





# Hijjawi Faculty Newsletter

Issue 9 December 31st 2023



**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. / 5 M.S.)



More than 12,000 Engineering Graduates



**126** Academic Staff



**76** Admin Staff & Lab Engineer

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### **Featured Article**

King Abdullah II's Unwavering Endeavors on the Palestinian Matter: Gaza Context as an exmple



Prof. Islam M. Massad, MD
President, Yarmouk University

**His Majesty King Abdullah II bin Al-Hussein** always expresses and reaffirms the centrality of the Palestinian issue in the Middle East region and that it is a top priority for Jordanian diplomacy to reach a just solution for everyone.

His Majesty the King is determined to find a comprehensive and just political solution to the Palestinian issue, and to state its legitimacy in all international and regional forums, leading to the establishment of the Palestinian state with its capital Jerusalem on the Palestinian national soil. This large and important role of His Majesty the King towards the primary Arab issue stems from a historical and religious role for the Hashemites in defending the nation's issues.

In his speech at the joint Arab-Islamic Extraordinary Summit on Gaza in Riyadh on Nov. 11, 2023, His Majesty the King stated the basic reality, where He said "This injustice did not begin a month ago. It is a continuation of over seven decades dominated by a fortress mentality of separation walls and violations against holy sites and rights, the majority of whose victims are innocent civilians."

In his first remarks on the war, at the inauguration of the 19th Parliament's third ordinary session on Oct 11, 2023, which I personally was honored to attend, the King repeated his call for an independent Palestinian state; one of Jordan's major foreign policy planks. The King reffered to the dangerous escalation in Palestine that it proves: "that our region will never be secure nor stable without achieving just and comprehensive peace on the basis of the two-state solution".

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In the Washington Post op-ed wrote by the King on Nov. 14, 2023, entitled: "A two-state solution would be a victory for our common humanity", He stated that the war in Gaza has been dividing the world, and the reason is that Israel's autonomous actions have undermined the two-state solution of peace and security for both sides, through the continuation of the establishment of settlement on land that the Oslo accords recognized would be part of the Palestinian state, Jerusalemites have been pushed out of their homes, Muslim and Christian holy sites have been attacked and worshipers harassed, and now, the majority of Gaza's besieged population of 2.3 million Palestinians has been displaced.

King Abdullah II dedicated all effort to bring the Palestinian cause to the fore at all international platforms. In several occasions during the last two decades, the King reiterated his support for the twostate solution to end the Palestinian-Israeli conflict; for instance during his address at the UN General Assembly in September 2021, He said: "It is not possible to achieve actual security for both parties and even for the entire world, except through peace based on the two-state solution, which leads to the establishment of an independent Palestinian state". He believes that the future of the region, and the security and stability of its peoples are connected to the two-state solution, which leads to the establishment of an independent state of Palestine on Palestinian soil.

Back to the Washington Post op-ed, His Majesty said at the end of his speech: "No one will prevail unless the Palestinians are given their rights and their state." His Majesty added that this would be a victory for "our common humanity."

Since the beginning of the Palestinian cause more than 75 years ago, Jordan has embraced it amidst all the hope and pain. Jordan was the first to pay the price in blood, with the martyrdom of King Abdullah I, May his soul rest in peace, on the holy grounds of Al Aqsa Mosque.

May God have mercy on the Palestinian martyrs and heal their griefs and relieve their distress soon. May God preserve Jordan's homeland and leadership. Issue 9 | 31 December 2023

### **Industrial Advisory Board's Message**

Bridging the Gap: Integrating Digital Upskilling into Academic Curricula for Future Success



Dr. Nabeel Alfayoumi Managing Director, Digiskills Association / Operating under Ministry of Digital Economy and Entreprenuership

In our fast-paced world, the growing misalignment between academic outcomes and industry needs raises serious concerns for educators, employers, and students. As technology continues its transformative surge through the job market, it becomes imperative to address this gap seamlessly integrating digital upskilling into academic curricula. This integration ensures students are armed with the requisite skills, knowledge, and abilities, propelling them towards success in careers shaped by continuous technology evolution.

The global market demands a workforce proficient in digital skills to navigate the ever-

expanding digital landscape. This in turn requires academic institutions to promptly recognize and act upon the urgent need for digital upskilling within their curricula or study plans. Whether through certified tracks, industry-supervised projects, or extracurricular career accelerator programs, incorporating digital literacy, coding, data analysis, AI, cybersecurity, digital marketing, and project management into curricula not only enhances employability but also cultivates critical thinking and problemsolving skills as part of the wider digital age attributes. Furthermore, the integration of digital upskilling into academic curricula offers students a comprehensive educational experience, preparing them for the future workplace by complementing academic knowledge and instilling adaptability to the dynamic technological shifts.

To that end, it has become evident that the cornerstone of success in digital upskilling efforts lies in robust partnerships with industry leaders. Such collaborations play a pivotal role in shaping program content, ensuring alignment with industry needs, and providing invaluable insights into emerging technologies. Engaging students in internships, apprenticeships, and industry projects not only enriches their digital skill sets but exposes them to authentic real-world challenges, preparing them holistically for the complexities of the professional landscape.

Accordingly, and stemming from a deep understanding of the pivotal role of digital upskilling - being a cornerstone of any digital transformation and innovation - the Ministry of Digital Economy and Entrepreneurship, in collaboration with various stakeholders, has launched the Youth, Technology, and Jobs (YTJ). This initiative underlies a Digital Skills component managed by Digiskills - a private-sector-led association - that focuses on digital up skilling of Jordanian youth to meet evolving job market demands. As such, collaboration with industry partners is particularly indispensable in the Jordanian context since establishing partnerships with local and global companies operating in the ICT sector ensures that academic curricula are meticulously aligned with industry demands. This can involve internships, co-op programs, career accelerators and joint research projects, providing students with invaluable real-world experience and exposure to emerging technologies.

In addition, supporting and encouraging academic institutions to seamlessly integrate digital upskilling into academic curricula and foster collaboration with industry partners can eventually help Jordan adeptly prepare its youth for the challenges and opportunities of the digital economy. This strategic approach not only benefits individual students but also propels economic growth, fosters innovation, and furthers the development of Jordan's digital economy.

Leveraging this foundational adaptability, Yarmouk University's Faculty of Applied Engineering has promptly addressed the urgent demand for digital upskilling within its academic programs. Acknowledging the widening gap between academic outcomes and industry requirements, the faculty has adopted a proactive strategy, introducing flexible alternatives for students substitute conventional courses with corresponding professional certificates. This initiative seamlessly integrates into a dynamic collaboration framework, cultivated over the last two decades, to strategically harmonize academic curricula with industry insights. The goal is to equip students comprehensively, preparing them for success in careers molded by ongoing technological advancements.

In conclusion, the infusion of digital upskilling into academic curricula is an indispensable step towards bridging the gap between academic outcomes and the evolving market demands. By equipping students with essential digital skills, educational institutions play a pivotal role in shaping successful professionals for the future. This necessitates a proactive and forward-thinking stance from universities and schools, active collaboration with industry partners, and an unwavering embrace of emerging technologies to ensure students thrive in the digital era and meet the challenges of an ever-changing job market.

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## Dean's Message



I'm delighted to welcome you to the fourth and last issue of the Hijjawi Faculty for Engineering Technology Newsletter in 2023, in which we attempt to portray the Faculty through the eyes of its students, faculty members, and management personnel. Here in this welcome message, I try to present what we have achieved in the fourth and last quarter of this year 2023, and I briefly touch on my action plan for the next quarter of the next year.

This issue starts with a featured article for President Massad, in which he describes His Majesty King Abdullah II's unwavering endeavors on the Palestinian Matter, especially in the current conflict in Gaza. Then, a visionary article by the Hijjawi Faculty Advisory Board member, Dr. Nabeel Alfayoumi, discusses the integration of digital upskilling into academic curricula to bridge the gap between academia and industry and labor market needs.

Again, the Faculty was able to conduct approximately one hundred activities with the help of its Faculty members and students. In addition to the activities, our faculty members and students demonstrated their excellence through their great achievements during this short period -- something that will certainly continue in the future, with the full support we receive from the top management in the university.

I summarize our main achievements in the fourth quarter of this year as follows:

- We finished a successful visit by the ABET accreditation for the electrical power engineering program. We plan in the next year to apply to the rest of the Bachelor programs, after we were successfully ABET accredited six programs in the last two years, and be the first to apply for the masters programs, as well.
- We continue our development of new programs. We have just got approval for the master's in construction management engineering in the civil engineering department. We are also in the process of updating the electronic engineering bachelor program by including the robotics part, and thus renaming the program to be electronic and robotics engineering.
- We continue our efforts to update the curriculum of all programs -- this effort includes the establishment of a service courses department to deal with the duplications across the different programs in the Faculty.
- We were able to conduct the second meeting for the industrial advisory board of the faculty. The meeting was great, and resulted in many actions. The next meeting will be early next year.
- We have proposed a promising abroad scholarship action plan, to make sure that our staff is updated with the latest knowledge and technology.
- We are in the process of aligning all of our programs with the National Qualification Framework, and increasing the capacity of some highly demanded programs.

I hope you have a pleasant experience as you read this issue of the Faculty newsletter. I'm sure that you will notice the energy of our students, something that makes us more confident about our future.

Happy new year!

#### Prof. Mwaffaq Otoom, PhD Dean

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### **Alumni**

### Dr. Abdel-Karim Al-Tamimi



Abdel-Karim Al-Tamimi (Class of 2004),

is a Senior Lecturer of Computer Science and Software Engineering at Sheffield Hallam University. He is a certified expert in Digital Teaching and Learning, and a Senior Fellow of the Higher Education Academy (SFHEA). He is the lead of the Interactive Data Analytics Group (iDAG), and a member of the Conversational Al Research Cluster (CAIRC), and the Applied Software Engineering Research Group (ASERG). Dr. Al-Tamimi completed his undergraduate studies in Computer Engineering at Yarmouk University in 2004. Dr. Abdel-Karim Al-Tamimi received his MSc and PhD degrees in Computer Engineering under the advisement of Prof. Raj Jain from Washington University in St. Louis, in 2007 and 2010, respectively.

Dr. Al-Tamimi served as an Associate Professor of Computer Engineering at Yarmouk University in Jordan, where he was appointed as the director of the Entrepreneurship and Innovation Center (EIC). Throughout his distinguished

tenure, he showcased exceptional leadership by spearheading the establishment of three innovative incubators. His visionary leadership extended to the creation and development of the Yarmouk Innovation Lab (YIL), which evolved into the highly acclaimed Orange-Yarmouk Innovation Lab (OYIL). Beyond these achievements, he actively engaged in the prestigious NYUAD (2013) Hackathon and the renowned Al-Jazeera News Network (2014) Hackathon, demonstrating not only his technical prowess but also his ability to lead and inspire teams in high-stakes, competitive environments. He also served as the program team leader (Department Chair) of the Computer Information Science (CIS) department in the Colleges of Higher Technology (HCT) in UAE. His international work experiences include serving as a technical member of the United Nations Economic and Social Commission for West Asia (ESCWA) committee and as a visiting professor at the Technical University of Berlin, Germany.

Dr. Al-Tamimi has extensive consultancy experience in the fields of data science, computer security, and professional training and development. Dr. Al-Tamimi has broad experience in developing enterprise solutions using various cutting-edge technologies and services. He is a certified Huawei HCIA-AI expert, IBM Blockchain Developer, IBM Application Security Engineer, and Cisco Certified Network Associate (CCNA). He served as a consultant for multiple organisations in the MENA region, offering his expertise in data science and enterprise software development. Additionally, his expertise as a consultant was instrumental in the recently concluded EU-funded project named Digital Innovation for Growth (DIFG), where he supported SMEs in the South Yorkshire region of the UK to overcome their digital challenges. He has also served as a speaker and panellist in several Al and intelligent machines workshops supported by the EU-funded Advancing Digital project.

Dr. Al-Tamimi is currently serving as an Editorial Board member of PLOS ONE and Research Reports on Computer Science journals. He worked on bridging research and industry needs by co-founding several startups including Phyllis chatbot (phyllis.chat). Furthermore, his extensive experience in leading and collaborating on EUfunded projects, including H2020, Tempus, DFG, and HOPES-Madad, speaks volumes about his international standing and expertise. He has an exceptional publication track record with more than 50 publications that have garnered more than 1950 citations (h-index:20, and i-index:28). His Research Interest (RI) score is higher than 95% of researchers in the Computer Engineering field. He served as a member of organizing and technical committees of many international journals and conferences including IEEE Communication Letters, IEEE Transactions on Multimedia, IEEE Access, and BigComp. He also served as a panelist in multiple conferences as an ML and IoT specialist and an entrepreneur advocate.

At Sheffield Hallam University, Dr. Al-Tamimi has demonstrated exceptional leadership as the Principal Investigator (PI) for the EMERGENCE/ EPSRC-funded project (CIREI - Challenges of Integrating Robots with Embodied Intelligence in the Homes of Older People Living with Frailty: Towards a Smart Middleware Architecture) focusedonintegratingassistivetechnologiesand robotics into residents' homes. His success also extends to industry collaboration, demonstrated by his leadership of an Innovate UK-funded project applying Al effectively to support the UK's circular economy and construction industry under the name (Unlocking the Potential of Recycled Fibre Reinforcements in Construction: Automating Quality Assessment through Machine Learning (ML)). His R-Speak project has been recently awarded funding from the Rehab

Technologies Network (RTN), a UKRI-funded programme that supports innovative solutions for neurological impairments. As the Principal Investigator (PI) of the project, he is leading an experienced and multidisciplinary team to harness the power of recent advancements in natural language processing (NLP), specifically large language models (LLMs), to address communication challenges faced by individuals with mild to moderate expressive aphasia.

