# Hijjawi Faculty Newsletter

**Issue 12** October 1st 2024

**Yarmouk University**
Hijjawi Faculty for Engineering Technology

# Yarmouk University

## Hijjawi Faculty for Engineering Technology

### Our Vision

Towards a distinct faculty in teaching and research exists among 500 best faculties in the world in the various fields of engineering by the year of 2025.

### Our Mission

Excellence in teaching, scientific research and community service through the provision of high-quality education in line with the latest developments in various fields of science and engineering, and closely linked with industry as well as various community needs.

### Our Objectives

- Provide high-quality education in line with the latest developments in the various fields of science and engineering.
- Achieve partnership with industry to prepare qualified graduates to work efficiently in this sector.
- Establish research centers to get familiar with the community needs and work to find effective solutions to these needs.
- The presence as a strong competitor in the field of scientific research in the world, through the quantity and quality of scientific publications issued by the faculty.

### Our Values

The faculty seeks to prepare the graduate to be a good person who is productive in his community and loyal to his country and nation. Therefore, the faculty focuses on developing the student's personality and inclinations, encouraging him to be creative, and developing his moral aspect, which contribute to the preparation of the elites and the leaders of the future.

*Established in **1984***

***9** Engineering Departments (**11** B.S. / **6** M.S.)*

*More than **12,000** Engineering Graduates*

***125** Academic Staff*

***76** Admin Staff & Lab Engineer*

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# Dean's Message

I'm delighted to welcome you to the first issue of the Hijjawi Faculty for Engineering Technology Newsletter in the academic year 2024 / 2025.

We find ourselves in an era of rapid transformation – an era where innovation, sustainability and digitalization are shaping the future of our profession. The challenges we face are enormous, but so are the opportunities, and my vision is that we, together as members of this prestigious Faculty, will rise to meet them, armed with the latest technology that our beloved university has provided us.

Across the world, engineering is at the forefront of addressing the most pressing issues of our time. Climate change, digital transformation, smart cities and the integration of artificial intelligence into everyday life are all reshaping the landscape of industry, research and education. The engineering community plays a central role in addressing these challenges, and it is imperative that Hijjawi Faculty not only keeps pace with progress but also leads the way. I envision our Faculty as a hub for cutting-edge research, creative solutions and sustainable innovations that resonate globally while remaining deeply connected to the needs of our home and region. The future belongs to those who are willing to adapt, learn and evolve rapidly in the dynamic environment that characterizes our era and our profession.

Our priority will be to foster a culture of collaboration and innovation by engaging all stakeholders. Innovation does not happen in isolation, it thrives when we bring together diverse perspectives and expertise, and that is exactly what we aim to foster here at Hijjawi Faculty. Our success depends on everyone working together to achieve our common goals. Whether it is through interdisciplinary research projects, partnerships with industry, or hands-on, professional learning experiences, we must actively seek out new ways to solve the complex problems facing society, ensuring that our graduates have the technical skills the job market demands, as well as the leadership and ethical foundations needed to shape the future.

As we embark on this journey, we will focus on several key areas, including but not limited to, Sustainability, Digital Transformation, Student Empowerment, and Global Partnerships.

Some may find this vision a bit ambitious, but I believe that together we can make it a reality. Let us unite under the common goal of transforming Hijjawi Faculty for Engineering Technology into a world-leading Faculty in engineering education and research. We have the talent, resources and drive to succeed, and now is the time to work together to build a better future for all.

Finally, I ask each and every one of you to be part of this ambitious plan through participation, collaboration and innovation. Your role, support and positive engagement are crucial to the success of this vision and the achievement of its goals. **Let us build together on the legacy of this great Faculty and continue the path of achievement that has accelerated, especially during the last four years, which motivates us to strive towards a future led by creativity locally, regionally and globally.**

I hope you have a pleasant experience as you read this issue of the Faculty newsletter.

Happy new academic year 2024 / 2025!

**Prof. Mohammad A. Alzubaidi, PhD**
**Dean**

# Alumni

## Dr. Ammar Qaffaf

**Dr. Ammar Qaffaf (Class of 2003),** is a distinguished technopreneur with over two decades of expertise in Information Privacy, Security, and Digital Transformation. His journey began at the Hijjawi Faculty for Engineering Technology at Yarmouk University, where he earned his Bachelor of Science in Computer Engineering in 2003. This foundation propelled him towards further academic achievements, including a Master's in Telecommunications Engineering from the University of Malaya in Kuala Lumpur, Malaysia and a Ph.D. in Information Systems from Nova Southeastern University in the Florida, the United States, where he focused on advancing security frameworks for digital platforms.

Dr. Qaffaf's career in telecommunications began shortly after graduation when he joined Orange Jordan, one of the country's leading telecom operators. His career then took him across four continents, where he worked on various high-impact projects in the telecom and technology sectors. After gaining this rich international experience, Dr. Qaffaf returned to Jordan to take on the role of Digital Transformation Director at Umniah, another major telecom player in the country. In this position, he spearheaded innovative initiatives that significantly enhanced the company's digital capabilities and customer experience, applying the global insights he had acquired during his time abroad.

Throughout his career, Dr. Qaffaf has made a substantial impact on the global tech stage. His leadership has been central to the successful launch and expansion of mobile service providers in a variety of markets, including the United States, Mexico, Brazil, Peru, Saudi Arabia, the UAE, and Malaysia. His work has spanned not only major technology hubs but also emerging markets, where he has overseen complex technological deployments and ensured the successful delivery of cutting-edge digital platforms in highly competitive environments.

Dr. Qaffaf's portfolio showcases a range of projects that highlight his versatility and innovative approach. His work spans various sectors including telecommunications, sports technology, education, logistics, FinTechs, and PropTechs. In these fields, he has consistently

leveraged cutting-edge technologies such as AI, cloud computing, and blockchain to deliver scalable, forward-thinking solutions.

In addition to his technical achievements, Dr. Qaffaf has also refined his leadership skills. He completed the Oxford Executive Leadership Programme at Saïd Business School, University of Oxford, which helped him hone his strategic thinking and ability to navigate complex business challenges with clarity and vision.

Dr. Qaffaf has been working across major tech hubs including Miami, Amman, and Dubai, focusing on solving complex challenges in digital transformation, innovative payment models, and AI-driven platforms. His expertise is further validated by industry-recognized certifications in cloud architecture and solutions design.

Dr. Qaffaf holds multiple industry certifications, including Professional Google Cloud Architect and AWS Certified Solutions Architect - Professional, and is actively involved in professional organizations such as IEEE and ACM.

## Eng. Khaldun Abu Zaytoun

**Khaldun Abu Zaytoun (Class of 2004),** is a Senior Sales Manager in Carrier Company, leading the sales team in Saudi Arabia for Low current systems Market. He is an NFPA72 certified and member of NFPA. He has more than 15 years of experience with international companies in the region like HONEYWLL and CARRIER.

He has many years of experience in Low current systems (Computer Networks, Fire Alarm Systems, Security Systems, Audio Video Systems, etc.

As a Senior Sales Manager, Khaldun is trained and trainee for many sales skills like negotiation skills, time management, professional communication writing and many other skills.

In addition, Khaldun is an NFPA72 certified, he have a very extensive experience in fire alarm system design and built according for bot the American Standards and European Standards.

## Eng. Bara' Al-Etawi

**Bara' Al-Etawi (Class of 2023)**, a distinguished alumnus of Hijjawi Faculty for Engineering Technology, completed his degree with top honors and has quickly risen to become a distinguished AI and Data Scientist Developer in the tech industry. His current role allows him to harness the power of artificial intelligence in innovative and impactful ways, applying it across a range of complex use cases.

In his daily work, Bara' deals with vast and intricate datasets, ensuring that every model he develops is fed with the cleanest, most accurate data possible. His expertise in data cleansing forms the foundation of his models' success, ensuring that AI delivers results with precision. With a keen understanding of data engineering, Bara' oversees the entire ETL (Extract, Transform, Load) process, selecting the right schemas and tools to handle and process data efficiently.

Bara' employs both classic machine learning algorithms and cutting-edge neural networks to address the unique challenges presented by each project. His ability to draw upon these techniques has enabled him to deliver exceptional results, optimizing processes and solutions in ways that were previously unachievable.

As the tech world shifts toward the use of Large Language Models (LLMs), Bara' stays at the forefront by integrating these models into his work. His meticulous fine-tuning of LLMs ensures that they align perfectly with the specific needs of his company, sharpening their accuracy and maximizing performance. His innovative approaches in this area reflect his drive to push boundaries, always seeking to enhance AI's capabilities for the benefit of the business.

Bara's journey from Hijjawi Faculty for Engineering Technology to a key player in the AI industry is a testament to his talent, dedication, and relentless pursuit of excellence. His contributions to the field are not just recognized within his company but are a shining example of what our graduates can achieve.

## Eng. Sameh Betamony

**Sameh Betamony (Class of 2017),** is an electrical engineer specializing in power systems and renewable energy. He earned his bachelor's degree in Electrical Power Engineering from Yarmouk University in 2017. During his studies, he completed a six-month internship at Kawar Energy, working on the Yarmouk University photovoltaic (PV) project.

Following his internship, Sameh worked for two years as a Design and Implementation Engineer at Kawar Energy, where he gained experience in various solar energy projects, including rooftop and ground-mounted PV systems.

In 2020, Sameh received a scholarship to pursue a master's degree in Electrical Engineering for Smart Grids and Buildings at Grenoble INP Ense³ (Institut d'ingénierie et de management, Grenoble Institute of Technology), France. As part of his master's program, he completed an internship at G2Elab (Grenoble Electrical Engineering Laboratory), where he collaborated with the power electronics team on controlling Voltage Source Converters (VSC) for interfacing battery systems with the electrical grid.

He later received a scholarship from the French Embassy in Jordan to support his PhD studies at the University of Grenoble Alpes, in collaboration with G2Elab and the French Alternative Energies and Atomic Energy Commission (CEA). His research focuses on the stability and control of microgrids with a high penetration of power electronics-based sources and loads.

As a next step, Sameh will join the SuperGrid Institute in Lyon as an R&D Engineer within the Supergrid Architecture & Systems team. His work will focus on prototyping and validating control systems and protection schemes for High Voltage Direct Current (HVDC) and Medium Voltage Direct Current (MVDC) grids.

In addition to his professional career, Sameh has been actively involved in IEEE volunteering. He played a key role in reactivating the IEEE Student Branch at Yarmouk University and has participated in and organized various events, including the IEEE Jordanian Student Branches Congress. Recently, he served as the Chairman of the IEEE Region 8 Student and Young Professionals (SYP) Congress 2024 in Grenoble, France.

# Faculty News

## Hijjawi Faculty Leads the Activities of an International Project to Develop Virtual and Remotely Managed Engineering Laboratories


Hijjawi Faculty for Engineering Technology at Yarmouk University led the activities of the third meeting of the project "Development of Virtual and Remotely Managed Laboratories for the Education and Training of Engineering Students in the Southern Mediterranean and Higher Education Institutions in the Southern Sahara (RL4Eng)", funded by the European Union under the Erasmus Plus program, which was held at Mohammed V University in the sisterly Kingdom of Morocco. This project comes within the framework of the ongoing efforts to enhance the role of universities in developing engineering education and training in the Southern Mediterranean and Southern Sahara region.

