

# **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

Answer:

Year 2022: 9/2/2022, 29/3/2022, 1/5/2022, 1/7/2022, 10/9/2022, 12/11/2022

Year 2023: 10/2/2023, 1/4/2023, 20/6/2023, 23/8/2023, 10/10/2023, 20/12/2023

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

# Activities to Increase or Retain Membership:

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 showed we have a total of 2563 members of different grades.

The newly formed SIGHT group also attracted 40 members.

With IEEEXtreme coming soon, also many new student members recently joined.

#### Students

#### Student Branches (SB)

- 1. Al Al-Bayt University (AABU)
- 2. Al-Ahliyyah Amman University (AAU)
- 3. Al-Balqa Applied University (BAU)
- 4. Al-Balqa Applied University-Center (BAU-Center)
- 5. Al-Huson University College (HUSON)
- 6. Al-Hussein Bin Talal University (AHU)
- 7. Al-Hussein Technical University (HTU)
- 8. Al-Zaytoonah University of Jordan (ZUJ)
- 9. Applied Science University (ASU)
- 10. German Jordanian University (GJU)
- 11. Hashemite University (HU)
- 12. Jordan University of Science and Technology (JUST)
- 13. Mutah University (MUTAH)
- 14. Philadelphia University (PHU)
- 15. Princess Sumaya University for Technology (PSUT)
- 16. Tafila Technical University (TTU)
- 17. University of Jordan (JU)
- 18. University of Petra (UOP)
- 19. Yarmouk University (YU)
- 20. Zarqa University (ZU)

The newly formed or dissolved SBs:

1. Zarqa University - Recently formed

Jordan Students and Young Professional Congress is scheduled on 12/10/2024 and is organized by the University of Jordan Student Branch (<u>https://www.facebook.com/profile.php?id=61561193372453</u>)

The following diagram summarizes the student branches and different societies:

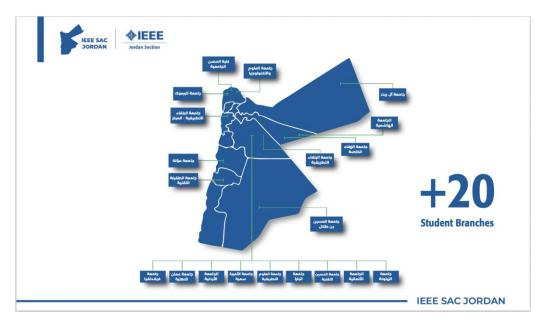


No.	Student Branch	WIE	SIGHT	AESS	APS	CS	CIS	COMS	EMBS	IAS	PES	IES	SPS	RAS	Eng. M	TEMS	СТ	тот
1	Al Al-Bayt University (AABU)		)				)											2
2	Al-Ahliyyah Amman University (AAU)																	0
3	Al-Balqa Applied University (BAU)							*		**	**		*					7
4	Al-Balqa Applied University-Center (BAU- Center)				$\langle$		)											1
5	Al-Huson University College (HUSON)																	2
6	Al-Hussein Bin Talal University (AHU)																	1
7	Al-Hussein Technical University (HTU)																	0
8	Al-Zaytoonah University of Jordan (ZUJ)							*					*					1
9	Applied Science University (ASU)											•			$\frown$			0
10	German Jordanian University (GJU)													(				8
11	Hashemite University (HU)									*	*							5
12	Jordan Uni. for Science and Technology (JUST)																	6
13	Mutah University (MUTAH)					-												3
14	Philadelphia University (PHU)						)								)			3
15	Princess Sumaya University for Technology (PSUT)																	5
16	Tafila Technical University (TTU)			)														5
17	University of Jordan (JU)		$\smile$															8
18	University of Petra (UOP)																	1
19	Yarmouk University (YU)																	8
20	Zarga University (ZU)																	0
		11	3	3	1	13	2	5	4	5	9	1	2	8	1	1	1	66

Star/double stars indicates a joint student chapter/affinity group.

Red circles indicate newly formed student chapter/affinity group.

