



**Yarmouk University**  
Hijjawi Faculty for Engineering Technology

# Hijjawi Faculty Newsletter

Issue 1 | January 1<sup>st</sup> 2022



Established in **1984**



**9 Engineering Departments**  
(**10 B.S.E.T / 5 M.S.**)



More than **125 Academic Staff**



More than **25,000**  
Engineering Graduates



Entrepreneurship and Innovation  
Center Established in **2003**

# 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.

# University President's Message



It is a privilege to compose the first welcome message for the Hijjawi Faculty for Engineering Technology newsletter. The faculty was founded in 1984 with a substantial grant from the Hisham Adeb Hijjawi Scientific Foundation with the goal of graduating engineers with advanced engineering and information technology knowledge and abilities. The faculty has a prestigious reputation in the Hashemite Kingdom of Jordan, the Arab region, and the rest of the world. The Entrepreneurship and Innovation Center, which strives to provide a business-like atmosphere for students, was formed in the faculty in 2003 to increase cooperation with industry and service sectors.

In the Hijjawi Faculty for Engineering Technology, I intend to reach four milestones during the next four years, according to my work plan. The first is to collaborate with industry to create and develop professional diploma programs. These programs are designed to improve students' work abilities in areas that are becoming increasingly important in the local

and regional labor market. Academic degrees, in my opinion, will not be enough to close the gap in terms of developing a strong national knowledge economy.

The ABET accreditation of all engineering programs is the second milestone. This is critical for engineering students and their future possibilities to gain prestigious career opportunities and/or pursue postgraduate study at the greatest engineering schools in the world. It is also critical for engineering faculty members to contribute to the university's prestigious academic reputation and ranking on a global scale.

The next milestone is to look for international partnership and funding possibilities. This is critical in order to elevate the faculty's profile internationally and to develop teaching and research collaborations between the faculty and prestigious worldwide institutions in order to improve students' and faculty members' credentials.

The fourth and last milestone is to keep the abroad scholarship program going, which is one of the Hijjawi Faculty for Engineering Technology's strengths. My objective is to collaborate with the faculty to get more scholarships at prestigious universities for the faculty's outstanding graduates to pursue their PhDs and then return to the faculty to serve and contribute to its success.

I'm thrilled to read through this first issue of the faculty newsletter and see the activities and accomplishments of the previous year, and I look forward to working with you to maintain this high level of performance in the future.

**Prof. Islam Massad, MD**

# Dean's Message



I am delighted to welcome you to the first issue of the Hijjawi Faculty for Engineering Technology newsletter, in which we attempt to portray the faculty through the eyes of its students, faculty members, and management personnel. Please allow me to begin your newsletter reading adventure by presenting the Hijjawi Faculty for Engineering Technology.

Currently, the faculty offers ten Bachelors of Science in Engineering Technology programs that are Electronics Engineering, Communication Engineering, Computer Engineering, Electrical Power Engineering, Biomedical Systems Engineering, Biomedical Informatics Engineering, Civil Engineering, Architectural Engineering, Industrial Engineering, and Mechanical Engineering. The faculty also offers five master's degree in engineering in Industrial Automation, Embedded Systems, Wireless Communication, Electrical Power Engineering, and Engineering Management.

The number of students enrolled in the faculty has increased significantly in recent years, with over 4,500 students now enrolled in various programs. As a result, the faculty has devised a strategy to hire new faculty members as well as a plan for overseas scholarships in order to maintain the high quality of education. The faculty now includes over 125 members, all of whom have graduated from the greatest engineering schools in the world. Furthermore, more than 10 students are now finishing their PhD studies in various areas in the United States and the United Kingdom.

Currently, 40 scientific laboratories are supervised by 45 engineers and technicians in the faculty.

Graduates of the faculty stand out not only for their theoretical engineering underpinnings, but also for their ability to apply technical concepts and engage with the business world. This is accomplished through world-class curricula that involve hands-on learning in laboratories, graduation projects, and field training. In recent years, the field training has shown a significant impact on the faculty, as it has assisted graduates in finding suitable careers in their fields of study. The faculty has recently established, and updated study plans for bachelor's degrees to reflect modern, worldwide technology breakthroughs as well as labor market demands. Furthermore, three of the faculty's programs (Electronics Engineering, Computer Engineering, and Industrial Engineering) applied for ABET accreditation and obtained positive response from the ABET committee, with no shortcomings.

According to the university's strategic plan, my team aims to construct and develop professional diploma programs in collaboration with industry, such as medical informatics, robotics design, additive manufacturing and 3D printing, and cybersecurity. Three to six courses are required for each program, which can be completed in as short as six months. The program will cover advanced information technology, design, and data analysis, and it will be developed and taught in collaboration with industry specialists.

For students of the faculty, the Entrepreneurship and Innovation Center offers career counseling. It houses research and development incubators for faculty members as well as industry research incubators for major international and local companies.

The faculty has recently been involved in a number of international projects. As a result of these projects, the faculty was able to send some students to Germany for four months of field training, build and increase the capacity of several faculty members and students in the area of technology transfer, establish and set up the first smart room in the deanship, and equip several faculty laboratories with advanced machines and cutting-edge technologies.

I hope you a pleasant experience as you read this first issue of the faculty newsletter.

**Prof. Mwaffaq Otoom, PhD**

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# Alumni

## ■ H.E. Eng. Mothanna Gharaibeh



**Eng. Mothanna Gharaibeh (Class of 2003),** Founder/CEO of Fifth Advisory Services, Former Minister of Digital Economy and Entrepreneurship – Jordan.

Mothanna Gharaibeh is the founder/ CEO of Fifth advisory services, which provides advice to several institutions in Jordan, Iraq, UAE, and Singapore. He is an executive board member of the Innovative SMEs and Startups Fund (ISSF) of Jordan, which is US\$100 million early-stage SME fund financed by the Central Bank of Jordan and the World Bank. As well as the head of the ICT and innovation committee in the American Chamber of Commerce in Jordan. In addition, Gharaibeh is a Chairman of Kun Academy an e-learning education platform.

Mr. Gharaibeh served as the Minister of Digital Economy and Entrepreneurship in Jordan 2018 - 2020. He was the youngest working minister in the cabinet at that time. During his service, he developed and launched Jordan's digital economy's plan with 200 MUSD over 5 years to advance digital infrastructure, digital platforms, digital financial services, digital entrepreneurship, and digital skills. Prior to joining the cabinet, Mr. Gharaibeh led Ericsson Business, the Swedish Telecom and Technology leader, operations in Jordan. He has an extensive technical and business experience around the Middle East where he worked with Ericsson in Oman, Syria, Afghanistan, Iraq and other countries in different roles and functions.

Prior to joining the Government in June 2018, Gharaibeh was a political and social activist, where he acted as a community leader amongst youth movements. He served on the board of the ICT Association, Justice Center for Legal Aid, and Taqaddam an initiative for an open, democratic, green, sustainable Jordan and initiatives for and other community, educational and political initiatives.

Gharaibeh earned his Bachelor's degree in Communication Engineering from Hijawi Faculty for Engineering Technology in 2003, and has attended executive courses in Harvard, Aspen Institute and business leadership courses with Ericsson.

## ■ Prof. Ahmad Khasawneh



**Prof. Ahmad Khasawneh (Class of 1993)** is the President of Irbid National University. He is a Professor of Information Systems at the Hashemite University of Jordan, where he also functioned as the Dean of Academic Development and International Outreach, Dean of Prince AL Hussein Bin Abdullah II Faculty of Information Technology, President Assistant and Director of Center Information, Communication and e-Learning Technology from 2007 through 2020. He was responsible for establishing, managing and overseeing the execution of a comprehensive information technology strategy and quality assurance as well as international relationship and outreach for the university. Before joining the Hashemite University in 2006, Dr. Khasawneh was the

Chief Information Officer at University of Newcastle, Australia (2002 - 2006) and Chief ICT Engineer in ICT field and in ICT applications managing Galileo and Royal Jordanian Airlines, R&D project in Embassy of Jordan in United Kingdom since 1994, ranging from instrumentation development, to network deployment to IT applications. Dr. Khasawneh has over twenty-eight years of experience and leadership in the information technology, higher education industry, quality assurance field including working at all levels of government, private and international sectors. Dr. Khasawneh has participated in numerous research activities related to Cyber Security, Artificial Intelligence, Information Systems, Computer Network, Cloud Computing, Decision Support System, Data Mining, Data Security, Health and Management Information Systems and Software Engineering. He authored more than sixty-five refereed research papers published in reputable journals and conferences. Dr. Khasawneh has taught Computer Science and Information Systems courses at various universities in the Jordan, Australia, Europe and Turkey maintaining high teaching standards. Dr. Khasawneh holds B.Sc., M.Sc. in Computer Engineering and Automatic Control and Ph.D. in Information Systems Science. He received his bachelor's degree from the Computer Engineering Department at Hijjawi Faculty for Engineering Technology, and his Master and Ph.D. in 2006 were from Newcastle University, Australia.

## ■ Dr. Adi Azar



**Dr. Adi Azar (Class of 2004)** completed his bachelors degree in computer engineering from Yarmouk University. He had a Masters and PhD from the University of Southern California, USA.

Adi began his professional career working as a web application engineer for many companies including Cooking.com and YellowPages.com. During this period of time, he began unintentionally his business by launching various online properties to promote local businesses in the US market. Later on, he focused on home services and promoted thousands of home improvement companies. In 2015, he opened his first Jordanian operation and hired 92 employees by 2018. In January 2020, his business (commonly known as Remodeling.com) was acquired by Ever Commerce (Nasdaq: EVCM) after five months of due diligence. He is currently working to launch another performance marketing business.

One thing Adi must say, if it is not for the amazing faculty members at Yarmouk University who taught him programming, data structure and more, he will never prosper. He learned digital marketing and business development working for US companies. But the engineering foundation was truly built in Yarmouk. He will be grateful forever for Yarmouk University.



## Entrepreneurship and Innovation Center

Entrepreneurship and Innovation Center (EIC), established in 2003, aims at providing different kinds of services and support to strengthen the creative, innovative, and entrepreneurial mindset within the university at large and within Hijjawi Faculty for Engineering Technology in particular. The center provides a wide range of training programs including soft skills, technical skills (like web development and mobile application development), and entrepreneurial skills (like building business models, business plans, pitching skills, and writing skills).

The center provides its services to students from all disciplines as well as graduates from the local community.

### Orange-Yarmouk Innovation Lab



A success story we are all proud of at EIC is the collaboration between Orange Telecommunication and Yarmouk University through the "Orange-Yarmouk Innovation Lab (OYIL)". The lab focuses on technology innovation, mainly in the areas of mobile application development, web development, and game development. It accepts around fifteen students in every cohort for two cohorts per year.