The workshops included the participation of 15 partners from Jordan, Lebanon, Morocco, Tanzania, Spain and Germany, with the aim of exchanging knowledge and expertise in the field of engineering education and enhancing the capabilities of faculty members and training students through virtual and remotely managed laboratories. The project management team at Yarmouk University, consisting of Dr. Mohammad Alzubaidi, Dr. Dania Bani Hani and Dr. Ali Shehadah from Hijjawi Faculty, presented the university's pioneering role in implementing the project, which demonstrated how faculty members and students of Hijjawi Faculty benefit from the resources that the project will provide in the fields of teaching, training and development of graduation projects, which were directed towards vital sectors based on real needs that can be applied in the local and regional market, taking into account technological developments in the field of smart applications.

The project manager, Dr. Mwaffaq Otoom, explained that these initiatives come within the university's efforts to develop the teaching and learning experience, build academic capabilities and enhance applied research through international cooperation and joint projects with academic institutions in various countries of the world, adding that this project represents an opportunity to provide innovative educational models that support students and enable them to engage in developing advanced technological solutions that are in line with the changing needs of the market.

He pointed out that Yarmouk University seeks to strengthen its international partnerships and expand the scope of benefiting from such projects to raise the level of engineering education and enhance technological innovation in various fields, with a focus on meeting development needs locally, regionally and globally.

It is worth noting that Yarmouk University won last year funding from the European Erasmus Plus program with a total value of about 800,000 euros as the owner of this project to manage

## The Dean Meets the Hijjawi Faculty for Engineering Technology General Body

Prof. Mohammad A. Alzubaidi the Dean of Hijjawi Faculty for Engineering Technology held a faculty general body meeting to discuss the strategic plane for the Faculty. Prof. Alzubaidi started the meeting by welcoming the faculty members and staff. He thanked them for their dedicated work in the Faculty and the University.

Afterward, Prof. Alzubaidi presented his administrative plan for the Faculty over the next two years and discussed with the faculty members their aspiration for the future of the Faculty.

The meeting concluded with choosing the Faculty representatives for the University Council.

## Hijjawi Faculty Participates in MedDebate Conference at the German Jordanian University


A delegation of students from the Hijjawi Faculty for Engineering Technology participated in the conference organized by the German Jordanian University. The conference addressed the topic "Debate in Healthcare Technology: Exploring Diverse Perspectives" and saw extensive participation in discussing controversial topics in biomedical engineering and healthcare.

Student Hassan Abu Sarris from the Computer Engineering Department served as a judge in the Future Council, overseeing and managing discussions on future-related topics concerning "Neuralink" technology, with the assistance of student Ahmed Al-Quraan. The discussion focused on the potential benefits and ethical considerations of "Neuralink" technology.

As event ambassadors, students Rayan Al-Aifan and Roua Al-Dheeb from the Biomedical Engineering Department contributed to organizing and managing the conference. In the Women's Council, student Wafeeqa Talal from the Biomedical Engineering Department also served as a judge, overseeing discussions on ethical challenges in reproductive treatments.

In the Ethics Council, students Fares Al-Muqbel and Rand Al-Amoush from the Biomedical Engineering Department participated as debaters, addressing ethical issues in biomedical research and innovations. Additionally, student Sally Al-Habees from the Biomedical Engineering Department was part of the conference's volunteer organizing team.

This conference provided a platform for fruitful interaction among participants and offered the opportunity to present and discuss many vital issues in the field of healthcare and biomedical engineering.

## "Leadership Qualities" Educational Lecture at Yarmouk University

As part of the Ethics and Volunteer Work course, the Hijjawi Faculty for Engineering Technology at Yarmouk University organized an educational lecture titled "Qualities of a Successful Political Leader" as part of the Youth Summer 2024 activities. The lecture was delivered by Dhekra Na'amneh, a trainer in political and youth empowerment from the local community.

Na'amneh stated that the success of a political leader in their leadership role requires mastering a set of leadership skills that enable them to implement plans and programs, achieve desired goals, and guide the public towards them.

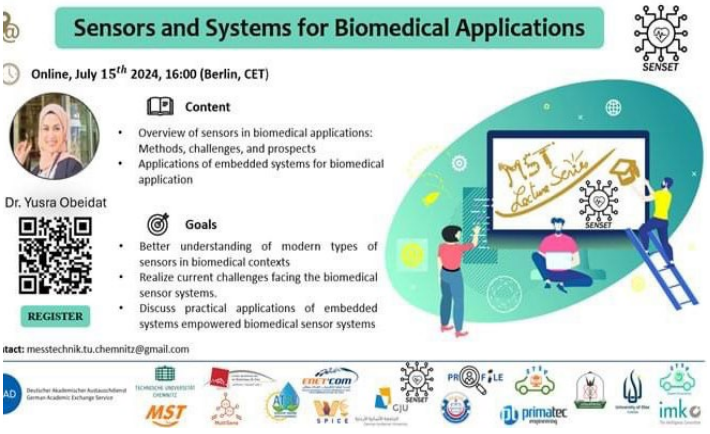
She mentioned that among the qualities of a successful political leader are wisdom in decision-making, the ability to control emotions and manage body language, consistently appearing with an awareness mindset, mastering dialogue and communication skills, among other skills that are essential for the continuity and success of leadership.

## Yarmouk University and LYNEports Pioneer Air Mobility and Vertiport Planning Education

Yarmouk University is leading the way in introducing airspace planning and vertiport infrastructure design to its academic community and students. LYNEports recently delivered a foundational lecture at the Hijjawi Faculty for Engineering Technology, marking a key moment in acquainting faculty and students with the latest developments in air mobility and vertiport planning. The lecture also showcased LYNEports' advanced AAM software solution, which plays a crucial role in shaping the future of urban air mobility.

The faculty and students at Yarmouk University showed great enthusiasm, engaging actively and expressing strong interest in this emerging field. This involvement highlights the university's dedication to pioneering new educational paths that equip students with the skills needed to thrive in innovative industries and meet future market demands.

## "Sensors and Systems for Biomedical Applications" Lecture




Dr. Yusra Obeidat An Associate professor in the Electronics Engineering Department has delivered an online lecture entitled as "Sensors and Systems for Biomedical Applications" as a part of the lectures series organized by Measurement and Sensor Technology (MST) at TU Chemnitz and the DAAD project "Sensor Technology for Advanced Biomedical Engineering and Smart System" in cooperation with the German Jordanian University, she provided details about sensors in general and focused on sensors used in biomedical applications: methods, challenges, and prospects and the applications of embedded systems in biomedical applications.

## Hijjawi Faculty of Yarmouk University Participates in SOFEX 2024 with Student Projects

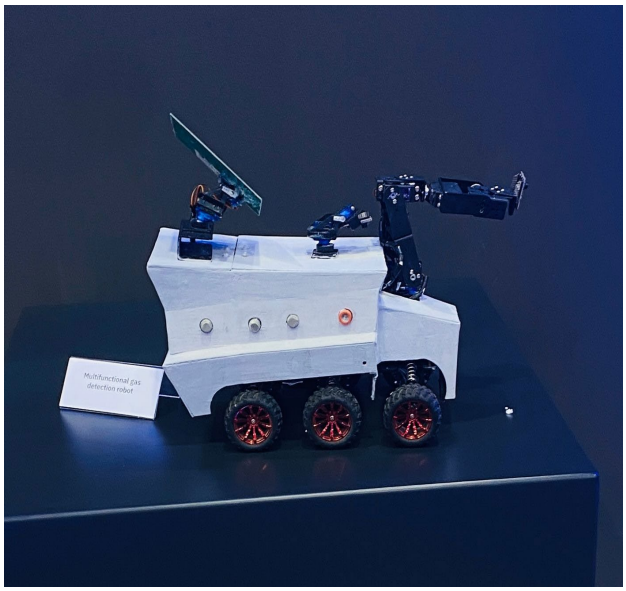
On September 8, 2024, a group of students from the Hijjawi Faculty for Engineering Technology at Yarmouk University participated in the opening of the Special Operations Forces Exhibition (SOFEX) 2024, held in Aqaba under the patronage of His Majesty the King and in the presence of the Crown Prince.

The students showcased two projects in the creative projects pavilion for Jordanian university students. The first project, titled "Smart Helmet for Military Purposes," was a graduation project by Lina Al-Quraan, Mohammad Gharaibeh from the Electronics Engineering Department, Omar Khattab from the Computer Engineering Department, and Lama Al-Khatib from the Communications Engineering Department, supervised by Dr. Yusra Obeidat from the Electronics Engineering Department. This project received financial support from the King Abdullah II Fund for Development in collaboration with the Jordan Design and Development Bureau.

The second project, titled "Multi-Purpose Robot for Safety Systems," was supervised by Dr. Ghazi Muqabla from the Industrial Engineering Department. It was a graduation project by Abdulrahman Msai, Fatima Al-Arsan, Sara Al-Daabas from the Industrial Engineering Department, and Rama Daqamsa from the Architecture Department.

Dr. Mohammad Alzubaidi, Dean of the Faculty, emphasized that student participation in such exhibitions embodies the university's philosophy of involving students in activities that link their creative projects with the modern industry and technology market, thereby enhancing national belonging through projects with military applications.

The exhibition was held over three days, with participation from 73 countries and more than 300 global companies specializing in defense and security industries, attended by military leaders and civilian officials from friendly and allied countries.



## Hijjawi Faculty Receives ABET Accreditation for Electrical Power Engineering Program


The Hijjawi Faculty for Engineering Technology at Yarmouk University has received the American accreditation for engineering and technology (ABET) for its Bachelor's program in Electrical Power Engineering. This marks the seventh accreditation the faculty has received for its academic programs, following Computer Engineering, Electronics Engineering, Industrial Engineering, Biomedical Systems Engineering, Biomedical Informatics Engineering, and Communications Engineering.

Dr. Mwaffaq Otoom, Dean of the Faculty, stated that obtaining this number of American academic accreditations reflects the university's significant attention to this important matter. He explained that obtaining accreditation is linked to the readiness of the faculty's buildings, departments, and various facilities, including laboratories, classrooms, and offices, as well as the provision of general safety requirements.

Dr. Islam Massad, President of the University, mentioned that the new accreditation for the Hijjawi Faculty for Engineering Technology came after the final evaluation visit by the assessment team last October. He added that, following this visit, the Engineering Accreditation Commission of ABET decided to grant the Electrical Power Engineering Department this accreditation for its Bachelor's program without any remarks, for the maximum period from October 2022 to the end of September 2028. He noted that this result is exceptional and rare for programs seeking accreditation for the first time.

Massad pointed out that ABET accreditation is one of the most reliable international accreditations in the fields of applied sciences, computing, engineering, and technology, and is most common in American universities and other institutions worldwide. He praised the efforts of the faculty, its professors, administrative and engineering staff, the working team, and the specialized committees for their sincere efforts in obtaining this accreditation. He stressed the importance of continuing efforts in various faculties to obtain prestigious global accreditations that reflect the distinguished level and good reputation of Yarmouk University locally, regionally, and globally.

It is worth noting that 11 programs at the university, in the faculties of Hijjawi, Science, and Information Technology and Computer Science, have received this American accreditation.

## IEEE ComSoc Hosts Lecture on Active Integrated Antennas at Yarmouk University

The IEEE Communications Engineering Society (ComSoc) at Yarmouk University recently organized a scientific lecture titled "Active Integrated Antennas: Fundamentals and Applications." The lecture was presented by Professor Mohamed El-Shaarawy from the University of Washington, USA, who is also a chief engineer at Blue Origin.