# Geographical distribution





# **Selected Student Branches Activities**

# <sup>7</sup> The Interview – Philadelphia University





المهرجان National Technology Parade - NTP المهرجان The University of Jordan – الوطني التكنولوجي



CS -Tafila Technical University (TTU)



From Venus to Universe – Al-Balqa Applied University (BAU) - Faculty of Engineering Technology



CS - Al Al-Bayt University (AABU)



# **IEEE PITCHINNO - The University of Jordan**









Please visit the section Facebook page for the more details about these activities: https://www.facebook.com/groups/IEEEJordanSection



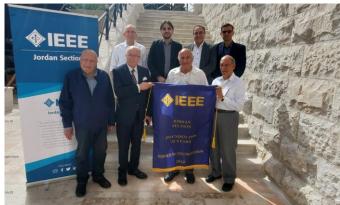
# Affinity Groups

We have four Affinity Groups:

- Life Members Affinity Group (LMAG)
- Women in Engineering (WiE)
- Young Professional (YP).
- The Special Interest Group on Humanitarian Technology (SIGHT)

# Life Members Affinity Group (LMAG) selected activities

Celebrating the IEEE Jordan section's 25th anniversary in a meeting including life members and section's ExCom Members



Honoring the life members (or their representatives) for their great service to the profession in Jordan during the annual meeting



# Women in Engineering (WiE) Selected activities

# WIE Open day in July 2024

The IEEE-Jordan Section WIE Open Day 2024 was held on July 20th, 2024 to celebrate the IEEE WIE Day. The event was attended by a large number of female engineers from across Jordan and various sectors. We were honored by the presence of engineers and professors from different fields. The event was under the patronage of Eng. Amani Al-Azzam, Secretary General of the Ministry of Energy and Mineral Resources, who represents a success story of a Jordanian woman engineer with extensive experience in the energy sector over many years.

Our event featured special segments highlighting the activities, successes, and achievements of Jordanian female engineers in this field. One of the main highlights was success stories of Jordanian engineers who have achieved remarkable success in their fields, holding senior managerial positions that reflect their leadership and planning capabilities. The event also included a workshop, a coffee talk to discuss the challenges that face women in engineering and their solutions, a discussion panel about the WIE\_Jordan mentorship program activities, and students' teacher research program activity (STAR) for school girls delivered by engineers from Jadara company.





# The 123<sup>rd</sup> IEEE Region 8 Committee Meeting











WIE Jordan Section has received "The Region 8 Best Affinity Group of the Year Award in 2023"



# **Young Professional (YP) Selected Activities** 28/5/2024



# 21/9/2024 Mentoring Meet Program

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### IEEE-Jordan Section WIE AG Active members in 2024

Grade	Count					
Graduate Student Member	6					
Life Senior	1.0					
Member	38					
Senior Member	3.0					
Student Member	572					
Total	620					



# The Special Interest Group on Humanitarian Technology (SIGHT) Selected Activities



"MARCH"

**IEEE** SIGHT ial Interest Group or





**Ramadan Orphans Ifta** 



GHT Day 2024



**1st International Conference on Aviation** h on Robotics & Al **Amman Arab University** 1



**Invitation to the Jordan 12 Closing Ceremony** 



During linkedIn workshop LINKEDIN Mastery Wo



Web Design Workshop



**JIMEX Exhibition 2024** 



Sustainability and **Humanitarian Projects** with Astronomical Course



**Crafting Your Career Event** 





**IEEE Petra University Day** 





# ...



**Robotic Hand** <sup>1</sup>

р



IEEE SIGHT JS at Al Balqa University Career



"SIGHT'S VIRTUAL



PARTICIPATION IN Dot Cyber Summit 2024



Jordan Industrial <sup>–</sup> Company vi



**VIP Professional Co** 



PARTICIPATION IN CONFERENC



MATLAB WORKSHOP



# Chapters

List of Chapters and SB Chapters in your Section, the newly formed or dissolved Chapters, if any since the last meeting reporting. Indicate how many have reported on time and received rebate. Highlight some of the activities.

# List of chapters:

- Jordan Section Chapter, EMB18
- Jordan Section Chapter, IA34
- Jordan Section Chapter, RA24
- Jordan Section Jt Chap, CIS11/C16
- Jordan Section Jt Chap, PE31/DEI32
- Jordan Section Jt. Chapter, SP01/COM19

