Jordan Section   Mousa AL-Akhras

Section Vitality

Date of last Section elections: DEC 2023.

Date of next elections (Oct- Nov 2025: Tentative)

Do you have the practice of Vice-Chair becoming the next Section Chair: No. But this is an option.

Section ExCom meetings

Year 2024: 15/1/2024, 19/2/2024, 6/3/2024, 21/4/2024, 2/7/2024, 4/8/2024, 12/9/2024, 7/11/2024, 27/12/2024

Year 2025: 10/2/2025

We encourage our eligible members to apply for senior membership as statistics show senior members retention rate is higher than members' retention rate.

Latest statistics, as of 31/12/2024, showed that IEEE Jordan Section had a total of 3587 members of different grades. This is the largest number of members in its history with an increase of more than 900 members than the previous year.

Students

Student Branches (SBs): 23
1. Al al-Bayt University
2. Al-Ahliyya Amman University
3. Al-Balqa Applied University
4. Al-Balqa Applied University - Center
5. Al-Huson University College
6. Al-Hussein Bin Talal University
7. Al-Hussein Technical University
8. Al-Zaytoonah Univ Of Jordan
9. Amman Arab University - Jordan
10. Applied Science University
11. German Jordanian University
12. Hashemite University
13. Jadara University
14. Jordan University of Science & Technology
15. Middle East University
16. Mutah University
17. Philadelphia Univ
18. Princess Sumaya University for Technology
19. Tafila Technical University
20. University of Jordan
21. University of Petra
22. Yarmouk University
23. Zarqa University

The newly formed SBs:
1. Amman Arab University
2. Jadara University
3. Middle East University

The following diagram summarizes the student branches and different societies:

No.		Student Branch	WIE	SIGHT	AESS	APS	CS	CIS	COMS	EMBS	IAS	PES	IES	SPS	RAS	Eng. M	TEMS	CT	TOT
1	2022	Al Al-Bayt University (AABU)																	2
2	2005	Al-Ahliyyah Amman University (AmmanU)																	0
3	2006	Al-Balqa Applied University (BAU)									*	*							8
4	2018	Al-Balqa Applied University-Center (BAU-Center)																	3
5	2017	Al-Huson University College (HUSON)																	2
6	2014	Al-Hussein Bin Talal University (AHU)																	1
7	2019	Al-Hussein Technical University (HTU)																	1
8	2016	Al-Zaytoonah University of Jordan (ZUJ)							*					*					3
10	2024	Amman Arab University (AAU)																	1
11	2019	Applied Science University (ASU)																	0
12	2009	German Jordanian University (GJU)																	10
13	2002	Hashemite University (HU)									*	*							6
14	2025	Jadara University																	0
15	1996	Jordan Uni. for Science and Technology (JUST)																	7
16	2024	Middle East University (MEU)																	0
17	2008	Mutah University (MUTAH)																	3
18	2018	Philadelphia University (PHU)																	3
19	2000	Princess Sumaya University for Technology (PSUT)																	5
20	2018	Tafila Technical University (TTU)																	5
22	1998	University of Jordan (JU)																	8
23	2018	University of Petra (UOP)																	1
24	2006	Yarmouk University (YU)																	8
25	2024	Zarqa University (ZU)																	0
			12	4	3	1	15	3	5	4	5	10	1	2	12	1	1	1	75

Star indicates a joint student chapter/affinity group.
Red circles indicate newly formed student chapter/affinity group.

Geographical distribution
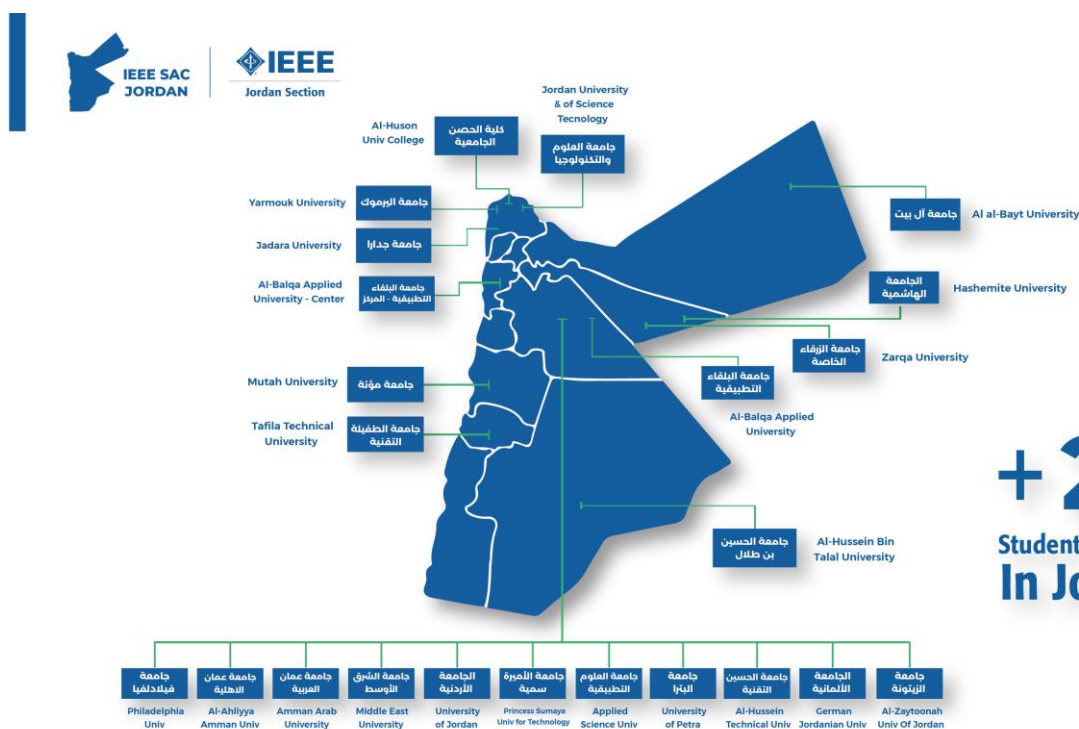
+23 Student Branches In Jordan

IEEE SAC JORDAN

IEEE Student Activities Committee (SAC)

Some of the events from are from the previous year – not mentioned in previous reports

Counselors Meeting - 11/7/2024
The meeting aimed to introduce the primary role of SAC and their future plans. Also involved a discussion about the updated rules and procedures for student branch elections at universities. The meeting received high praise from the attendees, fostering a productive dialogue between the Counselors and the SAC committee.

IEEE Region 8 Student and Young Professional Congress 2024, France - 15–19/7/2024
The SAC team and a group of students from Jordan participated in the IEEE Region 8 Students & Young Professionals (SYP) Congress - Grenoble 2024. This annual event, the largest in Region 8, brought together 300 attendees from 56 countries.