Additionally, Dr. Al-Tamimi has played a pivotal role in securing funding from esteemed competitions, including the Longitude Prize on Dementia. In this capacity, he leads the Al and predictive data analytics work packages in collaboration with Dr. Lynne Barker, an Associate Professor/Reader at Sheffield Hallam University, and their dedicated research team working on the A.D.A (Automated Dementia Assistant) project. The ambitious project focuses on developing a wearable and personalized aid designed to track the daily movements of older adults. Moreover, he assumes the role of supervisor for two additional groundbreaking PhD projects: "Detection of Cognitive Frailty Based on Text Readability Features Using Natural Language Processing (NLP) Techniques" and "Co-design of a Patient-Centric Cancer Prehabilitation Chatbot," funded by the esteemed Royal Marsden NHS trust.

Dr. Al-Tamimi's excellence in higher education is evident through his appointment as the Course Leader for the online MSc in Computer Science with Al. In this capacity, he is leading the development team and providing invaluable support for the upcoming program launch in May 2024. His innovative mindset is further highlighted by his recent pending patent application related to the use of Al in detecting fake websites, showcasing his creativity and entrepreneurial skills.

### Prof. Belal H. Sababha



Belal H. Sababha (Class of 2000), is a Professor of Electrical and Computer Engineering and a Drones & Embedded Systems Professional. He has been with Princess Sumaya University for Technology (PSUT) since 2012. Dr. Sababha is a US patent holder for three granted patents and served as a Chair for two international IEEE conferences. Prior moving to academia, Dr. Sababha has worked in the Automotive Industry. He worked as a Senior Controls Engineer in the Powertrain Controls department at Chrysler Group LLC, Michigan USA. He received his PhD degree in Electrical and Computer Engineering - Embedded Systems from Oakland University, MI, USA in 2011, M.S. and B.S. from Jordan University of

Science and Technology (JUST) and Yarmouk University in 2006 and 2000 respectively both in Computer Engineering. He has taught electrical and computer engineering undergraduate and graduate courses at various universities in the US and Jordan. He has many years of experience in curricula design, pedagogy in higher education and led several teams at various universities implementing curricular continuous improvement and attain national and international accreditation. Dr. Sababha has extensive experience in embedded systems design, control algorithm design and software development with applications related to Gasoline Engine Controls and Unmanned Aerial Vehicles (UAVs). He is a consultant in the fields of Embedded Systems and UAV design and control for various governmental firms. and commercial His research concentration areas are UAV development and control, Biomedical instrumentation, embedded sensors, embedded RTOS and networks, distributed embedded systems, graceful degradation in embedded systems, rapid prototyping, machine vision, and artificial intelligence. Dr. Sababha has served in several senior leadership positions as a Dean for two terms, Acting Executive Dean, Associate Executive Dean, Director and Department Chair. He is a Senior Member of IEEE and a member of several national and international professional organizations.

### Eng. Ahmad Ali Al-Darabkeh



currently the Director of the Information and many other systems related to government Communications Technology Directorate in projects. He participated in evaluating the the Prime Minister's Office. He holds a master's system for tracking and evaluating major degree in computer engineering from Hijjawi projects with United Nations Development Faculty for Engineering Technology in 2013. Program (UNDP). During his work in the Prime Minister's Office, he programmed many systems and supervised the preparation and design of programs, updating and development the ilnformation systems and their uses in developing work. He also worked on developing and implementing plans and activities aimed at raising the efficiency of achievement in the directorate, including developing methods and methods of work.

programming He worked on analyzing, and designing a set of systems in several programming languages. He also worked on updating and developing the website of the government performance and achievement

Ahmad A. Al-Darabkeh, (Class of 2013), is tracking system https://pmdu.gov.jo, and

Eng. Al-Darabkeh won first place in the Ideal Employee Award at the Civil Service Commission level for the year 2020. He is also a member of the National Committee for Digital Transformation, and a member of the specialized technical committees.

Eng. Al-Darabkeh has high skills and experience in the field of software design and development and in the field of information and network security. He holds first place in the international license (Ethical Hacker), and holds several accredited certificates in the field of database management and computer networks, in addition to the Certified Evaluator Certificate (EFQM).

# **Faculty News**

Hijjawi Faculty Completes an ABET Accreditation Visit for its Bachelor in Electrical Power Engineering



Hijjawi Faculty for Engineering Technology at Yarmouk University has been visited by the Accreditation Board for Engineering and Technology (ABET) for its undergraduate program in Electrical Power Engineering. The result of the visit was with no comments. President Prof. Islam Massad, who participated in this visit, praised the efforts of the Hijjawi Faculty for Engineering Technology, its top management, the work team, and the specialized committees for the sincere efforts they made to reach this achievement. He also stressed the importance of continuing efforts in various faculties to obtain prestigious international accreditations to reflect the distinguished level and good reputation of Yarmouk University locally, regionally and globally.

In turn, the Dean of Hijjawi Faculty for Technology Engineering, Prof. Dr. Mwaffaq Otoom, praised the efforts of all the faculty and administrative staff in the Faculty who worked on this achievement. The Dean confirmed that work is underway to obtain ABET accreditation for the rest of the college's programs.

It is noteworthy that the Faculty had announced in the last two years that six of its bachelor's programs had obtained ABET accreditation, which are computer engineering, electronics engineering, industrial engineering, communications engineering, biomedical systems engineering, and biomedical informatics engineering.

### President Massad Honors Three Faculties for 10 of their Academic Programs Obtaining ABET





The President of Yarmouk University, Dr. Islam Massad, praised the efforts of members of the teaching and administrative staff and students in the Hijjawi Faculty for Engineering Technology, Faculty of Information Technology and Computer Sciences, and Faculty of Science for obtaining the ABET accreditation for 10 of their bachelor programs.

Massad stressed the importance of this achievement, being reflected positively on the reputation and position of the university on the map of academic institutions locally, regionally and internationally, indicating that the view of universities today is based on what these universities achieve and accomplish. Massad added that this achievement embodies the team spirit and cooperation among all colleagues in these departments and faculties, through their perseverance and sincerity in serving their university and their country, praising at the same time the efforts of the students of these departments and their positive interaction with their professors and their participation in the evaluation processes during official visits to the entity in charge of this.

It is noteworthy that the programs that have obtained this accreditation from Hijjawi Faculty are Computer Engineering, Electronics Engineering, Industrial Engineering, Communications Engineering, Biomedical Systems Engineering, Biomedical Informatics Engineering. This accreditation is considered one of the most reliable international accreditations in the fields of applied sciences, computers, engineering, and technology.

## The Industrial Advisory Board of the Hijjawi Faculty for Engineering Technology Holds its Second Meeting



Hijjawi Faculty for Engineering Technology held the second meeting of its Industrial Advisory Board, the formation of which came within the direction of the university administration to form advisory boards for all university faculties, whose membership includes experts and specialists from the public and private sectors.

The President of the University - Chairman of the Faculty's Industrial Advisory Board, Dr. Islam Massad, indicated that the aim of forming these boards is to strengthen the concepts of governance by involving these boards in developing plans to develop the faculties, their programs and curricula, and to collect feedback in accordance with the vision and plan of economic modernization, and to ensure sustainability, working across successive administrations of the university and college.

At the beginning of the session, Massad presented a general vision of the opportunities for success at Yarmouk University and the challenges faced by higher education, stressing what has been achieved at the Hijjawi Faculty for Engineering Technology as an example of the university's investment in available resources to deal with these challenges, praising the extent of the baord members' responsiveness with the Faculty's initiatives and their commitment to providing all forms of support for the college's development.



For his part, the Dean of the Faculty, Dr. Mwaffaq Otoom, introduced the latest developments in the Faculty, the extent of the achievement achieved during the past three months since the first meeting of the board, and the extent of the Faculty's response to the board's proposals and observations.

Otoom presented the Faculty's proposed short-term plan for the academic year 2023-2024 and long-term plan for the next five years, aimed at developing the Faculty. During the meeting, these plans were discussed with the board members, who presented their proposals and viewpoints regarding the plan in a way that is compatible with the needs of the labor market and technological developments, and the most prominent global practices in developing academic programs and programs for developing work skills for university students, calling on the Faculty to continuously inform the board on the performance indicators of these plans periodically.

The second meeting of the board was distinguished by the participation of experts from the public and private sectors and specialists from outside the board.

### **EU Ambassador Visits the Hijjawi Faculty for Engineering Technology**

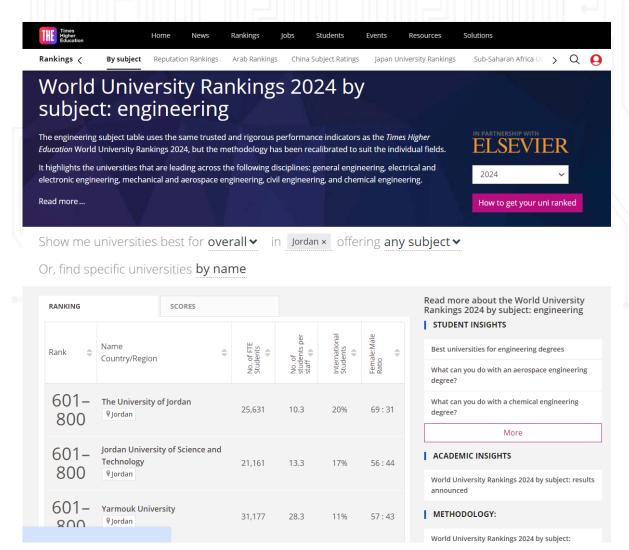


During his visit to Yarmouk University, the European Union Ambassador to Amman, Mr. Pierre-Christophe Chatzisavas visited the manufacturing laboratory at Hijjawi Faculty for Engineering Technology, where the EU delegation listened to a detailed explanation of the working mechanisms in the laboratory.

It's worth-mentioning that part of the manufacturing laboratory is a mini-fablab that was established through a generous funding by the BITTCOIN-JO project, which was coordinated by Prof. Mwaffaq Otoom as the grant holder institution coordinator.



### Hijjawi Faculty for Engineering Technology is Ranked First in THE Ranking 2024 by Subject



According to the Times Higher Education (THE) World Ranking by Subject in its 2024 edition, Yarmouk University has risen 200 places in engineering 601--800 globally, and ranks first locally to rank with University of Jordan and the Jordan University of Science and Technology. Blessed efforts made by faculty members Hijjawi at the Faculty levels, for Engineering Technology at all especially research. A thousand thousand congratulations.

It is worth-mentioning that the methodology of the THE ranking consists of: Teaching: the learning environment, Research: volume, income and reputation, Citations: research influence, International outlook: staff, students and research, and Industry income: innovation.

Hijjawi Faculty for Engineering Technology Participates in the Workshop "Developing Teaching Practical Laboratories Remotely" in Germany









A number of professors and students of the Hijjawi Faculty for Engineering Technology participated in a group of training workshops organized by the Hochschule Bonn-Rhein-Sieg in Germany, as part of the activities of the project (RL4Eng) to develop remote laboratories and virtual laboratories for teaching and training students of engineering faculties in higher education institutions in the southern Mediterranean Sub-Saharan regions.

The Dean of the Faculty, who is the grant holder institution coordinator of the RL4Eng, said that this project is supported by the European Erasmus Plus program, and is managed by Yarmouk University, with the participation of 15 academic partners and companies from Jordan, Lebanon, Morocco, Tanzania, Germany, and Spain.

He added that this project came to contribute to the process of digital transformation in higher education institutions by focusing on teaching practical laboratories in engineering faculties, indicating that this project is considered unique of its kind.

On the sidelines of this participation, a visit was made to the Digital Hub in Bonn, which hosts a number of business accelerators and startup companies and connects them with a number of investors.

### Hijjawi Faculty Members Participate in the DAAD-Funded Project "Bringing Data Literacy to Jordan" in the Dead Sea

Yarmouk University participated in the activities of the international project entitled "Bringing Data Literacy to Jordan," funded by the German DAAD Foundation, in which five German universities participate in addition to seven Jordanian universities

According to the Dean of the Hijjawi Faculty for Engineering Technology, who is the project coordinator at the university, Dr. Mwaffaq Otoom, this project aims to spread the culture of data knowledge and develop effective ways to integrate it into academic courses in the university's various academic programs.

It is noteworthy that, as part of the project's activities, three training workshops were held during "June, July and November" of the current year. Otoom pointed out that a group of professors from the Hijjawi Faculty of Engineering Technology and Business participated in these workshops.



### Hijjawi Faculty Students Participate in a Dialogue Session with MODEE Minister on Digital Skills and the Labor Market



The Minister of Digital Economy and Entrepreneurship, Ahmed Hanandeh, described during his dialogue with a group of university students, from the faculties of "Hijjawi Faculty for Engineering Technology, Faculty of Information Technology Computer Sciences, and Faculty of Science," the Co-Teaching program that aims to provide an opportunity for young people to communicate with distinguished professionals in the field of technology, and to seek guidance from them.

Hanandeh, in the presence of the University President, Dr. Islam Massad, stressed the importance of digital skills for the future of jobs and the labor market, and the importance of continuous learning and developing skills in the field of technology, indicating that Jordan, despite the challenges, was able over the past hundred years to overcome them despite its limited resources, and that this was what would have been. If it were not for the strength of Jordan, represented by its human being capable of giving and overcoming challenges.

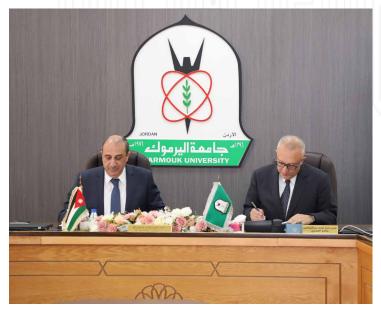
The session included an interactive dialogue and discussion in which the Minister answered the students' questions and inquiries.





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# Signing a Memorandum of Understanding between "Yarmouk" and the Electronic Health Solutions (EHS) Company





The President of Yarmouk University, Dr. Islam Massad, and the CEO of the Electronic Health Solutions Company "Hakeem", Engineer Omar Ibrahim Ayesh, signed a memorandum of understanding between the two sides, aiming to build and develop the health informatics skills of a group of Yarmouk students through the "Hakeem Academy" project, which aims to build the capabilities of university students and qualify them to enter the labor market in this field.