# List of students' chapters and affinity groups

- 1. Al al-Bayt University, C16
- 2. Al al-Bayt University, WIE
- 3. Al-Balqa Applied University Center, C16
- 4. Al-Balqa Applied University, SIGHT
- 5. Al-Balqa Applied University, AES10
- 6. Al-Balqa Applied University, SP01//COM19
- 7. Al-Balqa Applied University, PE31// IA34
- 8. Al-Balqa Applied University, C16
- 9. Al-Balqa Applied University, RA24
- 10. Al-Balqa Applied University, WIE
- 11. Al-Huson University College, WIE
- 12. Al-Huson University College, SIGHT
- 13. Al-Hussein Bin Talal University, C16
- 14. Al-Zaytoonah Univ Of Jordan, SP01/COM19
- 15. German Jordanian University, C16
- 16. German Jordanian University, CT08
- 17. German Jordanian University, EMB18
- 18. German Jordanian University, IA34
- 19. German Jordanian University, IES
- 20. German Jordanian University, Eng. Managment
- 21. German Jordanian University, TEM14
- 22. German Jordanian University, WIE
- 23. Hashemite University, C16
- 24. Hashemite University, EMB18
- 25. Hashemite University, PE31/IA34
- 26. Hashemite University, RA24
- 27. Hashemite University, WIE
- 28. Jordan University of Science & Technology, C16
- 29. Jordan University of Science & Technology, EMB18
- 30. Jordan University of Science & Technology, RA24
- 31. Jordan University of Science & Technology, PE31
- 32. Jordan University of Science & Technology, IA34
- 33. Jordan University of Science & Tech, WIE
- 34. Mutah University, C16



- 35. Mutah University, PE31
- 36. Mutah University, WIE
- 37. Philadelphia Univ, C16
- 38. Philadelphia Univ, PE31
- 39. Philadelphia Univ, RA24
- 40. Princess Sumaya University for Technology, WIE
- 41. Princess Sumaya University for Technology, C16
- 42. Princess Sumaya University for Technology, COM19
- 43. Princess Sumaya University for Technology, PE31
- 44. Princess Sumaya University for Technology, RA24
- 45. Tafila Technical University, C16
- 46. Tafila Technical University, SIGHT
- 47. Tafila Technical University, PE31
- 48. Tafila Technical University, RA24
- 49. Tafila Technical University, WIE
- 50. University of Jordan, AES10
- 51. University of Jordan, AP03
- 52. University of Jordan, C16
- 53. University of Jordan, COM19
- 54. University of Jordan, PE31
- 55. University of Jordan, RA24
- 56. University of Jordan, WIE
- 57. University of Jordan, CIS11
- 58. University of Petra, CIS11
- 59. Yarmouk Univ, COM19
- 60. Yarmouk Univ, PE31
- 61. Yarmouk Univ, RA24
- 62. Yarmouk University, C16
- 63. Yarmouk University, EMB18
- 64. Yarmouk University, IA34
- 65. Yarmouk University, WIE
- 66. Yarmouk University, AES10

# Jordan Section Chapter, EMB18 Events Summary

22<sup>nd</sup> International Conference on Research and Education in Mechatronics (REM 2024): Technically co-sponsored by IEEE-EMBS, IEEE-RAS, IEEE-IAS Jordan Chapters in IEEE Jordan Section (Sep 24-26, 2024, Dead Sea, Jordan)





BME Alumni day (30/5/2024, Auditorium C, GJU)

3D Printing Workshop (25.04.2024, King Hussein Business Park)

Women's' Day (06.03.2024. Auditorium G, German Jordanian University)

Jordan Section Chapter, IA34 Events Summary

1. **Organizing a panel discussion** in (4/3/2024) titled (Energy Efficiency and Management in Industrial Sector)" by Eng. Maen Ayasrah of Jordan chamber of Industry, Eng. Anas Abdallah of Green Environment for Information Technology Company, and Eng. Abdallah Bdair of National Energy Solutions Company, HTU, Amman, Jordan. (https://events.vtools.ieee.org/m/409692).

Energy cost can significantly impact the final cost of a product across various industries. Overall, energy costs play a critical role in shaping the pricing dynamics of products sold globally, which impacts a product's competitiveness. This is especially important in Jordan, as energy prices are high, and are a major portion of the final cost of a product. One strategy to combat this issue is by applying energy efficiency measures in the industrial process and site. Experts have been invited for a panel discussion, to introduce the problem and solution.

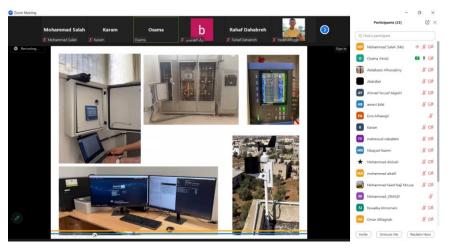






 Organizing a virtual lecture in (7/5/2024) titled with "The Effect of Non-Linear Industrial Loads on Renewable Energy Design" by Dr. Osama Saadeh of German-Jordanian University, Amman, Jordan. (https://events.vtools.ieee.org/m/419927).