Student Branches Chairs Meeting - 1/8/2024
The meeting aimed to introduce the primary role of SAC and their future plans. Also involved a discussion about the updated rules and procedures for student branch elections at universities.

IEEE R8 Student Branch Counselor Training Program 2024, Italy - 17–18/9/2024

The SAC team shared the opportunity for this training and followed up with the counselors, resulting in the acceptance of seven student branch counselors from Jordan. The training, organized by IEEE R8 SAC in Lecce, Italy, took place over two days, where the counselors gained valuable knowledge and exchanged experiences with their peers from across the region.

IEEE SAC Training for Counselors and Student Branches Chairs -26/10/2024

This training equips IEEE Student Branch leaders with essential skills in branch management, student engagement, event planning, and funding. It covers IEEE policies, SAC initiatives, and best practices to enhance leadership and student involvement.
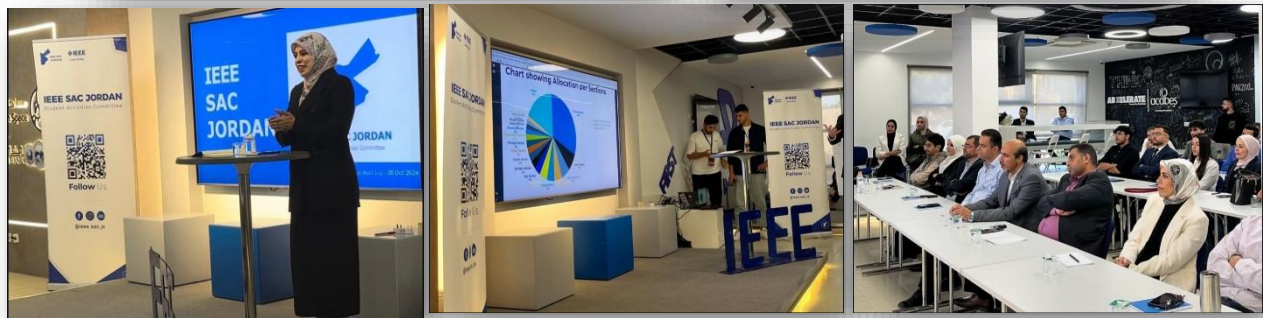
Leaders Program -15/11/2024 – 6/12/2024

A four sessions training program delivered by IEEE SAC Jordan is a specialized initiative for IEEE student officers, equipping them with leadership skills and tools to elevate their student branches. It covers global leadership, IEEE resources, societies, opportunities, awards, and funding, helping student branches grow and thrive on an international level.

IEEE R8 Sectional SB Chapters Coordinator Training 2024+ IEEE Tunisia Student and Young Professional Congress 2024, Tunisia, 20–24/12/2024

The SAC participated in the Sectional SB Chapters Coordinator Training organized by IEEE R8 SAC in Tunisia. Following the training, they represented Jordan at the IEEE TSYP congress.


IEEE Multi Sports League – 17/2/2025

The largest sports league in Jordan was organized and executed for the first time, featuring four simultaneous tournaments: football, table tennis, badminton, and chess. The event brought together 10 student branches and attracted around 250 attendees.

WhatsApp Community Group:
The community aims to connect all officers from across Jordan, exchange ideas, collaborate on projects, and stay up to date with the latest news.
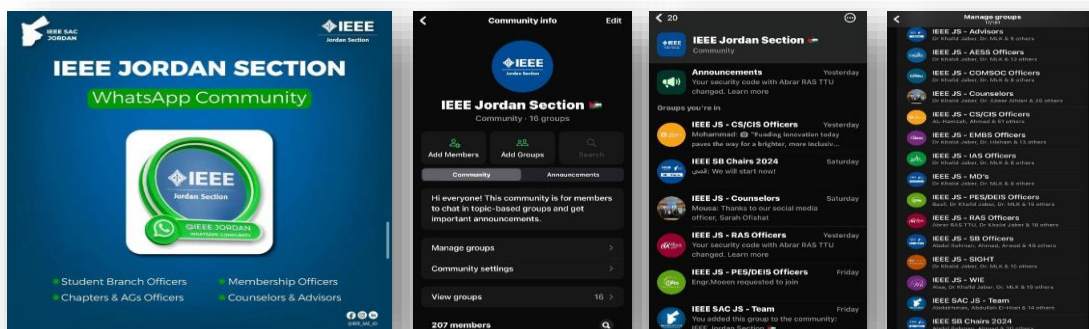
IEEE SAC Jordan: Branding, Growth, and Team Formation:

In 2024, the role of the Student Activities Committee (SAC) in Jordan was activated, along with the development of a complete logo and brand identity, as well as strengthening its presence on social media. A dedicated team was established to launch initiatives and projects that benefited hundreds of members and officers, creating a lasting impact that will continue for years. This contributed to significant growth across various aspects, maximizing the benefits of the vast opportunities offered by IEEE.

IEEE Rebate/Allotments:

A comprehensive plan was developed to track and fulfill the rebate requirements for all student branches in Jordan through regular follow-ups, training sessions, and meetings. As a result, for the first time in Jordan, all 21 student branches successfully met the requirements.

Launching the IEEE SAC JO YouTube Channel

A dedicated SAC YouTube channel was launched to archive and preserve all training sessions and workshops, ensuring their long-term impact. Additionally, multiple playlists were curated to cover important IEEE topics.

Affinity Groups

Jordan Section Affinity Group, Life Members Affinity Group (LMAG)
Jordan Section Affinity Group, Women in Engineering (WiE)
Jordan Section Affinity Group, Young Professional
The Special Interest Group on Humanitarian Technology (SIGHT)

SB AGs

Al al-Bayt University, WIE
Al-Balqa Applied University - Center, WIE
Al-Balqa Applied University, WIE
Al-Huson University College, WIE
German Jordanian University, WIE
Hashemite University, WIE
Jordan University of Science and Tech, WIE
Mutah University, WIE
Princess Sumaya University for Technology, WIE
Tafila Technical University, WIE
University of Jordan, WIE
Yarmouk University, WIE

Al-Balqa Applied University, SIGHT
Al-Huson University College, SIGHT
Hashemite University SB SIGHT
Tafila Technical University SB SIGHT

The newly formed SB AGs:

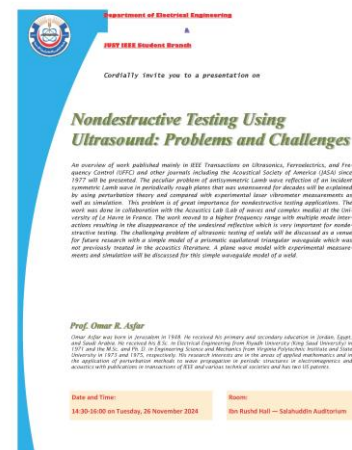Al al-Bayt University, WIE
Hashemite University SB SIGHT

Jordan Section Affinity Group, Life Members Affinity Group (LMAG)

1. While Professor Mohammed Zeki Mohammed, the chairman of LMAG Jordan was on a private visit to Iraq, he delivered a lecture at Faculty of Education – University of Mosul on 12th Nov. 2024. He was introduced as a Life senior member of IEEE and he is the chairman of LMAG Jordan.
   The lecture was entitled: **Artificial Intelligence in Education**
   The lecture was attended by more than 100 students and staff members.
   Discussion followed and AI resources in IEEE literature was mentioned.