The event provided valuable insights into the fundamentals and applications of active integrated antennas, attracting students and professionals eager to learn from an expert in the field

## Innovative Curriculum Unveiled: ASEE Workshop on Electronics and Robotics at Hijjawi Faculty of Yarmouk University

The American Society for Engineering Education (ASEE) student chapter at Yarmouk University organized a workshop titled "Electronics and Robotics Engineering." The workshop featured Dr. Adnan Al-Smadi from the Electronics Engineering Department, who provided a detailed presentation on the new curriculum for the specialization.

During the workshop, Dr. Al-Smadi discussed the updates made to the curriculum and how these changes address the evolving needs of the job market. He reviewed the new sub-specializations and technical skills incorporated into the program, emphasizing that these updates are aimed at better preparing students for the demands of the modern industry.

The workshop also covered job opportunities in electronics and robotics, focusing on future trends and emerging technologies. Dr. Al-Smadi provided insights into the increasing demand for engineers in this field and how to prepare for this demand through practical training and continuous professional development.

The event concluded with a discussion session where students asked questions and sought clarifications about the curriculum changes and future job prospects, enriching the dialogue and providing valuable insights into the specialization.


## Specialized Workshop Discusses Key Challenges of Engineering Contracts and Dispute Resolution

The student branch of the American Society for Engineering Education at Yarmouk University (ASEE-YU) organized a specialized workshop today titled "Engineering Contracts and Arbitration." The event was attended by the branch supervisor, the acting dean of the faculty, and a distinguished group of faculty members and students interested in this field.

The workshop covered a wide range of important topics, including different types of engineering contracts, whether in terms of the scope of the contract or the method of payment. It also reviewed common engineering disputes and their causes, as well as discussing the stages of claim preparation and various dispute resolution methods.

Civil engineer and expert consultant in contracts and arbitration, Engineer Ihsan Abu Zaitoun, emphasized the importance of practical experience in the field of engineering contracts for resolving disputes that may arise between different parties. Abu Zaitoun pointed out that engineering disputes require careful study of each case individually and the precise application of engineering and legal standards.

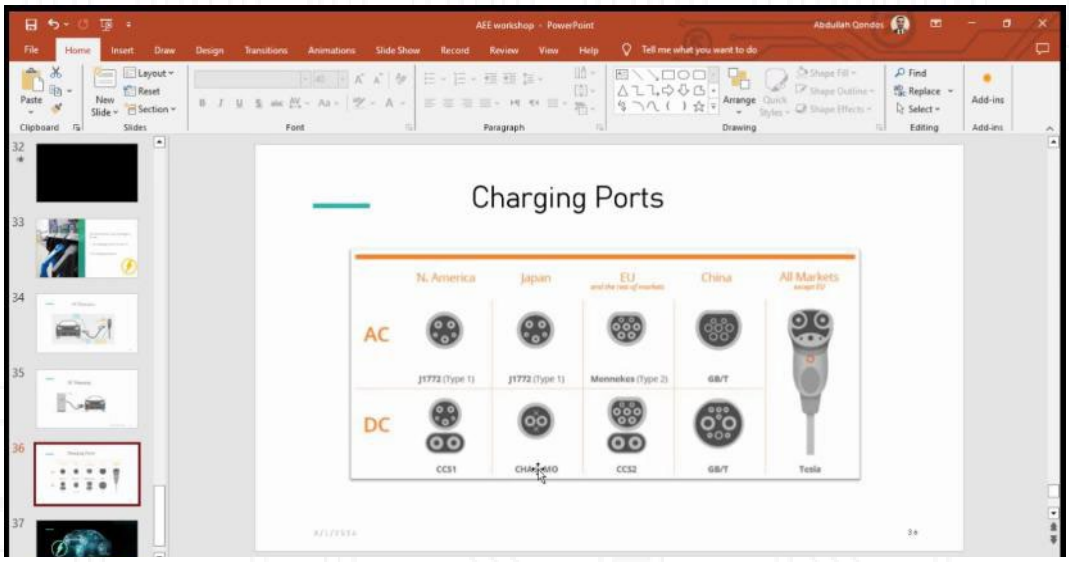
Dr. Ali Shehadeh, supervisor of the student branch of the American Society for Engineering Education at Yarmouk University, stated that organizing this workshop is part of the branch's interest in developing students' engineering skills and introducing them to the latest developments in engineering contracts and dispute resolution.

Professor Dr. Zaid Bataineh, acting dean of the Hijjawi Faculty for Engineering Technology at Yarmouk University, praised the efforts of the student branch of the American Society for Engineering Education in organizing this important workshop. Bataineh affirmed that this workshop enhances Yarmouk University's position as a leading center for engineering education and practical skill development in the region.

In the same context, the branch president, student Abdullah Na'amneh, stated that the student branch of the American Society for Engineering Education always strives to provide distinguished educational content in the context of engineering education. He noted that the field of engineering contracts and arbitration is one of the important areas that attract engineering talents and is appealing to engineering students to enter this field.


# Graduation Cermony of the 45th Batch of Hijjawi Faculty for Engineering Technology Students


## The AEE YU Branch Organized an Introductory Lecture About Electric Vehicles




The AEE YU had attracted one of the unique Jordanian experiences in the EV industry. Eng. Abdullah Qundus who is a certified EV maintenance engineer at BMW with an experience of 6 years. He had presented an online lecture which is "the introduction to Electric Vehicles ". He did present to the attendees the history of EV's and how it started, then he explained different aspects of the EV's. lastly he showed us different types of batteries and charging ports (each standard). Eng Abdullah was here for our technical questions about the field helping the confused people to know more about this technology.

## The CEIBA team has launched a New YouTube channel

CEIBA

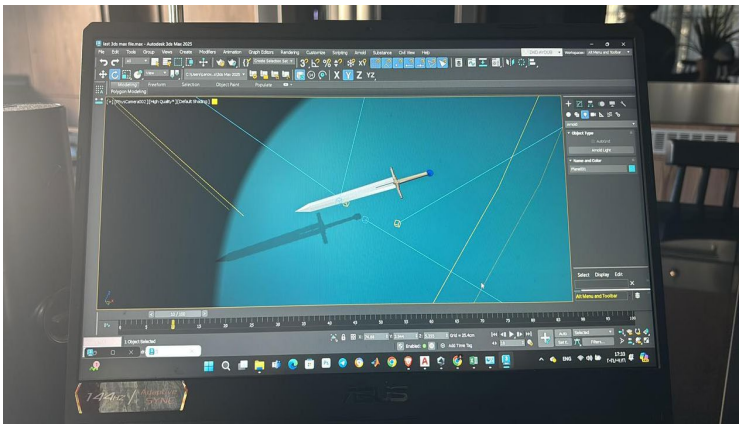
CEIBA_TEAM

The CEIBA team, which is supervised by Eng. Sami Almasaqbeh, has launched a new YouTube channel, providing viewers with access to recordings of all the workshops and courses organized by the team. Each course or workshop has been uploaded to the channel to maximize viewer benefit. For example, the Excel course has been uploaded along with all other courses offered by the team, aiming to reach the widest possible audience and maximize impact.

So far, the channel has garnered over 5000 views, reflecting the audience's interest and engagement with the provided educational content. The CEIBA-Team YouTube channel is a rich resource for educational content that can help individuals enhance their skills and develop their abilities in various fields.

## The IEEE EMBS Student Chapter at Yarmouk University Organized a Autodesk 3ds Max Intensive Course

The IEEE EMBS Student Chapter at Yarmouk University organized a 12-hour Autodesk 3ds Max course over two weeks, delivered by Engineer Duha Shokerat from the Department of Architecture. The course was conducted online via Microsoft Teams. Students who completed projects during the course received certificates of attendance. Participants benefited greatly from the course, learning the fundamentals of 3D design, which enabled them to develop large-scale projects using the program.

## The IEEE Engineering in Medicine and Biology Society (IEEE EMBs) Branch Organized a Scientific Workshop on the "InBody" Device.

The IEEE Engineering in Medicine and Biology Society (IEEE EMBs) branch at Hijjawi Faculty for Engineering Technology, Yarmouk University, organized a scientific workshop on the "InBody" device. The workshop was presented by Engineer Aseel Bani Ershaid from Arab Engineers for Medical Devices, with the attendance of the branch supervisor Dr. Atika Khader, Head of the Biomedical Engineering Department Dr. Ahmed Al-Omari, and Assistant Dean of the Faculty Engineer Sami Al-Mashaqbeh.

Ershaid provided a detailed explanation of the InBody device, explaining that it relies on Bioelectrical Impedance Analysis (BIA) technology to accurately measure body components such as fat, muscle, water, and protein. She noted that this technology has evolved since its inception in 1969 and its commercial use in 1979, with the device now using multiple frequencies to improve measurement accuracy. She highlighted the features of the InBody device, which can measure resistance in different body parts separately and analyze intracellular and extracellular water, providing precise results without relying on empirical estimates.

Engineer Nasser Abu Samra, the company's sales manager, also discussed the company's origins and operations, noting the availability of training and employment opportunities for graduating students.

At the end of the workshop, attended by Engineer Nasser Abu Samra, several faculty members, and a group of students, a discussion was opened with the attendees. Bani Ershaid answered their questions and provided advice on advancing in the field of body composition analysis using BIA technology. Attendees also had the opportunity to measure and test the InBody device practically, adding valuable practical learning experience.

## The Women in Engineering Branch at Yarmouk University Wins Best Branch Award in Jordan

The Women in Engineering Society, affiliated with the Institute of Electrical and Electronics Engineers (IEEE) at Yarmouk University, has won the award for the best Women in Engineering branch among Jordanian universities.

The award was granted to the branch after being evaluated by a committee comprising Dr. Rula Al-Rawashdeh from Mutah University, Dr. Rula Al-Tawalbeh from the Hashemite University, and Dr. Nancy Al-Ajarmeh from Tafila Technical University. The evaluation was based on the quality and diversity of the events organized by the branch, their continuity, and the various achievements of the branch between 2021 - 2023, in addition to the number of members in the society from each university.

The branch supervisor at the university, Dr. Yusra Obeidat, emphasized that the Women in Engineering Society at Yarmouk University has been distinguished by its continuous activity and numerous, rich events that greatly benefit the students and the engineering community.

Obeidat praised the efforts of the volunteer students in the society for their diligent work, outstanding activity, and passion for achieving excellence.

Dr. Zaid Al-Bataineh, the advisor of the IEEE, stated that the Hijjawi Faculty for Engineering Technology has always been the ideal educational and motivational environment for ambitious students through organizing various extracurricular activities. He noted that this award is a testament to the continuous support of the faculty and the university for student activities, which play a significant role in encouraging students and faculty members to hold purposeful activities and events that meet their aspirations and enhance their abilities and skills.


## Turning Ideas into Projects: CEIBA and TBG's Workshop

The CEIBA Volunteer Team, in cooperation with TBG, one of its strategic partners, organized a distinguished workshop entitled "How to Turn Any Idea into a Successful Project". This workshop comes within the framework of the team's vision to enhance the capabilities of youth and support innovation and entrepreneurship in the local community.

The workshop targeted students and members of the local community, as it was designed to be available to everyone with the aim of providing practical knowledge on how to transform creative ideas into feasible and successful projects. Through this workshop, the CEIBA team, in cooperation with TBG, sought to provide participants with the basic tools and steps to develop their ideas, including feasibility studies and marketing.

In addition to the target group of students and community members, this workshop was also offered on the "Nahno" platform, which is the national volunteering platform, to be available to the largest possible number of those interested in developing their skills in the field of entrepreneurship. This step comes within the team's efforts to enhance community participation and provide educational opportunities for all, especially for those seeking to achieve their ambitions through volunteer work and entrepreneurial projects.