As most industrial loads are non-linear in nature, power quality in industrial facilities is a major issue. Without solving these issues, the full potential of renewable energy cannot be realized. In this lecture, power quality considerations that are relevant to the design of renewable energy resources in the presence of non-linear loads will be presented and discussed.



3. **Technical and Financial Sponsorship to the 11th National Technology Parade** in (14/5/2024), University of Jordan, Amman, Jordan. (<u>https://events.vtools.ieee.org/m/419954</u>). The link for the 11th NTP is here (<u>https://ntp11.netlify.app/</u>) and (<u>https://www.facebook.com/NTPJo/</u>).



4. **Technical Sponsorship to the Mechatronics Systems Design, Modeling, and Control Track** in the 22nd International Conference on Research and Education in Mechatronics (REM) within the period (24-26/9/2024), Dead Sea, Jordan. (<u>https://events.vtools.ieee.org/m/419960</u>)

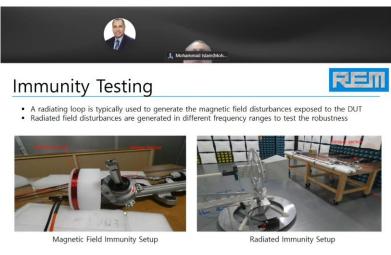




 Organizing a virtual keynote speech in (25/9/2024) titled with "Non-Contact Sensing in Automotive Applications – A Perspective of Robustness and Reliability" by Dr. Mohammad Islam of Halla Mechatronics, MI, USA.

(https://events.vtools.ieee.org/m/436612). The keynote speech was part of the 22<sup>nd</sup> International Conference on Research and Education in Mechatronics (REM), Dead Sea, Jordan.

This presentation talks about sensor technologies used in high performance automotive applications. An example application considering motor shaft position, steering input torque and column position sensing will be discussed. Various topologies will be discussed in terms of advantages and disadvantages. Potential sources of errors due to electromagnetic origins and mechanical stacks and their impact on the overall system will be discussed. More details can be found in this link (https://rem2024.gju.edu.jo/speakerdetail-2.html).



#### Jordan Section Chapter, RA24 Events Summary Technical Sponsorship of the 6th Fire Fighting Robot Contest (FFRC)

We are thrilled to announce the successful organization of the fire-fighting robots competition by IEEE RAS Jordan during the 22nd International Conference on Research and Education in Mechatronics (REM 2024), held at the Dead Sea!

The event brought together 27 student teams from 15 Jordanian universities, all showcasing innovative robotic solutions designed to tele-operated and autonomously detect and extinguish fires, as well as rescue people in hazardous situations. The competition highlights the growing importance of robotics in emergency response and public safety, offering a glimpse into the future of technology-driven solutions that can save lives, protect property, and assist in rescue operations.

A huge congratulations to all the participating teams, and a heartfelt thank you to the IEEE Jordan Section team and volunteers for their hard work and commitment in making this event a resounding success!







Jordan Section Jt Chap, CIS11/C16 Events Summary

- The 11<sup>th</sup> National Technology Parade (Co-Organizer)
  - Helped in Organizing the venue and the activities at the 11<sup>th</sup> NTP at the University of Jordan https://ntp11.netlify.app/



• Organized a keynote speech at the NTP delivered by Dr. Kostas karpouzis who has been hosted as part of the IEEE CS Distinguished Visitor Program





o Organized a talk by Mr. Mohammad Saadeh titled as "AI and Data Science Job Market"



- IEEE Computer Society Keynote Speech as part of DVP program
  - Title: AI/ML for games for AI/ML
  - Speaker: Dr.Kostas Karpouzis