2. A meeting for the LMAG members was held online on 20/11/2024
   The meeting was attended by
   - Professor Mohammed Zeki Mohammed
   - Professor Mohammed Kamel Mohammed
   - Professor Omar Asfar
   During the meeting, the future activities of LMAG were discussed.
   It was decided to meet with women engineers of IEEE the following day.

3. A meeting was held via zoom with Women in Engineering and mentor in a mentorship program with female students and women members of IEEE on 21/11/2024
   The meeting was attended by
   - Professor Mohammed Zeki Mohammed
   - Professor Mohammed Kamel Mohammed
   - Professor Omar Asfar
   Each of the members gave a short review of his experience with IEEE both from academic and industrial experience. Discussions took place and questions by students were answered

4. Nondestructive Testing Using Ultrasound: Problems and Challenges - Prof. Omar R.. Asfar - 26/11/2024, Ibn Rushd Hall — Salahuddin Auditorium

Jordan Section Affinity Group, Women in Engineering (WIE)

Website: https://r8.ieee.org/jordan-wie/call-for-papers/

Facebook: https://web.facebook.com/profile.php?id=61552600025817

LinkedIn: https://www.linkedin.com/in/ieee-jordan-section-wie-ag-2b7958297/

Women's role in the gaming industry and technology, Via ZOOM, 31/10/2024

This event was mainly to talk about Women's Role in Gaming industry and Technology. featuring a panel of distinguished Jordanian women in these fields. Join Dr. Ruba AlKhasawneh, Dr. Anastassia Gharib, lecturer Dania Al-Said, and entrepreneur Layal Al-Khatib for an insightful discussion filled with knowledge and interaction.

Our event was under the patronage of the esteemed guest Celia Shahnaz, The IEEE WIE Committee Chair.

IEEE Attended: 32, Guests Attended: 20
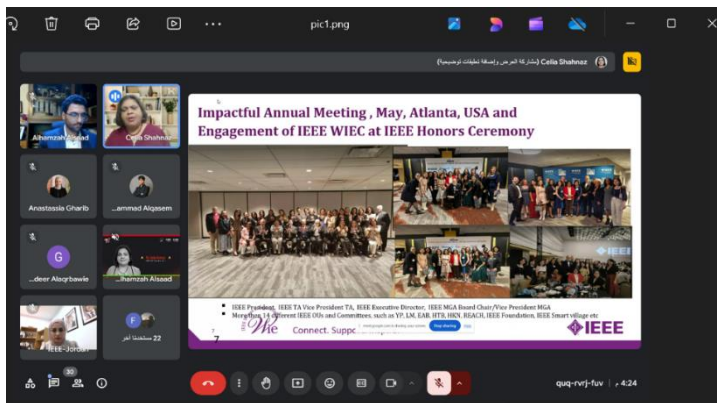
Introduction to Matlab, Google Meet, 14/9/2024

This workshop was free of charge and primarily aimed at engineering students. It covered the basics of Matlab and included training on how to use various commands and instruction How to start with Matlab, Matlab Tricks, Coding, Plotting, Introduction to simulation. **IEEE Attended: 25, Guests Attended: 30**

Introduction to Python, Google Meet, 12/9/2024

this workshop targeted engineering students from Jordanian universities, it covered: Introduction of programming, Difference between compiler and interpreter Python history, Uses of python, Syntax of python, Display projects of python, **IEEE Attended**: 25, **Guests Attended:** 30
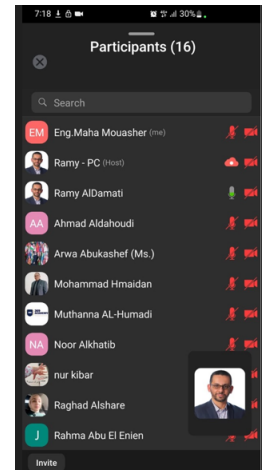
WIE-Jordan Mentorship Program: Metaverse Platforms for Building Your Space and Experiencing It, Via ZOOM, 4/9/2024

As part of the WIE Jordan mentorship program, we had collaborated with MetaServ.ME to offer our mentees the " Metaverse Symposiums - Season 1" series.

This initiative was run for two months started in August and was hosted on the MetaServ ME Academy platform, which specializes in modern technologies such as artificial intelligence, metaverse, fintech, and more.Exclusive sessions for mentees will include special site and virtual visits to companies to provide deeper insights into the metaverse.

Workshop discussed : From this workshop we learned about *"Metaverse: Promising Future or a Risky Bubble"*, **IEEE Attended: 16, Guests Attended: 1**

WIE-Jordan Mentorship Program: Get to know "Life members Jordan", Via ZOOM, 21/11//2024

As part of the WIE Jordan Mentorship Program, this session is conducted to help the mentees to gain insights into the IEEE Jordan Life Members Affinity Groups and their interesting journey with IEEE.

  The professors shared insights about the founding of the Life Seniors branch within IEEE and its growth in the Middle East, particularly in Jordan. They highlighted their achievements and efforts in developing and establishing the branch in the region. The discussion also covered the membership process, its benefits, and the goals of the Life Seniors branch. **IEEE Attended: 16, Guests Attended: 0**

WIE-Jordan Mentorship Program: Get to know YPs in Jordan, Via ZOOM, 22/10/2024

Topics Discussed: YP Goals, YP Congresses, Activities, New Initiatives, Engagement Platforms, Personal Journey

IEEE Attended: 16, Guests Attended: 0

WIE-Jordan Mentorship Program 2024 Closing Ceremony, Geneva Hotel, 1/2/2025

we celebrated the conclusion of the WIE-Jordan Mentorship Program 2024. This program, which was launched for the first time in 2023, was carefully planned by the WIE ExCom and successfully implemented in 2024. We offered a range of workshops and meetings for mentees, who were senior female students from various Jordanian universities. We're thrilled to have connected them with industry professionals and provided valuable guidance to help them develop both their soft and technical skills for their future careers. Our goal was to help the m decide whether their future path would lead them toward industry or academia. **IEEE Attended: 9, Guests Attended: 0**

IEEE-Jordan Section WIE Open Day 2024 Retreat Trip, Ajloun, 21/9/2024

As a reward for the dedication and hard work contributed to the IEEE-Jordan Section WIE Open Day 2024, a retreat trip was organized for the volunteers and committee members. The trip included visits to Mar Elias, Ajloun Castle, and Teleferik.