### Hijjawi Tech Incubator

Hisham Hijjawi Scientific Incubator (HijjawiTech) was established in 2018 with the support of Hisham Scientific Foundation to upskill engineering students with specialized training programs in web development, digital marketing, and soft-skills. The incubator accepts students in two cohorts every year, and provides ad-hoc training courses through the year. Visit the incubator's website for more information: <https://hijjawitech.com>.



## Recent News

### Funded Project to Promote Social Entrepreneurship

EIC has successfully implemented a DAAD-funded project to promote social entrepreneurship in Jordan. The project was in collaboration with Chemnitz University from Germany and Jordan University of Science and Technology. As part of the project, training material for social entrepreneurship was compiled in Arabic language to be available for a wider spectrum of students.



A Hackathon was also organized as part of the project with participants from all partners. Students proposed social entrepreneurial ideas, built their business models, and pitched their work before a judging committee. Two groups from EIC's students won the second and third places in the Hackathon.



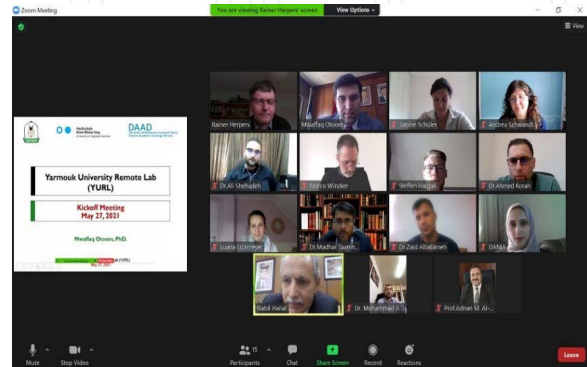
### Robotic Team Joins EIC

Being at the heart of EIC's strategic plans to encourage students' engagement in creative, innovative, and entrepreneurial activities, EIC is now the home of the talented and very active student club "Robotics Team". EIC provides the team with space, equipment, guidance, and logistic support to enable it to reach its full potential. The team is interested in robotic design and development, as well as training fellow students. The team is currently supervised by Eng. Mohammad Alsaadi.

# Online Education during Covid-19 Pandemic

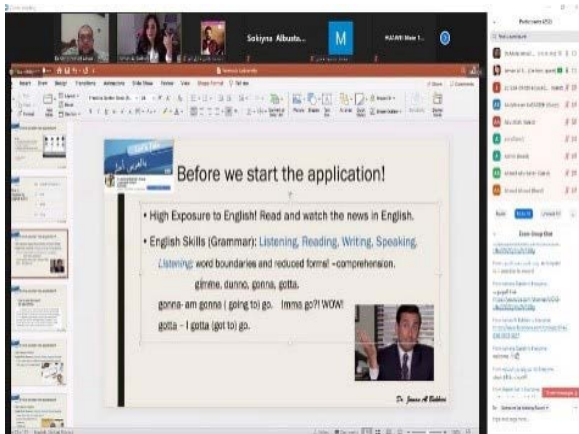
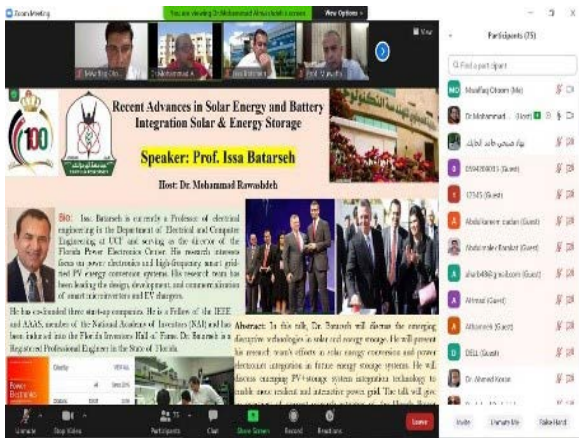
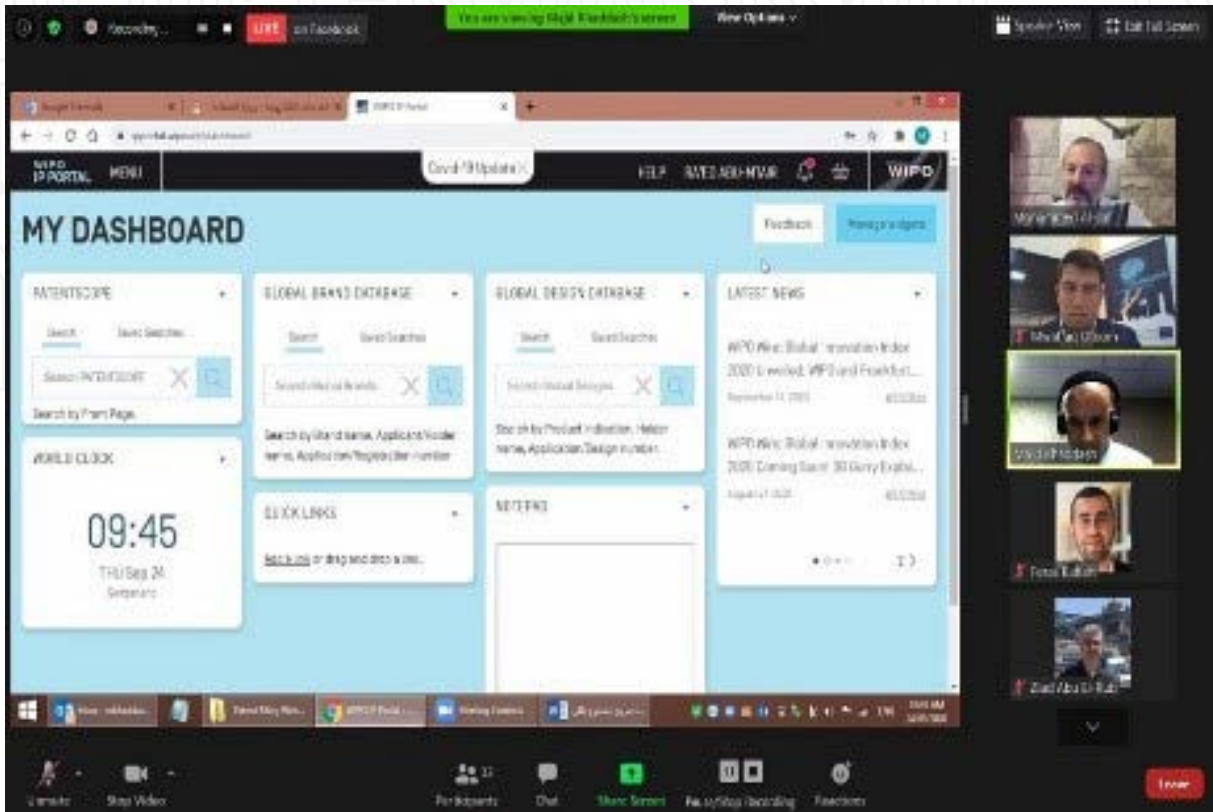
COVID-19 outbreak started in late December 2019 and reached all over the world. Since several cases affected by Corona virus have been discovered in Jordan in March 2020, the country has announced the lockdown and national closure of all institutions which affected many sectors. Education, students, schools, faculties and universities have been impacted very hard due to emergencies and ongoing human crises. The government in Jordan has closed all the educational institutions to control the spread of disease, which created a direct impact on students, educators and institutions. Therefore, like in any other countries, the education in Jordan including Yarmouk University has been moved to an Online system since March 2020. Several teaching techniques have been used during Online education such as live chats, audio conferencing, video conferencing, etc. However, Yarmouk University has bought the license for Zoom which is a cloud-based video conferencing platform that can be used for live meetings and recordings, and all faculties started to use it during Online education.

Like all other faculties, Hijawi Faculty for Engineering Technology has moved to use Zoom for online education. The main challenge during the Online education was in teaching the practical courses that needs the physical availability in the labs. To make sure that all labs are taught professionally, Hijawi faculty has developed a project, entitled: Yarmouk University - Remote Lab (YU-RL), which is implemented by the Hijawi Faculty for Engineering Technology, in partnership with the German University of Bonn Rhein-Sieg and funded by the German Foundation (DAAD), which aims to design and develop methods and tools for teaching practical remote laboratories.

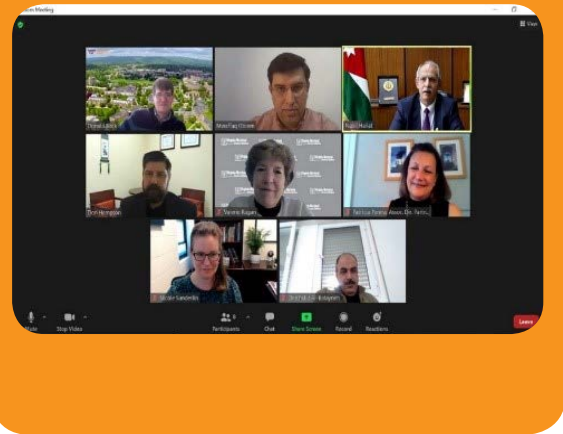


Hijawi Faculty for Engineering Technology has used the Online education successfully, the faculty has moved the teaching for bachelor's and master's programs to Online and provided the faculty members with all the necessary tools to continue with their classes and simplify the communication with students. Master thesis defenses have been held online, several workshops that included students and faculty members were held online such as: a workshop on applying for international projects grants and technology transfer, the requirements for applying and studying in American universities, in addition to several lectures that cover important topics such as a lecture on "The future of renewable energy and energy storage" by Professor Issa Batarseh from University of central Florida.





The Hijawi faculty has continued to participate in several Online meetings that can improve the academic and research knowledge through developing the partnerships with American and European universities to share ideas and research topics.



**Moreover**, the students of Hijjawi faculty have participated and won the first place in several national contests with the encouragement from the faculty Dean and faculty members.



Furthermore, the Hijjawi Faculty held and participated in several online events and activities including the Virtual graduation for the 42<sup>nd</sup> cohort "Centennial Cohort", honoring outstanding students in the university proficiency exam, in addition to organizing a virtual event to welcome Arab international students

## Perspectives on Online Education

As we all agree, children, young and adults all have the right to learn, and education must be a priority from the very beginning of any and all emergency responses. A disruption not only among students but also among instructors and families have been created due to the sudden shift from the physical classroom to the virtual space. However, not all people have the same perspectives on Online education. Let's take some examples:

### 1- The Faculty Members' Perspectives

#### Dr. Yusra Obeidat



I came back from USA in January 2019 after finishing my Ph.D. degree requirements, and started working as an assistant professor in the Electronics Engineering Department. During the first year of my work, I was very happy and motivated to teach classes and interact with students. I always consider myself as an "interactive reactive" person because I like face to face communication. However, Covid-19 has changed the life of everyone! I never thought that this will ever happen in my life, I always think about the life as a freedom to live with and close to people! At the mid of march/2020, the Jordanian government has

announced the lockdown to control the spread of the disease, therefore education has been moved from classrooms to virtual through Online platforms mainly Zoom as what we used at YU. Honestly, the first days of Online education I recognized the feelings of fear among students, I wanted to calm them down and encourage them to continue with their education and attend their classes regularly. I myself was feeling very worried about the lives of every person in my family and my country, but I always trust God and his willing.