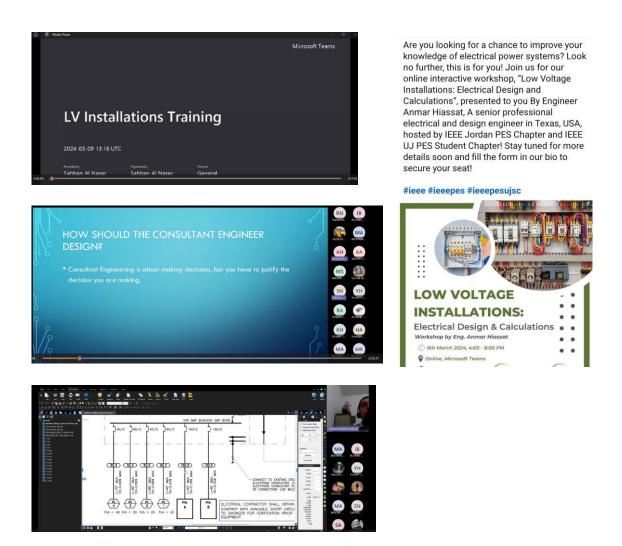


# Jordan Section Jt Chap, PE31/DEI32 Events Summary

- 1. Online Technical Workshop "Low Voltage Installations: Electrical Design and Calculations"
  - a. Objective: The workshop aims to provide participants with principles and practical knowledge to design electrical low voltage installations in commercial and residential buildings.
  - b. Presenter: Engineer Anmar Hiassat, A senior professional electrical and design engineer in Texas, USA
  - c. Date: 9th March 2024, 16:00 20:00
  - d. Platform: MS teams
  - e. Participants: ~ 80 undergraduate students and professional engineers



2.



2. Technical Competition "Time of Use (ToU) electricity tariffs - Awareness Video Competition".

a. Objective: IEEE student members are requested to create clear and informative 5-min video to demonstrate by using real-life examples the importance of Time-of-Use Electricity Tariffs from the perspective of consumers and electricity grid.

- b. Competition Start Date: 4/5/2024
- c. Competition status: under progress

# Jordan Section Jt. Chapter, SP01/COM19 Events Summary

1- Wireless Data Transfer Rate Measurement using Deep Learning' competition, which was organized in collaboration with the IEEE Jordan ComSoc Chapter and MathWorks Thursday, September 5th, at 12:30 PM in the Loay Shammout Auditorium at Princess Sumaya University for Technology.





- 2- Lecture: New wireless and mobile systems: from GHz to THz spectrum, challenges and opportunities.
- Guest Namre : Dr. Izzat Darwazah
- Thursday, 15th August 2024, Time: 11:00 12:00 pm, @ Luay Shammout Auditorium, PSUT.





- 3- Lecturer: "UAVs for Small Cell HetNets"
- Distinguished Lecturer: Dr. NIZAR ZORBA
- Sunday, 21st July 2024, Time: 12:30 1:30 pm, @ Luay Shammout Auditorium, PSUT.
- Wednesday, July 27 2024, Time 10:00 am to 11:00 am, Seminar Room Building 19, AlBalqaa Applied University.



4- Distinguished Lecturer: Dr. Mohammad S. Sharawi

First lecture Title: "The Dawn of Multi-function, Multi-Standard, Shared Aperture Antenna Systems"

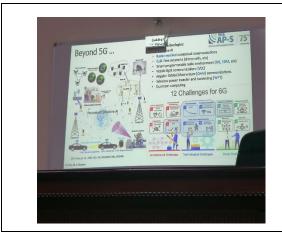
• Date: Tuesday, 16th July 2024, Time: 11:00 am.

Venue: Engineering School /Small Auditorium at the University of Jordan (UoJ) Second Lecture Title: "Active Integrated Antennas: Fundamentals and Applications"

• Date: Thursday, 18th July 2024, Time: 11:00 am. Venue: Hijjawi Faculty of Engineering Technology/ Wissam Bushnaq Hall at Yarmouk University



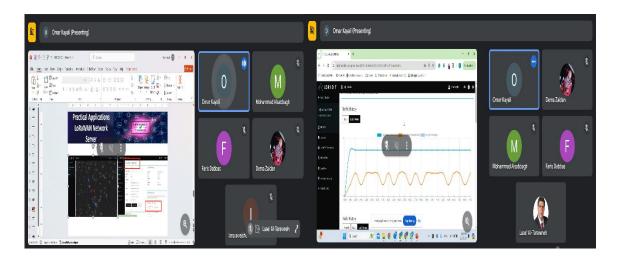




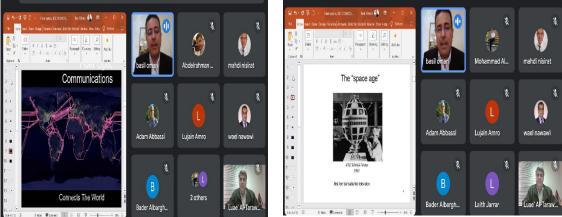




- 5- Lecture: The IoT Revolution: A New Era of Smart Connectivity.
- Date: 25/5/2025, Saturday, From 5:00 am to 6:00 Pm, Via Google meeting link: https://meet.google.com/xfv-onzj-zmb