During the meeting, Massad stressed Yarmouk's keenness to participate and cooperate with various leading national companies and institutions in order to achieve the public interest that contributes to building and developing our national institutions and achieving development in our Jordanian society, pointing out that cooperation with a leading national company such as the Electronic Health Solutions would provide a base. Solid training for students of the Biomedical Systems and Bioinformatics Engineering Department in the field of health informatics work due to the company's excellence in training and qualifying workers in the health sector to create electronic medical files for patients through the "Hakeem" program, stressing that Yarmouk, represented by the Hijjawi Faculty for Engineering Technology, sends a group of its students for training at the company. Those who are able to acquire experiences and skills, build on them, develop them, and apply them on the ground.

In turn, Ayesh emphasized the company's interest in strengthening its cooperation with Yarmouk University, which includes distinguished scientific competencies and graduates generations of students armed with the sciences and knowledge that qualify them to be leaders of an independent country, pointing out that the company, which was established as a national project, aims to raise the level of the Jordanian health sector by providing Hakeem computer program allows health sector personnel to create electronic medical files for patients.

The memorandum stipulated that the two parties cooperate to organize and hold training courses for university students in the field of health informatics and the mechanism of work of the "Hakeem" program, provided that the number of students in each course does not exceed "35" male and female students, and that the company downloads a copy of the "Hakeem program" on one of the devices, in addition to holding awareness sessions for medical college students and teaching staff on how to use the electronic medical libraries.

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# The Dean Meets the Hijjawi Faculty for Engineering Technology Student Teams and their Academic Supervisors

Professor Dr. Mwaffaq Otoom, the Dean of the Hijjawi Faculty of Engineering Technology, met with members, coordinators and supervisors of the active student teams within the faculty, in the presence of the Vice Dean, Dr. Zaid Albataineh, and the Assistant Dean for Student Affairs, Eng. Sami Almashaqbeh. The Dean thanked the students and their supervisors on behalf of the President for the remarkable effort and achievements accomplished the 2023 year and set the road towards the 2024 action plan. During the meeting, a fruitful discussion took place to improve the work of teams in the coming period. There was also a discussion about the most important challenges facing the student teams and ways to solve them in cooperation with the faculty and university administrations. It is worth to mention that the Hijjawi Faculty of Engineering Technology had many student teams which indicates the keenness of the university and faculty administration on the importance of the extracurricular activities in developing capabilities and preparing leaders for the future, capable of carrying the responsibility in our beloved homeland.







# The Hijjawi Faculty for Engineering Technology Students Win the First Three Places in a Three-day "Environmental Innovations" hackathon at Yarmouk University

Part of the activities of the project "Cleaner Energy Saving Multi-Use Public Building" funded by the European Union's Climate for Cities (C4C) program, and coordinated by Dr. Madhar Taamneh and a team from the Civil Engineering Dept., the Entrepreneurship and Innovation Center in collaboration with the Hijjawi Faculty for Engineering Technology concluded a three-day "Environmental Innovations" hackathon between 26--28 / 12 / 2023. Innovative student projects focused on environmental sustainability won top honors. Dr. Madhar Taamneh highlighted the event's significance in aligning with Jordan's royal vision and national development goals. Prof. Mwaffaq Otoom emphasized the university's commitment to fostering student innovation and sustainability. The event concluded with awards and certificates distributed to participants.

The first prize went to Manar Mazari, Computer Information Systems, Tala Jaber, Biomedical Engineering, and Aya Alsagheer, Computer Engineering. The second prize went to Rasheed Smirat, Electrical Power Engineering and Eva Falahat, Civil Engineering. The third prize went to Abdallah Naamneh, Electronics Engineering, Ahamad Shehab, Civil Engineering, and Momen Aljamal, Industrial Engineering.

Note that the project aims to support Southern Neighborhood cities in their energy and climate transition through the implementation of the concrete actions included in the Sustainable Energy and Climate Action Plans (SECAPs) with a collaboration between the Greater Irbid Municipality, Yarmouk University, and the Future Pioneers Association.







### The Dean Joins the President in the Inauguration Ceremony of JAIP

Under the Patronage of His Majesty King Abdualla II, President Islam Massad and Deans of Hijjawi Faculty for Engineering Technology, Pharmacy, and Scientific Research and Graduate Students partcipated in the launching of the Jordan Academia Industry Platform (JAIP). The platforms aims at overcoming barriers to innovation by fostering collaboration between scientific research institutes, universities, and industry



# A Team from the Hijjawi Faculty for Engineering Technology Wins a Third Place in Tamayoz Competition for Graduation Projects for the year 2023

A team from the Hijjawi Faculty of Engineering Technology at Yarmouk University participated in Tamayoz Competition for Graduation Projects for the year 2023, affiliated with the National Center for Creativity and the Jordanian Innovation Center for the Fourth Industrial Revolution (InJo4.0). The team consisting of three students: Doha Qazaz, Shahd Sharara and Maram Latayfa and supervised by Dr. Idris Algofahi and Dr. Zaid Albatineh.

The Yarmouk University team won the third place in the competition, and the team received a distinguished training program to build their capabilities in the field of their projects, for a period of (200) training hours, which costs up to (700) dinars for each student, funded by the Jordanian Innovation Center for the Fourth Industrial Revolution, which provided them with required technical assistance in implementing the prototype of their graduation projects in the fields of digitization of smart manufacturing processes, development of smart industrial products linked to the Internet, and smart meters in the fields of water and energy using Internet of Things (IoT) technology.













The Hijjawi Faculty for Engineering Technology Wins the Best Mechanical Design Award in the Fire Fighting Robots Contest



A project from the Hijjawi Faculty of Engineering Technology at Yarmouk University won the Best Mechanical Design Award in the fourth edition of the Fire Fighting Robot Contest (FFRC), hosted by Al-Ahliyya Amman University, where 18 teams participated from various Jordanian universities.

The winning project applied an innovative air intake technique in firefighting operations and the usage of digital manufacturing, in addition to, conducting comprehensive computer-aided design simulations, which enabled modifications to be made and weaknesses in the design to be highlighted before the manufacturing process.

The competition aims to simulate the process of extinguishing a fire and rescuing people using robots, and it also motivates students to innovate and be creative in the field of robotics.

The winning project team consists of students Majdi Al-Manasir and Muhammad Ashour from the Electronics Engineering Department, Hossam Al-Moumani from the Industrial Engineering Department, and Ahmed Al-Moumani from the Computer Engineering Department.

The students who won the competition expressed their pride in achieving this achievement and its importance in their future career path, through their acquisition of practical experience that integrates with the scientific knowledge they obtain from their academic courses.

They also stressed that winning this competition showed the status of the faculty and university and its constant follow-up of students and their motivation to participate in various conferences and competitions, in line with the faculty's interest in various extracurricular activities.

The Dean of the Faculty, Dr. Mwaffaq Otoom, said that the faculty, in accordance with the university's philosophy, is always keen to have its students participate in such events and competitions, because they represent an important opportunity in terms of positive interaction between students and the acquisition of skills and experiences that qualify them for the labor market.

He added that the vision of Hijjawi Faculty of Engineering Technology to be among the best 500 faculties in the world universities in engineering fields by the year 2025 based on distinguished scientific research and teaching.

Dr. Otoom, also, pointed out that the faculty is keen on excellence in teaching, scientific research and community service by providing high-quality education that keeps pace with the latest developments in the various fields of engineering sciences and is closely linked to the industrial sector and the various needs of society.



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# A Team at the Hijjawi Faculty of Engineering Technology Win the Third Place in the NASA International Space Apps Challenge





The NASA International Space Apps Challenge is a hackathon for programmers, scientists, designers, storytellers, makers, technologists, and innovators around the world to come together and use open data from NASA and its space agency partners to find solutions to the challenges it faces on Earth and in space.

Forty-one teams from various universities and schools in the Hashemite Kingdom of Jordan participated in this competition. Four of them were from Yarmouk University including: twelve students from the Hijjawi Faculty of Engineering Technology and six students from the Faculty of Information Technology and Computer Science.

A team consisting of a group of students from the Al-Hijjawi Faculty of Engineering Technology and the Faculty of Information Technology and Computer Science won third place in the competition. The competition was organized by Al-Hussein Technical University and lasts for two days.

The concept of the project is based on designing and developing a website for the Earth that provides information about water resources and the organisms that are prone to extinction in order to increase awareness and knowledge about them.

The winning team consists of students: Anas Amrat, Hazem Shatnawi, and Dima Al-Hussein from the Computer Engineering Department at the Hijjawi faculty of Engineering Technology, Firas Al-Momani from the Computer Science Department, and Saja Zuraiqat and Aman Al-Obaitha, from the Data Science and Artificial Intelligence Department, at the Faculty of Information Technology and Computer Science.

# Welcome and guidance Meeting for the New Students in the Department of Communications Engineering for the Academic Year 2023--2024

The Department of Communications Engineering held a welcome meeting with new students in the bachelor's program in the department for the academic year 2023--2024, in the presence of a number of faculty members and the Assistant Dean for Student Affairs, Eng. Sami Mashaqba, on Monday 13--11--2023, where the head of the department, Dr. Sharief Abdel-Razeq welcomed the students and explained the purpose of the meeting. He also shed light on the bachelor's program in terms of vision and mission, in addition to the program's features and its teaching and employment fields. He stressed the importance of the student in participating in decision-making. The department head also stressed the importance of principles and values in creating an effective environment for teaching and learning.

During the meeting, Dr. Asmaa Al-Qudah talked about the importance and how to organize time for study and focus on developing students' abilities in all fields during the university years. The student Issa Al-Rabadi, who is the chair of IEEE ComSoc branch at Hijjawi Faculty for Engineering Technology, also spoke about the branch, the advantages of joining it, and the activities that the branch has undertaken during the past years.







### "Carving Your Future" Session for Electronics Engineering Students

At the invitation of the Dept. of Electronics Engineering, an interactive session was held entitled "Carving Your Future" with the distinguished speaker and trainee Sahar - founder and CEO of Neptune Career Consulting Company, where exciting, important and effective topics for students' professional future and ambitions were discussed, the most important of are:

- 1. The importance of interpersonal skills and writing skills for hiring engineers
- · Learn why soft skills are important in engineering.
- Understand the impact of effective communication and writing skills on career opportunities.
- 2. The most common challenges facing new engineering graduates
- Explore common challenges new graduates face in transitioning from academia to the professional world.
- Gain insights on how to overcome these challenges to pave the way for a promising future.
- 3. The best way to discover your passion in your life path
- Discover practical strategies to identify and pursue your passion in engineering.
- Get guidance on guiding your career choices according to your personal ambitions for longterm satisfaction.





### "Electronics Engineering in A Glimpse"

At the invitation of the Department of Electronics Engineering a symposium was held entitled: Electronics Engineering at a Glance. The speaker was Engineer Yazan Al-Turk, an electronics engineer and graduate of Hijjawi Faculty for Engineering Technology. It discussed many interesting and useful topics for the department's students, the most prominent of which are:

- \* Motivation Why electronics engineering?
- \* The importance of university subjects and the graduation project
- \* Applications on important topics (FPGA, HDL, VLSI)



### Biomedical Systems and Informatics Engineering Dept. Welcomes Batch of 2023 Students

The arrival of the Department of Biomedical Systems and Informatics Engineering students for the 2023 batch was celebrated with a warm welcome. Dr. Ahmad Al-Omari, the department head accompanied by the assistant dean for student affairs met the new undergraduate students; the meeting was an exciting introduction to the university community. It emphasized the transformative journey ahead, encouraging students to embrace diversity, engage in both academic and extracurricular activities, and make meaningful connections. The message highlighted the support available from faculty, staff, and fellow students and inspired everyone to dream big and create a positive impact during their university experience. Also, the department head highlighted the full backing of the university president, Prof. Islam Massad, and the college dean, Prof. Mwaffaq Otoom, emphasizing their full support for the students.



### **Civil Engineering Department Welcoming Day**

The Department of Civil Engineering held a welcome meeting for new students of academic year 2023--2024. The meeting was organized by the department faculty members and students on the second of November 2023 at Hijjawi faculty. The meeting start with a welcoming word from the head of the department Dr.Musab Abuaddous, followed by Dr. Ahmad H. Alomari giving a word on behalf of the faculty members.

Afterword students held multiple sessions; the first was a brief introduction on civil engineering and infrastructure explaining the different parts of civil engineering. The second was on the bachelor's program plan in the department and the third was on time management for university students.

The last part of the meeting was given by the students team (Analyzer) and students organization American Concrete Institute (ACI) and American Society for Engineering Education (ASEE) to present their activities in the department for the new academic year.









### A Farewell Party for Mr. Fayez Awwad

The Hijjawi Faculty for Engineering Technology gathered to say thank you to Mr. Fayez Awwad, the former chief of staff at the Faculty, for serving the university for more than thirty years, which were concluded at the Faculty. The Faculty wishes Mr. Awwad all the best in his future endeavors.





#### The Dean Meets an Official from Mesa Community College

The Dean of the Hijjawi Faculty for Engineering Technology, Prof. Mwaffaq Otoom, met with an official from Mesa Community College, the U.S., discussing the possibilities of having a joint work in the semiconductor industry.

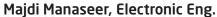


### Hijjawi Faculty for Engineering Technology on the Media

The Hijjawi Faculty for Engineering Technology has recently appeared in different TV and Radio media platforms, in addition to other platforms, including social media and news websites.

#### "Youm Jadeed" Program on the JRTV on 23 / 11 / 2023







Hussam Momani, Industrial Eng.

### "Youm Jadeed" Program on the JRTV on 28 / 11 / 2023



Afnan Ghassab, Communications Eng.



Hussam Jihad, Communications Eng.

#### "Youm Jadeed" Program on the JRTV on 20 / 12 / 2023



Dr. Ola Taani, Computer Engineering

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#### JRTV Main News on 23 / 12 / 2023



Dr. Mohammad Al Zu'bi, Mechanical Engineering

#### Jordan Times on 18 / 11 / 2023



Dr. Mohammad Firas Tamimi and Dr. Ali Shehadeh, Civil Eng., and Mwaffaq Otoom, Computer Engineering



#### Alrai on 20 / 11 / 2023

Mwaffaq Otoom, Computer Engineering



### **Students Activities**

Google Developers student club organized DevFest on campus





Google Developers student club- Yarmouk branch organized DevFest on campus, the event aimed to introduce student to latest technological advances globally, LLM, artificial intelligence applications, Google Cloud, problem solving and data processing and storage.