Since I am from an engineering faculty, the main challenge that I faced during Online education was not technical experience. I was able to use all the necessary tools and I was able to learn all the skills that are needed to resemble the face to face teaching process. My big concern was how to make sure that the students have all the necessary devices, resources, and internet for Online education.

We all know that not all students have the same resources for Online education, not all of them have good internet connection, not all of them have electronic devices (laptops, smart phones, tablets, even PCs). We all know that not all students have rich or families with normal life conditions: some might live with the whole family in one room! imagine how can they attend Online classes with all family

members around. We all know that not all students are motivated to learn! and even not all instructors are motivated to teach well!

My experience with Online education started by trying to convince students that they have more time and resources to learn, trying to encourage them to take care of their studies, trying to be a good listener to help them to continue without the feeling of fear or disappointment. This was in parallel with the feeling to encourage myself that this is just a matter of time, and we can all work together to go over this bad period and we all can help students to get their rights in education.

However, the number of students in online classes became greater which increased the work load to 10 times. I started to receive 100's of messages every day, and some students started not to respect your time, they send you messages at midnight or even at later times and they expect you to respond directly. Beside that It started to be very difficult to track the progress of all students.

Although I was working very hard and trying my best to encourage students to learn, in addition to providing a learning environment and content similar or even better than what I provide in face to face communication, students started to ignore classes! There was a lack of interaction, during the class you feel like you are talking to the laptop because students were either sleeping or not focusing at all; many of

them have no motivation to learn and I believe that motivation is essential for success.

Moreover, one of the main challenges during Online education was evaluating the students through exams! It is very important for the students to take the knowledge and all necessary information through their education, but it is essential to measure their performance fairly. However, some students' attitudes made it difficult for instructors to make fair exams. Cheating was a very shameful problem, we tried to control using several methods such as making different exam forms, limiting the exam time, and making the exam one way, but it was still there! Some students have different ways for cheating: either they create a class group to solve exams together, or they pay money to someone to solve the exams for them! Nobody can deny that this is a big problem! We don't know who to blame, but I myself blame the family that raises children with this mentality!

Finally, from my perspective I think Education is there for whoever wants to learn. There are so many good online resources that can help everybody to learn and get the necessary knowledge in all majors. We as instructors and researchers always use the online resources to search, read, and keep our knowledge up to date. I believe that Online education is a very good option in emergencies and it saves the right for children, adults, and young to learn, but it is not preferred in normal conditions. I myself prefer the face to face education because I like to see the students' interactions during classes and I feel so bored during online teaching since it lacks this interaction.

### Dr. Dania Bani Hani



Many changes have arisen in the teaching pedagogy as a result of the COVID-19 pandemic, of which online learning became a necessity. Online teaching outperforms the traditional ways of teaching with respect to being accessible and bringing learning to so many people.

In online learning, interaction with the students will take place through different mechanisms. Moreover, too many digital resources can be shared with the students. Digital resources include but are not limited to videos, presentations, audio lectures, and others. Discussion platforms can be also established where students can share their thoughts about the topic of focus.

Online learning can provide the students with an opportunity to coach themselves in learning and to broaden their knowledge base. Being engaged in online learning gives the students the opportunity to explore the technology skills which in turn will help them to explore other skills related to other learning

tools, and software and gives them more self-reliance with respect to this.

Courses offered synchronously and/or asynchronously will provide more freedom for the students with respect to learning being unbound to time or location. Online learning provides an approach where students and the instructors co-create the learning process to become more towards the role of "student-centered approach". In addition, students can reflect before they communicate and will have a variety of activities, and meaningful discussions. This in turn will improve their skills in time management, life skills, writing skills, technology skills, communication, self-learning, being more active learners and being more confident.

### Dr. Ali Shehadeh



In March 2020, due to the COVID-19 pandemic impact, our educational system at Jordan and Yarmouk University unexpectedly shifted from face-to-face interaction into distance learning. Before the



pandemic, classical teachers have always tried to convince themselves and others that face-to-face lectures in front of the students are dialogues, even in the case of one-sided knowledge transfer. During classes, the student's diligence and understanding of explanations were evaluated with a slight change in their facial expressions. Another measure for the student's interaction was the percentage of students who raise their hands. Students raised their hands to participate, ask questions, and classify themselves among those who understood the lecture and those who did not. Unfortunately, for all cases, the number of students who raise their hands is minimal. They had several explanations for this phenomenon; maybe the students are too shy to participate, are just not keen enough to participate, or do not understand the questions. Thus, bringing the unresponsiveness ratio closer to zero was one thing they wanted to do in the face-to-face lectures. Nevertheless, is this the optimal model for teaching and learning processes? Then the COVID-19 wave had propagated, and our educational system had switched into full distance learning.

I have asked myself, shall we do the same thing during distance learning? Can we face all distance learning-related problems and succeed? Can we provide better teaching quality for students? Can we seize the opportunity and escape the burdens of the classical teaching school? There is nothing we cannot do at Yarmouk University. However, in online lectures, the students' personal computers and internet environment become issues. Then, can the lecture be recorded in advance and distributed on demand? Students can find many lectures on the website, including YouTube, Coursera, and MIT OpenCourseWare. Also, it takes patience to listen to long monologue lectures. So then, should we prepare the lecture contents on MS PowerPoint and distribute

them as a slide show hoping that the student would learn independently? From there, the preparation of online teaching materials began.

With all of these obstacles, overcoming the unpredicted change of the knowledge delivery system was challenging. However, the Jordanian government and Yarmouk Universities' top management coordinated with the private sector and other involved parties to dissolve all obstacles. For instance, students who could afford to buy laptops were given new laptops and tablets. Also, free internet bundles were distributed to the students every month. Moreover, the already available e-Learning system was upgraded to coop with the new circumstances, where new servers and clouds were bought, agreements with online teaching and communication platforms (e.g., ZOOM) were signed, and extensive distance learning-based training sessions were conducted every week. Furthermore, innovative online teaching methodologies and practices (e.g., interactive H5P videos) improved the students' participation and understanding. In addition, unprecedented cooperation from the faculty members and students helped facilitate and improve the teaching and learning processes.

Finally, equipped with the wise vision of His Majesty King Abdullah II, Yarmouk University was able to overcome the COVID-19 impact and provide its students with world-class teaching qualities. With robust strategic planning and determined will for deploying sustainable continuous improvement process, faculty members at Hijjawi Faculty for Engineering Technology showed the most wonderful example of defying difficulties and exerting the most precious to provide the best service to their students, and have truly succeeded in turning obstacles and challenges into opportunities and successes.

## 2- Students' Perspectives

### Eman Obeidat

Hello, my name is Eman Obeidat. I'm a student of biomedical informatics engineering at Hijjawi Faculty for Engineering Technology, now in my 5<sup>th</sup> year. I will talk about my experience in online education and my opinion about it. When we moved to online education I felt that everything became different like teaching, understanding, and dealing with doctors. Online education was good idea because you can watch the lectures multiple times if they were recorded to ensure understanding, but zoom meetings were noisy and boring which prevent you from focusing and understanding, we miss the interaction with the instructors and students. Regarding the exams and Quizzes, I felt that several things were not convenient, such as the times of quizzes, problems of internet and electronic devices, and cheating. In my opinion, online education was not fair in this regard because students who didn't study get high grades by cheating while students who study hard get low grades. Despite of the doctors' cooperation to help us and understand our conditions, I believe that the face to face communication is much better because you can ask them about everything you need to understand. In general, I am sad that I missed face to face education during the two most important years (my 3<sup>rd</sup> and 4<sup>th</sup> years), I prefer face to face education and I hope to continue with it.

Thank you

### Ghena Nsour

Hello, I am Ghena Nsour. I am a third year biomedical engineering student. I want to talk about my experience during online education and how it affected me and my opinion about it. When Covid 19 hit and we started online education I was still in my first year of faculty, I didn't know how everything

worked. Despite having recorded lecture and zoom meetings understanding the subjects was still hard. As for the quizzes and exams the 'one way' method was used and the time wasn't enough through the online education system. Online education was the best solution during that period of time but, I prefer on campus education and hope it continues so we can make memories and learn the right way.

Thank you

### Qamar Aloqaily

My name is Qamar, a third-year civil engineering student at Hijjawi Faculty for Engineering Technology. My major selection wasn't by choice, but continuing in it was. I never pictured myself as an engineer, but now I can't see myself anywhere else. Civil engineering changed me in many ways, for the better. More on my major, it is the type of engineering specialized in the construction industry; from residential structures, to towers, skyscrapers, bridges, roads, dams etc. from design to management to supervision. What I loved most starting this major was the material and the courses in our study plan, it felt great to me seeing the right explanation and design process to things you see every day. To say it properly, I enjoy studying these curriculums. Also, the many institutes and committees related to civil engineering is outstanding, you get to take courses and conventions the expands your hunger for more knowledge. For the past two years – due to the pandemic- all courses and laboratories were being taught online and virtually. This experience was new to us all, the lectures and examining system had changed drastically. At first, we thought it was great to get this "free break" and take easy exams, but after a while I realized that it was not for the best. The social communication with my fellow students and colleagues had been limited to a few people I already knew. The communication

with my tutors dropped and the ability and the love for learning had decreased because everything felt so overwhelming. To give my thought on that experience, I learned a lot from it but I deeply wish it never happens again. For the past month – the start of the new semester – we came back to our normal life and routines on campus. I got to know so many amazing people that I see now on daily basis, my daily schedule got more organized and stricter. And, of course, my study habits changed for the better. I got to interact more in the classroom with my tutors, take better notes and focus more to what I'm learning. The faculty campus life shapes your personality in many ways and brings out the best in you.

### Yosor Shishakli

A 5<sup>th</sup> year undergraduate student in electronics engineering, Hijawi's Faculty of Engineering, Yarmouk University. Life has been unfair to many people, humanity suffers from inequality, and we all don't get the same chances as other. Yosor Shishakli's goal in life is to make the world a better place for those unlucky people who don't get the same life expectations as others due to their disabilities. However, Yosor believes in science (research means hope), he thinks that the only way through a better future is with advanced technology. Which is basically what engineering is all about: solving problems. Anything can be seen as a problem if you think the right way. Theoretically, for every problem, there's a solution. We are ruled by the laws of science, if it wasn't for those who put their efforts in fighting global issues and diseases we wouldn't survive for a minute. For example, the known pandemic "COVID-19" had its

impact on the world and changed our life routines in many ways. One of this pandemic's consequences is that it forced education facilities to keep working remotely. A whole new experience for both students and instructors. Yosor believes that knowledge is for everyone, this is where online learning takes part and has a huge advantage in spreading knowledge among people when good professors/teachers record their lectures and share them to public. If we think about it, these recorded lectures make a good reference for students and they're available all time! Such thing wouldn't have happened without the pandemic. When you're attending a lecture on campus you are forced to pay attention to your lecturer and usually don't waste your time doing something else. One of the problems in online learning that you can get distracted easily if you weren't serious about learning and paying attention to your lecture, if you're a good liar you can almost do anything while attending the lecture! (Eat, sleep or even go shopping). Some professors are smart enough to be aware of that and they force students to open the camera. Just like any major engineering has some off-topic courses. Courses that are important but not necessarily related to your major. For example, basic mathematics courses for architecture students. Such courses are okay to be taken remotely since you won't need to fully master the topics in order to be good at a certain major. In conclusion, we can say that online learning has affected all of us in both good and a bad way. Yosor thinks that students –including himself– have gained a bit of laziness when they got used to online lectures. But let's not forget the fact that life isn't easy, and you have to get up early and work for your future.