The workshop included a series of interactive and practical sessions presented by experts from TBG, who provided valuable insights from their experience in transforming ideas into successful projects on a global level. Participants were provided with a space to ask questions and exchange ideas, which gave the workshop a practical and interactive character that helped enhance a deep understanding of the stages of building projects and how to overcome the challenges that entrepreneurs may face in the future.


## Under the Slogan "Resist, You Are the Most Precious in Life"

The "Noble Woman" initiative, launched by a group of female students from the Hijjawi Faculty for Engineering Technology under the supervision of Dr. Yusra Obeidat from the Electronics Engineering Department, began its health awareness campaigns with a workshop titled "Early Detection and Its Importance in Breast Cancer Screening."

The workshop was presented by trainer Ghada Bakar, an activist with the King Hussein Cancer Foundation and a liaison officer for the Jordanian Breast Cancer Program since its inception in 2007. She is also a member of the Local Community Health Committee at Ibn Sina Health Center and a retired social worker and trainer in reproductive and sexual health and family planning.

Bakar detailed the concept of breast cancer and its incidence rates among men and women, explaining the various causes of the disease. These include family history, aging, genetic mutations such as BRCA1 and BRCA2, obesity, radiation exposure, and hormonal factors like long-term hormone therapy use.

She also discussed self-diagnosis methods for breast cancer, showcasing different images of various cases, and explained diagnostic methods including clinical examination, mammography, ultrasound, MRI, and biopsy.

Bakar outlined treatment options based on the stage and type of cancer, which include surgery (tumor removal or mastectomy), chemotherapy, radiation therapy, and hormone therapy. There are also targeted drugs used to treat specific types of breast cancer.

She emphasized that reducing the risk of breast cancer involves maintaining a healthy weight, regular physical activity, a balanced diet, and routine screenings for early detection.

Bakar stressed the importance of early detection as a crucial factor in improving treatment and recovery chances, encouraging women to perform regular self-examinations and periodic screenings.

The workshop was interactive and rich with important information for every woman to maintain her health. It was attended by several students from the Hijjawi Faculty for Engineering Technology, as well as faculty and administrative staff from the college.

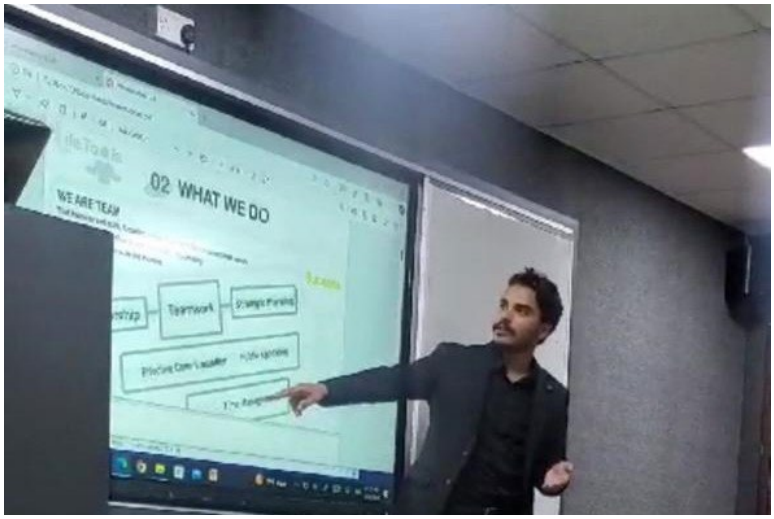
## Workshop Titled "Architecture: Between Study and Reality"

The "Life Tools" Training and Development Center, represented by engineers Mahmoud Al-Sharafa and Mohammad Al-Anizat, organized a workshop titled "Architecture: Between Study and Reality" at the Hijjawi Faculty for Engineering Technology at Yarmouk University. This workshop was held in collaboration with engineer Areej Ghanameh, who has over 30 years of experience in architectural design.

The workshop was distinguished by a unique presentation style, combining the training approach of the "Life Tools" team, which focuses on developing soft skills, with the rich knowledge provided by engineer Areej Ghanameh. The outcomes of this workshop positively impacted architecture students, addressing their expectations and needs in this field.

The workshop contributed to enhancing students' understanding of the gap between academic study and labor market requirements, inspiring them to think more deeply about their professional future in architecture. The workshop covered the career paths available after graduation, which include:

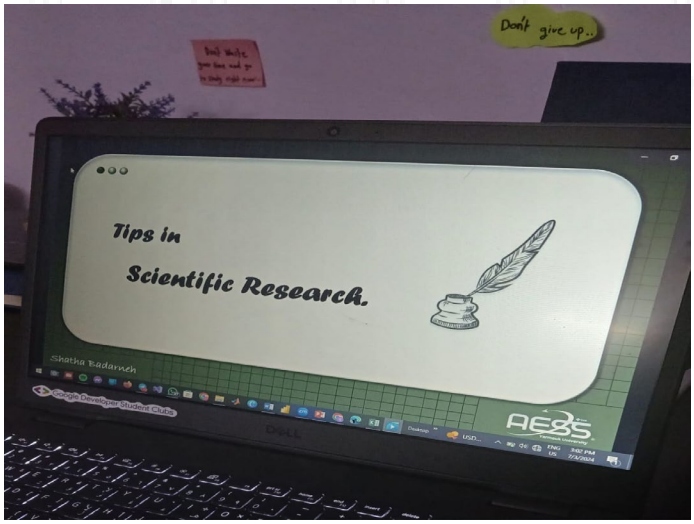
1. Interior Design: Involves creating suitable and harmonious interior environments that meet users' needs.
2. Exterior Design: Pertains to designing building facades and exteriors, including aspects such as lighting, materials used, and the integration of the building with its surroundings.
3. Landscape Design: Involves planning outdoor spaces and designing gardens in line with the architectural vision.
4. Site Visits and Analysis: Engineers must conduct field visits to understand the site, terrain, and potential construction challenges.
5. Negotiation: An essential skill for engineers in dealing with investors, contractors, and clients to achieve the best results.



## Workshop on Scientific Research Enlightens Participants

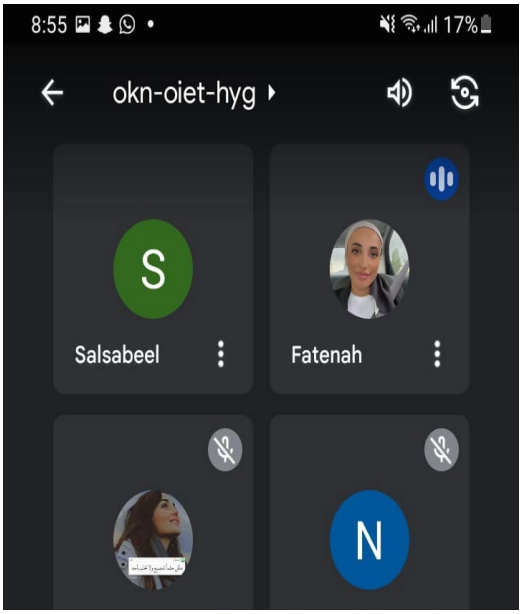
The Space and Electronic Systems Community (AESS) hosted an enlightening workshop on scientific research, led by the esteemed Shatha Al-Badarna. The event attracted a diverse group of participant eager to deepen their understanding of scientific research methodologies. The workshop provided a comprehensive overview of what constitutes scientific research, delving into its various types and distinguishing it from graduation projects. Attendees were guided through the intricacies of writing both research and review papers, equipping them with essential skills for their academic and professional pursuits.

In recognition of their participation and commitment, attendees were awarded certificates from IEEE AESS, marking their successful completion of the workshop. This event not only enhanced the participants' knowledge but also fostered a sense of community and collaboration among aspiring researchers.




## Workshop on Self-Confidence and Relationship Boundaries

A workshop featuring life coach and relationship trainer Fatina Al-Duwairi was organized by Ontha Jalela Team. The session covered crucial topics aimed at enhancing self-confidence, refining personality, and setting appropriate boundaries in interactions. Al-Duwairi also discussed strategies for dealing with the opposite sex by maintaining privacy and how family dynamics significantly impact psychological well-being and decision-making processes.



## Hijjawi Faculty Introduces Bachelor's Programs in Electronics and Robotics Engineering and Smart and Sustainable Cities

The Higher Education Council has approved the introduction of two new Bachelor's programs in Electronics and Robotics Engineering and Smart and Sustainable Cities at the Hijjawi Faculty for Engineering Technology at Yarmouk University, starting from the first semester of the 20242025- academic year.

Dr. Mwaffaq Otoom, Dean of the Faculty, stated that the introduction of the Electronics and Robotics Engineering program is the first of its kind among Jordanian universities. It aims to equip students with the necessary skills and knowledge to excel in this vital field. Students will learn the fundamentals of designing and manufacturing electronic circuits, which are the cornerstone of the semiconductor industry, and gain practical experience in developing and programming smart robots, which play a crucial role in various fields such as manufacturing and healthcare.

Regarding the Bachelor's program in Smart and Sustainable Cities Engineering, Otoom emphasized that this program is also the first of its kind in the Kingdom's universities. It aims to bridge the gap between "technology" and "sustainability," especially with the rapid growth of urban populations and the need for innovative solutions in energy, transportation, water management, and waste reduction. This program ensures that graduates are prepared to face future challenges and turn them into opportunities.

He explained that the program will delve into the latest technological advancements such as Digital Twins, Smart Grids, and Internet of Things (IoT) systems, while also providing a solid foundation in sustainable urban planning and artificial intelligence technology. This will enable students to learn how to integrate these technologies to create resilient, efficient, livable, and sustainable urban environments for future generations.

Otoom noted that graduates of this program are not just engineers but also innovative leaders of future cities, whether they are interested in urban planning, environmental consulting, or developing smart infrastructure. The program offers graduates the opportunity to keep pace with the broad and growing fields of this specialization locally, regionally, and globally.

## Young Author Inspires at Yarmouk University's Youth Summer 2024

As part of the annual Youth Summer 2024 activities hosted by Yarmouk University, the Hajjawi Faculty for Engineering Technology welcomed the talented student Emma Jawarneh from King Abdullah II Schools for Excellence. This initiative, led by Dr. Mohammad Al-Zu'bi, Head of the Mechanical Engineering Department, provided a platform for Emma to share her remarkable journey in writing a book on astronomy and space sciences.

During her lecture, Emma captivated the college students with her story of gathering information from various references and collaborating with the Jordanian Society for Astronomy and Space Sciences and the Royal Geographical Center. Her dedication and hard work culminated in the publication of her book, which was celebrated in a ceremony held in April this year. The event was graced by the Director of Irbid I Education and Dr. Mohammad Al-Zu'bi, who scientifically evaluated the book.

Emma's presentation concluded with a Q&A session, where she addressed the audience's inquiries. The attendees expressed their admiration for Emma's achievements, recognizing her as a role model for her peers. Her success story is a testament to the power of perseverance and passion in the pursuit of knowledge.

# Students Activities

## NASA Space Apps Challenge 2024 at Yarmouk University: Inspiring Innovation in Space and Earth Sciences


The NASA Space Apps Challenge, the largest global hackathon, took place at Yarmouk University on October 52024 ,6-. This annual event, organized by NASA in collaboration with international and local partners, brought together innovators, programmers, scientists, and students from around the globe to solve real-world challenges in space and Earth sciences using NASA's open data. Hosted at the Prince Hussein Bin Abdullah Building (PHu) in ZINC Hall, in collaboration with the Hijjawi Faculty for Engineering Technology, the event provided a valuable platform for university students from Irbid and other parts of Jordan to work together on creative solutions to pressing scientific challenges.