The event started with a word from the student club adviser Dr. Musab Abuaddous where he welcomed the audience and the speakers. Followed by a word of the Hijjawi Faculty for Engineering Technology Dean, Prof. Mwaffaq Otoom, emphasizing the role of student in shaping the future of technology and entrepreneurship.

The first session "Building preferential advantage using artificial intelligence and future management tools" was presented by Dr. Rami Shaheen a members of Al-Mabar for Artificial Intelligence. Dr. Shaheen has gained experience in multinational companies, he collaborated with industry giants such as Tesla and vital entities such as the CIA, Pentagon and Wadi projects, also served as a plan advisor for the Smart City of Amman, where he assisted the Mayor of Greater Amman with innovative urban development.

The second session "an intro into A large language model (LLM) Getting Hands-on with MakerSuite and the PaLM API" presented by Eng. Amal Al-Salami from Tunisia, Eng. Al-Salami is an Experimental Engineer at IMETEEP, a Google learning expert, a specialist in the "Ask Me Anything" OPEHMINED session, and a mentor at Google for Middle East startups TIME TV Times, moreover she is the main volunteer for many live events at GITEX GOOGLE HEKA, DEEP LEARHING INDABA.

The third session "Google Cloud" presented by Eng. Majd Jamaah. Eng. jamaah is the Development Director at Beyond Borders. Google Cloud development expert, Google Cloud innovative champion, Google startup acceleration software mentor, and community organizer at Google developers AMHAN.

The fourth session "A Dive into Human Behaviors to Deliver a Better UX" presented by Eng. Hiba Metani. Eng. Metani is a user experience researcher at UX LABS, Google Developers in Oman, TECHMAKERS Ambassador and Program Mentor at Google Startup Acceleration.

The fifth session "The Influence of AI and Networks on Drones" presented by Khaled Amoura. Mr. Amoura is a Network Engineering and Security student, a FPV Racer at SAGER DRONE and professional drone Pilot. The sixth session "Google Developers student club" presented by Batoul AI-Qudah. Miss. AI-Qudah is a fourth-year computer science student, a facilitator for Google DSC Jordan, and a former software engineering intern at Dimiah. The seventh and the last session "Introduction to Problem Solving" presented by Osama Shkukani. Mr. Shkukani is a Fifth year computer engineering student, Qualified for the 2022 ICPC International Collegiate Promotion Championship, and was selected for the TEREXTREME Program.

The event was attended by over 200 students from Yarmouk University, University of Science and Technology and Al-Hussein Technical University.

The event was organized by Google Developers student club Yarmouk branch "Afnan Ghassab Alsaqer, Nooran Ghassab Alsaqer, Hassan Abu Sarris, Sara Khasawneh, M'omen Aljamal, Mustafa Banikhalaf, Sanabel Abudiak, Istabraq Sameer, Rasha Qarqra, Rama Alomari, Habib Jaradat, Hala Hassan, Bushra Qaqeash, Yaqeen Batayneh, Aiham Alzou'bi' and the club advisor Dr. Musab abuaddous.









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### Two Students from Hijjawi Faculty Participate in the MARSS Conference at New York University Abu Dhabi

Students Ahmed Saadia from the Department of Computer Engineering and Rama Shubhash from the Department of Electronics Engineering participated in the MARSS Small-Scale Automation and Robotics Conference, hosted by New York University Abu Dhabi (NYUAD), in the United Arab Emirates.

The conference focused on the latest developments in the field of nanorobotics, representing a transformative experience for both participants.

The conference also provided an exclusive platform to engage with leaders in nanorobotics research. By exploring a range of topics, including materials for small-scale robots, small biologically inspired robots for biomedical engineering, and magnetic helical nanorobots, the conference highlighted the potential of nanorobotics across Various fields.

Ahmed Saadia and Rama Shubash praised the meticulous organization of the conference by NYU Abu Dhabi and added that the experience was not only educational, but also very inspiring.

They added that this visit to the NYU Abu Dhabi campus demonstrated the greatness of architecture and provided a unique opportunity to communicate with researchers. This experience also contributed to advancing their academic journey and inspired them to strive to achieve excellence in the fields of computer engineering and nanorobotics.





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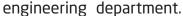
### A Scientific Trip by the Architectural Engineering Students to the Royal Academy for Nature Conservation Building in the Ajloun Reserve

The purpose of the visit is to introduce the students to the reserve building, which was designed by the architect Ammar Khammash. The building was distinguished by its distinctive architectural design in terms of the artistic composition of the building and the construction style. The design idea was distinguished by the challenge of the design location, which is an old quarry. Al-Minni was also distinguished by its use of building materials in harmony with reality. The design fits the reality of the place and its challenges.



#### A Group of Students from Hijjawi Faculty Present at JODDB

A group of students from Hijjawi Faculty for Engineering Technology presented a detailed presentation about their project entitled as "A Smart Helmet for Military Purposes" under the supervision of Dr. Yusra Obeidat from the Electronics Engineering Department, to compete for support within the framework of scientific research and innovation for university students launched by the Jordan Design and Development Bureau (JODDB) this year. The participants are Lina Al-Quraan and Mohammad Gharaibeh from Electronics engineering department, Omar Khatatbeh from Computer engineering department, and Lama Alkhateeb from Communication







### A Group of Students from the Communications Engineering Department Present at JODDB

A project, "Prediction of Alzheimer's disease using Brain Waves and AI" for students Afnan Al-Saqer, Nouran Al-Saqer, and Ali Jawahreh, under the supervision of Dr. Sharief Abdel-Razeq from the Communications Engineering Department at Hijjawi Faculty for Engineering Technology, was presented for a possible funding from the King Abdullah II Fund for Development (KAFD) and in cooperation with the Jordan Design and Development Bureau (JODDB), as part of the Undergraduates Research and Innovation Support Project.

It's worth mentioning that this project aims mainly to predict the occurrence of Alzheimer's disease in the future by analyzing brain waves and then building Al model. This would save lives and make sure to alert the people so they can take precautions.



### YU IEEE AESS organizes a Workshop on Space Air Defense Systems

The Chairman of the YU IEEE AESS, Hassan Abu Sarris, organized a workshop on space air defense systems presented by student Mohammed Al-Zumat in Wissam Bushnaq Hall. A topic related to the world of air defense were introduced, such as: the history of air defense and its impact on the air, and how air defense systems work and the technology behind it.



Hijjawi Faculty Newsletter

### A Visit by the International Summit Academy to the Electronics Engineering Department

The Electronics Engineering Department at the Hijjawi Faculty of Engineering Department had the pleasure of hosting a delegation from the International Summit Academy at. The visit provided valuable insights into our department's activities and showcased our commitment to excellence in electronics engineering education. The department takes pride in offering comprehensive undergraduate program that blend theoretical knowledge with practical skills. This program is designed to equip our students with the expertise they need to succeed in the field of electronics engineering.

During the visit, the department head and experienced engineers delivered a lecture highlighting the significance of electronics engineering in today's world. They emphasized the broad applications of electronics engineering and the promising career opportunities it offers to our graduates.

One of the key highlights of the visit was the exhibition of our students' graduation projects. These projects covered a wide spectrum of areas, including embedded systems, communication, robotics, power electronics, and VLSI design. The projects not only demonstrated our students' innovative capabilities but also show their readiness to tackle real-world challenges. Finally, the guests had the opportunity to tour our well-equipped engineering workshops. These workshops play a pivotal role in providing hands-on experience to our students.





#### **Biomedical Engineering Workshop: Job Opportunities and Challenges**

The Young Engineers and Electrical Media Committee held several workshops in the field of Biomedical Engineering. In the beginning of the event, Eng. Hala Alwaneh welcomed the audience and thank them for showing their interest on subjects related to Biomedical Engineering field in Jordan. on Behalf of Dr. Mwaffaq Otoom, the Dean of Hijjawi Faculty, Eng. Sami Al-Mashaqbeh, the Dean Assistant, attended the event alongside with Dr. Ahmad Al-Omari, the head of the Department of Biomedical Systems and Informatics Engineering.

The workshops began with the speech Eng. Issa Abu Hammur, speaking on behalf of the Chief of the Electrical Engineering Division of the Jordanian Engineers Association, who appreciated the role of biomedical engineers in saving lives through their practice in hospitals and other health facilities. Eng. Abu Hammur emphasized the role of young engineers to protect people and their lives by assisting doctors in making the right decision for the benefit of their patients. The speaker, also, explained the role the Jordanian Engineers Association to introduce the graduates to industries in the different engineering fields and the training opportunities it provides. Dr. Bahaa Al-sheikh explained the role of medical engineers and the qualities they should possess. He also showed the importance of continuous learning in mastering the skills of the STEM. Dr. Bahaa explains that biomedical engineering, since it is a combination of three different subject areas: biology, engineering, and medicine, it includes many research fields more engineering discipline, which made interesting. Eng. Anas Abo Golisha explained the different carrier in the field of biomedical engineering in the Jordanian labor market. He expected an increase in employment opportunities for medical engineers in the coming years. According to estimates and studies, there is an increasing need to find viable alternatives to human organs and organs. Eng. Mohammed Al-Abbaneh, a salesperson expert in the field of medical devices, noted the need of training courses in the sales and other personal skills to be able to work in medical device sales area. Eng. Hala Alwaneh concluded the workshops with special appreciations to the lecturers, faculty members, and students for their participation.











Hijjawi Faculty Newsletter

#### **Bridging The Gap Event**

IEEE Computer Society Yarmouk University Student Chapter organized an event for new students in the specializations of computer engineering and the Internet of Things, in which it presented the most important policies that they must know to ensure the correct path towards the technological future and how to achieve the highest scientific benefit during their studies at the university.





### Civil Engineering Students Repainted Pedestrian Crossing Areas in Yarmouk University

Civil engineering department organized an initiative to repaint the pedestrian crossing areas in Yarmouk University in association with Yarmouk presidency office and the Greater Irbid Municipality. The initiative was supervised by Dr. Madhar Taamneh, Dr. Ahmad H. Alomari, Dr.Musab Abuaddous, from Civil Engineering Dept. and Dr. Rami Malkawi, President Assistant. Students from the civil engineering department participated in the initiative working at night time. The initiative aimed to improve the university's facilities, develop the engineering sense of civil engineering students and improve their team work.

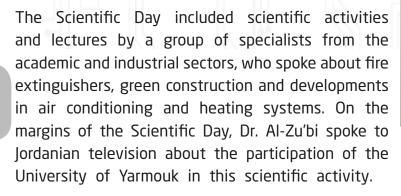






#### Dr. Al Zu'bi and a Group of Students Participate in the Scientific Day at Huson College

Dr. Mohammad Al Zu'bi, the head of the Mechanical Engineering Department, accompanied by a group of students from the department, participated in the events of the Scientific Day organized by the Faculty of Huson College, in cooperation with the Jordanian Engineers Association- Irbid Branch. In his speech, Dr.Al Zu'bi emphasized the importance of holding such events because they were important in bridging the gap between industry and academia. In addition, students were introduced to the latest developments in mechanical engineering science and enriched their knowledge and relationship with the industrial sector.







### A Visit to the Design and Manufacturing Laboratory

The Robotics Team organized a visit to Hijjawi Faculty for Engineering Technology's Design and Manufacturing Laboratory. The students were introduced to a wide range of modern technology and tools utilized in the design and manufacturing industries such as the 3D printer, which creates precise and effective 3D models and parts, the CNC device, which is used to manufacture precise electronic circuits, and the laser cutting machine, which uses laser technology to quickly and accurately cut materials.



#### Scientific Visit to Ramallah Steel Factory

A scientific visit for a group of civil engineering students to the Ramallah Iron and Steel Factory was organized by the Analyzer Team at the Civil Engineering Department in collaboration with The Hijjawi Faculty of Engineering Technology, and supervised by Dr. Mohammad Firas Tamimi, Dr. Ammar Al-Shannag and Dr. Mu'ath Abu Qamar. The visit provided an invaluable opportunity for the students to gain direct exposure to the industrial processes in the iron and steel sector. During the visit, the students observed the technical and production processes, bridging the gap between their theoretical knowledge and real-world industrial practices. This experience was crucial in enhancing their understanding of the practical aspects of civil engineering, critical thinking, and engineering challenges. Moreover, the visit provided interactions between the students and industry professionals, which gave them an insight into the challenges the engineers face in the field. Also, the visit gave the students an insight about potential future career paths.









#### Scientific Visit to the Interbuild Exhibition at Amman Convention Center

A group of students from the CEIBA team visited the Amman Convention Center to attend the Interbuild exhibition. The visit was to learn about the latest developments in construction materials, including tiles, cutting devices, sanitary materials, lighting tools, and various mechanical and architectural designs.

During the visit, the students well informed about the different Jordanian companies in the field and how these companies collaborate with global partnerships to obtain distinctive products. There are also many local industries and unique products at the regional level.

Dr. Muhammad Al-Tamimi, Dr. Ammar Al-Shanak, and Dr. Moaz Abu Qamar, from the Civil Engineering Department, attend the exhibition. Some details were explained in surveying and various devices in the field by them. The students visited the leading companies in the exhibition, and asked questions related to their products, which enhanced the students' skills in dialogue and discussion. They also informed about the labor market in materials construction companies.









### Students from the Biomedical Systems and Informatics Engineering Department Visited the Royal Scientific Society/Directorate of Medical Engineering

The Youth Electrical Engineers and Media Committee at the Jordanian Engineering Association organized a scientific visit for students from the Biomedical System and Informatics Engineering Department at the Hijjawi Faculty of Engineering Technology to the Royal Scientific Society/Directorate of Medical Engineering. During the visit, the theoretical and practical parts of two different devices were explained. The Hematology analyzer CBC machine and the Spectrophotometer working principle and common error troubleshooting were explained in detail. Furthermore, Eng. Aktham Rbihat and Eng. Neely Schnap, explained the Biomedical engineer's role and responsibilities in maintaining, manufacturing, and fixing medical devices. Hala Alawneh, a student at the Biomedical System and Informatics Engineering Department, contributed effectively in organizing the visit, as a member of The Youth Electrical Engineers and Media Committee.