## Students' Corner

At Hijjawi Faculty, we focus greatly on providing the appropriate environment for our students to achieve success, creativity and excellence. As we strongly believe that the message of science carried by faculty members is largely based on students and aims to help them to keep pace with development and modern technology in all fields. Therefore, we always strive to develop their talents and communication skills by supporting their participation in scientific and extracurricular activities.

Moreover, to facilitate students' communication with the faculty administration represented by the deanship and department heads, in addition to activating communication with the Deanship of Student Affairs and the university administration, every year a student from each department is elected to represent the students in the student union at the university. Accordingly, the faculty provides all the necessary support to conduct the elections fairly and with all possible facilities to complete the students' activities successfully.

Recently, the Dean of Hijjawi Faculty honored the representatives of the Students' Union in the faculty in its 28<sup>th</sup> session and thanked them for the sincere efforts they made during the period of Covid-19 pandemic which posed a great challenge in all aspects of life, including educational.



## Students' Activities



Several students' scientific and extracurricular activities such as scientific trips, workshops, sports, etc. are held in the faculty every semester, these activities improve students' communication skills, reduce their academic stress, increase their practical experience, help students to get to know companies and industries and make connections.

Recently, the Hijjawi faculty has organized a scientific trip for students to visit Shamal start (luminous company) in Irbid. The trip included introductory lectures to inform students about the services of "Shamal Start", how to apply for supporting creative ideas, graduation projects, and training services. It also included introductory lectures on different types of 3D printers and their various applications. The engineers in the company provided an introductory tour in the Fab lab and a detailed explanation about its laboratories and equipment used in various fields of engineering, in addition to the business incubators that are provided to owners of pioneering ideas.



More recently, the faculty held a football match between a team of students and a team of faculty members in the faculty, where the students team won by a penalty shootout.



More recently, the Hijjawi faculty for Engineering Technology organized a scientific field visit to Irbid Specialized Hospital for the students of the Biomedical Systems and Informatics Engineering Department to see and learn about the medical devices and facilities systems in the various medical departments in the hospital.

During the visit, the Biomedical Systems and Informatics Engineering Department and the General Maintenance Department in the hospital gave a theoretical and practical introduction to the role of the medical engineering management in maintaining the sustainability of the work of medical devices, the safety of their workers, and the protection of patients from related risks.

The students were also acquainted with the hospital's electronic medical maintenance system and its role in helping to follow up the completion of all maintenance work of all kinds, preventive and corrective, and records of medical devices.

## Three Hijjawi Students Participate in a 2-Week Training on Business Idea Pitching in Germany



As part of the BITTCOIN-JO project ([www.bittcoin-jo.com](http://www.bittcoin-jo.com)) activities, three students from the Hijjawi Faculty for Engineering Technology participated in a 2-week training in Germany, as a continuation of a virtual training conducted by Professional Start company at the end of 2019 and beginning of 2020, in which each student presented environmental hurdles and challenges when working with their Business Model towards a Business Case.

Dr. Mwaffaq Otoom, the grant holder institution coordinator of the BITTCOIN-JO project, mentioned that the first week included intensive hands-on lectures on (1) writing business plans, (2) challenges when starting an enterprise and (3) investors' perspective. The second week included several visits

to local businesses such as Deutsche Telekom, where students were introduced to its internal startup on e-mobility.

The training was concluded with business idea pitching for the 15 students from four Jordanian universities, which demonstrated the advanced level of knowledge and skills the students gained through this intensive training.

Note that BITTCOIN-JO project is an EU funded project by the Erasmus+ CBHE program for four years. The BITTCOIN-JO project consortium is led by Yarmouk University and includes 13 academic and non-academic partners from Jordan, Germany, Spain, Italy, and Sweden.

## Students International Organizations and Institutes

We at Hijjawi faculty encourage students to be involved and participate in national and international organizations to improve their professional and communication skills. Our students are motivated to join such professional organizations and they are always involved in all of activities and contests that are held locally and internationally. The main international organizations in our faculty are: IEEE, DSC, ACI, and ASEE.

## The Institute of Electrical and Electronics Engineers IEEE-YU

### IEEE Yarmouk University Student Branch

#### About IEEE YU

Institute of Electrical and Electronics Engineers –Yarmouk University Student Branch.

IEEE-YU Student branch was activated in 2014, since then, it occupies a large role in Yarmouk University in spreading technological and technical knowledge and developing extracurricular activities in a diversity of fields. The main concern of the branch is to develop a youth capable of introducing active engineering solutions to solve the problems facing Jordan.

The branch has more than 80 volunteers and more than 200 members from a diversity of technical majors. YU branch has 6 chapters of IEEE technical societies which are: Engineering in Medicine and Biology Society (EMBS) chapter, Computer Society (CS) chapter, Power and Energy Society (PES) chapter, Robotics and Automation Society (RAS) Chapter, Industrial Applications Society (IAS) chapter, and Communication Society (ComSoc) chapter and It also includes one of the most important IEEE Affinity Groups which is IEEE Women in Engineering (WIE) that is concerned with promoting the role of women in engineering. The branch has held many successful events which were attended by students from all over Jordan and participated in many competitions on deferent levels.

### About IEEE ...

IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. IEEE and its members inspire a global community to innovate for a better tomorrow through its highly-cited publications, conferences, technology standards, and professional and educational activities. IEEE is the trusted "voice" for engineering, computing and technology information around the globe.

There are more than 420,000 IEEE members in more than 160 countries. IEEE publishes a third of the world's technical literature in electrical engineering, computer science and electronics and is a leading developer of international standards that underpin many of today's telecommunications, information technology and power generation products and services.



## Mission

Enabling Yarmouk students to develop their engineering and leadership skills, keeping them closely connected with global technological development, and strengthening their connection with the local and global engineering community.

## Vision

To Inspire, Enable, Empower and Energize our student members to enhance their technical interests by providing them a platform to show case their skills.



## Objectives

- Form more special interest groups to encourage project activity among the student members.
- Arrange for regular events in the campus specifically dealing with latest technologies.
- Kindle students' interest in making new papers and projects.
- Strive towards achieving more IEEE-sponsored awards and aim at representing Yarmouk in international conferences.



**Recently**, the students at IEEE ComSoc have participated in the IEEE JSBC 2021 conference that was held at the University of Jordan under the title "Innovation in the Age of Digitization" under the patronage of the Minister of Digital Communications and Entrepreneurship. This is the largest annual conference organized by the student branches of IEEE in Jordan.



**More recently**, Engineering Students Branch Conference (ESBC) represented by IEEE Communication Society (ComSoc) and supported by Jordan Engineers Association (JEA) was held at



Yarmouk University under the patronage of the Dean of Hijjawi faculty. This conference included engineering students from 7 Jordanian universities. The main objective for the conference were: to talk about the latest developments in communication technologies, to allow the student to know more about Entrepreneurship and its importance in the current period, to give the space for the creative students to view their projects in front of the technical companies, and to host pioneered companies in the technical fields and give them the chance to introduce their future plans to attract students to work with them.

**IEEE-YU Counselor: Dr. Yazan Al-Issa/ Department of Computer Engineering**

**IEEE-YU Chairman: Saif Hassonah**

**Find us at:**



## Google Developer Student Club Yarmouk University Chapter

**Google Developer Student Clubs (GDSC)** are community groups for faculty and university students interested in Google developer technologies. Students from all undergraduate or graduate programs with an interest in growing as a developer are welcome. By joining a GDSC, students grow their knowledge in a peer-to-peer learning environment and build solutions for local businesses and their community.

### Mission

Through the courses and workshops offered by the club to the students, the students develop their knowledge in a learning environment and build solutions for local companies and their community. Workshops and courses are offered within the club in several areas, including website programming, mobile application programming, networks, information security, cloud computing, Machine learning, Internet of Things and other fields.

### Vision

Creating information and knowledge applicable to students of electrical and electronics engineering and branches.

### Objectives

- Organize different courses and workshops to enhance the student's understanding in the branches of electrical and electronics engineering.
- Keep up with electrical and electronics engineering students in Jordan with the latest local and international technologies and standards.



**Faculty Advisor:** Dr. Yusra M Obeidat/ Department of Electronics Engineering

**First Leader:** Rana Daoud

**New Leader:** Obada Hamdan

**Find us at:**

## American Concrete Institute Yarmouk University Students Chapter

ACI YU student chapter is a nonprofit American Concrete Institute student chapter located at civil engineering department at Yarmouk University (Jordan). ACI-YU chapter was found in 2019 as the first accredited student chapter in Jordan and the fifth in the middle east. The chapter aims to motivate students to participate in local and international competitions and move towards applying theoretical knowledge to develop their practical skills in the field of concrete and to enrich the quality of life of people through responsible application of knowledge, skills, and technology. The chapter has more than 300 members. The members of chapter are eligible for several benefits such as participating in concrete competitions, attending technical talks, and mentoring sessions by experienced professionals.

### Mission

Providing creative ways to the civil engineering students to gain their education about concrete, and to enrich the education process through access to all information provided by the American Concrete Institute.

### Vision

To achieve the best understanding and knowledge of concrete within the civil engineering students and the local community.

### Objectives

- Transfer the concept of the student chapter to other Jordanian universities to establish ACI student's chapters.
- Organize competitions and different activities to enhance the student's understanding and handling of concrete.
- keep up the civil engineering students in Jordan with the latest local and international concrete technologies and standard.



**Faculty Advisor: Dr. Faris Matakah/ Department of Civil Engineering**

**Find us at:**

## American Society for Engineering Education (ASEE)

### Who we are

We are one of the non-profit student chapters of the American Society for Engineering Education (ASEE) in the Hijawi Faculty of Engineering Technology at Yarmouk University (Jordan). The student branch was established in 2020 to be the first branch accredited outside the borders of the United States of America and the only branch in the Middle East and the Hashemite Kingdom of Jordan. We aim to educate high school students about the various engineering disciplines and link them with global technological progress and the local, regional and international labor market. Also, spread the awareness of various engineering disciplines at the undergraduate level about the importance of engineering education based on outcomes assessment, developing their personal and engineering skills, and encouraging them to move towards higher studies (master's and doctoral stages). Moreover, enlightening different engineering disciplines at the master's level about the importance of scientific research, developing their research skills, and the best ways to write a CV, communicating with supervisors of doctoral programs in prestigious universities, and encouraging them to move forward towards graduate studies. Furthermore, spreading the culture of engineering education among faculty members and faculty staff by holding specialized courses concerned with promoting the principles of total quality of academic work in all its aspects.