The event began with an opening ceremony, attended by Prof. Mohammad Alzubaidi, Dean of the Hijjawi Faculty for Engineering Technology. In his address, Prof. Alzubaidi highlighted the importance of such efforts in promoting innovation and advancing Jordan's position in the fields of science and technology. He encouraged students to take full advantage of this opportunity, using their skills to address real-world problems and contributing to a brighter future for the country.

The NASA Space Apps Challenge is known for its diversity of challenges, with this year's edition featuring 20 different scientific and technical problems related to space and earth sciences. Participants worked in teams, received guidance from experts, and presented their projects to a panel of judges at the conclusion of the event. The winners of this year's competition were Team YKpython from Yarmouk University's Information Technology and Computer Science Faculty, represented by Khaled Hassan Al-Tamimi and Yousef Moayad Hamdan, who secured first place. Team Visioneera from the German Jordanian University, represented by Karmel Al-Qawasmeh, Mohannad Khader, Layan Darwish, and Lynn Qabbani, took second place. Third place was awarded to Team Moon from the Civil Engineering Department at the Hijjawi Faculty of Engineering, Yarmouk University, represented by Rania Al-Rabee and Saba Bilal.

On the final day, the winning teams were recognized and awarded by Prof. Alzubaidi, who praised their creativity and dedication. The competition not only encouraged innovation but also served as a key platform for identifying emerging talent and encouraging students to think critically about global scientific challenges. The event was sponsored by Khuyoot, Hijjawi Foundation, Al-Iman Bookstore, and Sama Company, with support from the ZINC Platform.

## A group of students from the Hijjawi Faculty participated in the International Conference for Students and Young Professionals in France.

A group of students from the Hijjawi Faculty for Engineering Technology, supported by the Hisham Hijjawi Foundation, participated in the International Conference for Students and Young Professionals in France.

Ali Jawahreh from the Department of Electronics Engineering, Wanas Al-Omari from the Department of Computer Engineering, Nagham Al-Sobh from the Department of Communications Engineering, Qusai Mashreqi from the Department of Computer Engineering, and A'tab Obeidat from the Department of Computer Engineering presented the most prominent technical and non-technical activities and achievements of the IEEE/Yarmouk University Branch, which were well received by the conference participants, including researchers and academics.

They also participated in several specialized training and practical workshops in the fields of engineering and technology, in addition to field visits to laboratories and leading companies in the engineering field.



## Architectural Engineering Team Advances in "Students Reinventing Cities" Contest

A team from architectural engineering department was qualified in the finalist stage of the second edition of the global competition "Students Reinventing Cities," organized by the Greater Amman Municipality in cooperation with the 40 Cities Leadership Network in the field of climate action (C40).

The team consists of five students: Abeer Almasri, Leen Abuolaim, Abeer Tubishat, Suha Alhasanat, Ayham Mryyan who works on their project with a supervision of Dr. Salwa Alawneh and aims to achieve the city of Amman's goal of specific targets for greenhouse gases, which are necessary for the local community for their quality of life.

## AEE Yarmouk University participated in the Energizing the Future Conference

AEE Yarmouk University participated in the conference "Energizing the Future: Digitizing Jordan's Energy Sector," organized by the USAID Energy Sector Support Activity on August 12, 2024, in celebration of International Youth Day. The conference focused on the role of digital technology in advancing the energy sector and empowering youth to achieve sustainable development. The team benefited from discussions on smart grids, data analytics, and renewable energy management systems, enhancing their understanding of future challenges and opportunities in Jordan's energy sector. We would like to extend our heartfelt thanks to the organizers and everyone who contributed to the success of the conference. Our participation was a valuable opportunity to gain knowledge and connect with experts and ambitious youth in the energy field.

## Aerospace and Electronic Systems Society Shines at Volt Vision Conference

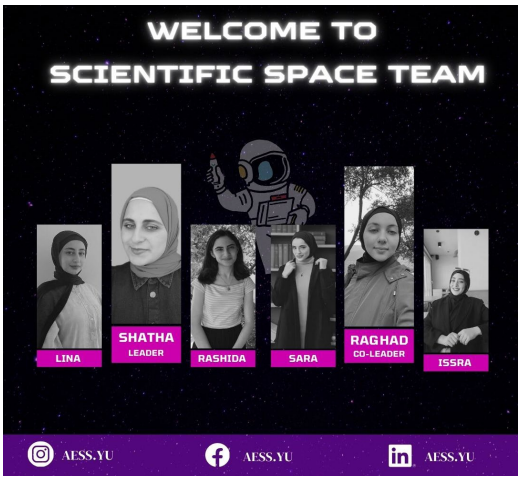
The Aerospace and Electronic Systems Society (AESS) made a significant impact at the Volt Vision Conference. This event was part of the global IEEE PES Day celebrations, organized by IEEE PES HU and IEEE IAS HU, and brought together experts and enthusiasts from various fields.

During the conference, AESS showcased the latest advancements and innovations in electric vehicles, highlighting their potential applications in space electronic systems. The presentations and discussions provided attendees with a deep dive into cutting-edge technologies and their transformative possibilities.

Participants had the unique opportunity to engage with experts, gaining insights into the latest trends and developments in electric vehicle technology. The event fostered a collaborative environment where ideas were exchanged, and future possibilities were explored.

The Volt Vision Conference not only highlighted the intersection of electric vehicle technology and space electronic systems but also underscored the importance of interdisciplinary collaboration in driving innovation. Attendees left the event with a wealth of knowledge and inspiration, eager to apply what they learned to their own projects and research.

## Aspiring Scientists Compete for Spot on Scientific Space Team




The Space and Electronic Systems Community (AESS) hosted an exciting competition on aimed at selecting the best content creators to join the prestigious Scientific Space Team. The event drew a diverse group of participants, all eager to showcase their skills and deepen their understanding of space and its systems. The competition focused on the art of scientific writing, challenging participants to craft articles on specific topics under set conditions. This rigorous process not only tested their writing abilities but also their grasp of complex scientific concepts.

Throughout the event, participants had the opportunity to enhance their scientific knowledge, engaging in discussions and activities that broadened their understanding of space and electronic systems. The competition fostered a spirit of collaboration and innovation, encouraging participants to push the boundaries of their knowledge and creativity.

In recognition of their efforts, all participants received certificates from AESS, acknowledging their hard work and dedication. The event was a resounding success, highlighting the importance of scientific communication and the role of young scientists in advancing our understanding of space.

## CEIBA and ASEE Student Chapter YU Innovate for Gaza's Future at Humanitarian Hackathon Finals

In a remarkable display of innovation and dedication, Abdullah Na'amneh, Habib Jaradat, Hamza Al-Zoubi, and Mufid Kharbat, representing the CEIBA and ASEE Student Chapter YU teams, participated in the finals of the Humanitarian Hackathon (Ghazathon) held at Al-Hussein Technical University. Their efforts focused on developing innovative solutions for the reconstruction of Gaza, particularly in the areas of shelter and damage assessment.

Driven by a deep sense of national, international, and Islamic duty, the team worked tirelessly to bring their ideas to fruition despite significant challenges. Their participation symbolizes hope and change amidst difficult circumstances.

The winning projects will be implemented on the ground in Gaza. The team's enthusiasm and determination have been a source of pride, and they hope to provide much-needed support to their brothers and sisters in Gaza.

## CEIBA Member Joins Young Electrical Engineers Forum 2024

One of the CEIBA team members participated in the Young Electrical Engineers Forum 2024 (SOFEE), which was held under the patronage of His Excellency Mr. Haditha Jamal Al-Khraisha, Minister of Political and Parliamentary Affairs.

This participation reflects CEIBA's commitment to providing the best opportunities for its members, as the participation was provided entirely free of charge. At CEIBA, we are always dedicated to supporting and developing our team's skills and ensuring their involvement in events that enhance their experiences and expand their professional horizons.

## CEIBA's Efforts to Empower Communities Through Partnerships

The CEIBA volunteer team stands as a remarkable example of how collective efforts can create a lasting and sustainable impact by fostering strategic partnerships with local communities, businesses, and global corporations. Guided by a firm belief in the power of collaboration to drive development, the team focuses on empowering youth, enhancing local capacities, and addressing critical societal challenges. A significant partnership with Prime Academy aims to provide youth with the skills they need to thrive in an evolving job market. This collaboration underscores CEIBA deep commitment to education and vocational training as key tools for promoting sustainable local growth. By working closely with local companies, the team can design and implement initiatives that improve community well-being, foster awareness, and support the development of more sustainable work environments. On an international scale, CEIBA has expanded its reach by signing an MoU with the Egyptian global company TBG.


This partnership not only opens new doors for collaboration but also enables CEIBA to tap into global expertise and resources. By leveraging the knowledge and capabilities of TBG, CEIBA is better equipped to develop innovative solutions to local and global challenges, strengthening its technical and logistical support to achieve ambitious goals. Through these varied and strategic partnerships, the CEIBA volunteer team aims to make a meaningful and long-lasting impact that benefits both the local community and the international stage. By combining local engagement with global collaboration, the team can tackle critical issues such as education, employment, and environmental sustainability.

## CEIBA Team Attends Third Engineering Consultancy Conference in Amman

The Head of the CEIBA team and the Board of Directors had the honor of attending the Third Engineering Consultancy Conference, held at the Royal Hotel in Amman on August 2122-. The conference was a wonderful opportunity to meet with a distinguished group of engineers, including our colleagues from Gaza, which underscores that Gaza remains present in all fields despite the challenges. During the conference, the CEIBA team greatly benefited from the discussions. Key highlights included the talk on "Future Tools for Sustaining the Engineering Consultancy Sector" and how to foster innovation to address upcoming challenges.

## Empowerment Workshop with Sarah Arabs was Held Online

A workshop featuring investor, mentor, and trader Sarah Arabs was organized by Ontha Jalela Team. Arabs, known for her extensive experience in investment and trading, has mentored numerous individuals in achieving financial independence and success. The session focused on key topics that empower individuals to be productive and fearless in decision-making. Under the slogan "The journey you are afraid to start could be the most successful journey," Arabs inspired participants to embrace new opportunities and overcome their fears.


## Course on Sustainability and Humanitarian Projects Inspires Participants

The Arab Union for Astronomy and Space Sciences hosted an insightful course on sustainability and humanitarian projects, led by renowned astronomical trainer Dalal Al-Lala. The event attracted a diverse group of participants eager to expand their knowledge and skills in these critical areas.


The course provided a comprehensive curriculum that covered a range of topics, including astronomical, mathematical, and entrepreneurial skills. Participants were introduced to some of the most important humanitarian projects and innovative ideas in the fields of physics and astronomy. The discussions emphasized the intersection of scientific knowledge and humanitarian efforts, showcasing how advancements in these fields can contribute to global sustainability.

In recognition of their dedication and participation, attendees were awarded certificates from IEEE SIGHT and IEEE AESS. This certification not only acknowledged their commitment to learning but also enhanced their credentials in the scientific community.

The event was a resounding success, fostering a collaborative environment where participants could exchange ideas and explore new possibilities. It highlighted the importance of integrating scientific expertise with humanitarian initiatives to address some of the world's most pressing challenges.