IEEE Attended: 11, Guests Attended: 0

Jordan Section Affinity Group, Young Professional

Facebook: https://www.facebook.com/IEEEYPJO/?_rdc=2&_rdr

Instagram: https://www.instagram.com/ieee_jordan_yp/

LinkedIn: https://jo.linkedin.com/company/ieeeypjo

IEEE Region 8 Middle East Students and Young Professionals Congress, 23-24/2/2024, Hilton Amman Jordan

IEEE Region 8 Middle East Students and Young Professionals Congress (MESYP 2023) , Organized by IEEE Young Professionals Jordan, the Congress was held on February 23-24, 2024, in Hilton Amman Hotel(Amman, Jordan), gathering over 250 participants from 15+ countries across the Middle East and North Africa. The congress provided a platform for knowledge exchange, networking, and professional development for IEEE members, students, and young professionals.
With the theme "Space and Astronomy in Engineering," MESYP 2023 focused on the latest advancements in space technologies and their applications in engineering. The event featured technical workshops, leadership sessions, and panel discussions led by industry and academic experts, fostering collaboration and innovation in the region.

Xpand Conference 2025, 11 – 12/5/2024 Hilton Dead Sea, Jordan

IEEE Young Professionals Jordan served as a Community Partner at Xpand Conference 2025, the leading software development conference in the MENA region. The event brought together over 2,000 attendees from across the software industry, including developers, architects, product managers, team leads, and CTOs.

Xpand Conference 2025 focused on the latest trends and advancements in software development, providing a platform for deep technical discussions, knowledge exchange, and professional networking. The program featured expert-led sessions, technical workshops, and panel discussions on cutting-edge technologies shaping the future of software development.

IEEE Mentoring Meet Jordan 2024, 21/9/2024 – Ayas Hotel Amman, Jordan

Organized by IEEE Young Professionals Jordan, the IEEE Mentoring Meet Jordan 2024 took place on September 21, 2024, bringing together students, recent graduates, and professionals for a structured mentorship and networking experience. The event aimed to connect aspiring engineers with experienced mentors, fostering career development, skill-building, and industry insights.

The program featured interactive group discussions, one-on-one mentoring sessions, and expert-led workshops, providing a platform for meaningful connections and long-term professional growth. By bridging the gap between academia and industry, IEEE Mentoring Meet Jordan 2024 contributed to empowering the next generation of professionals.

IEEE YP Jordan Climate and Sustainability Initiatives, 1/11/2024

IEEE Young Professionals Jordan has recently launched its Climate and Sustainability Initiatives, aimed at promoting climate action, sustainability, and innovation. The initiatives focus on engaging young professionals in renewable energy, sustainable technology, and environmental resilience efforts.

Through workshops, awareness campaigns, and collaborative projects, IEEE YP Jordan is committed to fostering a community dedicated to sustainability and contributing to global environmental goals.

Participate in the IEEE CS Region 8 Students and Young Professionals Congress 2024 30/11/2024-3/12/2024 - Knowledge Hub Universities Cairo, Egypt

IEEE Young Professionals Jordan participated in the IEEE CS Region 8 Students & Young Professionals (SYP) Congress 2024, held in Egypt. The congress, being the first of its kind in Region 8, aimed to foster collaboration, networking, and career growth opportunities for students and young professionals in computer science and emerging technologies.

As part of our engagement, IEEE YP Jordan contributed to discussions, attended technical and sessions. Our efforts were recognized with a 2nd place award in the poster session battle. This participation provided valuable insights and strengthened our connections within the IEEE Computer Society and Region 8 community.

The Special Interest Group on Humanitarian Technology (SIGHT)

TECH 4 HUMAN SAKE

30/11/2024

This event unites sustainability, leadership, and engineering to benefit humanity. Experts and participants will explore innovative solutions to global challenges through workshops, panels, and networking. Key topics include:

- **AI**: Transforming humanitarian efforts
- **Cybersecurity**: Safeguarding sensitive data
- **Data Science**: Driving impactful decisions

Future Vision for Orphans

Under the theme "Future Vision," IEEE SIGHT Jordan organized an inspiring event at the Marka Families Association, engaging over 40 children in creative, technology-driven activities. More than just a gathering, it was a moment of joy, learning, and hope, proving that technology is not just about circuits and equations but a bridge to humanity. Every smile and moment of wonder reflected the impact of small actions in creating meaningful change. This event reinforced our belief that technology is a tool to build a brighter future for all.

Leaders and Members Meetings

We organized a meeting for the leaders to discuss the new year's plan, introduce new leaders, and review each team's goals and work processes. This gathering fostered collaboration, alignment, and strategic planning for a successful year ahead.

Additionally, we held an online meeting for all SIGHT members, where we introduced our main plan and got to know each other, strengthening our sense of community and shared purpose.

SMART AEROPONIC SYSTEM

We are currently working on developing and improving the Vertical Farming Project. To enhance its impact, we distributed a survey among farmers and professionals in related fields to gather insights. Additionally, we are applying for the Tech 4 Good Fund to support and advance this initiative.

Expanding SIGHT Student Branches

The IEEE Jordan Section SIGHT team has played a role in establishing SIGHT student branches in universities, including the IEEE Hashemite University SIGHT Student Branch, and is currently working on opening a new branch at Applied Science private university to expand the impact of humanitarian technology and empower students to drive positive change in their communities.

Chapters

We have 6 technical chapters/Joint Chapters, 7 Local Groups, and 59 Student Branch Chapters

