

**Section Name: Jordan Section**

**Dr. Ala' Khalifeh**

**Section Vitality**

Please provide information about the date of last Section elections, date of next elections, and do you have the practice of Vice-Chair becoming the next Section Chair. Section ExCom meetings (list them and provide brief summary if appropriate). List the activities carried out to retain and recruit members and the results obtained.

Answer:

Date of last Section elections: DEC 2021. Currently we are preparing for the election for the year 2024.

Date of next elections (Oct- Nov 2023: Tentative)

Do you have the practice of Vice-Chair becoming the next Section Chair: No. But we may adopt it next year,

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

**Activities to Increase or Retain Membership:**

We have recently made a gathering for all students' branches chairs and advisors during the IEEE president visit to Jordan, where we discussed the challenges faced and ways to increase the students' engagement and membership.

In addition, in March 2023, we had our annual meeting which provides a chance to network with all members and exchange ideas/information with them about IEEE. Below is a picture of our recent annual meeting.



**Students**

List of Student Branches (SB) in your Section, the newly formed or dissolved SBs, if any since the last meeting reporting (Feb 2023). List the student meetings held and Section activities addressed to Students and Young Professionals.

List of Student Branches (SB) in your Section:

1. University of Jordan
2. Princess Sumaya University for Technology
3. Yarmouk University
4. Al-Balqa Applied University – Center
5. Jordan University of Science & Technology
6. Applied Science University
7. Tafila Technical University
8. Hashemite University
9. Al-Zaytoonah Univ Of Jordan
10. Al-Hussein Bin Talal University
11. Al-Huson University College
12. Philadelphia Univ
13. German Jordanian University
14. University of Petra
15. Mutah University
16. Al-Balqa Applied University
17. Al Hussein Technical University

The newly formed or dissolved SBs:

18. None.

But we are working to open a new SB in several universities (e.g. American University in Madaba, Al-Abait university, Middle East University, Zarqa University, etc.)

**Selected Student Branches Activities**

-Many workshops like: Arduino applications, Personal Development, online webinars with multi-discipline speakers in Power, Energy, Signal Processing, Robotics & Communication engineering.

Below are some samples of these activities

**GJU SB Green Energy Day- Jun 2023**

The main event of the year done by the IEEE GJU Student Branch: "Green Energy Day," organized by the Youth Electrical Engineers and Media Committee from the Jordanian Engineers Association, hosted by the IEEE Industrial Electronics Society GJU branch. The event had distinguished guests, including Eng. Ahmad Al-Zoubi, the Head of the Association, and Prof. Ala'aldeen Al-Halhouli, the President of the German Jordanian University. Additionally, the Minister of Energy and Renewable Resources also extended their support by patronizing the event with attendance of more than 650 people from different universities!

Please visit the section facebook page for more activities:

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

### Affinity Groups

List of Affinity Groups (YP, LM, WiE, SIGHT, etc.), list of SB AGs, newly formed or dissolved AGs/SB AGs, if any since the last meeting reporting (Oct 2020). List the activities intended to support affinity groups.

We have two Affinity Groups:

- Women In Engineering (WiE)
- Young Professional (YP).

**WiE selected activities**

- In Jul 2023, WIE arranged a gathering in YU for their members as shown below, where distinguished WIE AG were given an award for their dedication and unique activities.



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Young Professional (YP) AG

YP AG Jordan section participated in the IEEE Region 8 Students & Young Professionals , which happened in Tunisia as depicted below.



Furthermore, Mustafa AlAqrabawi, the YP AG chair, has received The IEEE R8 YP Exceptional Volunteer Award for 2023.



## Chapters

List of Chapters and SB Chapters in your Section, the newly formed or dissolved Chapters, if any since the last meeting reporting (Feb 2023). Indicate how many have reported on time and received rebate. Highlight some of the activities.

### List of chapters:

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

### List of students' chapters

- Al-Balqa Applied Univ, C16
- University of Jordan, RA24
- University of Jordan, PE31
- Tafila Technical University,PE31
- Al-Balqa Applied Univ, RA24
- Yarmouk Univ, PE31
- Al-Balqa Applied University,COM19
- Al-Balqa Applied Univ, PE31/IA34
- University of Jordan,COM19
- Jordan Univ of, C16
- Yarmouk Univ, RA24
- Yarmouk University, EMB18
- Yarmouk University, C16
- Princess Sumaya University for Technology,COM19
- Al-Balqa Applied University,SP01
- Yarmouk University, IA34
- Hashemite University,PE31/IA34
- Hashemite University, EMB18
- Yarmouk Univ, COM19
- Princess Sumaya University for Technology,RA24
- Princess Sumaya University for Technology,C16
- Jordan University of Science & Tecnology, PE31
- Hashemite University, RA24
- Hashemite University, C16

**Selected activities**

The chapters have arranged many activities, below are some selected ones.