## Enhancing Skills in Civil Engineering: Workshop by Engineer Mohammad Sarayra

CEIBA organized a workshop titled "Civil Engineering Post-Graduation and Site Engineering," presented by Engineer Mohammad Sarayra, an expert in civil engineering and site engineering. The CEIBA team is a voluntary team supervised by Eng. Sami Almashaqbrh. The workshop took place on Saturday, August 10, 2024. It covered various topics, including an introduction to execution processes in civil engineering projects, planning and preparation techniques for execution processes, using modern technologies and software in managing execution processes, challenges in scheduling and how to address them in large projects, and strategies for risk management and cost control during execution. This workshop provided a valuable opportunity for participants to gain knowledge and experience in civil engineering and site management, helping them enhance their skills in this vital field.


## Engineer Samer Zawaydeh's Workshop on the Nexus of Water, Energy, Food, and Ecosystems

The AEE Yarmouk University branch was pleased to host a workshop titled "The Interconnection of Water, Energy, Food, and the Ecosystem," which was held online via Zoom. The workshop was presented by Engineer Samer Zawaydeh, an international expert in energy with 26 years of experience in management and renewable energy projects in Jordan.


During the workshop, Engineer Zawaydeh explored how water, energy, and food interact with ecosystems, helping students understand the challenges and opportunities in this vital field. He also discussed innovative solutions and best practices for achieving sustainability. Students benefited from the lecture by enhancing their understanding of the interconnections between essential resources and applying sustainable management practices.

## Hijjawi Faculty Students Participate in "Artificial Intelligence for Peace and Human Dignity"

A group of students from the Hijjawi Faculty for Engineering Technology participated in the "Artificial Intelligence for Peace and Human Dignity" conference, held under the patronage of the Minister of Government Communication, Dr. Muhannad Mubaidin. The conference was organized by the Catholic Center for Studies and Media in Jordan, in collaboration with the Educational Activities Foundation in Europe, based in the Netherlands.

The conference featured two sessions. The first session, titled "How Did We Reach Artificial Intelligence?", was moderated by Dr. Ruba Zaidan. Speakers included Professor Mark Vries from the Netherlands, who discussed "Artificial Intelligence: A Christian Perspective on Its Nature and Ethics," Mr. Hossam Al-Hourani from Orange, who spoke about "Amazing Developments in Artificial Intelligence," and Ms. Lama Arabiyat from the Ministry of Digital Economy, who addressed the "National Charter for AI Ethics."

The second session, titled "Artificial Intelligence and Peace," was moderated by entrepreneurship specialist Ms. Areen Bsharat. Speakers included Dr. Paul Heck from the United States, currently teaching at the University of Jordan, who presented "An Analysis of Pope Francis' Messages on Peace and Media, and the G7 Summit," political affairs researcher Dr. Jamal Shalabi, who discussed "Possible and Desired Peace and Artificial Intelligence," and journalist Alaa Bshanaq from the Jordan Media Institute, who talked about "Media Education Regarding Fake News Using Artificial Intelligence."

## Leveraging BIM Technology: Workshop by Engineer Shadi Moussa

CEIBA, which is a voluntary team supervised by Eng. Sami Almashaqbeh, organized a free workshop titled "Workshop on BIM," tailored for engineers, students, and graduates of civil and architectural engineering. The workshop, held on Saturday, August 10, 2024, was presented by Engineer Shadi Moussa. It addressed the importance of Building Information Modeling (BIM) technology and how to leverage it in engineering projects. The main topics covered included an introduction to BIM, its fundamentals, and its significance in designing and managing engineering projects; a review of key software and tools that support BIM technology and how to use them effectively at various stages of a project; and a discussion on practical applications of BIM technology in engineering projects and the challenges engineers may face when using this technology. This workshop provided an excellent opportunity to enhance practical skills and learn about the latest tools and techniques in the field of engineering, contributing to improved professional performance and more efficient project development.


## Life Tools Team Conducts Public Speaking Workshop at Yarmouk University

Engineers Mohammad Khair Al-Anizat and Mahmoud Al-Sharafa, founders of the Life Tools team, in collaboration with Yarmouk University, organized a training workshop titled "Public Speaking Skills."

The workshop, held for students of the Hijjawi Faculty for Engineering Technology, covered several key topics: Personal and Professional Self-Introduction Skills, Project Idea Presentation, Practical Exercises, Body Language Utilization, Professional Speech Preparation.

## Navigating Free Global Courses for Career Advancement

The CEIBA team, supervised by Eng. Sami Almashaqbeh, organized a training workshop titled "How to Access Free Global Courses" at the Hijjawi Faculty for Engineering Technology. The workshop was presented by Engineer Tayeb Rizk, a graduate of Yarmouk University in Industrial Engineering. The session aimed to provide practical guidance on obtaining free global educational courses and covered three main topics: accessing scholarships and free courses, exploring various types and their significance, and aligning these courses with job market requirements to enhance employment opportunities. The workshop aimed to empower participants to make the most of free educational opportunities and achieve significant benefits in their skills and careers.


## Robbing Balloons Competition Showcases Talent in Competitive Programming

The Robbing Balloons competition, hosted by the Aerospace and Electronic Systems Society (AESS) at Yarmouk University in collaboration with the ATYPICAL community, emerged as a standout event in the realm of competitive programming. This highly anticipated competition, which began at Yarmouk University, is set to expand to include all Jordanian universities, promising to elevate the standards of programming contests across the nation.

The event was marked by intense competition and challenging tasks that tested the participants' programming skills and problem-solving abilities. The highlight of the competition was the remarkable performance of the winning team, "we TRIEd TEAM," comprising Rashid Al-Masri, Ramez Al-Sheikh, and Ahmad Obeidat. Their exceptional efforts and innovative solutions earned them the top spot, showcasing their talent and dedication.

## Robotics and Automation Society at Yarmouk University Hosts Inspiring Workshop on Space Entrepreneurship

The Robotics and Automation Society at Yarmouk University recently held a highly engaging workshop titled "From Irbid to Space Entrepreneurship," presented by the distinguished lecturer and founder of Borderless Labs INC (BLINC) , Mr. Malek Malkawi. The event took place in the Wissam Bushnaq Hall at Hijjawi College for Engineering Technology and attracted a diverse audience eager to learn about the future of space exploration.

Mr. Malek Malkawi began the workshop by sharing his personal journey, detailing how he achieved remarkable success in the fields of entrepreneurship and space exploration. His story was not only inspiring but also filled with practical insights and valuable lessons for aspiring space enthusiasts.

Throughout the workshop, Mr. Malek emphasized the essential qualities and skills needed to excel in the rapidly evolving space industry. He provided attendees with a comprehensive understanding of the challenges and opportunities that lie ahead, encouraging them to pursue their dreams with determination and innovation.

The highlight of the event was Mr. Malek's announcement of an upcoming competition, the "MENA Space Challenge," which promises to be a landmark event in the Middle East. Organized by Borderless Labs Inc. (BLINC) in partnership with public agencies and the private sector of the MENA region, this competition will be held in Dubai, UAE. The MENA Space Challenge will feature over five categories, where teams will compete to develop new ideas and prototypes for space exploration. With over $10 million USD in rewards, this competition aims to empower top teams to bring their innovative prototypes to life and contribute to the advancement of space technology.

The workshop concluded with a lively discussion, leaving attendees inspired and motivated to take on the challenges of space entrepreneurship. The Robotics and Automation Society at Yarmouk University looks forward to seeing the impact of this workshop on the future endeavours of its participants.

## Skill Development Series: Free Engineering Lectures by CEIBA and Prime Academy

CEIBA, in collaboration with Prime Academy, announced the offering of three free lectures as part of the PRIME Academy series aimed at skill development and familiarizing engineers with various job market fields:

1."Introduction to Photovoltaic System Design Using SKETCHUP": This lecture covered the design of photovoltaic systems using SKETCHUP, focusing on the essential tools and techniques engineers need in this field. Practical applications and challenges related to designing these systems were also discussed.

2."Introduction to Structural Design Using ETABS": This lecture provided a comprehensive overview of using ETABS for structural design, emphasizing how to use the program for analyzing and designing structural frameworks. Key tools of the program and their practical applications were covered.

3."Introduction to Building Mechanical Systems Design": This lecture addressed the fundamentals of designing building mechanical systems, including ventilation, air conditioning, and heating, and provided information on how to integrate these systems into the overall building design for maximum efficiency.

These lectures provided valuable opportunities to expand professionals' horizons in their fields and enhance their practical skills in specialized design and engineering programs.




## Yarmouk University Event Showcases Advanced Engineering Programs

The Hijjawi Faculty for Engineering Technology at Yarmouk University in Irbid, Jordan, hosted an engineering event organized by the E-Committee on Tuesday, July 30th, at Wisam Bashnaq Hall. The event featured an opening ceremony, Quran recitation, welcome speech, and addresses from the Dean and guest speakers including Dr. Mohammad Rouhi Al-Rawashdeh, Engineer Banan Bani Bakr, Dr. Asma'a Al-Qudah, and Dr. Shadi Al-Laboun. An interactive session and a prize draw were also part of the event, promising an enriching experience for all attendees.

A set of specialized engineering programs has been developed for engineering drawing and designing structures and buildings in the early stages of civil and architectural engineering projects. One of the most prominent of these programs is "AutoCAD." Engineer Banan Rasmi Bani Bakr discussed the AutoCAD program, its importance, and its uses. Engineer Banan Bani Bakr holds a Bachelor's degree in Civil Engineering and a Master's degree in Structural Engineering from Jordan University of Science and Technology.




Dr. Mohammad Rouhi Al-Rawashdeh highlighted the importance of engineering programs and their impact during studies and after graduation. Dr. Rouhi holds both a Bachelor's and a Master's degree in Electrical Engineering from Jordan University of Science and Technology and a Ph.D. in Electrical Engineering from the University of Michigan. He is an Associate Professor in the Department of Communications Engineering and has conducted numerous workshops and seminars for students.

Dr. Asma'a Al-Qudah, an Assistant Professor in the Communications Engineering Department at Yarmouk University, presented on MATLAB, a program that allows for the drawing of 3D shapes and has many other applications. Dr. Al-Qudah earned her Ph.D. in Electrical Engineering from the University of Huntsville, Alabama, in 2016, and her research interests include channel coding, turbo codes, and LDPC codes.




The "Circuit Maker" program, which provides comprehensive services for drawing and analyzing electronic and electrical circuits, was discussed by Dr. Shadi Al-Laboun. Dr. Al-Laboun is an Associate Professor in the Department of Electronics Engineering, specializing in optoelectronics. He holds a Bachelor's degree from the Hijjawi Faculty for Engineering Technology and both a Master's and Ph.D. from the University of Alabama in the United States. His teaching experience includes numerous courses in electronics at Yarmouk University and the American University of the Middle East in Kuwait.