Technical Chapters

Jordan Section Chapter, RA24

Jordan Section Chapter, EMB18

Jordan Section Chapter, IA34

Jordan Section Jt Chap, PE31/DEI32

Jordan Section Jt Chap, CIS11/C16

Jordan Section Jt. Chapter, SP01/COM19

Local Groups

IEEE Jordan AI, Machine & Deep Learning, CV, LLM Grp

IEEE Jordan Chip Design Group

IEEE Jordan Section Cybersecurity Group

IEEE Jordan YP Climate & Sustainable Initiatives

IEEE Jordan Internet of Things (IoT) Group

IEEE Jordan Section AESS Group

IEEE Jordan ROS

Student Branch Chapters

Al al-Bayt University, C16

Al-Balqa Applied University - Center, C16

Al-Balqa Applied University - Center, RA24

Al-Balqa Applied University, AES10

Al-Balqa Applied University, C16

Al-Balqa Applied University, COM19

Al-Balqa Applied University, PE31/IA34

Al-Balqa Applied University, RA24

Al-Balqa Applied University, SP01

Al-Hussein Bin Talal University, C16

Al-Hussein Technical University, RA24

Al-Zaytoonah Univ Of Jordan, SP01/COM19

Al-Zaytoonah University of Jordan, C16

Al-Zaytoonah University of Jordan, RA24

Amman Arab University - Jordan, C16

German Jordanian University, C16

German Jordanian University, CT08

German Jordanian University, EMB18

German Jordanian University, IA34

German Jordanian University, IE13

German Jordanian University, PE31

German Jordanian University, RA24

German Jordanian University, TEM14

Hashemite University, C16

Hashemite University, EMB18

Hashemite University, PE31/IA34

Hashemite University, RA24

Jordan University of Science & Technology, C16
Jordan University of Science & Technology, CIS11
Jordan University of Science & Technology, EMB18
Jordan University of Science & Technology, IA34
Jordan University of Science & Technology, PE31
Jordan University of Science & Technology, RA24
Mutah University, C16
Mutah University, PE31
Philadelphia Univ, C16
Philadelphia Univ, PE31
Philadelphia Univ, RA24
Princess Sumaya University for Technology, C16
Princess Sumaya University for Technology, COM19
Princess Sumaya University for Technology, PE31
Princess Sumaya University for Technology, RA24
Tafila Technical University, C16
Tafila Technical University, PE31
Tafila Technical University, RA24
University of Jordan, AES10
University of Jordan, AP03
University of Jordan, C16
University of Jordan, CIS11
University of Jordan, COM19
University of Jordan, PE31
University of Jordan, RA24
University of Petra, CIS11
Yarmouk University, AES10
Yarmouk University, C16
Yarmouk Univ, COM19
Yarmouk University, EMB18
Yarmouk University, IA34
Yarmouk Univ, PE31
Yarmouk Univ, RA24

The newly formed SB Chapters:
Al-Balqa Applied University - Center, RA24
Al-Zaytoonah University of Jordan, C16
Al-Zaytoonah University of Jordan, RA24
Amman Arab University - Jordan, C16
Jordan University of Science & Technology, CIS11

Activities of the technical Chapters

Jordan Section Chapter, RA24

1- 10/2/2025. Two distinguished lectures which provided valuable insights into the latest advancements in robotics, automation, and AI:

    a. **Title: AI-Driven Robotics: Challenges and Opportunities**
    Speaker: Professor Dinesh Manocha
    Paul Chrisman Iribe Professor of Computer Science and Electrical & Computer Engineering
    Distinguished University Professor, University of Maryland, College Park

    b. **Title: Dynamics-Aware Learning: From Simulated Reality to the Physical World**
    Speaker: Professor Ming Lin
    Dr. Barry Mersky and Capital One E-Nnovate Endowed Professor;
    Distinguished University Professor, University of Maryland, College Park

2- The Robotics Operating System (ROS 2) Workshop, the event which took place between 09/02/2025-13/02/2025 was organized in collaboration between IEEE Jordan Section and RAS and Al Hussein Technical University (HTU). This workshop brings together academic professionals from various Jordanian universities and industry experts to explore the powerful capabilities of ROS 2 for modern robotics applications.
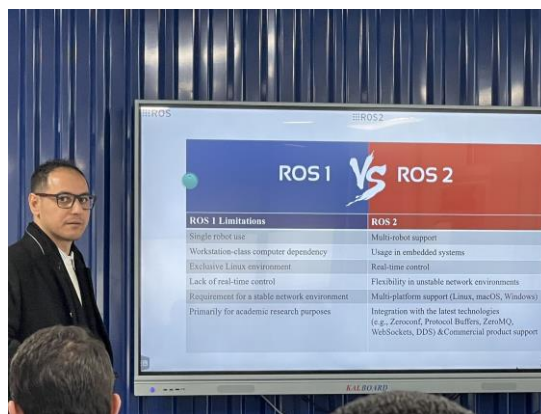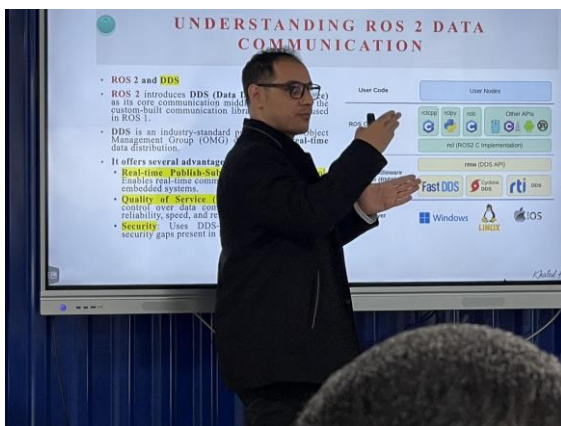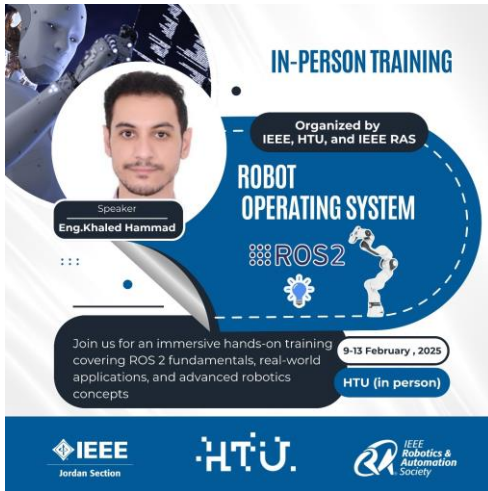
3- 20/02/2025 an administrative meeting was held with the chairs of RAS student branches from 12 Jordanian universities. This gathering was a great opportunity to exchange ideas, discuss challenges, and plan future activities that will enhance robotics and automation education and innovation in Jordan.

Our discussions covered several key topics, including:

    a. Training & Workshops – Expanding opportunities for students to develop hands-on skills. Focus will be on ROS2

    b. Competitions – Encouraging participation in regional and international robotics competitions.

        i. fire fighting robotics

        ii. maze robotics

        iii. football robots

        iv. autonomous line followers robots and navigators

        v. modeling and simulation using MATLAB Simulink

        vi. AI and coding

c. Lectures & Events – Organizing expert talks and networking opportunities.

d. Collaboration – Strengthening partnerships between universities, industry, and IEEE RAS.

Jordan Section Chapter, EMB18

1. Invited Talk at the 1t IEEE EMBS Egypt Symposium (December 2024)

EMBS Jordan Chapter was invited to participate in the1st IEEE EMBS Egypt Annual meeting. The chair of the EMBS Jordan Chapter, Dr. Hisham ElMoaqet delivered a scientific talk on the use of deep recurrent networks for the detection of sleep apnea events using single channel respiration signals.

2. EMBS National Day (November 2024)

EMBS Jordan National is an event that was organized for the first time in Jordan as an initiative of the EMBS Jordan Chapter to allow EMBS Student Chapters to get together in one event that can integrate all EMBS members in Jordan in a one large scale event. This year's event was hosted and organized mainly by Yarmouk University EMBS Student Chapter with active participation of EMBS Chapters in German Jordanian University and the Hashemite University.