### Communications Engineering Students Present at Abdullah II Fund for Development KAFD Office for Project Funding Opportunity

A team of senior year students from telecommunication engineering department at Hijjawi college for engineering technology presented a project idea entitled by "Design of a sleep Apnea Detection Device "under the supervision of Dr. Hamzeh Jaradat for the purpose of attaining project support from KAFD with the collaboration of Jordan Design and Development Bureau (JODDB) to promote scientific research and creativity among Jordanian university students. The participating students are Roa'a Obeidat, Rahaf Freihat and Waed Abu Abbas.



### The Computer Engineering Department Holds a Workshop in Designing and Programming Irrigation Networks

The Computer Engineering Department held a workshop entitled: "Designing and Programming Irrigation Networks," presented by Engineer Salah Awad, Director of Josian Company. The workshop dealt with the foundations of designing irrigation networks and selecting their components based on productive or cosmetic agriculture plans. In particular, the automation of irrigation networks was addressed using digital controllers, which were programmed in front of the workshop participants after installing a miniature model of an irrigation network.



### YU IEEE EMBS Student Chapter Organizes a Workshop on Artificial Intelligence and its Application in Biomedical Engineering

In the beginning, the new team for EMBs were announced, as follow: Faris Meqbel as the Chairman, Rawan Almomani is the Vice Chair, Moath Qurishi is the treasurer, Sarah Abdelqader is the secretary, and Aya Shatat is the social media manager. Then, Engineer Ammar Yasser, from SHAI company, discussed the field of data analysis and its usefulness, the machine learning and some applications that use AI in their work, and the future of AI. He also gave some advices to the audience about how to start to learn and advance in the field of artificial intelligence. Finally, student Khadija introduced some application of AI in the area of biomedical engineering such as prosthetics and orthotics.





### The Student Branch of the American Society of Engineering Education (ASEE) at the Hijjawi Faculty of Engineering Technology Organizes a Scientific Visit to the Royal Scientific Society

The ASEE Student community organized a visit to the Royal Scientific Society. The students were accompanied by Dr. Ali Shehadeh, the supervisor of the ASEE student branch, and Dr. Hamsa Nemer from the Civil Engineering Department.

The association highlighted the essence of our shared commitment to advancing education and scientific research. The workshops and events provided practical experience and valuable practical insights. The students visited: the Water and Climate Change Research Laboratory, the Construction laboratory and energy laboratory, the Water testing laboratory, the Food inspection laboratory, and the Cigarette testing laboratory. This experience has undoubtedly planted the seeds for future collaboration to contribute meaningfully to the scientific community.





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#### **Graphic Design Workshop**

The Dean of Hijjawi Faculty for Engineering Technology participated in the graduation ceremony of the Graphic design workshop that was held online by Firas Hamdan, an industrial engineering bachelor student. 132 students participated in the course, which introduced several topics on graphic design using Adobe Photoshop software. The participation certificates were given to students who passed the course successfully.





## A Student at the Computer Engineering Department Participates in the World Innovation Summit for Education (WISE11) Held in Doha

Tala Al-Azzam, a student at the Computer Engineering Department at the Hijjawi Faculty of Engineering Technology, participated in the World Innovation Summit for Education (WISE11) held in Doha, Supported by the King Abdullah Funds. The World Innovation Summit for Education (WISE) is an initiative of Qatar Foundation for Education, Science and Community Development, launched in 2009. The summit covered a wide range of topics, including the impact of culture and language on education systems, practical solutions for navigating a world centered on artificial intelligence, neuro-education, the development of future-oriented skills, and the implementation and scaling of innovative educational models. More than 150 speakers from the fields of education, business, and academia participated in the summit at the Qatar National Convention Center, sharing their insights with local, regional, and international experts.



### A Student from the Hijjawi Faculty of Engineering Technology Develops a Smart Course Registration System Using Artificial Intelligence Techniques

Towards improving the experience of the course registration process for the university students, Obada Ahmed Hamdan, a student at the Hijjawi Faculty of Engineering Technology at Yarmouk University, develop an intelligent registration system based on artificial intelligence techniques and algorithms. The system studies all students' academic cases in depth and registers courses according to priorities that fit each student's eligibility to register each course, which saves time and effort for students and makes the course selection process more effective. This project supervised by Dr. Mahmoud Musa'da from the Computer Engineering Department.



### A Student Team was Interviewed at Youm Jadeed Show on Jordan Television

A group of students was hosted on Jordanian television at Youm laded show to discuss more details about their project which is entitled "The Smart Gloves". Dr. Sherif Abdelrazeg, the Head of the Communications Engineering Department, supervised this project, which was carried out by a team consisting of three students from Hijjawi Faculty of Engineering Technology: Hussam Al-Din Jihad Muslim, Afnan Ghassab Alsager, and Mohammed Jihad Muslim. The project funded by the King Abdullah II Fund for Development in collaboration with the Jordanian Center for Design and Development. The project addresses the specific needs of the deaf and mute community, aiming to convert sign language into spoken and written language. This is intended to help the deaf and mute community interact effectively with society without facing communication challenges.





### ANDON Team at the Industrial Engineering Department Holds a Meeting Discussing the Industrial Engineering Fields and the Gap Between Education and Labor Market

ANDON team at the Industrial Engineering Department at Hijjawi Faculty for Engineering Technology held the first meeting entitled: Industrial Engineering: The Gap Between education and the labor market. Dr. Mwaffaq Otoom, the Dean of Hijjawi Faculty for Engineering Technology, and Dr. Ammar Al-Rosan, the Head of the Industrial Engineering Department, attended the meeting. Professors Dr. Dania Bani Hani and Dr. Ayman Zayout, and some experienced industrial engineers and trainers explained how to link theoretical study at the university to future careers in industry. Students participated by asking questions about industrial engineering and the challenges they might face in the future.













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#### Awareness Lecture about the Hult Prize International Competition at Hijjawi Faculty

The Hult Prize team at Yarmouk University gave an awareness lecture about the Hult Prize International Competition at Hijjawi Faculty. The Hult Prize Jordan is one of Crown Prince Foundation programs and initiatives. The team at Yarmouk University discussed a general introduction to the Hult Prize International Competition, which challenges young people to solve the most pressing social issues on the planet by linking with the goals of sustainable development, as the competition consists of five stages and the winning team receives an amount worth one million US dollars to turn their idea into a reality that can be achieved and applied on the ground.



## Lunching of "BME TEAM" at the Department of Biomedical Systems and Informatics Engineering

A student team at the Department of Biomedical Systems and Informatics Engineering was launched under the name "BME TEAM". Dr. Ahmed Al-Omari, the head of the department, who serves as the supervisor of the team, welcomed the fresh students who joined the department and provided an overview of the department, its academic programs, goals, and career prospects. Team members introduced the team and its future activities and the importance of being engaged in non-curricular activities' in improving personal skills and knowledge.







#### YU ACI Conducts "Concrete Boat Competition"

The Concrete Boats Competition was the largest student competition at the level of lordanian universities which was held at the Hajjawi Faculty for Engineering Technology. It involved the participation of 20 teams from 8 Jordanian universities, both public and private. participating students were tasked with designing a concrete mix for a floating concrete boat, with each team having its own unique mixture. Additionally, they conducted laboratory experiments and manufactured the boats. The concrete boats were tested by adding weights until the boat sank in the water. The participation certificates for the competition were distributed by the Student Chapter of the American Concrete Institute at Yarmouk University to all participating teams. The first-place winning team was also honored with the competition trophy and gold medals. The teams of the second and third places were awarded silver and bronze medals, respectively.















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#### Google Developers Club Organizes a Briefing Lecture on CTF Training

Google Developers Club organized a briefing lecture on CTF Training to introduce the importance of this training to the students involved. During the lecture, some important topics were explained clearly to the student: How can a student benefit from the training and the participation in the competitions in their future carriers and what are the areas that fall under the umbrella of cyber security. At the end, a questions and answers session were introduced. The number of students registered for the training was 161 students.





### YU IEEE Computer Society Hosts the IEEE 2024 President Thomas Coughlin

IEEE Computer Society Yarmouk University Student Chapter hosted Dr. Thomas Coughlin, the president of IEEE for the year 2024, in a live webinar to tell us about his extensive experience in IEEE and the unique volunteer opportunities that the organization offers, in addition to the resources and resources it provides in various technical fields and supports students. He praised the efforts made by our Chapter, which It won the best Chapter Award in Region 8 (Europe, Africa and the Middle East).



### Shai Teaching Company Organizes a Workshop on Artificial Intelligence and Deep Learning

Shai Teaching Company and CEIBA team organized a workshop entitled 'Artificial Intelligence and Deep Learning' at Wesam Bushnaq hall at Hijjawi Faculty for Engineering Technology building.

The workshop was intended to raise awareness about the development in artificial intelligence and its applications that meets the needs of the global community and aligns with the current job market demands. The workshop discussed the future impact of AI on various industries and its implications for human rights.

During the workshop, students explored how to get started with Al programs, with a specific focus on deep learning. They also had the opportunity to enhance their skills and knowledge through practical development exercises. The workshop attended by college students, administrators, and individuals interested in the field of artificial intelligence and future sciences.





## Dr. Abdul Rahman Zakir Delivers a Lecture about Psychological Stresses: Academic Pressures as an Example

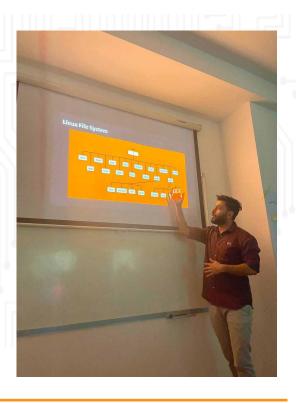
The Engineering Committee team at the Hijjawi Faculty for Engineering Technology organized a lecture entitled "psychological stresses: academic pressures as an example", in Wissam Bushnak Hall at the Hijjawi Faculty of Engineering and Technology, presented by Dr. Abdul Rahman Zakir, a psychiatrist and mental health counselor.

Dr. Zakir spoke about the psychological stresses that students go through in their university life and the impact of the surrounding environment and how to deal with it. The attending students interacted with the speaker, asking for advice about a verity of issues they are going through. More than 400 students from various departments attended the lecture.



### **YU IEEE Computer Society Holds a Linux Course**

IEEE Computer Society Yarmouk University Student Chapter held a 20-hour Linux course that included the basics of operating systems, the most important basic commands in the Linux operating system, and how to automate commands. It ended with a practical technology competition among the participants to achieve scientific and technical results.



### YU IEEE Computer Society Organizes a Workshop for the IEEE Day

In celebration of the IEEE Day, IEEE Computer Society Yarmouk University Student Chapter held an IEEE Connect workshop with student branches from Tunisia and student branches from Egypt. It aimed to exchange experiences and knowledge and establish stronger relationships with student branches around the world.





#### YU IEEE Computer Society Members Participate in IEEEXtreme 17.0

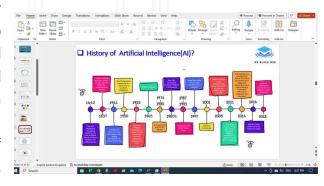
Members of the IEEE Computer Society participated in the annual IEEEXtreme competition, a global challenge in which teams of student members from IEEE compete. Teams compete with each other to solve a set of programming problems within a 24-hour time frame. The participating teams were trained to enhance their programming skills, qualifying them for participation in this distinctive event.



### YU IEEE Computer Society Organizes an Online Workshop on Artificial Intelligence Tools and Investment in Future Management

The Computer Society Yarmouk University Student Chapter organized an online workshop about the Artificial Intelligence Tools and Investment in Future Management presented by the Internationally certified trainer Eman Haddad. The workshop discussed the digital transformation and its importance, the concept of artificial intelligence and its branches and types, the strategy of artificial intelligence, the goals of artificial intelligence, and the components of artificial intelligence. The trainer also explained the International Driving License for Artificial Intelligence and the importance of obtaining it.







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### **YU IEEE New Volunteers for 2024**

### YU IEEE Student Chapter 2024



YU IEEE Aerospace and Electronic Systems (AESS) Student Chapter 2024 YU IEEE Communication Society (ComSoc) Student Chapter 2024





### YU IEEE Computer Society Student Chapter 2024

YU IEEE Engineering in Medicine and Biology Society (EMBS) Student Chapter 2024





YU IEEE Industry Applications Society (IAS) Student Chapter 2024

YU IEEE Power and Energy Society (PES) Student Chapter 2024





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# YU IEEE Robotics and Automation Society (RAS) Student Chapter 2024

# YU IEEE Women In Engineering (Wie) Affinity Group 2024





Biomedical Systems and Informatics Engineering Department Participate at Queen Rania

Centre's Open Day

In Celebration of International Volunteer Day, the Biomedical Systems and Informatics Engineering Department at Yarmouk University actively participated in the open day, which was organized by Queen Rania Centre. Supervised by Dr. Isam Abu Qasmieh, the department collaborated with the Education Committee of Medical Professions, alongside with the Pharmacy, Medicine, and Nursing faculties.

Dr. Isam Abu Qasmieh and students: Yanal Attallah, Raghad Telfah, and Shatha Badarneh explained some medical devices principles and illustrated the integration of biomedical engineering with other medical fields. Additionally, charitable organizations took the opportunity to present their accomplishments.

This participation high spot the Biomedical Systems and Informatics Engineering Department's commitment to community engagement and collaboration within the field of biomedical engineering.





Hijjawi Faculty Newsletter

#### A Workshop in Internet of things (IOT) and its Applications

The engineering committee team at the Hijjawi Faculty of Engineering Technology organized a workshop in Internet of things (IOT) and its applications, presented by Mohammad alzubaidi, a student at Computer Engineering Department.