### Mission

Providing innovative engineering teaching and learning methods to all beneficiaries of engineering education services and developing engineering education frameworks and methods through the availability of information and services provided by the American Society for Engineering Education.

### Vision

Develop effective and innovative engineering teaching and learning methods for engineering students and the local community.

**SEARCHING AND APPLYING FOR FULLY FUNDED INTERNATIONAL ENGINEERING GRADUATE SCHOLARSHIPS**

Tuesday 12 January 2021  
From 10:00 AM to 11:30 AM  
VIA ZOOM

**SAMEH SHAMOUT**  
the first Jordanian graduate of the New Zealand Development Scholarships  
PHD Candidate, teaching and research assistant at the university of Auckland

**Dr. Ali M. Shehadeh**  
Supervisor Assistant Dean, Hijawi Faculty for Engineering Technology At YU  
Assistant Professor at the Civil Engineering Department

**ASEE YU Student Chapter Opening Ceremony**

International Education Week

**Dr. Odey AlShbouli**  
Assistant Professor in the Civil Engineering Department at The Hashemite University.

**Dr. Mwaffaq Ootoom**  
Dean of the Hijawi Faculty For Engineering Technology.

**Dr. Madhar Taamneh**  
Vice Dean and Civil Engineering Department Chairman

**Fatma Zamil**  
Student Chapter President  
Third year biomedical Engineering student

**Dr. Ali M. Shehadeh**  
Assistant Professor at The Civil Engineering Department  
Student Chapter Supervisor

**ASEE** AMERICAN SOCIETY FOR ENGINEERING EDUCATION  
Yarmouk University Student Chapter

19/11/2020  
12:00 PM

**zoom**

## Objectives

- Transferring the concept of establishing student branches of the American Society for Engineering Education in Jordanian universities.
- Urging school students to think about studying engineering.
- Organizing various seminars, activities, and events to promote the concept of engineering education and learning.
- Improving the capabilities and skills required to conduct professional research in engineering education.
- Introducing engineering students in Jordan to the latest methods of innovative engineering education and learning methodologies.

### To Excel in Your Competency Exam



**Dr. Yaser Jardat**  
Structural Engineering



**Dr. Ahmad Salama**  
Geotechnical  
and Material Engineering



**Dr. Aliman Jaradat**  
Environmental Engineering



**Dr. Madhar Taamneh**  
Civil Engineering Chairman  
and Vice Dean



**Dr. Musab Abuaddous**  
Transportation  
and Pavement Engineering



**Dr. Ali Shehadeh**  
Construction Engineering  
and Management



Thursday

2:00-3:00PM

10-12-2020




### Contact us:

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## Outstanding Alumni

Since its establishment until now, Hijjawi Faculty for Engineering Technology is distinguished by its students and graduates who have proven their ability to compete and excel inside and outside Jordan.



**Eng. Ali Al-Qudah** obtained his Bachelor's and Master's degrees from the Department of Biomedical and Informatics Engineering with an excellent GPA, and he is now a very active researcher who has published more than 35 researches in prestigious scientific journals, and was recently classified among the top 2% of researchers in the world, according to the updated database of scientific researchers for standardized citation indicators prepared by Stanford University and the international publishing house.



**Eng. Khaldoun Miqdadi**, one of the 2018 graduates of the first batch of Architecture from Hijjawi Faculty for Engineering Technology, was selected by the prestigious Chevening Scholarship, offered by the British government, to study for a master's degree in Computational Neuroscience/ Artificial Intelligence and Robotics. This selection was made after a long effort of preparation and submission for exams and tests, which ended with obtaining this scholarship, which is one of the most prestigious international scholarships.

# Recent Publications

## Electronics Engineering Department

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## Mechanical Engineering Department

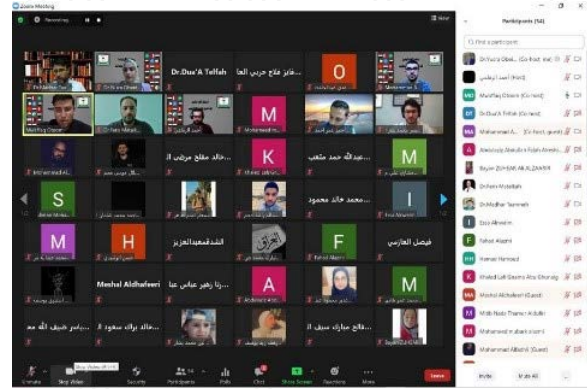
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# Faculty Events

The Hijjawi Faculty for Engineering Technology organized a virtual event via Zoom, to welcome Arab international students studying in its various academic departments. Prof. Mwaffaq Otoom the faculty dean emphasized the university administration's endeavor to attract the largest possible number of international students of different nationalities to study in its various faculties and academic programs, because of its importance in enriching the cultural diversity within the university campus. The meeting included introductory sessions about the university, its facilities and surroundings, its registration system, course equivalency, websites, various platforms for



teaching and exams, as well as answering students' questions. The meeting also included introducing students to activities and groups, and other various entertainment items

More recently, the scientific day of Hijjawi Faculty of Engineering Technology was held on the occasion of the centenary of the Jordanian country, and the events were opened in the conference building / Yarmouk University under the patronage of the former Prime Minister, Prof. Adnan Badran and in the presence of the President of the University, Prof. Islam Massad and his deputies, the Dean of Hijjawi Faculty, Prof. Mwaffaq Otoom, Eng. Ayman Hijjawi from the Hisham Adib Hijjawi Scientific Foundation, the deans of faculties at the university, a number of former faculty deans, many members of the faculty, administrative staff and students in the faculty, in addition to many guests from different universities and companies.



The day included the opening of the projects showcase at the Hijjawi Faculty, which includes graduation projects and individual creative projects or within student groups, the art gallery, and the career fair, which was joined by seven companies from the private sector working in different fields and specializations.



Also, several educational sessions were presented in the areas of: leadership, artificial intelligence, cyber security, future jobs, and employment needs, which were presented by speakers from different companies and universities.







More recently, Hijjawi Faculty for Engineering Technology organized a meeting with the new enrolled students in the faculty, in the presence of the faculty administration and a number of faculty members.

At the beginning of the meeting, the Dean of the Faculty, Prof. Mwaffaq Otoom, welcomed the new students, giving an overview of the faculty and the academic departments it includes, the academic programs it offers, and the services available to students, pointing to the faculty's efforts to progress in order to obtain American accreditation for the faculty's programs, which is reflected positively for the interest of students and the university alike, explaining that the faculty had applied last year to obtain American accreditation (ABET) in three academic programs offered by the faculty and will

continue to apply the rest of the programs over the coming university years.

During the meeting, Prof. Otoom briefed about some of the important services provided by the faculty to students with the aim of helping them pass their study journey successfully, such as the electronic academic advising developed by the faculty, and career counseling, which the faculty provides mainly through the faculty's Entrepreneurship and Innovation Center, which supports and embraces pioneering ideas, and provides training opportunities. For students, it offers free courses to develop students' scientific and practical skills in order to qualify them to enter the market.

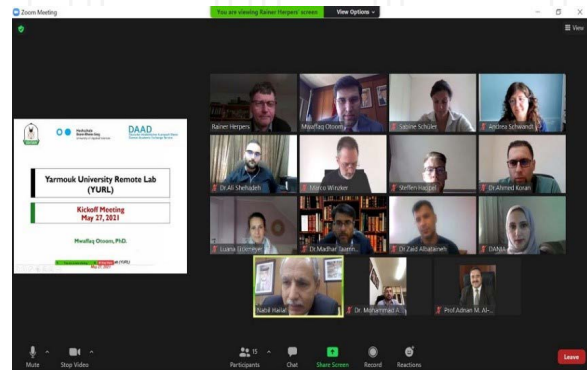
He stressed the faculty's continuous support for all students, emphasizing the faculty's endeavor with all its administrative and academic cadres in order to provide the appropriate conditions for graduating a group of distinguished engineers and supplying the local, regional and global market with highly qualified and distinguished engineers, pointing out that the faculty will hold many dialogue meetings with students to see their problems, suggestions and creative ideas.

At the end of the meeting, the heads of academic departments answered the students' questions and inquiries.



# Faculty Activities

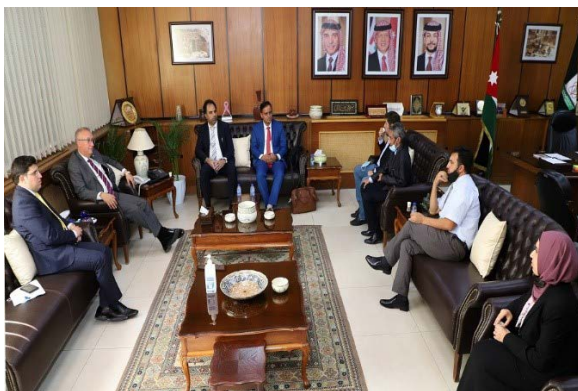
The Hijawi Faculty for Engineering Technology is distinguished by the Faculty members, faculty size, and the scientific laboratories in various disciplines. The faculty has achieved a good reputation in the Kingdom, the Arab region and the world through its graduates who distinguished themselves not only in knowledge in theoretical engineering concepts, but in the ability to apply engineering concepts and deal with the business environment through world-class curricula that include practical aspects that are acquired through laboratories, graduation project, and field training. The field training during the past years has reflected positively on the chances of faculty graduates obtaining suitable jobs in their specializations. Therefore, the deanship of the faculty makes connections, memorandums of cooperation, and agreements with several national and international companies, industries and institutions



to provide better training and work opportunities for our students and graduates.

During Online education the faculty implemented the (YU-RL) project in partnership with the German University of Bonn Rhein-Sieg and funded by the German DAAD, which aims to design and develop methods and tools for teaching practical remote laboratories.

The Deanship of the faculty has started the process of implementing an agreement for cooperation with the German company "Siemens" in a number of related fields that mainly target the biomedical engineering students. Accordingly, this agreement benefits them to develop their leadership skills in the medical fields. The programs supported by Siemens within this initiative are related to the medical fields, providing certificates, exhibitions, research incubators, and the fellowship program.



**More recently**, Yarmouk University has signed a memorandum of cooperation with the Jordanian Advanced Metal Forming Company in the field of exchanging experiences and training for students of Hijjawi Faculty for Engineering Technology. The memorandum of understanding aims for activating the partnership between the two sides to exchange scientific experiences and applied processes in engineering fields of common interest, and to provide training opportunities for Hijjawi Faculty students according to the engineering disciplines available to the company (mechanics, industrial, mechatronics,



industrial automation), in addition to benefiting from the graduates' database the university has for the purposes of recruitment in the company.