The event included a range of activities that varied between lectures and interactive presentations, where a group of distinguished engineers were hosted from leading companies in the field of medical engineering, who talked about the nature of the medical engineer's work and the latest developments in this vital field. Products and projects from companies specialized in medical engineering and technology were also presented, with the aim of bridging the gap between the academic and professional sides.

The event also included a competition for the best project in medical engineering, in which about 20 contestants participated. The projects were evaluated by a specialized committee composed of prestigious university professors, and the top three finishers in the competition were honored. The participation was wide, and included medical engineering students from various Jordanian universities, which contributed to building strong relationships between students of this major at the level of the Kingdom. The event was also an opportunity to introduce other disciplines to biomedical engineering and benefit from their expertise.

This event was arguably the largest gathering of medical engineering experts for the first time in Jordan

3. EMBS Invited Distinguished Lecturer visit to Jordan (November 2024)

As a part of the EMBS Distinguished Lecturers Program, the EMBS Jodan Chapter hosted Professor Spyretta Golemati from the Medical School of the National & Kapodistrian University of Athens. Prof. Golemati delivered interesting talks   about Novel ultrasound imaging markers of vascular function for predicting cardiovascular events.

These lectures were given to

1. IEEE GJU EMBS Student Chapter at the German Jordanian University
2. IEEE HU EMBS Student Chapter at The Hashemite University
3. IEEE EMBS JORDAN Chapter and IEEE Jordan Section ExCom

Jordan Section Chapter, IA34

1. **Tech Seminar and Interactive Tour about Industry 4.0: From Evolution to Application** in (23/11/2024) by Eng. Dana Al-Qada' of Jordan Industry 4.0 and Digitalization Innovation Center, InJo4.0 Center, Amman, Jordan. (https://events.vtools.ieee.org/m/446581).

   This seminar explores the evolution of industrial revolutions, from mechanization to Industry 4.0, highlighting how technological advancements have shaped manufacturing and enabled "Smart Factories." It examines key manufacturing KPIs that drive Industry 4.0 adoption, improving productivity, quality control, and efficiency. Topics include smart sensors for real-time monitoring, IoT for interconnected systems, and Digital Twins for process optimization. Attendees will also explore the impact of Robotics and AR on automation and human-machine interaction. The seminar concludes with a hands-on tour of the InJo4.0 Labs, demonstrating real-world applications of Industry 4.0 technologies and bridging theory with practice

2. **Tech Seminar about Voltage Optimizers and LED lighting Fixtures for the Industry** in (1/2/2025) by Eng. Nidhal Akhras, Eng. Dhirar Akhras, and Eng. Khalid Hijjawi, Jordan Chamber of Industry, Amman, Jordan. (https://events.vtools.ieee.org/m/473929).

   Energy efficiency is a key priority for modern industries striving to reduce operational costs and environmental impact. This seminar explores two essential technologies—Voltage Optimizers and LED Lighting Fixtures—that significantly enhance energy efficiency and sustainability in industrial settings.
   The session will cover the role of Voltage Optimizers in stabilizing voltage supply, reducing energy waste, and extending equipment lifespan by preventing overvoltage-related issues. Additionally, the seminar will highlight the advantages of LED Lighting Fixtures, including lower power consumption, enhanced durability, and improved illumination quality for industrial environments. Through case studies and real-world applications, participants will gain insights into how these technologies contribute to cost savings, operational efficiency, and a reduced carbon footprint. The seminar will conclude with a discussion on best practices for integrating Voltage Optimizers and LED lighting in industrial facilities to maximize energy efficiency and long-term benefits.