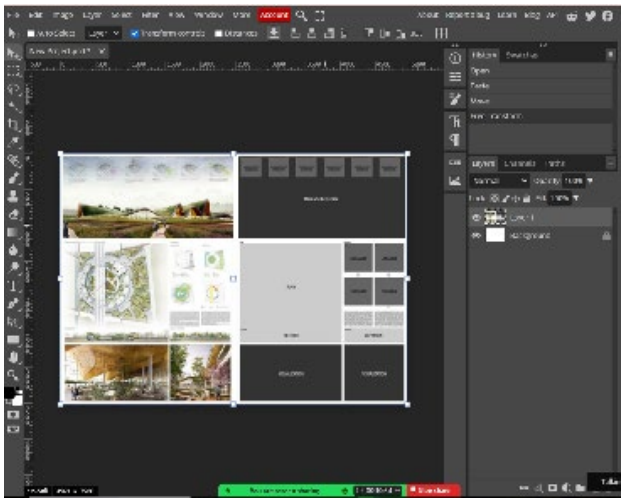
## ACI Yarmouk Student Chapter Participates in the Second Civil Engineers Forum: Civil Renaissance

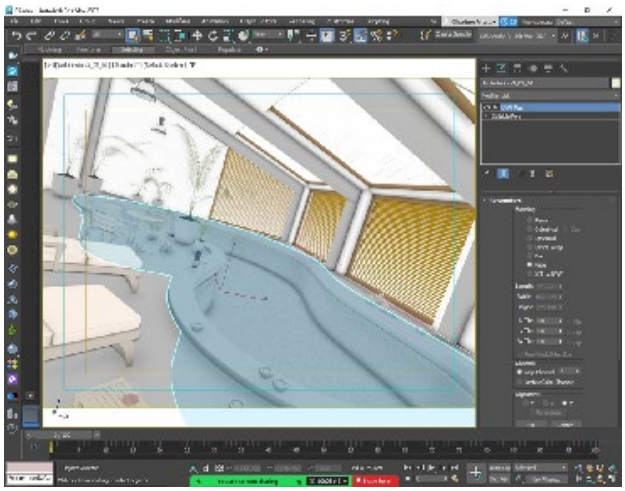
The ACI Yarmouk Student Chapter participated in the Second Civil Engineers Forum, titled "Civil Renaissance,"* held at the Al-Hussein Cultural Center in Amman under the patronage of Engineer Ahmad Samara Al-Zoubi, President of the Jordanian Engineers Association. The forum addressed critical topics including sustainability and the environment, the future of AI, green concrete, and career transitions. This event provided an excellent opportunity for the students to engage with experienced professionals in the industry, enriching their knowledge of innovative engineering solutions and expanding their understanding of emerging trends.

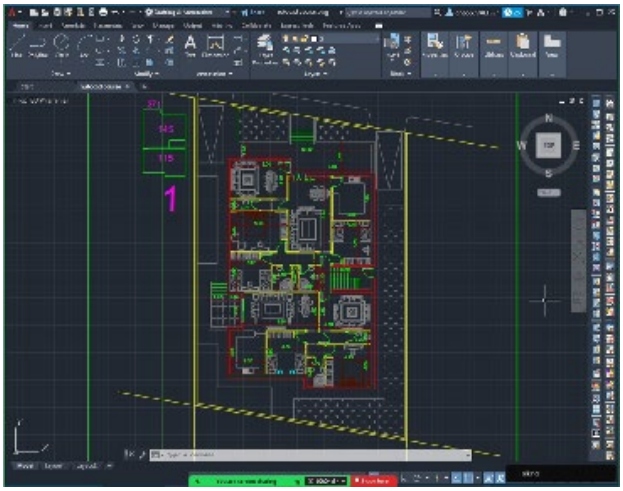
## The Department of Architectural Engineering organized a series of training courses during the summer semester of 2024

The Department of Architectural Engineering organized a series of training courses during the summer semester of 2024, targeting all students in the Hijjawi Faculty of Engineering Technology. These courses covered various topics, including 2D and 3D modeling, rendering, and presentation skills, using three key software tools. 3ds Max, a widely used software for 3D modeling, animation, and rendering, enables architects and designers to create detailed and realistic visualizations of their projects, improving their ability to communicate ideas and concepts effectively. AutoCAD, essential for drafting and designing 2D and 3D models, provides precision and flexibility, making it indispensable for developing detailed architectural plans and documentation. Additionally, students were introduced to Photoshop as a crucial tool for graphic design and image editing. Architects and designers use Photoshop to enhance visuals, create presentations, and manipulate images, allowing them to convey their design ideas more effectively.

The courses aimed to both enhance students' practical skills and better prepare them for the job market. The training sessions were conducted by Eng. Ala'a Da'as, Eng. Ghadeer Rashdan, Eng. Maram Al-Atoom, and Eng. Mervet Abu Al-Adas from the Department of Architectural Engineering.



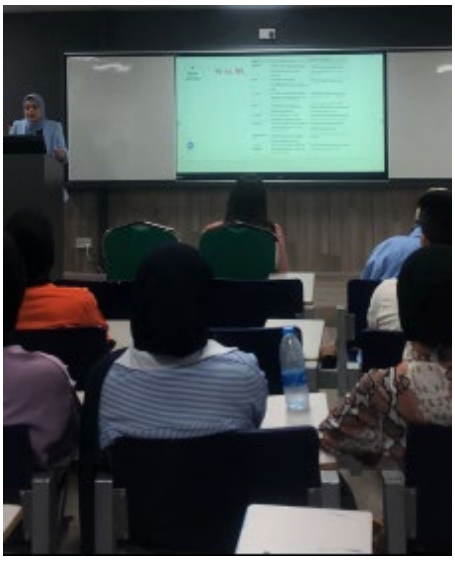




## "Employing Generative AI Applications in Teaching and Learning" Workshop

The IEEE Women in Engineering- Yarmouk branch organized a workshop entitled as "Employing Generative AI Applications in Teaching and Learning" which was delivered by Eng.Worood Al-Radaydeh and attended by students from Hijjawi Faculty for Engineering Technology and the IT college at Yarmouk University.





## IEEE-Jordan WIE Open Day 2024


Under the supervision of Dr. Yusra Obeidat from the Electronics Engineering Department, The women in engineering-Yarmouk branch participated in the IEEE-Jordan WIE Open Day 2024 hosted by Al-Balqa'a Applied University-Polytechnic Amman in July 20, 2024. They showcased their project in the WIE-Jordan project competition, which was entitled as "Technological Solutions for Women to Balance Work and Life," they participated in a booth to represent WIE-YU activities, and also organized a "Kahoot" competition during the event.

## Yarmouk University Students Participated at UNIMED Mediterranean Student Summit

Two students from Yarmouk University, Mohammad Alkarasneh from the Computer Engineering Department at the Hijjawi Faculty for Engineering Technology, and Maryam Harb from the English Language and Literature Department, represented the university at the third edition of the UNIMED Mediterranean Student Summit (MSS) in Palermo, Italy, from September 262024 ,28-. Organized by the Erasmus Student Network (ESN) and UNIMED, the summit brought together students from across the Mediterranean to discuss common challenges and foster collaboration.

The Summit was an invaluable opportunity to identify the common challenges that affect the Mediterranean region and to envisage solutions. Mohammad and Maryam actively participated; they delivered two significant presentations during the summit. In the first, titled Country Representation, they introduced Jordanian culture by showcasing famous historical sites such as Petra and Jerash. They also provided an overview of the higher education system in Jordan, discussing its key pillars and the challenges students face within it. In their second presentation, Student Engagement, they highlighted various initiatives and activities at Yarmouk University that foster student involvement, emphasizing the importance of active participation in enhancing the student experience. Their participation showcases Yarmouk University's commitment to preparing students for leadership roles on the international stage.


# Faculty Members News

## Dr. Ahmad Mansour Al-Omari from Hijjawi Faculty Appointed as ABET Program Evaluator

The American Accreditation Board for Engineering and Technology (ABET) has appointed Dr. Ahmad Mansour Al-Omari from the Department of Biomedical Systems and Informatics Engineering at Hijjawi Faculty for Engineering Technology at Yarmouk University, as an evaluator for academic programs and a specialist in engineering programs.

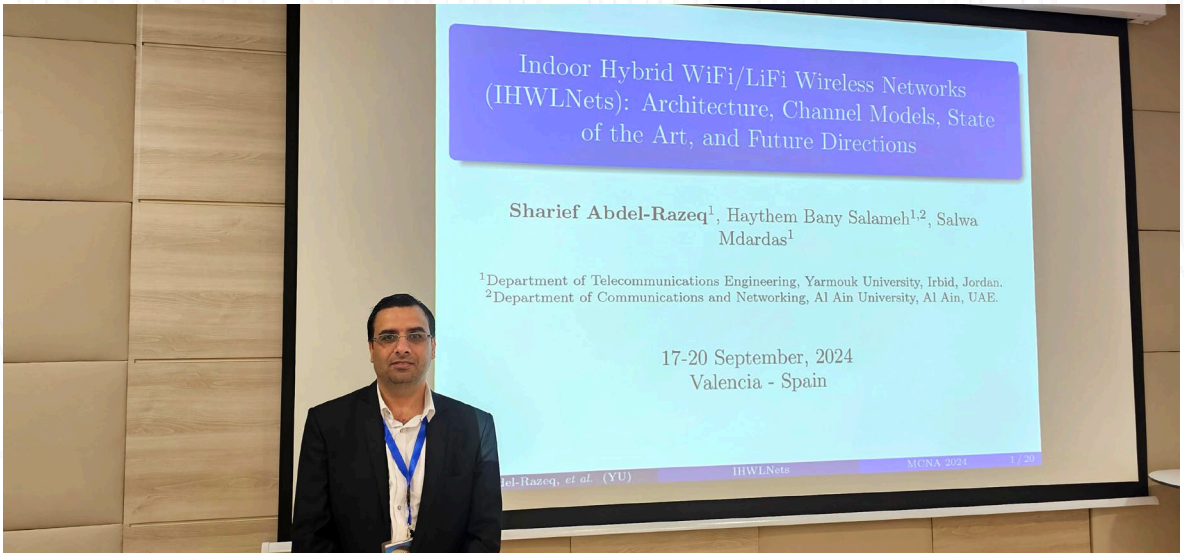
This accreditation came after Al-Omari passed intensive exams and training in the United States, making him the first faculty member at "Yarmouk" to be selected as an expert evaluator for engineering programs until 2030.

## Dr. Ali Shehadeh from Hijjawi Faculty Selected as a Judge for the QS Reimagine Education Awards 2024

The international Quacquarelli Symonds (QS) organization has selected Dr. Ali Shehadeh, a faculty member in the Civil Engineering Department at the Hijjawi Faculty for Engineering Technology, as a judge for the QS Reimagine Education Awards 2024.

Shehadeh was chosen due to his competence, scientific and research output, as well as his expertise in civil engineering, digital twins, and sustainable urban development. His role involves evaluating submissions across various categories to ensure that the most impactful and innovative projects receive the recognition they deserve.

## Dr. Sharief Abdel-Razeq from Telecommunications Engineering Department attended the IEEE International Conference on Multimedia Computing, Networking and Applications




Dr. Sharief Abdel-Razeq from Telecommunications Engineering Department attended the IEEE International Conference on Multimedia Computing, Networking and Applications (IEEE MCNA2024), which was held in Valencia, Spain, from September 17 to 20, 2024.

He presented his paper titled "Indoor Hybrid WiFi/LiFi Wireless Networks (IHWLNets): Architecture, Channel Models, State of the Art, and Future Directions." The paper introduces a novel approach to indoor wireless networking by integrating both WiFi and LiFi technologies to create IHWLNets.

Dr. Abdel-Razeq highlighted how this hybrid network structure could revolutionize indoor connectivity, especially in industries like healthcare, manufacturing, and retail, by offering high-speed, secure, and interference-resistant solutions.

The study also examined current research trends, discussed the architecture and channel models of WiFi and LiFi, and explored future directions for the development of IHWLNets, potentially driving innovations in smart buildings and IoT deployments.

## Honoring Dr. Faris Matalkah for his Scientific Contribution

Dr. Faris Matalkah from the Civil Engineering Department was recognized for his significant contributions to research and innovation in the field of civil engineering, as well as for receiving several distinguished local and international awards. The recognition took place during the "Pathways for Youth to Leadership and Innovation" event, organized by the Center for Sustainable Development Studies. The event was held under the patronage of Her Excellency Dr. Nancy Namrouqa, Minister of State for Legal Affairs, and attended by the President of Yarmouk University and the Director of the Center for Sustainable Development Studies.