The workshop introduced students to the concept of the Internet of things and its applications and the latest development in the field. Moreover, the workshop raises the level of awareness of IOT and its role in future and how the world seeks to rapidly shift towards the connection of devices via internet. 40 students from different Disciplines attended the workshop.



### **Lunching of Information Technology Club**

The GDSC (Google Developer Student Clubs) and IEEE (Institute of Electrical and Electronics Engineers) teams participated in the launch event of the Information Technology Club. Both teams work towards promoting and developing the technology community and raising awareness about the latest technologies and innovations. During the event, a series of activities and events were organized to enhance technical knowledge and facilitate knowledge exchange among members and participants. The event included workshops, technical lectures, and an introduction to the student club, explaining how to join and benefit









#### An Intensive Course on "Fundamentals of MATLAB Program"

The Hijjawi Faculty of Engineering Technology held an online intensive course titled "Fundamentals of MATLAB Program". MATLAB is a proprietary multiparadigm programming language and numeric computing environment developed by MathWorks.

The course topics includes the following: Introduction to MATLAB software, how to download the software and start learning it, defining matrices, defining and using functions, displaying data, and plotting using MATLAB. The course was presented by Engineer Muhammad Al-Saadi from the Electronic engineering Department.



#### **Free Medical Day**

The CEIBA team, in cooperation with Al-Asl Foundation for Medical and Health Supplies, organized a free medical day at the Hijjawi Faculty for Engineering Technology. The medical day includes free testing of dental status, blood sugar, blood pressure, and oxygen saturation. Faculty members, staff, and students participated in the free medical day. This event is considered a diverse and distinguished CEIBA activity, as such an activity had never existed before in the faculty.







### Students Attend the MediVerse Congress 2023 Hosted by the Hashemite University

A group of students from the Biomedical Systems and Informatics Engineering Department at the Hijjawi Faculty of Engineering Technology attended the MediVerse Congress 2023 hosted by the Hashemite University. The congress gathers professionals, researchers, inventors, and students within the biomedical engineering field to discuss the latest innovations, breakthrough technologies, and research advancements. Scientists, professors and engineers were hosted to present the future innovations in biomedical engineering that will contribute in the development in the medical field The congress included many topics such as Bioinformatics technology, Artificial Intelligence in Healthcare and Bio-printing cells that it aims to foster collaboration, inspire innovation, and drive forward progress in the interdisciplinary field of biomedical engineering.



### The Hult Prize Team Holds an Awareness Day at the Hijjawi Faculty about its Competition

The Hult Prize team conducted an awarenessactivity about the international competition (the Hult Prize Competition) for students of Hijjawi Faculty, highlighting the importance of participating in the competition and the benefits gained from participation. The Hult Prize team also highlighted the importance of entrepreneurial actions and the extent of their impact on the development of society. The team also focused on educating students about the goals of sustainable development and their importance to the entire world

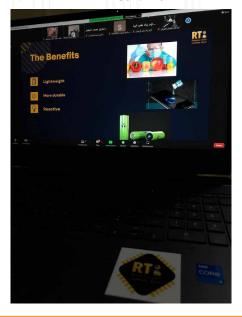


Hijjawi Faculty Newsletter

#### **Robotics Team Organizes a Workshop on Nanotechnology**

Robotics Team organized an online workshop on Nanotechnology presented by Ahlam Zyoud. The workshop opens with an exploration of the benefits of nanotechnology, highlighting its applications and contributions to various fields. Participants delve into the history of nanotechnology, tracing its development in response to scientific advancements. Throughout the session, the workshop sheds light on the challenges and difficulties associated with working at the nano-scale, providing a realistic perspective. Different fields of use for nanotechnology are discussed, showcasing its versatile applications in medicine, materials science, and beyond. The presentation emphasizes the practical advantages of nanotechnology, allowing participants to understand its real-world impact. The workshop covers the mechanics of nano-scale interactions and practical implications, ensuring a comprehensive understanding of the historical context, key milestones, challenges, and the diverse fields where nanotechnology plays a crucial role today.





### A Workshop on Starlink Organized by the YU IEEE Aerospace and Electronic Systems Society

A workshop on Starlink was organized by the IEEE Aerospace and Electronic Systems society presented by the students Afnan Al Saqer and Sara Al-Taani. They reviewed how the Internet works, how Elon Musk's idea of Starlink arose, and how this idea turned into reality. The challenges facing service expansion in areas such as Gaza and the difficulties of implementing it were discussed.



Hijjawi Faculty Newsletter

#### **Robotics Team Organizes an Intensive Course on Python Programming**

Robotics team held a 15-hour training course on programming in Python language. The course aims to enable students to understand basic programming concepts and stimulate logical thinking and problem-solving skills using the Python language. Practical training on software tools was provided, which helped students acquire effective software development skills. The course also focused on the basic concepts related to the Python language, such as Python, conditional statements, loops, and data structures, which made students gain the ability to use Python in implementing their projects.

Student responses were remarkably positive, as they praised the quality of the content and the constructive interaction with the trainers. The success of the course is demonstrated by the students' ability to apply programming in Python effectively, enhancing their abilities in various

technical fields.



### YU IEEE Computer Society Holds a UX/UI Design Workshop

The IEEE Computer Society at Yarmouk University held on 31/12/2023 a UX/UI Design workshop presented by Raghad Al-Shawahin, a user experience designer and front-end designer at Wajeez Company, and a website developer passionate about her field to achieve her vision of building electronic products that combine excellent design and an integrated user experience that achieves business and product goals using modern technology, and using analysis tools that support artificial intelligence.



### Qusi Mashriqi from Computer Engineering Dept. Participates in a Conference in Malaysia

Student Qusi Mashriqi from the Computer Engineering Department participated in the Global Computer Society Conference for Students and Young Professionals, organized by the International Institute of Electrical and Electronics Engineers, at Tenaga University in the Malaysian city of Putrajaya during the period from 2 to 4 of this month.

The conference aimed to network students, young professionals, and experts in the field of computer engineering and science from various countries around the world. The conference also aimed to provide a unique opportunity to exchange experiences and knowledge among students, learn from technical experts and industry leaders, and expand the awareness and horizons of participants.

The conference included more than 10 technical workshops, which dealt with artificial intelligence, and more than 20 dialogue workshops in various fields, the most important of which were leadership, volunteerism, various Institute of Electrical and Electronics Engineers programs, and keeping up with technology.





### Hijjawi Faculty for Engineering Technology Launches a Weekly Radio Program Entitled "Jalsa handasiya"

As part of its efforts to enhance the role of engineering media and link the faculty with the local community, the Hijjawi Faculty for Engineering Technology at Yarmouk University launched a weekly radio program entitled "Jalsa handasiya"

The program aims to enrich the discussion on various issues related to technology and engineering, and to inform the public of the latest scientific developments on the ground. The program also seeks to highlight the most prominent events and achievements taking place at the faculty.

The idea for the program was proposed by a group of CEIBA student team members at the faculty, in cooperation with the Faculties of Engineering and Media at Yarmouk University. The program received great support from the faculty, which emphasized the importance of investing in students' energies and unleashing their creativity.

The program was prepared and presented during the launch phase by a group of creative students from various departments of the college, namely: Abdullah Na'amneh from the Department of Electronics Engineering, Ahmed Shehab from the Department of Civil Engineering, and Raghad Hatamleh from the Department of Industrial Engineering. Since its inception, the program has hosted many prominent figures in various fields of engineering, including:

- Dean of Hijjawi Faculty for Engineering Technology, Prof. Dr. Mwaffaq Otoom
- Dr. Muhammad Rawhi Al-Rawashdeh from the Department of Communications Engineering
- Dr. Ali Shehadeh, Dean Assistant of Scientific Research at Yarmouk University
- Eng. Abdullah Bani Hani, Director General of the Muhafazati Voluntary Foundation
- Dr. Jihad Radaida, Chairman of the Council of the Jordanian Engineers Association, Irbid Branch
- Dr. Ahmed Al-Omari, Road and Traffic Engineering Expert





31 December 2023

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The program continues to attract distinguished scientific elites from around the world to discuss engineering and technology issues in their various aspects.

The program is broadcast weekly on Yarmouk University Radio, and the public is also available to follow the program online through a live broadcast on Facebook.

The program has been very well received by the public, as it is considered one of the leading engineering programs in Jordan and the first of its kind at the level of Jordanian universities.

The "Jalsa handasiya" program contributes to spreading engineering awareness among various segments of society, by highlighting the latest scientific developments in the field of engineering, and discussing important engineering issues from their various aspects. The program also contributes to strengthening the faculty's role in the local community and linking it to various sectors.

Many experts and academics praised the idea and objectives of the program, stressing the importance of such initiatives in enhancing the role of engineering media and supporting engineering education in Jordan.

The "Jalsa handasiya" program constitutes an important addition to the knowledge media arena, and is considered one of the distinctive initiatives that reflect the commitment of the Hijjawi Faculty for Engineering Technology and its students to spreading engineering awareness and supporting engineering education in Jordan







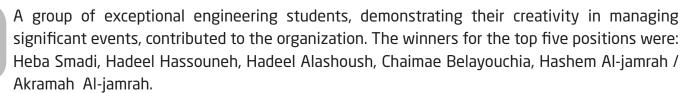


### The ASEE Student Branch at Hijjawi Faculty for Engineering Technology Organizes a Competition on Presentation Skills Entitled "Slides Master Competition"

The "Slides Master" competition was held at Hijjawi Faculty for Engineering Technology, organized by the ASEE student community, on Tuesday, December 26, 2023, under the patronage of the Dean, Prof. Mwaffaq Otoom. During the competition, students presented their ideas before the esteemed judging committee consisting of Dr. Ali Shahadeh, Dr. Ola Ta'ani, Mr. Hussam Awad, Mr. Osama Mushtouli, and Mr. Hatem Habashneh.

The presentation covered various distinguished scientific, literary, and cultural topics, reflecting the level of Jordanian university students. Over six universities from across the kingdom participated in this competition. Dr. Ali Shhadeh, the student branch academic supervisor, emphasized the importance of such extracurricular activities, while the judging committee highlighted the significance of such creative and distinctive platforms post-assessment.

This competition marks a pioneering initiative in Jordan. The ASEE student branch strives to enhance engineering education in alignment with current requirements, utilizing analytical, interpretative, and evaluative scientific methods, departing from traditional approaches.















### YU IEEE Women in Engineering Organizes a Lecture Entitled "Breast Cancer Early Detection Awareness"

The Women in Engineering Affinity group that belongs to IEEE-Yarmouk University Branch, organized a lecture entitled as "Breast Cancer Early Detection Awareness" as part of Breast Cancer Awareness Week. The lecture was presented by Dr. Mohammed Kharashqa, the Head of the Clinical Medical Sciences Department at the Faculty of Medicine at Yarmouk University.

The lecture included scientific details regarding the causes of breast cancer, age groups susceptible to it, methods of detection, and treatment in both early and advanced stages. Dr. Kharashqa also explained the possible symptoms of the disease and the necessary steps to take when these symptoms appear. He discussed the national guidelines in Jordan for early breast cancer screening and emphasized the presence of numerous centers across Jordan offering early breast cancer detection services.

In conclusion, Dr. Kharashqa stressed the importance of spreading awareness about early breast cancer screening, highlighting its significant role in controlling the disease, preserving the patient's life, and minimizing losses. At the end of the lecture, Dr. Yusra Obeidat an associate professor in the Electronics Engineering Department and the advisor of the Women in Engineering at Yarmouk University honored Dr. Kharashqa for delivering a valuable lecture that was highly beneficial to all attendees. The event was attended by students from Hijjawi Faculty for engineering technology as well as female faculty and administrative members.





### The Robotics Team Organizes an Introductory Day on Robotics for Students from Al-Farouq Charitable Society for Orphan Care

The Robotics team at the Hijjawi faculty for Engineering Technology organized an introductory day on programming, robotics, and smart systems. The event was intended to the eighth-grade students from Al-Farouq Charitable Society for Orphan Care. The event took place in the Wissam Bushnag Hall.

Scientific and interactive experiments were performed to introduce students to the world of robotics, artificial intelligence, and the basis of programming. Students were encouraged to enhance their technical skills by self-learning and attending scientific lectures.

In the beginning, the concept of robots and their importance in our modern world were introduced by members of the team. The students were able to interact and ask questions. Then, interactive and entertaining activities were performed to motivate the students and keep their attention during the event.

This event was a valuable opportunity to enhance awareness of the importance of programming, robotics, and smart systems in the modern world, and to encourage young students to discover the fields of technology and innovation.







## The Student Branch for Engineering Education (ASEE) held an Online Workshop on Building Maintenance Using Artificial Intelligence

The student branch (ASEE) at the Hijjawi Faculty held a workshop on building maintenance using artificial intelligenceon. The workshop was presented by Professor Hossam Al-Borombaly from the Arab Republic of Egypt. He is an expert in the field of architecture and building maintenance and is considered a global expert in this field. During the workshop, the doctor expressed that buildings are like human beings and must be taken care of and preserved. It is necessary to maintain the buildings and maintain them, which can increase the life of the building by more than 20 years. During the conversation, Dr. Ali Shehadeh participated with us in moderating the dialogue and talking about the importance of focusing on artificial intelligence. During the workshop, the student Lynn Hazem from the Department of Medical Engineering, who is one of the students in the ASEE student branch, asked a question about... The control of artificial intelligence over future jobs. The Dr.Hossam answer to this axis was that the one who creates artificial intelligence is the human being. On the contrary, there are some opinions that believe that it will increase the economic aspects that will reflect positively on the employment rate. At the end of the meeting, the importance of turning to such branches of specialization during the coming near future was emphasized.







## YU IEEE Computer Society Signs a Partnership Agreement with AIESEC in Jordan - Irbid Local Committee

The Student Chapter of IEEE Computer Society at Yarmouk University sign a partnership agreement with the Association Internationale des Etudiants en Sciences Economiques et Commerciales (AIESEC) in Jordan - Irbid local Committee, which is an international non-profit organization that aims to develop and empower youth leadership capabilities and enhance social communication through its various programs in volunteerism and global cultural exchange. The partnership agreement will support both parties in developing their members and achieving their goals through workshops, programs, and joint work.