Jordan Section Jt Chap, PE31/DEI32

1. **Technical visit to Gulf Cables and Electrical Industries Company**
    - **Objective:** The aim of the visit is to provide students with practical exposure to the electrical Medium Voltage (MV) and Low Voltage (LV) electrical cables manufacturing process. Especially, the visit provides an opportunity to connect classroom concepts with real-world applications.
    - **Date:** 7th Dec 2024, 09:00 – 16:00
    - **Place:** Mafraq, Jordan
    - **Participants:** ~ 45 undergraduate students
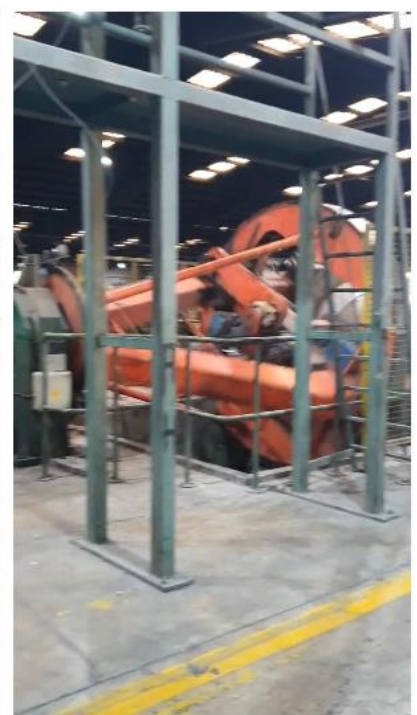
2. **Role of Batteries in PV-rich Distribution Networks under Net-Billing Energy Policy – Workshop**
   - **Objective:** The workshop aimed to provide professional engineers at Jordan Renewable Energy and Energy Efficiency funds (JREEEF) with better understanding about the role of residential batteries under different renewable energy policy schemes.
    - **Date:** 14th Nov 2024, 10:30 – 14:00
    - **Place:** Jordan Renewable Energy and Energy Efficiency funds (JREEEF), Amman, Jordan
    - **Speaker:** Dr. Sereen Althaher
    - **Participants:** ~ 20 professional engineers
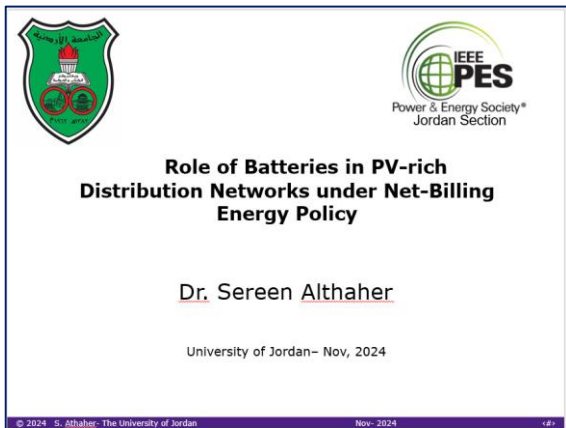
3. **Training in PVsyst Software - Online Workshop**
   - **Objective:** The training aimed at providing undergraduate students and young professional engineers with the necessary knowledge to design solar Photovoltaic (PV) systems using PVsyst software
   - **Date:** 28th Nov 2024, 17:00 – 20:00
   - **Platform:** MS teams
   - **Speakers: Dr. Saed Al-Thawabya and Eng. Belal AlSalaymeh**
   - **Participants:** ~ 30 undergraduate students and professional engineers
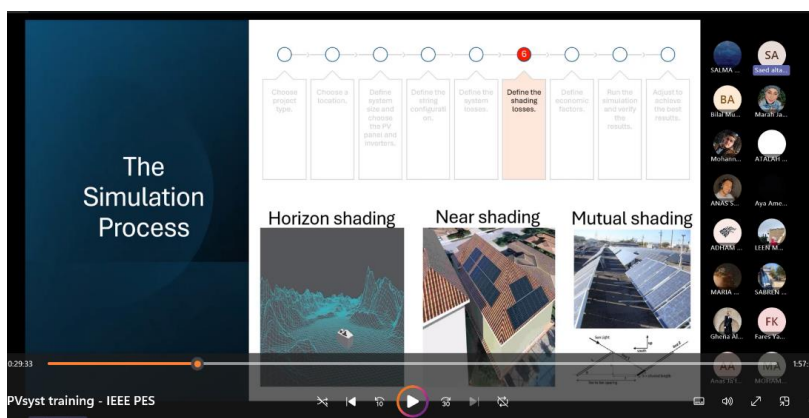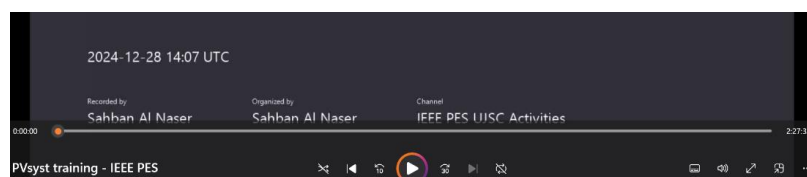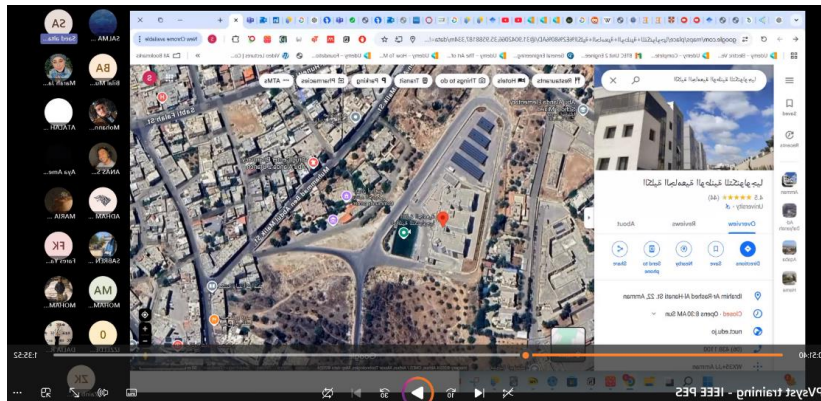
4. **On the Role of Robots for cleaning solar PV panels - Awareness Technical Seminar**
   - **Objective:** The seminar was organized in collaboration between the University of Jordan and Darbco for solar cleaning solutions. The seminar aimed to provide participants (academics and engineers) with insights about the recent Technologies particularly robots utilized for cleaning solar PV panels.
   - **Date:** 6ᵗʰ Nov 2024, 09:30 – 13:00
   - **Place:** The University of Jordan
   - **Speaker:** Eng. Munther Fadel
   - **Participants:** ~ 10 professional engineers
   -

Jordan Section Jt Chap, CIS11/C16

1. **Elite Agents Competition (CIS11/C16 Joint Chapter was Co-Organizer)**
   a. Security Competition done in collaboration with the CS student chapter at the Hashemite University.
   b. 25 teams participated from Jordanian Universities to solve security challenges

2. **IEEEXtreme 18.0 -25-26/10/2024**

   a. Co-Organized the IEEE Xtreme 18.0 in collaboration with the student branch at the Al-Hussien Technical University
   b. The competition was hosted at Al-Hussien Technical University
   c. 250 students participated in the competition at the hosted university.

The SAC team also contributed to selecting the host student branch for IEEEXtreme, organizing the competition, and promoting the event in Jordan.

Jordan Section ranked 8th in participation with 453 participants, earning the titles of Best Leader and Co-Leader, and having a team finish 7th worldwide.

Closing Ceremony

3. **Developing Business Applicatons Using LLMs Vs. Traditional ML Development (Online Lecture), 22/2/2025**
    Speaker: Dr. Ebrahim Alareqi from Incorta company.

Jordan Section Jt. Chapter, SP01/COM19

On **February 22, 2025,** in collaboration with the **Jordan IoT Local Group**, we organized a **"Hands-on IoT Workshop: Wireless Sensor Networks and Device Communication"** at **Princess Sumaya University for Technology (PSUT)**. This workshop provided **professionals and students** with **practical experience** in **IoT technologies**, focusing on wireless sensor networks and device communication. Such initiatives reflect our dedication to equipping the Jordanian engineering community with cutting-edge skills in **emerging technologies.**

Sample Activities of the local groups

IEEE Jordan AI, Machine & Deep Learning, CV, LLM Grp

Weekly online webinars in various topics related to the group specialty

https://jordan.ieee.org/ai-machine-learning-deep-learning-computer-vision-and-llm-group/

1- Leveraging AI in Medical Education & Health Care – 7/12/2024, Dr. Mona Hmoud AlSheikh
2- Deep Learning for Biomedical Signal Processing 4/1/2025, Professor Awad Al-Zaben
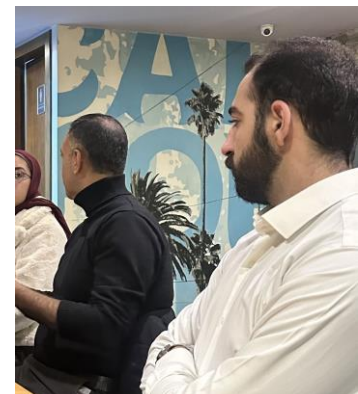3- AI and advances in the Medical sector (an Incomplete tale), 1/2/2025, Prof. M. Sohel Rahman