## Honoring Dr. Yusra Obeidat for her Scientific Contribution

Dr. Yusra Obeidat from the Electronics Engineering Department was honored for her scientific contributions and her receipt of local and international awards. This recognition took place during the "Pathways for Youth to Leadership and Innovation" event, organized by the Center for Sustainable Development Studies, under the patronage of Her Excellency Dr. Nancy Namrouqa, Minister of State for Legal Affairs, and with the presence of the Yarmouk University president and the director of the Center for Sustainable Development Studies.

## Dr. Shehadeh Has Been Appointed Director of Accreditation and Quality Assurance Center

The President of Yarmouk University has recentrly decided to appoint Dr. Ali Shehadeh Direcotor of the Accreditation and Quality Assurance Center.

Dr. Shehadeh is an Associate Professor of Civil Engineering at Hijjawi Faculty for Engineering Technology.

During his work at Yarmouk University, Dr. Shehadeh was Dean Assistant of Scientific Research and Graduate Studies, Chair of Civil Engineering Department, and Dean Assistant of Hijjawi Faculty for Engineering Technology.

## Dr. Aseel Khanfar Joined the Industrial Engineering Department

Dr. Aseel Khanfar received her PhD in Industrial Engineering from Pennsylvania State University, funded by a scholarship from Yarmouk University. Her research focused on applying eye-tracking and deep learning algorithms to enhance medical training. Upon her return, Dr. Khanfar joined the faculty of the Industrial Engineering Department at the Hijjawi Faculty for Engineering Technology.

## World's largest Star Rating for Schools assessment kicks off in Riyadh

Dr. Ahmad H. Alomari from the civil engineering department participated on August 13,14-2024, in a comprehensive two-day training workshop (capacity-building program) in Riyadh, Saudi Arabia, in collaboration with Consolidated Consultants Group (CCG), Riyadh Municipality, and with support from the International Road Assessment Programme (iRAP) experts Jigesh Bhavsar and Samar Abouraad. The iRAP program is a globally awarded and scientifically based engineering framework for assessing and improving road safety around schools.

The training provided essential skills in the iRAP Methodology and the star rating for schools (SR4S) tool to 40 engineers from various Riyadh Municipality agencies and departments. This has paved the way for precise safety assessments, the creation of Safer Roads Investment Plans, and an advanced training course scheduled for the first quarter of 2025.

This training workshop (capacity-building program) is part of a groundbreaking project that represents a significant step toward improving road safety around schools by identifying the high-risk areas and investing in upgrading and enhancing them through the (SR4S) program. The 300-school areas (961 schools and 160 mosques) assessment project (Phase-1) will serve more than 320,600 students. It will quantify the safety of road infrastructure surrounding the schools and identify the highest-risk locations for investment in safety upgrades.

Dr. Alomari, a distinguished transportation and traffic engineering expert from Yarmouk University, played a key role in this initiative. His collaboration with the Consolidated Consultants Group (CCG) and the International Road Assessment Programme (iRAP) was instrumental in sharing the latest scientific and practical advancements in traffic safety, particularly around schools and mosques.

# Promoted Faculty Members since July 2024

The Hijjawi Faculty for Engineering Tehnology congtatualtes the promoted faculty members since July 2024!

## To Full Professor

**Prof. Rami Halloush**
Communication Engineering

**Prof. Ahmad Mansour Al-Omari**
Bioinformatics Engineering

# World's Top Scientists By Stanford University

The Hijjawi Faculty for Engineering Tehnology congtatualtes the faculty members who are listed in the world's top 2% scientists 2024 by Stanford University!

**Prof. Muwaffaq Alomoush**
Electrical Power Engineering

**Dr. Hazim Shakhatreh**
Communication Engineering

# Success Stories

## Hijjawi Faculty of Yarmouk University Wins First Place in the Sustainability Competition for Jordanian University Students



The Yarmouk University team won first place in the GJU 3030 competition organized by the German Jordanian University, aimed at supporting innovation and encouraging sustainable technical solutions, with the participation of 64 teams from nine Jordanian universities.

The team won for their project titled "Development of Sustainable and Low-Cost Self-Luminous Concrete," which involves developing self-illuminating concrete. The team presented a small-scale model to apply the idea in remote areas of the Kingdom.

The project aims to reduce traffic accidents caused by poor lighting on external roads.

The team includes students Raghad Talabeh, Bayan Al-Zayoud, Bashar Al-Azzam, Doha Al-Shannaq, and Mohammad Al-Tamimi, under the supervision of Dr. Fares Matalqa from the Civil Engineering Department at the Hijjawi Faculty for Engineering Technology.

Matalqa stated that the project idea relies on modifying the traditional concrete mix by adding chemical components that enable it to absorb sunlight during the day and reflect it at night, which helps improve visibility on the sides of roads in remote areas and reduces energy costs.

He added that the project aims to recycle glass waste and use it to improve the mechanical properties of the concrete mix and increase its absorption of sunlight, thereby enhancing its efficiency.

## A Team of Two Students from the Hijjawi Faculty Wins Third Place in NASA Space Apps Challenge 2024


Two students from the Civil Engineering Department of Hijjawi Faculty for Engineering Technology at Yarmouk University, Saba Nidal Bilal and Rania Mutlaq Rabee, secured third place in the NASA Space Apps Challenge 2024, held at Yarmouk University. Participating under the team name "Moon", their project focused on creating a child-friendly website designed to educate and engage children aged 6 to 13 in problem-solving and environmental awareness.

The website features interactive interfaces, including a "Discover the Problem" section, where children can explore issues and propose solutions through blogs. This platform encourages critical thinking and creativity, making learning both fun and educational.

Additionally, the site offers a "Play and Learn" section, where children can participate in educational games, earning points as they complete tasks. These points can be redeemed for rewards, adding a motivating and enjoyable element to the learning experience. The team's innovative approach highlights their dedication to combining education with entertainment in a way that fosters environmental awareness and problem-solving skills.

# Happy New Academic Year 2024 / 2025!

The Hijjawi Faculty for Engineering Tehnology new administration wishes you a Happy new Academic Year 2024 / 2025!

**Prof. Mohammad A. Alzubaidi**
Dean of Faculty

**Prof. Zaid Albataineh**
Vice Dean and Head of Mechanical Engineering Department

**Dr. Hisham Almasaeid**
Vice Dean

**Dr. Dania Bani Hani**
Vice Dean

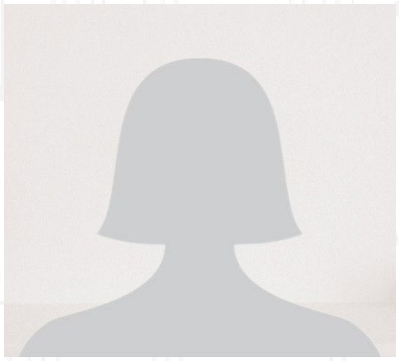
**Dr. Mohammad Tamimi**
Dean Assistant

**Prof. Ammar Al-Rousan**
Head of Industrial Engineering Department

**Dr. Yusra Obeidat**
Head of Electronics Engineering Department

**Dr. Hasan Aldiabat**
Head of Communication Engineering Department

**Dr. Mahmoud Masadeh**
Head of Computer Engineering Department

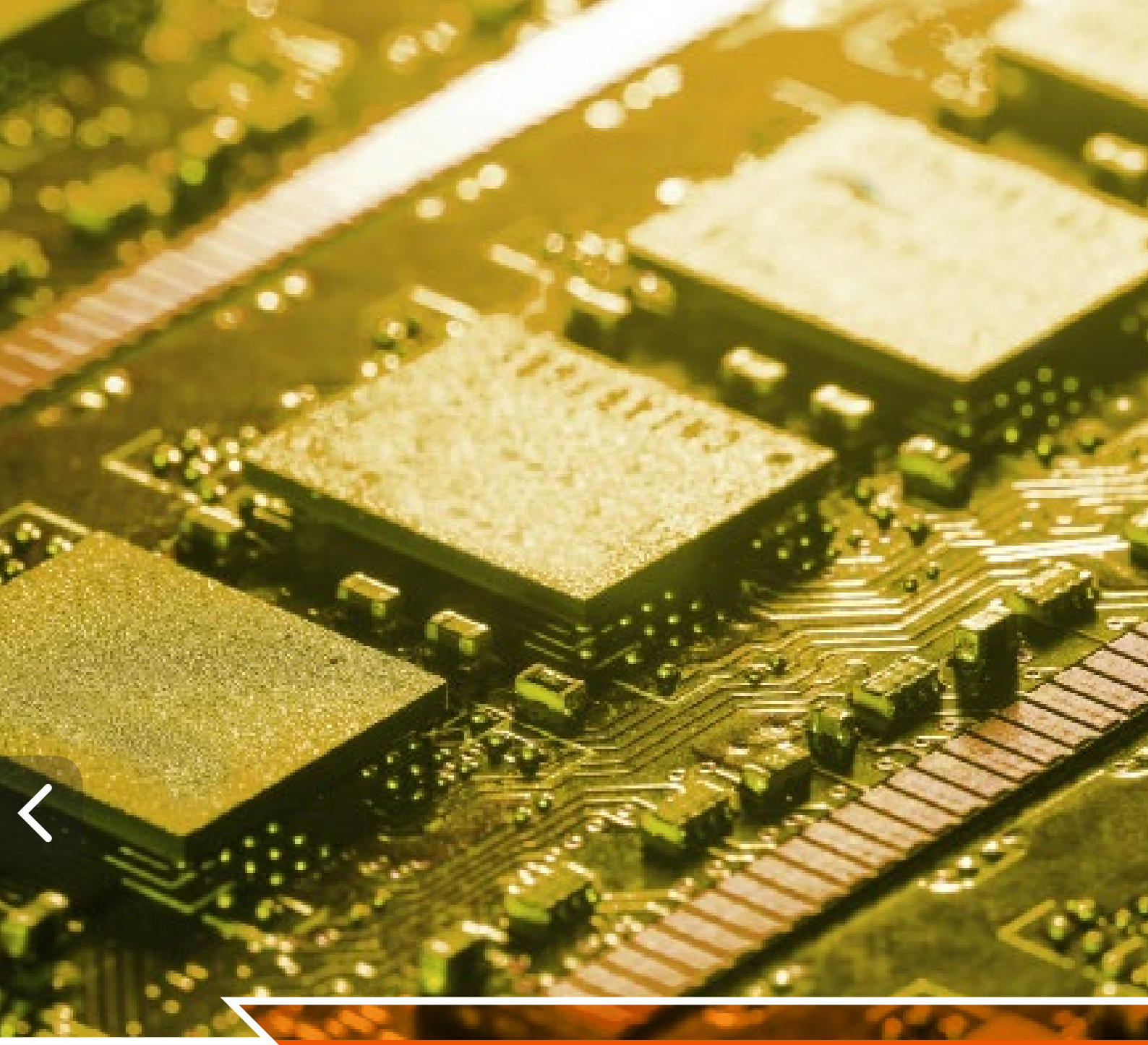


**Dr. Lina Alhmoud**
Head of Electrical Power Engineering Department

**Dr. Musab Abuaddous**
Head of Civil Engineering Department

**Dr. Baraa Alkhatatbeh**
Head of Architectural Engineering Department

**Eng. Sami Almashaqbeh**
Head of Biomedical Systems and Informatics Engineering Department



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