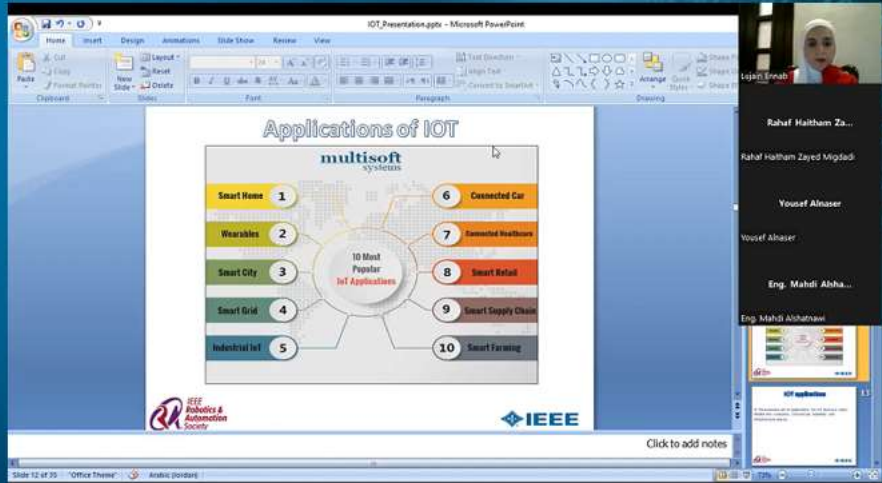
AI Workshop given by Eng. Samer Hamed which took place online as shown below,



RAS Jordan section has arrange a unique SUMO competition in coordination with HTU as shown below.



RAS JS arranged a virtual session in the field of IoT as shown below.

- Virtual Lecture** titled with **“The IoT Revolution: Understanding Concepts, Innovations and Trends”** by **Eng. Alujain Ennab**, Jordan, 26/2/2023.
 

Another activity arranged by RAS during the JEEIT conference.

- Face-to-Face Keynote Speech** titled with **“Software Viability in Service Robots Archeticture”** by the Distinguished Lecturer **Dr. Davide Brugalli** of University of Bergamo, Italy, 23/5/2023 within **JEEIT 2023**.
 

**EMBS Chapter**

Below are some selected activities of EMBS JS.

## Distinguished Lecture: Prof. Shadi Albarqouni (July 2023)



الجامعة الألمانية الأردنية  
German Jordanian University

**EMBS Jordan Chapter Distinguished Lecture**  
**Towards Collective Intelligence in Healthcare – By Prof. Dr. Shadi Albarqouni**  
**July 26/7/2023 – 6:00 – 7:30 PM JORDAN Time – ZOOM Platform**



For registration, use the link: <https://forms.office.com/r/6E5WSP5L1N>, or the QR code.  
An email with ZOOM link will be sent to the registrants' emails one day before the lecture

**Lecturer:** Shadi Albarqouni is a Palestinian-German Professor of Computational Medical Imaging Research at the University of Bonn, and an AI Young Investigator Group Leader at Helmholtz AI. Previously, he worked as a Visiting Scientist at Imperial College London and ETH Zurich, and as a Senior Research Scientist & Team Lead at the Technical University of Munich (TUM). Shadi has more than 100 publications (Citations > 7700, h-index: 29) in Medical Imaging Computing, Computer Vision, and Machine Learning published in Nature Machine Intelligence, MedIA, IEEE TMI, IEEE JBHI, IPMI, MICCAI, MIDL, ISBI, ICCV, ECCV, BMVC, NeurIPS, AAAI, and ICML. Shadi has been actively serving the community with different roles as a reviewer, session chair, area chair, program committee member, organizing committee member, and Program co-Chair at MICCAI, MIDL, and ISBI, among other conferences. He has served as an Associate Editor for Special Issues at IEEE Transactions on Medical Imaging and Medical Image Analysis. He is also onboard the editorial of the International Journal of Computer Vision (IF: 19.5). His current research interests include Interpretable ML, Robustness, Uncertainty quantification, and recently Federated Learning. He is also interested in Entrepreneurship and Startups for Innovative Medical Solutions, in particular, knowledge transfer to developing and emerging countries.

**Abstract:** Deep Learning (DL) has emerged as a leading AI technology in computer science for accomplishing many challenging tasks. This technology shows outstanding performance in a broad range of computer vision and medical applications. However, this success comes at the cost of collecting and processing a massive amount of data, which is in healthcare inaccessible due to privacy issues. Federated Learning is a new technology that allows training DL models at local hospitals share only the trained parameters with a centralized DL model, which is, in return, responsible for updating the local DL models as well. Yet, a couple of well-known challenges in the medical imaging community, e.g., heterogeneity, domain shift, scarcity of labeled data, and multi-modal data, might hinder the utilization of Federated Learning. In this talk, the clinical workflow and the common challenges for AI in Medicine will be briefly presented before diving into the federated learning topic and its challenges and potential solution. A clinical use case on MR Brain imaging, published recently in Nature Machine Intelligence, will be demonstrated.

## Training: Intro to Python and Machine Learning

Date: Feb 2023

Training Venue: JEA

Trainer: Eng. Safaa Mosaad





## Trip field to Cisco in Jul 2023



## Invited Talk: Neuro Technology in Spinal Cord Injuries

- ▶ Speakers:
  - Dr. Rami Al-Ahmar (consultant in physical medicine and Rehabilitation)
  - Jaafar Abu Taa'a (Tesla Shareholder and an Entrepreneur)
  - Nasser Al-Fawaz (Tesla shareholder and an Entrepreneur)
- ▶ Date: March 2023



### Industry

List the activities carried out to foster relations with Industry and the results obtained.

Answer:

- We organized a conference in collaboration with the Jordan Engineering Association (JEA), the conference name is IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT) 2023
- Website: JEEIT.NET

**Activities since the last report**

Highlight some of the activities in your Section, with special attention to the things that work well, and things that don't, so that your acquired know-how can be used by other Sections.

**Please visit the section facebook page for more activities:**

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

**Planned activities**

Highlight some of the future activities and initiatives in your Section.

Answer:

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

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

List any challenges you Section is facing and what support is required from the Region 8. Please, also, give us your suggestions for agenda items that you want to be discussed during the R8 Committee meeting.

Answer:

Provide more funding for SIGHT projects

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

**Any other issues of interest**