IEEE Jordan Internet of Things (IoT) Group

Regular meetings related to the industry and future career paths

IoT Career Paths

IoT in Jordan Universities

IEEE Jordan Section AESS Group

1.   Quantum Computing 101 Workshop , Online , 18/3/2025

The IEEE AESS FSS SBC Tunisia Section and IEEE AESS Jordan Section – Local Group have launched their first collaborative workshop, **"Quantum Computing 101."** This session introduced participants to the fundamental principles of quantum computing, including key concepts such as **qubits, superposition, and entanglement.** Designed for both beginners and technology enthusiasts, the workshop provided insights into how quantum computers differ from classical systems and their potential applications. This event marks the beginning of a series of workshops aimed at fostering knowledge exchange and collaboration in advanced technologies.
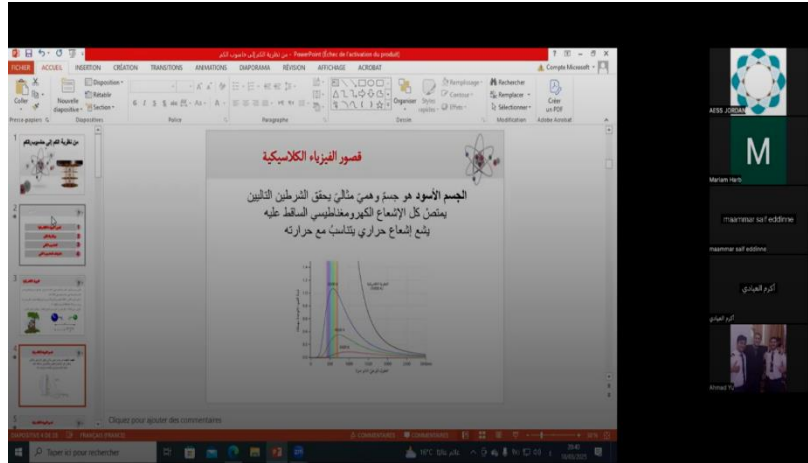
2.   Do They Not Reflect? Course, Online, 1/3/2025 to Monday 24/3/2025

The **"Do They Not Reflect?"** program is a **scientific and faith-based series** aimed at exploring and interpreting the **scientific miracles** in **Qur'anic verses related to astronomy.** Through deep contemplation of the cosmic signs of Allah, the program connects **modern scientific knowledge** with the divine wisdom of the Quran.

3. Training Course: Drone Design and Operation, Online, 5/3/2025 to Wednesday 27/3/2025

This comprehensive training course is designed for enthusiasts and professionals eager to dive into the world of drone technology. The sessions will provide in-depth knowledge about UAVs, their components, and real-world applications, along with hands-on design techniques using CAD and 3D printing.

4. Orbit Talks , Online , Wednesday 16/4/2025

"Orbit Talks" is a **scientific astronomy podcast** broadcasted via **Webex**, bringing together members of the **Andromeda Astronomy Club**, **IEEE Jordan Section AESS Group**, and the **Jordanian Astronomical Society** to explore the latest topics in **astronomy and technology**. Episodes will alternate between **Jordan and Palestine**, featuring a host from one country and expert guests from the **Jordanian Astronomical Society, Palestinian specialists, and IEEE Jordan Section AESS Group representatives.**

Diversity, Equity and Inclusion

We strongly encourage DEI in all our activities, membership and volunteering positions.

Activities since the last report

All Section activities are reported in vTools and also shared in our social media channels which is open for members and non-members

https://www.facebook.com/groups/IEEEJordanSection

https://www.linkedin.com/company/ieee-jordan-section/?viewAsMember=true

Selected Activities

Jordan IoT/AI Challenge – 8/10/2024

Jordan IoT and AI Challenge finals, at the University of Jordan. The event focused on IoT, AI, and related fields for students and startups. Two teams advanced to "GITEX Global 2024" in Dubai, with Petra University's team securing second place. The event was organized by Jordan Section Jt. Chapter, SP01/COM19 and the SAC team helped in promoting the event and arranging the registration process.

IEEE Jordan Students and Young Professionals Congress 2024, 12/10/2024 – Kempinski Hotel Amman Jordan

Organized by the IEEE University of Jordan Student Branch and co-organized by IEEE Young Professionals Jordan, IEEE Jordan Section, and IEEE Student Activities Committee (SAC) Jordan, the 9th edition of the IEEE Jordan Student and Young Professional Congress (JSYP 2024) continued its tradition of inspiring creativity and innovation since its inception in 2008. This edition, the 9th, was one of the best versions in recent years.

This year's theme, "Innovation in Gaming Development," transformed the event into an immersive gaming-inspired experience, drawing inspiration from the nostalgic charm of Mario games. The event featured workshops structured as progressive levels, offering insights into virtual reality, artificial intelligence, esports, and game design.

JSYP 2024 welcomed students, young developers, industry professionals, and gaming enthusiasts, providing them with opportunities to explore cutting-edge technology, gain valuable skills, and network with peers and industry leaders.

The SAC team contributed to selecting the host student branch for the IEEE JSYP congress, promoting the event in Jordan, and assisting with various conference activities.

Zarqa University Student Branch Opening, 31/10/2024

Al-Zaytoonah University of Jordan, Computer Society Open Day, 11/11/2024

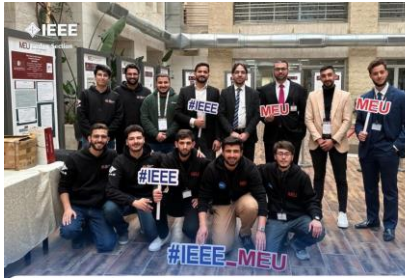Amman Arab University Student Branch Opening, 22/12/2024

Jordan University of Science and Technology, Computer Society Open Day, 24/12/2024

The University of Jordan Student Branch, CS Society ITEEECUP 2, 9/1/2025

Middle East University Student Branch Opening, 16/1/2025

IEEE Pitchinno, The University of Jordan, 19/2/2025
Jointly Organized by the Hashemite University Student Branch and the University of Jordan Student Branch. This year edition is also co-organized and co-sponsored by the Innovation and Entrepreneurship Center, the University of Jordan

Please visit the section Facebook group and LinkedIn pages for more details about these activities:

https://www.facebook.com/groups/IEEEJordanSection

https://www.linkedin.com/company/ieee-jordan-section/?viewAsMember=true

Planned activities

Each technical society has a series of planned events that includes workshops, seminars, invited talks, etc. that were discussed in the annual meeting.

The section is currently engaged in providing technical co-sponsorship for the below conferences in 2025:

1. April 16 - April 18/2025, Amman, Jordan
   2025 International Conference on New Trends in Computing Sciences (ICTCS)
   https://ictcs.psut.edu.jo/

2. April 28 - April 30/2025, Amman, Jordan
   2025 1st International Conference on Computational Intelligence Approaches and Applications (ICCIAA)
   Amman, Jordan
   https://uop.edu.jo/En/ICCIAA/Pages/default.aspx

3. May 27 - May 30/2025, Amman, Jordan
   2025 12th International Conference on Information Technology (ICIT)
   https://icit.zuj.edu.jo/Home

4. July 1 - July 3, Irbid, Jordan
   2025 16th International Conference on Information and Communication Systems (ICICS)
   https://www.just.edu.jo/icics/

How Region 8 can be of help to your Section, members, and activities

We have few members from the industry. We hope to increase membership from the industry.

Increasing the membership value (e.g. offering more free online courses with certificates to the members, especially from the industry)

Provide more funding for SIGHT projects.