Recently, the Deanship of Hijjawi Faculty for Engineering Technology met with the delegation of Istanbul Medipol University, Turkey, consisting of Professor Hussain Arslan, Dean of the Faculty of Engineering and Natural Sciences, Prof. Gökan Silahtaroglu, Dean representative of the Medipol Business School, and Mr. Abdullah Selim Vardarbaş, the Executive of International Business Development Unit. During the meeting, the two parties discussed ways of joint academic cooperation between Yarmouk University and the Turkish University. Moreover, the two parties expressed their welcome to cooperate

in the field of exchange of professors within the framework of offering remote courses and teaching them by members of the teaching staff in the two universities, and to strengthen the joint scientific research system. Furthermore, Professor Hussain Arslan expressed his desire to supervise a number of Jordanian students from the graduates of the Hijjawi Faculty for Engineering Technology within the doctoral program of Electrical Engineering offered by Istanbul Medipol University, Turkey, in partnership with the University of South Florida, USA as part of grants that cover study and living expenses. The visiting delegation gave a detailed presentation on the departments of the Faculty of Engineering and Natural Sciences at Istanbul Medipol University, Turkey. In return, a detail was given about the academic departments in the Hijjawi faculty for Engineering Technology by the heads of the departments of Industrial Engineering, Civil Engineering and Electronics Engineering. At the end of the meeting, the delegation was taken on a quick tour of the Hijjawi Faculty building and some souvenir photos were taken.



The Hijjawi Faculty for Engineering Technology continues to celebrate the achievements of its faculty members. Hijjawi Faculty for Engineering Technology extends its sincere congratulations and happy blessings to Prof. Ahmad F. Al-Ajlouni, a faculty member in the Department of Communication Engineering at Hijjawi Faculty for Engineering Technology, on the occasion of appointing him as President of Al-Balqa' Applied University for a period of four years. Faculty's family also wished Al-Ajlouni success in his new mission, and to promote and build on the progress of Al-Balqa' Applied University.



More Recently, The Department of Civil Engineering at Hijjawi Faculty represented by Dr. Madhar Ta'amneh and Dr. Ahmed Al-Omari participated in the workshop organized by Irbid Municipality entitled "Transport and Traffic in Irbid Municipality: Challenges and Opportunities", as part of the "Plan" project. Sustainable Energy and Climate Action in Irbid Municipality: Integrating Air Quality into Sustainable Transport Planning" implemented by the municipality in cooperation with the MidCities Network.

During the workshop, Dr. Ta'amneh presented a lecture on estimating the delay time at intersections

with traffic signals in Jordan, reviewing a comparison between several computer programs in estimating this, indicating the importance of relying on these programs in simulating the traffic reality before implementation on the ground.

Dr. Al-Omari also presented a lecture entitled "Developing best traffic practices in the city of Irbid - the Yarmouk University area as a model", in which he presented a number of scenarios that can be adopted in order to raise the efficiency of the road network in the vicinity of the university, and reduce delays at major intersections in the region.

## Hijawi Organizes a Dissemination Conference for the BITTCOIN-JO Project



The Hijawi Faculty for Engineering Technology organized a dissemination conference for the BITTCOIN-JO project in the Dead Sea in the period from 0312- to 052021-12-.

Dr. Mwaffaq Otoom, the grant holder institution coordinator of the BITTCOIN-JO project, mentioned that academic and industry stakeholders were invited to this dissemination conference, where an overview of the project activities were presented. The four partner universities presented their success stories in establishing/modernizing technology transfer offices.

The conference included business idea pitching for the 15 students from the four Jordanian universities, which demonstrated the advanced level of knowledge and skills the students gained through this intensive training offered by the project.

The conference also included panels and networking sessions with industries. Further, during the conference, demonstration of the industry database and marketplace tools were conducted to provide a platform of collaboration between academic and industries.

Note that BITTCOIN-JO project is an EU funded project by the Erasmus+ CBHE program for four years. The



BITTCOIN-JO project consortium is led by Yarmouk University and includes 13 academic and non-academic partners from Jordan, Germany, Spain, Italy, and Sweden.



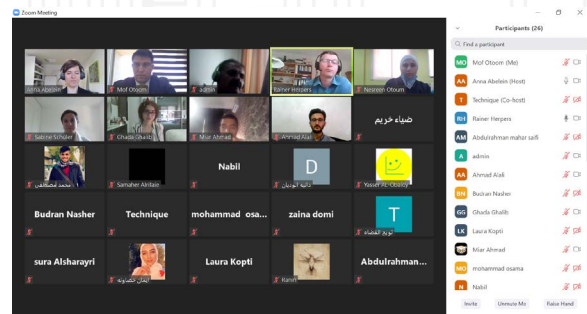
## DAAD INVENT Project Concludes its Training Activities for Hijjawi Students and Faculty Members

The activities of the INVENT project, funded by the German Academic Exchange Service DAAD, concluded on 6th Nov. 2020 the six digital training workshops for faculty members from Hijjawi Faculty for Engineering Technology, entitled: entrepreneurial empowerment at universities, and provided by the trainer Ms. Anna Abelein from the German company ProtoStart.

### Topics included:

1. The importance of room for experimentation and role models for students to discover the own entrepreneurial spirit.
2. Support for the first months of starting a business.
3. Science and research as starting point for startups.
4. Access to finance and networks in order to grow big.

The INVENT coordinator, Prof. Mwaffaq Otoom, added that these workshops were preceded by five other workshops for students in the field of design thinking, aimed at enhancing students' skills in finding practical and creative solutions to current and future problems,



which are one of the methodologies for thinking outside the box.

### Topics included:

1. How to get to discover human needs and problems as inspiration for creative business ideas.
2. How to use your creativity for innovative ideas,
- (3) how to build low-resolution prototypes.
3. How to test business ideas.
4. How to create business models based on the Business Modell Canvas.

It is noteworthy that the INVENT project is a partnership between Yarmouk University and University of Petra and the Bonn-Rhein-Sieg University.

## Computer Engineering Students and Hijjawi Faculty Members Get Trained in Germany through YURL



Three students from the Computer Engineering departments are spending the first semester 2021/2022 at the Bonn-Rhein-Sieg University in Germany as their field training course. This training mobility is fully sponsored by the Yarmouk University Remote Lab (YURL) project, funded by the German Academic

Exchange Service DAAD. Through the same project, seven faculty members got trained in the same university in Germany on September 2021.

The YURL coordinator, Prof. Mwaffaq Otoom, mentioned that this experience aims at enhancing students' skills in hot topics in computer sciences, in addition to the cultural exchange experience. The faculty members are supposed to utilize this training to design and develop labs in the Hijjawi Faculty for Engineering Technology that can be offered remotely.

It is noteworthy that the YURL project is a partnership between Yarmouk University and the Bonn-Rhein-Sieg University to develop remote labs in the Hijjawi Faculty for Engineering Technology. The project will last for two years, starting from 2021.

## Hijawi Establishes a Mini Fablab Funded by the EU BITTCOIN-JO Project



The EU-funded BITTCOIN-JO project helped the Hijawi Faculty of Engineering Technology establish a mini fablab in the industrial engineering department, which contains a very advanced set of fabrication machines.

Dr. Mwaffaq Otoom, the grant holder institution coordinator of the BITTCOIN-JO project, explained that this significant and generous fund is used to provide students with a business-like environment and the resources they need to transfer business ideas into prototype products with commercial viability.

The BITTCOIN-JO project is a four-year EU-funded project within the Erasmus+ CBHE program. Yarmouk University leads the BITTCOIN-JO project consortium, which includes 13 academic and non-academic partners from Jordan, Germany, Spain, Italy, and Sweden.



## List of Deans



**Dr. Mohammad AL-Alem**  
1/9/1984 - 13/12/1988



**Prof. Mohammad Abu Salih**  
1/1/1989 - 1/10/1989



**Prof. Ibrahim AL-Dukani**  
2/10/1989 - 1/9/1993



**Prof. Adnan AL-Anbaky**  
2/9/1993 - 23/6/1995



**Prof. Wajeeh Qassem**  
24/6/1995 - 1/9/1998



**Prof. Omar Asfar**  
19/9/1998 - 14/9/2002



**Prof. Labib Khadra**  
15/9/2002 - 31/8/2004



**Prof. Adnan M. Al-Smadi**  
1/9/2004 - 3/9/2006



**Prof. Hamed Zuriqat**  
14/9/2006 - 26/8/2008



**Prof. Faruq Al-Omari**  
24/8/2008 - 1/9/2010



**Prof. Muwaffaq Alomoush**  
13/9/2010 - 1/9/2012



**Prof. Ahmad F. Al-Ajlouni**  
1/9/2012 - 15/9/2013



**Prof. Adnan M. Al-Smadi**  
14/9/2013 - 14/9/2015



**Prof. Bassam Harb**  
17/9/2015 - 1/9/2017



**Prof. Khaled Gharaibeh**  
10/9/2017 - 18/8/2018



**Prof. Ahmad M. Alshamali**  
19/8/2018 - 22/8/2020



**Prof. Mwaffaq Otoom**  
23/8/2020 - present

# Faculty Members

## Electronics Engineering Department

### Adnan Al-Smadi Professor

*Vanderbilt University, 1995  
Digital Signal Processing*

### Husam Hamad Professor

*University of Essex, 1995.  
Design and analysis of electronic circuits*

### Ahmad AL-Omari Professor

*Colorado State University, 2006  
Micro & Optoelectronics*

### Osama Khreis Professor

*Surrey University, 1998  
Optoelectronics*

### Abdallah Ababneh Professor

*Saarland University, 2009  
Mechatronics*

### Idrees Al-Kofahi Associate Professor

*Liverpool John Moores University, 1997  
Microelectronics*

### Ahmad Dagamseh Associate Professor

*The University of Twente, 2011  
Sensors and instrumentation*

### Zaid Albataineh Associate Professor

*Michigan State University, 2014  
Electrical and communication systems*

### Shadi Alboon Associate Professor

*University of Alabama in Huntsville,  
2008  
Optoelectronic, Optics*

### Yusra Obeidat Assistant Professor

*Colorado State University, USA, 2018  
Sensors and Electronics  
Instrumentation*

### Mohamad Al Smadi Lecturer

*Yarmouk University, 2010  
Power electronics*

### Ma'moun Tantawi Lecturer

*Jordan University of Science and  
Technology, 2010  
Electronics and communication*

