPP Central. The full-day event featured a parallel-track program for students from various faculties, offering technical and non-technical sessions on topics such as career readiness, CV writing, interview skills, professional English, digital marketing, data analysis, machine learning, software testing, logistics, graphic design, voice-over, and content creation.

## Academic Promotion:

Future University in Egypt recognized Assoc. Prof. Dr. Omar Saad Ahmed Mahmoud from the Department of Petroleum Engineering on September 28, 2025, during a ceremony for faculty achievements. His promotion to Assistant Professor reflects his exceptional contributions and leadership in advancing research and education in petroleum engineering.



# Petroleum Department Discussion of the Master's Thesis in Petroleum Engineering at Suez University

Eng. Akram Rabie Hamed Tobar, a Demonstrator in Petroleum Engineering at Future University, evaluated a Master's thesis at Suez University on November 2, 2025. The thesis, "Nanotechnology Applications for Enhancing Drilling Fluid Properties in High Pressure and Temperature Wells," was reviewed by a distinguished committee. The student was recommended for a Master's degree with excellent grades, highlighting the high quality of research and supervision.

# Global Recognition: Dr. Omar Mahmoud Wins SPE Outstanding Associate Editor Award

**Assoc. Prof. Dr. Omar Saad Ahmed Mahmoud** of the Department of Petroleum Engineering has been honored with the **2025 Outstanding Associate Editor Award by the SPE Journal (OnePetro)**. This international award recognizes his exceptional dedication to ensuring timely manuscript management, high-quality peer review, and rigorous scientific standards, highlighting his vital role in advancing research excellence and scholarly integrity in petroleum engineering.

He has also received the 2025 SPE Journal Outstanding Technical Reviewer Award, an honor given to just 0.1% of SPE's over 150,000 members. His exceptional dedication to peer review has earned him this award for four consecutive years (2022–2025), highlighting his commitment to advancing research in petroleum engineering.



# Petroleum Department Students Visit SLB REDA Pump Facility and Visit Tam OilField Services Headquarters

On December 14, 2025, the SPE – FUE Student Chapter organized a field trip to the SLB REDA Pump Facility for petroleum engineering students, enhancing their technical knowledge and skills through observation of advanced pumping systems. Special thanks were given to Eng. Ayman Abou Zeid, Eng. Mina Gendy, Eng. Shorouk Qandil, and the SLB team.

# Petroleum Engineering Orientation Day

On November 12, 2025, the Department of Petroleum Engineering hosted an Orientation Day for first-year students to assist in major selection. Assoc. Prof. Dr. Omar Saad Ahmed Mahmoud presented the program's scope, faculty expertise, and advanced lab facilities. The session highlighted the SPE – FUE Student Chapter's achievements to guide students in their career decisions.



On December 18, 2025, another field trip was arranged to Tam OilField Services Headquarters in Alexandria, providing hands-on exposure to industrial processes. Thanks were extended to Eng. Karim Mutair, Eng. Ahmed Sami, and the Tam OilField Services team for their support.



“

**The Engineer has been,  
and is, a maker of history**

James Kip  
Finch