CURRICULUM VITAE

PERSONAL DATA

- Dr. Mahmoud Al-Gharram
- Department of Physics
- German Jordanian University
- PO Box 35247, Amman 11180 Jordan
- +962-796064632
- Mahmoud.algharram@gju.edu.jo

EDUCATION

- **Ph.D. (Physics) 2021, University of Jordan, Jordan.** **2021**

  - Novel Polyaniline/$Co_xFe_{3-x}O_4$ Nanocomposites for Thermoelectric and Optical Sensor Materials.

- **Diploma in Physics** **2010**

  Faculty of Physics, Georg-August-Universität Göttingen, Germany.

  - For the vacancies formation in Palladium during hydrogen loading with using a quartz balance. (Zur Leerstellenbildung in **Pd** bei Wasserstoffbeladung unter Verwendung einer Quarzwaage).

PRACTICE AND PROFESSIONAL EXPERIENCE

- Instructor (German Jordanian University/Amman-Jordan) **2013- Present**
- The courses I have taught were :

1) Physics for Architects.
2) Physics I+II Labs. By using PASCO/ Capstone Software.
3) Electrical Circuits I LAB.
4) Tutorials for Applied Mathematics for Engineers (MATH 203).

- Research & Teaching Assistant (German Jordanian University/Amman-Jordan)

2011- 2013

1) I trained the students to understand the main principles and Concepts of physics parallel to the theoretical approaches they study and how they apply these Theories to develop intellectual capacities, present mindedness, and concentration among students.

2) I worked and researched for short time in a research laboratory that contains a scanning tunneling microscope (STM).

- Phywe GmbH & Co. KG (Göttingen/Germany)

  - Translation of experiments in physics for undergraduate students from English and German to Arabic and I was responsible for the Arabic page in this company**.** **2008 – 2009**

TEACHING ASSISTANT

- Georg-August-Universität Göttingen, (Germany)
- I was employed at the Institute for Mathematics of Georg-August University of Göttingen during the Second Semester in 2008 as an assistant and I was responsible for the generation of e-learning modules in Elias (Working group e-learning modules) for Students in 1st and 2nd Years.
- **Description**

With Ilias you can set up learning modules using a modular system. This means that individual learning modules can be created. A learning module is the preparation of information in small study units for independent study. As well as presenting the information, a study unit should also enable self-evaluation with small interim questions, multiple choice questions, classification exercises, etc

SKILLS

- **Using of electron microscopes:**
  - Scanning Electron Microscopy (SEM).
  - Transmission Electron Microscopy (TEM).
  - X-Ray diffractometer (XRD)

LANGUAGE

Arabic: Native language

German: Excellent in spoken and written (**DSH** Certificate (German Language Proficiency Exam for the Admission to Higher Education))

English: (**IELTS** Certificate)

AWARDS

- Merit Certificate of Achievement (German Jordanian University) **2013**

I have awarded this certificate in recognition of valuable contribution (Processing and installation physics laboratories 101 +102 in the new university building and motivate the students to participate in extracurricular activities and for example visit scientific institutions outside the university in order to increase scientific awareness to the students and encourage students to acquire computer skills).

- Award the return of the expert “Centre for international Migration and Development” (CIM) 2012 and 2013
- Scholarship for Diploma thesis from Georg-August-Universität Göttingen, Germany 2009

COMPUTER LITERACY

- MatLab
- MS Windows
- MS Office

- CorelDraw
- IGOR Pro.

PUBLICATIONS

- **Al-Gharram, M**., Jum'h, I., Telfah, A., & Al-Hussein, M. (2021). Highly crystalline conductive electrodeposited films of PANI-CSA/$CoFe_2O_4$ nanocomposites. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, *628*, 127342.

- **Al-Gharram**, **M**., Jum'h, I., Telfah, A., & Al-Hussein, M. (2022, February). PANI-CSA/Co_3O_4 Nanocomposite Films: Optical, Morphological, and Structural Properties. In *2nd International Conference on Industry 4.0 and Artificial Intelligence (ICIAI 2021)* (pp. 48-52). Atlantis Press.

- AlZoubi, T., **Al-Gharram, M**., & Moustafa, M. (2022). Insights into the impact of defect states and temperature on the performance of Kesterite-based thin-film solar cells. *Optik*, 169442.

- **Al-Gharram, M**., et al. (2022) For the vacancies formation in Palladium during hydrogen loading with using a novel quartz balance. **Under review.**

- **Al-Gharram, M**., et al. (2022). Synthesis and characterization of Polyaniline-Cobalt (II, III) oxide nanocomposites for optoelectronic application. **Under review.**

- **Al-Gharram, M**., et al. (2022). Optical, Electrical, Morphological, and Structural properties of PANI-CSA, PANI-CSA/γ-Fe_2O_3, PANI-CSA/$CoFe_2O_4$, PANI-CSA/Co_3O_4 nanocomposite thin films. **Paper under preparation before sending it to Journal.**

- **Al-Gharram, M**., et al. Optical, Electrical, Morphological, and Structural properties of PANI-CSA and PANI-CSA/γ-Fe_2O_3 nanocomposite thin films. (2022). **Paper under preparation before sending it to Journal.**

CONFERENCES

- **Al-Gharram, M**., Jum'h, I., Telfah, A., & Al-Hussein, M. Novel Polyaniline/$Co_xFe_{3-x}O_4$ Nanocomposites for Thermoelectric and Optical Sensor Material. International Symposium on Dielectric Materials and Applications 4. ISyDMA'4, 2019. Jordan.

- **Al-Gharram, M**., Jum'h, I., Telfah, A., & Al-Hussein, M. PANI-CSA/Co_3O_4 Nanocomposite Films: Optical, Morphological, and Structural Properties. 2nd International Conference on NDUSTRY 4.0 AND ARTIFICIAL INTELLIGENCE "ICIAI 2021". Tunis.

WORKSHOPS

- **Al-Gharram, M**., Jum'h, I., Telfah, A., & Al-Hussein, M. Novel Polyaniline/$Co_xFe_{3-x}O_4$ Nanocomposites for Optical Sensor Materials. Online DAAD German Jordanian School (DGJS2020). (8 days) Germany.

REFERENCES

- Prof. Dr. Mahmoud Al-Hussein
  Director, Hamdi Mango Center for Scientific Research
  University of Jordan
  Amman – Jordan.