## Communication Engineering Department

### Mohammed Bataineh Professor

*University of Wales, 1996  
Waves and Fields*

### Ahmad Alshamali Professor

*University of Wales, 1996  
Wireless Communication*

### Ahmad Al Ajlouni Professor

*Clarkson University, 1997  
Digital Signal Processing*

### Bassam Harb Professor

*University of Alabama, 1994  
Signal Processing and Communication  
Systems*

### Khaled Gharaibeh Professor

*North Carolina State University, 2004  
Wireless Communication*

### Ali Eyadeh Professor

*University of Wales/ Swansea, 1997  
Digital Communication*

### Ahmed AlShorman Professor

*University of Texas at El Paso, 2006  
Computer Networks*

### Haytham Bani Salameh Professor

*University of Arizona, 2009  
Wireless Communication Networks*

### Zuhair Hejazi Associate Professor

*University of Bradford, 1998  
Electromagnetic, Microwave, and  
Satellite and Radar Applications*

### Asem Al-Zoubi Associate Professor

*University of Mississippi, 2008  
Electromagnetic and Antennas*

### Mohammad Aloqlah Associate Professor

*Case Western Reserve University,  
2010  
Wireless Networks*

**Mohammad Albatainah**

**Associate Professor**

*Illinois Institute of Technology, 2010  
Digital Signal Processing*

**Rami Halloush**

**Associate Professor**

*Michigan State University, 2012  
Communication Networks*

**Eyad Alzreqi**

**Assistant Professor**

*University of New Mexico, 2012  
Electromagnetic and Antennas*

**Amjad Abu-Baker**

**Assistant Professor**

*New Mexico State University, 2012  
Wireless Communication and Networks*

**Asma Alqudah**

**Assistant Professor**

*The University of Alabama, 2016  
Communication Systems*

**Khaled Hayajneh**

**Assistant Professor**

*Queen's University, 2017  
Wireless Communication*

**Hamzeh Jaradat**

**Assistant Professor**

*University of Massachusetts Lowell,  
2014  
Electromagnetism and Microwaves*

**Sharief Abdel-Razeq**

**Assistant Professor**

*University of Connecticut, 2018  
Wireless Communication*

**Mohammad Rawashdeh**

**Assistant Professor**

*Michigan State University, 2018  
Electromagnetism*

**Hazim Shakhatreh**

**Assistant Professor**

*New Jersey Institute of Technology,  
2018  
Wireless Communication*

**Hasan Aldiabat**

**Assistant Professor**

*University of Minnesota, 2019  
Wireless Communication*

**Computer Engineering  
Department**

**Faruq Al-Omari**

**Professor**

*University of Texas at Arlington,  
1998  
Image Processing*

**Hussein Al-Zoubi**

**Professor**

*University of Alabama in Huntsville,  
2007  
Computer Networks and Multimedia*

**Mohammad Al-Jarrah**

**Professor**

*Ohio University, 2000  
Multimedia Systems*

**Mwaffaq Otoom**

**Professor**

*Virginia Tech, 2012  
Parallel Embedded Computing*

**Sami Al-Hamdan**

**Associate Professor**

*Liverpool John Moores University, 1996  
Computer Applications in Engineering  
System Design*

**Amin Alqudah**

**Associate Professor**

*Colorado State University, 2009  
Machine Learning and Image  
Processing*

**Atif Nsour**

**Associate Professor**

*Sind University, 1990  
Computer Based Traffic Control  
Solutions*

**Mahmood Al-khassaweneh**

**Associate Professor**

*Michigan State University, 2007  
Multimedia Security and Image  
Encryption*

**Zakaria M. Al-Qudah**

**Associate Professor**

*Case Western Reserve University,  
2010  
Computer Networks*

**Mohammad Halloush**

**Associate Professor**

*Michigan State University, 2009  
Computer Networks*

**Abdel-Karim Al-Tamimi**

**Associate Professor**

*Washington University, 2010  
Multimedia Systems*

**Mohammad Alzubaidi**

**Associate Professor**

*Arizona State University, 2012  
Machine Learning*

**Amin Jarrah**

**Associate Professor**

*University of Toledo, 2014  
Parallel Architecture and High  
Performance Computing*

**Haithem Al-Mefleh**

**Associate Professor**

*Iowa State University, 2009  
Computer Networks*

**Hisham Almasaeid**

**Associate Professor**

*Iowa State University, 2012  
Computer Networks*

**Osameh Al-Kofahi**  
**Associate Professor**

*Iowa State University, 2009*  
*Computer Networks*

**Abedalmuhti Almomany**  
**Associate Professor**

*University of Alabama, 2017*  
*Parallel and Ultra-Fast Processors*

**Manal Al-Bzoor**  
**Assistant Professor**

*University of Connecticut, 2014*  
*Computer Networks*

**Safaa Bataineh**  
**Assistant Professor**

*University of Deusto, 2017*  
*Modeling, Algorithms and their Applications*

**Yazan Al-Issa**  
**Assistant Professor**

*Clarkson University, 2014*  
*Pattern Recognition*

**Ola Taani**  
**Assistant Professor**

*Kansas State University, 2015*  
*Quantum Computing*

**Mahmoud Masadeh**  
**Assistant Professor**

*Concordia University, 2020*  
*Integrated Circuits*

**Maher Al-Omari**  
**Lecturer**

*Northrop University, 1982*  
*Computer Networking*

**Tasneem Dawahdeh**  
**Lecturer**

*Yarmouk University, 2012*  
*Embedded Systems*

**Electrical Power Engineering**  
**Department**

**Muwaffaq Alomoush**  
**Professor**

*Illinois Institute of Technology, 2000*  
*Power Systems*

**Mohammad Abderrazzaq Alzoubi**  
**Professor**

*Manchester University, 1997*  
*High Voltage Engineering*

**Yaser Anagreh**  
**Professor**

*University of Wales Swansea, 1998*  
*Electrical Machines & Electric Motor Drives*

**Ibrahim Altawil**  
**Associate Professor**

*University Collage of Swansea, 1996*  
*Electrical Machine and Power Electronics*

**Mohammad Momani**  
**Associate Professor**

*National University of Malaysia, 2007*  
*Power System Planning*

**Ala Hussein**  
**Associate Professor**

*University of Central Florida, 2011*  
*Energy Systems*

**Lina Alhmoud**  
**Associate Professor**

*Michigan State University, 2015*  
*Power and Energy*

**Ahmed Koran**  
**Associate Professor**

*Virginia Tech, 2013*  
*Power Electronics and Electric Motor Drives*

**Hussein Al-Masri**  
**Associate Professor**

*Texas A&M University, 2016*  
*Power and Energy*

**Ayman Al-Quraan**  
**Associate Professor**

*Concordia University, 2016*  
*Renewable Energy, Power Electronics, and Power Systems*

**Abedalgany Athamneh**  
**Assistant Professor**

*University of Texas at Arlington, 2009*  
*Power system protection*

**Ashraf Radaideh**  
**Assistant Professor**

*Iowa State University, 2017*  
*Power and Energy Systems*

**Asma'a Hatmi**  
**Lecturer**

*Yarmouk University, 2010*  
*Electrical power Engineering*

**Maha Zaquot**  
**Lecturer**

*Yarmouk University, 2007*  
*Automatic Control Systems*

**Nuha Radaydeh**  
**Lecturer**

*Jordan University of Science and Technology, 2008*  
*Power Systems and control*

**Biomedical Systems and Informatics Engineering**  
**Department**

**Awad Al-Zaben**  
**Professor**

*Colorado State University, 2003*  
*Medical Signal Processing*

**Amjad Al-Fahoum**  
**Professor**

*University of Wisconsin, 2001*  
*Electronics Measurements. Signal and Image Processing*

**Isam Abu-Qasmieh**  
**Associate Professor**

*University of Massachusetts Lowell, 2008*  
*Medical Imaging*

**Ahmad Al-Omari**  
**Associate Professor**

*The university of Georgia, 2015*  
*Bioinformatics and Biosystems*

**Hiam Alquran**  
**Associate Professor**

*UMASS Lowell, 2014*  
*Medical Systems*

**Ihssan Masad**  
**Associate Professor**

*Florida State University, 2011*  
*Biomedical Imaging Devices and Technologies*

**Bahaa Al-Sheikh**  
**Associate Professor**

*University of Denver, 2009*  
*Biomedical Signal Processing, Modeling, and Instrumentation*

**Qasem Qananwah**  
**Associate Professor**

*Karlsruhe Institute of Technology, 2013*  
*Biomedical Systems*

**Anas Abu-Doleh**  
**Assistant Professor**

*The Ohio State University, 2016*  
*Bioinformatics*

**Lina Al-Ebbini**  
**Assistant Professor**

*University of Massachusetts, 2016*  
*Informatics*

**Ateka Khader**  
**Assistant Professor**

*New Jersey Institute of Technology, Rutgers University, 2018*  
*Biomedical Systems Engineering*

**Shefa Tawalbeh**  
**Assistant Professor**

*State University of New York, 2020*  
*Biomedical Informatics*

**Sami Almashaqbeh**  
**Lecturer**

*University of Malaya, 2010*  
*Biomechanical engineering*

**Civil Engineering Department**

**Wajeeh Qassem**  
**Professor**

*University of Toledo, 1987*  
*Biomechanical Engineering*

**Hashem Al-Mattarneh**  
**Professor**

*Universiti Kebangsaan Malaysia, 2005*  
*Structural and Materials Engineering*

**Aiman Jaradat**  
**Associate Professor**

*Clarkson University, 2008*  
*Water and Environmental Engineering*

**Madhar Taamneh**  
**Associate Professor**

*Akron University, Ohio, 2009*  
*Transportation and Geotechnical Engineering*

**Randa Hatamleh**  
**Associate Professor**

*New Mexico State University, 1995*  
*Water and Environmental Engineering*

**Ahmad Alomari**  
**Associate Professor**

*University of Central Florida, 2015*  
*Transportation Engineering*

**Faris Matalakah**  
**Associate Professor**

*Michigan State University, 2017*  
*Structural and Materials Engineering*

**Ahmad Altarabsheh**  
**Assistant Professor**

*Purdue University, 2016*  
*Construction Project Management and Design*

**Ahmed Salama**  
**Assistant Professor**

*Al-Azhar University, 2014*  
*Structural and Materials Engineering*

**Walid Edris**  
**Assistant Professor**

*Castilla- La Mancha, 2013*  
*Structural and Materials Engineering*

**Mohammed Aldelgawy**  
**Assistant Professor**

*Cairo University, 2009*  
*Transportation Engineering*

**Yaser Jaradat**  
**Assistant Professor**

*University of Maryland, 2005*  
*Structural and Materials Engineering*

**Mohanad Khodier**  
**Assistant Professor**

*Utah State University, 2014*  
*Water and Environmental Engineering*

**Dua'a Telfah**  
**Assistant Professor**

*University of Genoa, 2018*  
*Water Resources Management*



**Musab Abuaddous**

**Assistant Professor**

*Marche Polytechnic University, 2016  
Transportation Engineering*

**Ali Shehadeh**

**Assistant Professor**

*University of Central Florida, 2019  
Construction Management and  
Engineering*