- 6- Fiber Optic Technology: Fundamentals, Applications, and Opportunities in the Jordan Market.
- Date: Saturday, March 30, 2024, Meeting Time: 4- 5 PM, Meeting Link: <u>https://meet.google.com/aox-ifop-ubs</u>



# Industry

The following is a summary of the activites and initiatives:

- 1. **Review of Agreement** with SAM Engineering. This took several rounds of review.
- 2. **Prepartion of a proposal** for competion for students in the power sector to make a video for "Time of Use".
- 3. **Jobs / employment**: Two job announcements were made and hundreds of CV were received and sent to concerned parties.
- 4. **Mentorship program**: preparation and submission of mentorship program that was later on adopted by the YP.
- 5. **Coordinating with Companies**: started coordination with matchy-matchy-ltd company from the UK. This will be directed towards matching local students who want to pursue their graduate studies in the UK. A series of seminars will be conducted at universities during the next semester.
- 6. Speaker at conferences.
- 7. Writing Article on LinkedIn to help students.
- 8. Attending events and open days.
- 9. IEEE Region 8 Action for Industry (AfI) Committee SIA Meeting online attendance



10. **Review of CVs and sending CVs for potential employees**: this is done periodically and whenever engineers ask for it.





Open Day, IEEE GJ<u>U student Branch</u>



IEEE, WIE at GJU 06th Oct, 2024



IEEE ExCOM Meeting, Farewall party to Prof Abanda. Aug 2024



With IEEE HTU Student Branch, Sept 2024



With IEEE YP at Jordan CIGRE Conference, June 2024





Speaker at IEEE, YP panel discussion about Artificial Intelligence.



June 2024, Jordan Engineering Conference for Electric Engineers



March 2024, With ExCom members



# Local Groups

We have currently four local groups as follows:

# IEEE Jordan AI, Machine Learning, Deep Learning, Computer Vision and LLM Group







Mousa Al-Akhras

Hisham Elmoaget

# **IEEE Jordan Chip Design Group**



Dheya Mustafa



Ruba Alkhasawneh





Mustafa Aqraba





#### Iman Almomani Sufvan Almaiali **IEEE Jordan Young Professionals Climate** and Sustainable Initiatives Group



#### **Diversity, Equity and Inclusion**

We strongly encourage DEI in all our activities

#### Activities since the last report

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

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

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

Several visits were conducted to the Universities in different Jordanian cities. These visits greatly improved the communication and collaboration between the IEEE Jordan Section and the Universities:



2024 01 09 Isra University



2024 02 18 Hashemite University (HU)





2024\_02\_25 Yarmouk University (YU)



2024\_03\_25 Princess Sumaya University for Technology (PSUT)



2024\_05\_06 Amman Arab University



2024\_03\_09 Al- Balqa' Applied University (BAU) -The Faculty of Engineering Technology (FET)



2024\_04\_03 German Jordanian University (GJU)



2024\_05\_12 Al-Huson University College (HUSON)





2024\_05\_13 Al Al-Bayt University (AABU)



2024\_05\_18 Philadelphia University (PHU)



2024\_05\_20 Tafila Technical University (TTU)



2024\_05\_26 Al-Zaytoonah University of Jordan (ZUJ)



2024\_05\_15 University of Petra (UOP)



2024\_05\_20 Al-Hussein Bin Talal University (AHU)



2024\_05\_23 Al-Ahliyyah Amman University (AAU)



2024\_08\_21 Al-Balqa Applied University-Center (BAU-Center)





2024\_09\_30 Mutah University (MUTAH)

# **Planned** activities

Each technical society has a series of planned event 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 2024:

- JIBEC The Second Jordanian International Biomedical Engineering Conference 27-28 November, 2024 <u>https://www.jeaconf.org/JIBEC</u>
- IJCC: the 2024 International Jordanian Cybersecurity Conference (IJCC) December 17-19, 2024 https://www.jeaconf.org/ijcc24
- ACIT The International Arab Conference on Information Technology (ACIT) December 10-12, 2024 https://acit2k.org/ACIT/

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

Provide more funding for SIGHT projects

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

#### Any other issues of interest

I like to have a platform to search for all the awards given to all the OUs within the section.

I suggest to provide a dropdown list of affiliations so that we have consistent naming of the affiliation. Currently members enter free text which may cause members belonging to the same institute to enter slightly different names. This complicates getting accurate statistics.