#### Robotics Team Organizes a Workshop on Web Evolution

Robotics Team organized an online workshop entitled "web evolution from ARPAnet to modern web development" presented by Yazeed AL-Suboh.

The discussion starts with the Cold War, and ARPANET comes into play as a response to the Soviet Union launching the first satellite called sputnik. We explore the contributions of visionaries like JCR Licklider and others in developing primary network technologies. The workshop focuses on ARPANET's evolution into the worldwide web, tracing it back to a crucial moment at CERN where a developer laid the groundwork for the modern web. We then dive into distinctions between Web 1.0, 2.0, and the emerging Web 3.0, explaining the mechanics of server-client interactions in web page requests. The presentation covers key front-end and back-end technologies, providing students with insights into the historical context, technological milestones, and the dynamic landscape shaping today's web



#### YU Women in Engineering (WIE) Organizes a Visit to the Yarmouk Model School

The Women in Engineering (WIE) affinity group at Yarmouk University supervised by Dr. Yusra Obeidat an associate professor in the electronics engineering department organized a visit to the Yarmouk Model School in Irbid. They delivered a detailed lecture to tenth grade and first-year high school girls, in which they covered:

- 1. Introduction to the Institute of Electrical and Electronics Engineers.
- 2. Introduction to the Women in Engineering community.
- 3. An overview of engineering and its various specialties and fields.
- 4. A practical experience presentation from Electronics Engineering.

these topics were covered in different sessions presented by Dr.Yusra Obeidat and some Yarmouk University students' members of IEEE-WIE .

This activity was conducted to emphasize the necessity of educating Jordanian schoolgirls about various engineering specialties and encouraging them to enter these fields, as well as broadening their understanding of engineering and connecting it to the real world.

The activity was attended by schoolgirls from tenth grade and first-year high school girls,

their teachers, and the schoolgirls principal.





### The Manufacturing Lab Receives A Group of Students from Tafa'ol Academy

The manufacturing lab in the Hijjawi Faculty for Engineering Technology received a group of students from Tafa'ol Academy through the Entrepreneurship and Innovation Center in the university. The students toured the lab and were given an introduction about the machines in the lab and their applications.



#### YU Women in Engineering Organizes Four Technical Workshops for Engineering Students

The Women in Engineering Affinity Group at Yarmouk University supervised by Dr.Yusra Obeidat from the Electronics Engineering Department organized four technical workshops for engineering students, which included:

- A workshop entitled as "Statistics using R-Studio" presented by Dr. Shefaa Tawalbeh from the Biomedical Engineering Department.
- Two Arduino workshops, one theoretical and the other practical, presented by students Mohammed Al-Zumut and Raneem Yaseen from the Electronics Engineering Department.
- Artificial Intelligence using Python workshop presented by Eng.Alaa Mhesin from the Computer Engineering Department.

These workshops aimed to clarify theoretical concepts and apply them using modern tools in line with technological advancements.



### ASEE Organizes Special Workshop in FIDIC Contracting for Engineering Projects in Jordan

The American Society for Engineering Education (ASEE) Student Branch at the Hijjawi Faculty for Engineering Technology at Yarmouk University, organized a workshop entitled "FIDIC Contracting for Engineering Projects in Jordan", delivered Eng. Ahmad Banyhamad.

Dr. Ali Shehadeh, the academic supervisor of the student branch, said that the active engagement of our students in such workshops fills him with pride. Ahmad Shahab, a fourth-year student at the civil engineering department and the president of the Student Branch, thanks Eng. Ahmad Banyhamad for his invaluable insights.



#### **Wooden Bridges Competition**

The Civil Engineering Department in collaboration with the Analyzer team organized a competition on wooden bridge designs. The competition was held in Wesam Bushnaq Hall in the presence of the dean of the Hijjawi Faculty of Engineering Technology, Dr. Mwaffaq Otoom. Sixteen teams from the Civil Engineering Department participated in the event. The task was to construct a wooden bridge using barbecue skewers that could bear substantial weight. The event took place on the college campus, where the teams set up their workstations equipped with a variety of tools and materials. The atmosphere buzzed with energy and excitement as participants collaborated, designed, and constructed their wooden bridges. The criteria for success went beyond the aesthetics of the bridges; the primary focus was on functionality, structural integrity, and the ability to bear specified loads.

The Department Head Dr. Musab Abuaddous, Dr. Muhammad Al-Tamimi, Dr. Ammar Al-Shinnaq, Dr. Moaz Abu Qamar, and Dr. Moataz Al-Duwairi visited each team, interacting with the students and expressing their appreciation for their dedication and creativity. They motivated the participants to focus on real-life applications of their academic knowledge. The teams presented their completed wooden bridges to a committee of faculty members and industry professionals. Each bridge was tested by adding weights incrementally until it broke to assess its load-bearing capacity.

The winning teams were honored for their exceptional designs, strong structure, and the ability of their bridges to bear the specified weights. The first place received a score of 93% and was able to carry a weight of 133 kg. The second place carried a weight of 104 kg, and the third exceeded 87 kg.









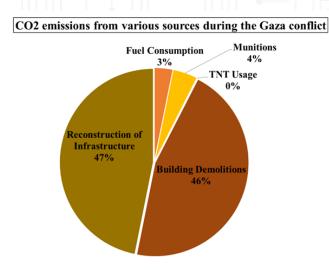
# **Faculty Members**

### **Gaza Conflict's Environmental Toll: A Surge in Carbon Emissions**

### A report published at the Jordan Times on Nov. 18, 2023

https://jordantimes.com/opinion/mohammad-firas-tamimi-ali-shehadeh-and-mwaffaq-otoom/gaza-conflicts-environmental-toll-surge

by: Mohammad Firas Tamimi and Ali Shehadeh, Civil Engineering, and Mwaffaq Otoom, Computer Engineering



In a detailed analysis reminiscent of the complexities of modern warfare, it has been determined that Israel's extensive military operations in Gaza are not only a source of profound humanitarian concern but also a significant environmental issue. According to the evaluation conducted by the authors, it has been estimated that in the first 35 days of heightened conflict, emissions amounting to approximately 60.304 million tons of CO2 equivalents were discharged. The figure below encompasses a range of sources, including fuel consumption, munitions, Trinitrotoluene (TNT), the demolition of buildings, and the reconstruction of civilian infrastructure. Most of these emissions are attributed to the destruction and subsequent rebuilding of infrastructure, a stark reminder of the often-overlooked environmental consequences of warfare. Further, projections suggest that should the conflict continue for a year, as hinted at by the Israeli military, the total emissions

could escalate to an alarming 629 million tons CO2e. The findings of this analysis underscore the paramount importance of integrating environmental considerations into the processes for resolving conflicts and the strategies employed for post-conflict reconstruction.

#### **Fuel Consumption:**

Deep insights into the environmental impact of contemporary warfare reveal a notable concern: the substantial greenhouse gas emissions resulting from the extensive use of fuel in conflict zones significantly contribute to climate change. However, accurately quantifying the fossil fuel consumption in these areas poses a significant challenge, primarily due to the limited availability of data and the uncertainties associated with the scope of these environmental impacts. A detailed analysis of such consumption would necessitate a wealth of data and assumptions, including the quantity of vehicles used in military and logistical operations, their operational characteristics, the distances they travel, and the structure of supply chains. Acquiring this kind of military-related information is rarely feasible in peacetime and virtually impossible during conflict. Alternatively, a broader approach might involve making educated guesses about the Armed Forces' fuel usage.

Despite the limitations and uncertainties of available data, this method could offer a rough estimate of fuel consumption levels. The Israeli occupation army were supplied with 300 kilotons of these fuels in September. In October, this figure significantly increased three times, indicating a notable escalation in fuel supply to these areas. This increase is similar to the increase that happened during the Russian-Ukrainian war.

In the national reports on greenhouse gas (GHG) emissions submitted under the United Nations Framework Convention on Climate Change (UNFCCC), emissions related to military activities are categorized under 1.A.5 OTHER (Not elsewhere specified) in the standard reporting framework. This category encompasses emissions from all unspecified fuel combustion sources, which includes emissions stemming from the use of military fuels (1.A.5.a for stationary combustion and 1.A.5.b for mobile combustion). Although this category might cover other sources of emissions as well, it represents the most dependable data source for evaluating the extent of military-related emissions in Gaza prior to the Israeli's invasion. According to the most recent data available for UNFCCC, 448.03 kilotons CO2 is generated by 140 kilotons of fuel. Thus, total fuel consumption by Israel's war on Gaza is estimated at 1.92 million tons CO2e, so far.

#### **Munitions:**

During the war, artillery weapons were extensively used. These weapons can fire a projectile weighing around 40 kg to distances ranging from 17 to 40 kilometers. The GHG emissions are generated from the production of raw materials for munitions, their transportation to battlefields, the combustion of

the propellant when fired, and the explosion of the warhead upon impact. As these munitions are likely refurbished to replenish stocks during the war, the emissions from their production are significant for assessing the war's climate impacts.

The daily artillery usage varies greatly, estimated between 5,000 to 60,000 rounds, and fluctuates with the intensity of frontline shelling. It is assumed that Israel uses 50,000 rounds daily (or 1.85 million over 35 days). These conservative estimates factor in limited information and high uncertainty. Additionally, significant munitions are destroyed in strikes on depots, further impacting emissions. The average CO2e emissions for each artillery round used in this context is approximately 1.4 tons resulting in approximately 2.59 million tons CO2e.

### **Emissions from TNT Usage:**

The emissions resulting from Israel's use of TNT during the conflict can be quantified based on the amount of TNT used and the CO2 emissions it produces. Israel utilized a total of 30,000 tons of TNT, equivalent to 30,000,000 kilograms. The combustion of TNT generates a significant amount of carbon dioxide, with each kilogram of TNT producing approximately 1.467 kilograms of CO2. The total emissions from TNT usage are so far 0.044 million tons CO2e.

### **Emissions from Building Demolitions**

The CO2 emissions resulting from the demolition of buildings during the conflict are a significant contributor to the overall environmental impact, particularly within the context of the construction industry's role in global CO2 emissions. The construction industry plays a significant role in global CO2 emissions, accounting for approximately 11% of the total. This percentage includes emissions from a range of activities such as the production of energy-intensive materials like concrete and steel, the transportation of these materials, the operation of construction machinery, and notably, the demolition of buildings. When a building is demolished, it not only generates a considerable amount of waste but also leads to substantial CO2 emissions. For example, demolishing a 100-square-meter office building typically results in about 1,000 metric tons of waste and approximately 110,000 kg of CO2 emissions.

In the scenario of the conflict, where an estimated 50,000 buildings have been destroyed, each with an average size of 500 square meters, the environmental impact is markedly high. The larger size of these buildings implies a proportional increase in both waste and CO2 emissions as compared to smaller structures.

Assuming each 500-square-meter building generates around five times the waste and CO2 emissions of a 100-square-meter building, the cumulative effect on CO2 emissions from the demolition of these buildings is substantial, reflecting the significant environmental cost of such widespread destruction in conflict zones. This also highlights the importance of sustainable construction practices, such as the development of green buildings, which have a much lower CO2 emission footprint compared to traditional

construction methods. The total emissions from Building Demolitions are so far 27.5 million tons CO2e.

#### Reconstruction of civilian infrastructure

The reconstruction of civilian infrastructure, a crucial aspect in the aftermath of conflict, carries with it significant CO2e emissions. On average, the reconstruction of each destroyed unit is estimated to generate approximately 565 tons of CO2e. Given the extensive damage incurred, with around 50,000 units needing reconstruction, this equates to a substantial total of 28.25 million tons of CO2e. This estimate is aligned with the emissions observed in similar reconstruction efforts, such as those following the Russian-Ukrainian conflict.

In summary, the total CO2 emissions resulting from various activities during the first 35-day conflict are considerable and are estimated to be approximately 60.304 million tons CO2e. If the conflict were to extend for a year, as suggested by the Israeli occupation army, the total emissions could potentially escalate to around 629 million tons CO2e, which is equivalent to the production of CO2e emissions of an industrial country like Germany in 2020. This total notably includes the significant emissions from the destruction and subsequent demolition of buildings, the most substantial contributor in this assessment. Such figures highlight the profound environmental impact of the conflict, underscoring the need for considering environmental factors in conflict resolution and post-conflict recovery.

https://jordantimes.com/opinion/mohammad-firas-tamimi-ali-shehadeh-and-mwaffaq-otoom/gaza-conflicts-environmental-toll-surge

### **Promoted Faculty Members since Sep. 2023!**

The Hijjawi Faculty for Engineering Tehnology Congtatualtes the promoted faculty members since September 2023!

### To Associate Professor



**Dr. Mohammad R. Alrawashdeh**Communication Engineering



**Dr. Yaser aradat**Civil Engineering



**Dr. Ali Shehadeh**Civil Engineering

## Dr. Shehadeh from the Civil Engineering Department Participates in a DAAD-funded Workshop in Germany

Dr. Ali Shehadeh from the Civil Engineering Department recently participated in a DAAD-funded workshop in Chemnitz, Germany, from December 3rd to 8th, 2023. The project is coordinated in the university by the Entrepreneurship and Innovation Center. The workshop agenda included a series of lectures at TUCed - GmbH, focusing on topics ranging from photovoltaic systems to tackling water scarcity in Jordan and Algeria, and mastering the art of successful workshop planning and delivery. This pivotal event, culminating in a session on project activities for 2024, marks a significant step in international collaboration and knowledge exchange, reflecting the university's commitment to innovation and global partnerships.