**Hamsa Nimer**

**Assistant Professor**

*Northeastern University, 2020  
Construction Management and  
Engineering*

**Walaa Darweesh**

**Lecturer**

*Jordan University of Science and  
Technology, 2014  
Transportation Engineering*

**Heba AL-Jabaly**

**Lecturer**

*University of Jordan, 2014  
Structural and Materials Engineering*

**Suzan Alateek**

**Lecturer**

*Kennesaw State University, 2012  
Construction Management and  
Engineering*

**Architectural Engineering  
Department**

**Zaid AlDeek**

**Associate Professor**

*Polytechnic of Milan, 1998  
Renewable Architectural and  
Technological Design*

**Mohammad Abu Hussien**

**Assistant Professor**

*University of Federico II Naples, 2001  
Planning & Architectural Design*

**Marwa Al-Khalidi**

**Assistant Professor**

*Lund University, 2018  
Urban Sociology*

**Muna Ibrahim**

**Assistant Professor**

*Lund University, 2019  
Healthcare Architecture & Wayfinding  
Design*

**Sahar Alrabadi**

**Assistant Professor**

*Lund University, 2020  
Urban Design & Public Spaces*

**Samia Ayyoub**

**Lecturer**

*Jordan University of Science and  
Technology, 2009  
Architectural Engineering*

**Ayah Alhusban**

**Lecturer**

*Jordan University of Science and  
Technology, 2016  
Architectural Engineering*

**Industrial Engineering  
Department**

**Ammar Al-Rousan**

**Professor**

*National Metallurgical Academy, 2003  
Industrial Heat and Power Engineering*

**Mahmoud Mistarihi**

**Associate Professor**

*Oklahoma State University, 2013  
Engineering Management*

**Ahmad Mumani**

**Assistant Professor**

*Iowa State University, 2018  
Modeling-Decision Making-Ergonomics*

**Dania Bani Hani**

**Assistant Professor**

*Auburn University, 2019  
Modeling-Fatigue analysis-  
occupational safety ergonomics*

**Ghazi Magableh**

**Assistant Professor**

*University of Arkansas, 2004  
Engineering Management*

**Sinan Obaidat**

**Assistant Professor**

*University of Arkansas, 2020  
Production systems and reliability  
Modeling-Decision making modeling*

**Alaa Towaiq**

**Lecturer**

*Jordan University of Science and  
Technology, 2015  
Industrial Engineering*

**Mechanical Engineering  
Department**

**Mohammad Ahmed Al zubi**

**Associate Professor**

*Wayne State Univrsity, 2012  
Thermal Power*

# Industrial Advisory Boards and Partners

## Industrial Advisory Boards

### Electronics Engineering Department

**Eng. Abdallah Tawalbeh**

Jordanian Engineers Association, Jordan  
Manager

**Eng. Loai Alsmadi**

Alsmadi for Electronics, Jordan  
Manager

**Eng. Issa Shatat**

Golden Electronics, Jordan  
Project Manager

**Eng. Bashar Zoubi**

SMART Company for Engineering Services, Jordan  
CEO

**Eng. Asim Bataineh**

LG Electronics, Jordan  
Manager

**Dr. Admoon Anderawes**

Bradford Company, Jordan  
CEO

**Eng. Nadine Tuhaimer**

Shamal Start, Jordan  
Fatlab Technical Manager

### Communication Engineering Department

**Eng. Abdallah Bany Amer**

Ministry of Digital Economy and Entrepreneurship  
Senior Engineer

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Umniah  
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**Eng. MutazAlnazir**

DAMAMAX  
Senior Engineer

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SAGO International Group, Jordan  
CEO

**Eng. Nidal Bitar**

Information and Communications Technology  
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**Mr. Hatem Habashneh**

Orange Jordan  
Entrepreneurship Director

**Mr. Horst Hermann**

Professional Start Company, Germany  
Manager

**Ms. Anna Abelein**

Protostart Company, Germany  
Manager

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First National Medical services  
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Doctor-Manager

**Eng. Mohammad Ali Hassan**

AlFaisaliah Healthcare Systems  
Engineer

**Mr. Gaith Salamh**

Electronic Health Solutions-Hakeem  
Director of the Department of Knowledge and Science

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First National Medical Services  
Engineer

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Director of Traffic Engineering Directorate  
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**Eng. Omar Manasrah**

Contracting Est.  
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**Eng. Fawzy Mahmoud Okour**

Directorate of Environmental Protection for Irbid  
Governorate

The Ministry of Environment

**Eng. Mahdi Anwar Naseer**

ARABTEC JARDANEH Company for Water and Environment  
CEO

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Jordanian Engineers Association  
Association Director of Jordanian Engineers  
Association - Irbid Branch

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Magma Engineering Industries Company  
Manager of Magma Engineering Industries  
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Greater Irbid Municipality  
Director of International Relations and Projects  
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Ministry of Investment  
Director of Urban Planning for Development and  
Free Zones

#### Eng. Abdullah Khaled Tawalbeh

Jordanian Engineers Association  
Association Director of Jordanian Engineers  
Association - Irbid Branch

#### Eng. Aseed Muhammad Al-Aitan

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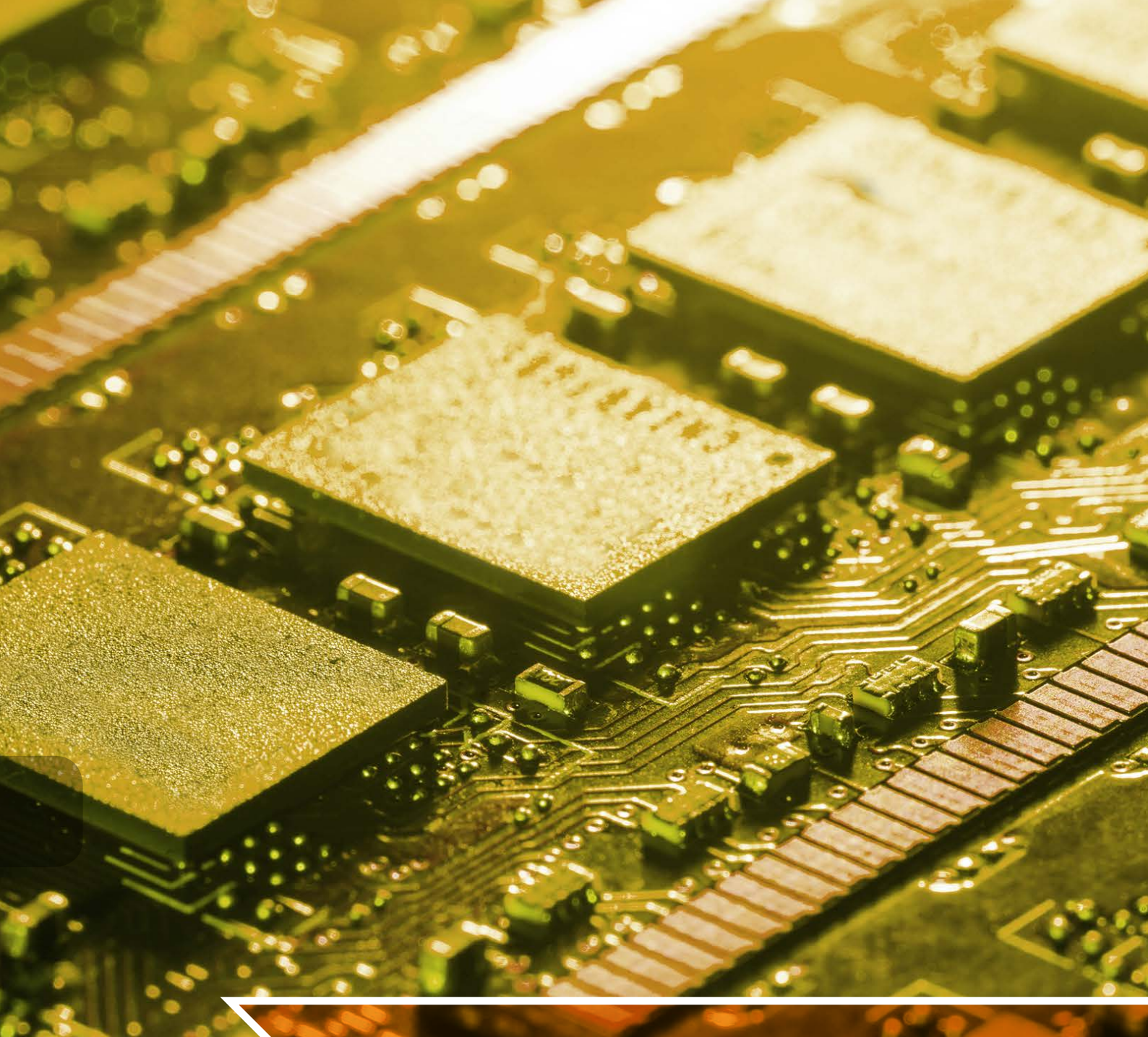
Irbid District Electricity Company  
Director at IDECO

#### Eng. Amer J. Shaban

National Electric Power Company  
Director at NEPCO

## Industrial Partners

Golden Electronics, Amman  
Jadara Electronics, Amman  
ShamalStart, Luminous company, Irbid  
MARS Robotics, Irbid  
Specialized Technical Services (STS) Company, Amman  
Orange, Jordan  
Zain, Jordan  
Umniah, Jordan  
CTS Computing Solutions, Irbid  
SITA Information Networking Computing, Amman  
National Electric Power Company (NEPCO), Amman  
Central Electricity Generation Company (CEGCO), Amman  
Irbid District Electricity Company (IDECO), Irbid  
Jordan Golden Cables Manufacturing Company, Amman  
Yarmouk Water Company, Irbid  
Jordanian Royal Medical Services, Amman  
First National Medical Services, Amman  
Jordan University Hospital, Amman  
King Abdullah University Hospital, Irbid  
Arabia for Medical and Agricultural Products, Amman  
UTIT (Universal for Trading & Information Technology Co UTIT), Amman  
Wi-Tribe, Amman  
T2.SA Company, Amman  
Greater Irbid Municipality, Irbid  
Ministry of Public Works & Housing, Amman  
Housing & Urban Development Corporation, Amman  
Jordan Phosphate Mines Company, Amman  
Jordan Cement Factories Company, Amman  
Jordan Petroleum Refinery Company  
Arab Potash Company  
Royal Jordanian (Aircraft Maintenance)  
Bitar Consultants, Amman  
Dar Al Omran - Planning, Architecture, Engineering, Amman  
Consolidated Consultant Group, Amman  
Royal Scientific Society, Amman  
Engineering Drawings Institute, Amman  
Royal Jordanian, Amman  
Luminous College, Amman  
Ivory Garment Factory, Amman  
Al-Rawi Company for Manufacturing Wires and Cables, Irbid  
The Jordanian Metal Smelting Factory, Amman  
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Jordan Design and Development Bureau  
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