## Dr. Bani Hani Took Part in a Training Workshop Held by the National Erasmus Plus Office at the Middle East University

Dr. Dania Bani Hani participated in a training workshop held by the National Erasmus Plus Office (NEO) in Jordan on how to prepare a proposal in capacity building in the field of youth. The training was held at the Middle East University on December 18th 2023. The training workshop started by some opening remarks from the president of The Middle East University after which an introduction about the capacity building in the field of youth was provided by the NEO Jordan. Jordan youth strategy was introduced in the training workshop at which the director of achievement and institutional performance development in the Ministry of Youth provided insights about the Jordan Youth Strategy and how to incorporate the strategy into future proposals in the field of youth and collaborations with the Ministry of Youth in this regard. Moreover, the Funding and Tenders opportunities portal has been introduced by the NEO Jordan. Award criteria related to the relevance, quality, project design and implementation, partnership and cooperation arrangements, and impact were clarified by the NEO Jordan as well. It is worth mentioning that the training workshop provided a hands-on experience at which working groups were assigned to explore the application requirements and brainstorm some ideas relevant to the new call. The final part of the training workshop included information related to the budget, covering basic principles, how to prepare the budget, how will the proposal be evaluated, how to fill the Excel budget table among others. The training also included presentations to peers by the working groups and provided a good opportunity for networking and prospective future partnerships have been conferred with some NGOs and higher education institutions.



## Yarmouk University Scholars Shine at WEF-CAP Final Event and WEF-NEXUS Conference in Jordan

Yarmouk University's very own, Dr. Ali Shehadeh of the Civil Engineering Department and Dr. Mohammad Almoumani from the Electrical Power Engineering Department, recently made waves at the esteemed WEF-CAP Final Event and WEF-NEXUS Capitalization Conference in Amman/Agaba, Jordan.

The conference, a hotspot for discussions on the interconnectedness of Water, Energy, and Food (WEF) Nexus Projects, aimed to bolster collaboration, ease the transfer of technology, and help shape policies based on solid evidence in these vital sectors. Both Dr. Shehadeh and Dr. Almoumani were at the heart of the event, engaging in deep conversations and sharing their seasoned perspectives and skills, thereby playing a crucial role in driving forward innovation in the WEF domains.

Their participation is a testament to Yarmouk University's dedication to addressing global challenges through academic and research excellence. The conference also showcased the university's commitment to global cooperation and leadership in essential development areas.

A big shout-out to the event's co-hosts - the Royal Scientific Society (RSS), the Economic and Social Commission for Western Asia (ESCWA), and the Arab Urban Development Institute (AUT) - for organizing such a pivotal conference. Their effort in uniting a diverse array of thought leaders and innovators set the stage for meaningful discussions and future collaborations.

As Yarmouk University continues to participate in these crucial global dialogues, we are excited about future collaborations and our ongoing contribution to sustainable development, especially in the Water-Energy-Food Nexus. This underlines our role as a leading academic institution in the region and beyond

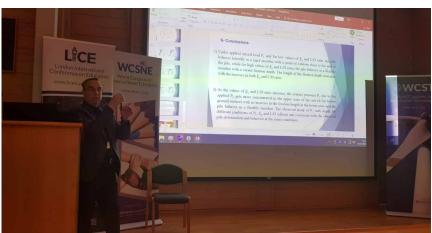




# Dr. Shalabi Participates in the "World Congress on Sustainable Technologies - WCST-2023" at Oxford University, UK

Dr. Faisal Shalabi, the Associate Prof. at the Department of Civil Engineering, participated in the "World Congress on Sustainable Technologies - WCST-2023" which was held during the November 2023, at Oxford University, UK. In this congress, Dr. Shalabi presented his research paper titled: "3D Finite Element Analysis of Bored Pile-Cap Interaction in Sandy Soils under Lateral Loading". Besides that, Dr. Shalabi chaired session 5 titled "Sustainable Development". The WCST-2023 is bridging efforts across the natural, social and engineering sciences, the environment and development of communities. The congress covers a wide spectrum of topics that relate to sustainability, which includes technical and non-technical research areas. It also encourages sharing new knowledge in the field of sustainable technologies and the environmental impacts. The objectives of WCST are to provide the opportunities for collaboration and reflection that have the potential to greatly enhance the infrastructure and capacity for conducting and applying art, science and technology for sustainability.





## Dr. Tamimi Participates and Presents at the "Fatigue Design 2023" Conference Conducted in France

Dr. Mohammad F. Tamimi from the Department of Civil Engineering participated in the 'Fatigue Design 2023' conference in France, presenting his research titled "Sensitivity and Reliability Assessment of the Crack Propagation Behavior in Welded Stiffened Panels." His research explores the critical factors influencing the fatigue reliability of marine structures.





### Dr. Shehadeh Represents Yarmouk University at Key Disaster Risk Management Workshop

Dr. Ali Shehadeh of Yarmouk University's Civil Engineering Department recently made his mark at a pivotal workshop aimed at bolstering Jordan's ability to manage disasters and crises. The event, named "Enhancing Jordan's Resilience and Improving Disaster and Crisis Risk Management," was a collaborative effort by the National Center for Security and Crisis Management, the United Nations Development Program, and the Swiss Agency for Development and Cooperation.

As a key component of the ongoing initiative to roll out Jordan's National Strategy for Disaster Risk Reduction 20222030-, the workshop drew participation from over 65 entities. This included the armed forces, agencies, various ministries. security organizations, international and society groups. The gathering was a unique opportunity for these diverse bodies to come together, share knowledge, and coordinate on disaster and crisis management strategies.



Dr. Shehadeh's involvement is a testament to Yarmouk University's commitment to contributing to both national and global disaster risk management efforts. The focus of the workshop was on the practical implementation of the national strategy, particularly the formulation and readiness of the necessary execution plans.

This collective effort emphasizes the need for interdisciplinary cooperation in addressing the intricate challenges of disaster and crisis management. Dr. Shehadeh's civil engineering expertise, alongside insights from a range of sectors, plays a crucial role in the pursuit of a resilient Jordan, equipped to handle and reduce disaster-related risks.

Yarmouk University's engagement in such significant initiatives demonstrates its dedication to societal welfare and national progress. The university remains a supportive and active participant in vital conversations and actions shaping the trajectory of disaster risk management in Jordan and beyond.

# Dr. Al-Ebbini Has Been Invited as a Guest Editor for the Open Access Journal OBM Transplantation

Dr. Lina Al-Ebbini, Associate Professor in Biomedical Systems and Informatics Engineering. Research interests are: Medical informatics, Biomedical Systems, and Decision Support Systems. Recently, has been invited and accepted as a guest editor for the open access journal OBM Transplantation, to establish a Special Issue entitled "Heart and Lung Transplantation: Current Status and Future Challenges". This Special Issue will cover new developments in the field of heart and lung transplantation including new methods to control chronic graft disease, decision support systems related to pre-transplant and post-transplant phases, and clinical trials on heart and lung transplantation. Knowing that OBM Transplantation is published by LIDSEN Publishing Inc., and indexed by Scopus.



#### Dr. Al-Omari Elevated to IEEE Senior Member

Dr. Ahmad M Al-Omari, the head of the biomedical systems and informatics engineering department, has been elevated to the grade of IEEE Senior Member. Senior Member is the highest professional grade of IEEE for which a member may apply. It requires extensive experience and reflects professional accomplishment and maturity. Only 10% of more than 400,000 members have achieved this level.



## The Dean Joins the U.S. Ambassador with Entrepreneurs, Leaders, and Professionals from a Variety of Fields

Entrepreneurs, leaders, and professionals from a variety of fields joined Ambassador Yael Lempert for an exchange program alumni networking event. Attendees discussed how their experiences in the United States had a positive impact on their careers and communities, while building relationships with alumni from across #Jordan. The Embassy also launched its first-ever Alumni Mobile App. Prof. Otoom is IVLP alumn in 2018.



### A Farewell Party to Dr. Atif Alnsour

The Computer Engineering department held a farewell party for Dr. Atif Alnsour, who served the department for more than thirty years. Dr. Alnsour was also department head for some years. The department wishes Dr. Alnsour all the best in his future endeavors.





## **Success Stories**

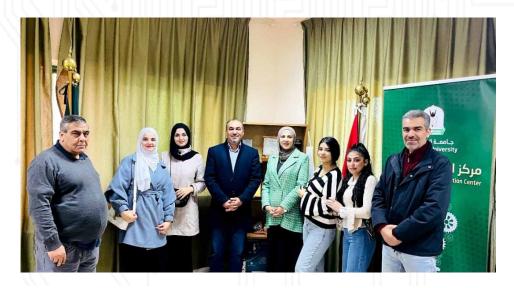
A Team of Hijjawi Faculty Students from the Entrepreneurship and Innovation Center Wins the Second Place in the Jordanian University Students Entrepreneurship Competition 2023



A team of students from the Hijjawi Faculty of Engineering Technology, supervised by the Entrepreneurship and Innovation Center in the university, won the second place in the Jordanian University Students Entrepreneurship Competition 2023, which was organized by the Queen Rania Center for Entrepreneurship at Princess Sumaya University for Technology as a part of the 15th edition of the Global Entrepreneurship Week. 18 Jordanian universities participated in the competition. The team consist of student Farah Al-Zubaidi from the Department of Biomedical Systems and Informatics Engineering and student Rashid Al-Samirat from the Department of Electrical Power Engineering. The project is supervised by Dr. Ola Al-Taani from the Department of Computer Engineering and Head of the Department of Incubators, Innovation and Training at the Entrepreneurship and Innovation Center at Yarmouk University. The idea of the project is to provide an educational Kit for students, that uses augmented reality technology to facilitate the learning of electrical and electronic circuits, which make the educational process takes place in an interactive and enjoyable way.

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A Team of Hijjawi Faculty Students from the Entrepreneurship and Innovation Center has Qualified for the Final Hackathon for Arab Youth



A team of students from the Hijjawi Faculty of Engineering Technology, supervised by the the Entrepreneurship and Innovation Center in the university, has qualified for the final hackathon for Arab Youth, which was held in conjunction with the 28th session of the Climate Summit in the UAE city of Dubai.

The team qualified after competing with 42 teams from various Jordanian universities and emerging youth companies, to be among three teams that represented Jordan in this Arab Hackathon, after each team presented an explanatory "video" outline explaining the idea of its project and the detailed elements of the proposed products. In addition to the value and structure of the project, communication channels, and customer relationships.

The team, which includes a group of graduates of the Hijjawi Faculty for Engineering Technology, Aya Al-Ahmad, Rahaf Rababa, and Nasma Melhem, under the supervision of the head of the Incubators, Innovation and Training Department at the Entrepreneurship and Innovation Center, Dr. Ola Al-Ta'ani, presented a project called "Porous Tiles," which is considered one of the most important pioneering ideas that it contributes to finding solutions to the problem of water scarcity and irregular runoff of rainwater, helping to store rainwater and providing safe paths for pedestrians.

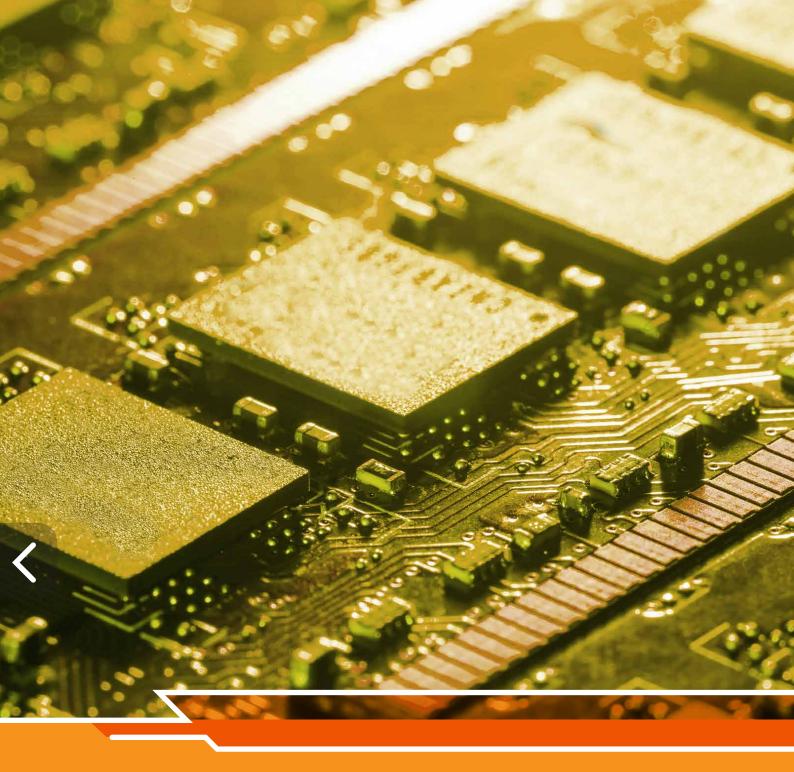
### Happy new Year 2024!

The Hijjawi Faculty for Engineering Tehnology Administration wishes you a Happy new Year 2023, hoping that you will have many blessings in the upcoming year 2024!

#### Prof. Mwaffaq Otoom, Dean

- Dr. Ahmed Koran, Vice Dean, Academic & Administrative Affairs
- Dr. Zaid Albataineh, Vice Dean, International Accreditation and Projects & Chair, Electronics Eng. Dept
- **Dr. Mohammed Aloqlah,** Dean Assistant, Upskilling and Training Programs Affairs
- **Dr. Ammar Alshannaq**, Dean Assistant, Quality Assurance Affairs
- Dr. Salwa Alwaneh, Dean Assistant, Sustainability and Infrastructure Affairs
- Eng. Sami Al-Mashaqbeh, Dean Assistant, Students and Alumni Affairs
- Prof. Ammar Al-Rousan, Chair, Industrial Engineering Dept
- **Dr. Amin Jarrah**, Chair, Computer Engineering Dept
- Dr. Ahmad M. Al-Omari, Chair, Biomedical Systems and Informatics Engineering Dept
- Dr. Zaid A. Aldeek, Chair, Architectural Engineering Dept
- Dr. Ashraf Radaideh, Chair, Electric Power Engineering Dept
- Dr. Sharief Abdel-Razeq, Chair, Communication Engineering Dept
- Dr. Mohammad Al-Zu'bi, Chair, Mechanical Engineering Dept
- Dr. Mus'ab AbuAddous, Chair, Civil Engineering Dept





### **Newsletter Staff:**

Editor-in-Chief: Prof. Mwaffaq Otoom, Dean

**Editor:** Eng. Sami Al-Mashaqbeh, Assistant Dean for Students and Alumni Affairs

**Designer:** Prof. Mwaffaq Otoom, Dean