

Curriculum Vitae

Personal Information

Name: *Hanan Ahmed Alzahrani*

Nationality: *Saudi*

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Qualifications

- **PhD Degree** in Experimental Physics from University of Malaya, Malaysia 2023.
- **Master's degree** in physics from University of Colorado at Colorado Springs 2015
- **Bachelor's degree** in physics from King Abdulaziz University 2009
- **IELTS** test with score of 6.5 on 2018.

Education

- A year and a half of **Academic English** study at Bridge English institute, Denver, Colorado, USA 2012
- A year of Master study (Astrophysics) at King Abdulaziz university 2010 with cumulative GPA 4.96 out of 5.00

Personal Qualifications

- Competent user of Microsoft packages including PowerPoint, Word and Excel
- Proficient user of some **scientific programming** languages such as Origin, Mathematica, and matlab.
- Excellent level of **English language** with reading, writing and speaking skills

Memberships

- A member at the Saudi Physical Society since 2015 (membership no. 2186).
- A member at Malaysian Solid State and Technology Society (MASS) since 2019 (membership no. MASS706)

Field Lab Trainings and Presentations

- Training at graduate laboratory instruments "**XRD, AFM, SEM, and Surface Profilometer**" Spring 2015, UCCS
- Master Graduation project and presentation "**X-ray Study of Copper Thin Films**" Spring 2015.
- Biophysics graduate course project and presentation "**Brownian Motion in Biological Membranes**" Spring 2015, UCCS
- Summer training at "**Electronic Circuits lab**", Summer 2008, KAU.

Experiences

- Currently working as a vice dean for research and development at Alardah Applied College, Jazan University, from 21/08/2023
- Working as a **lecturer** at Jazan University (Alardah Applied College) since 17/8/2016.
- **Head of Physics Department** at Jazan University (Alardah Applied College) from 20/9/2016 to 22/2/2019.
- Worked per hour at KAU graduate laboratory in physics department on the second semester of 2015
- Volunteering to work at physics labs KAU on the first semester of 2015

Academic and Administrative Work at Jazan University

Teaching:

****First Semester 2016:***

Medical Physics 1, Nuclear Physics Lab 2, Geometrical Optics Lab.

****Second Semester 2017:***

Medical Physics 1, General Physics Lab

****Second Semester 2018:***

Medical Physics 1, Medical Physics 2 Lab

****First Semester 2019:***

Classical Mechanics, Medical Physics 2 Lab

****Second Semester 2019:***

Physics for Health Specialties

Administrative Work:

- The head of the physics department at the University College at Alarda since 2016
- Contributed in preparing for the Saudi National day at the college 1437AH
- Contributed in preparing files for applying to the excellence prizes from Jazan University 1437-1438-1439AH
- An academic advisor for 15 physics students 1437AH
- A member of the college council.
- A member of the college central committee of timetables and exams.
- A member of teams of leadership and firefighters in the eviction's cases.
- A member of the exam review requests for final exams for the first semester of 1437-1438AH
- Checker for the preparatory year final exams for the first semester of 1437-1438AH
- A member of Accreditation committee for the preparatory year and physics final exams for the Second semester of 1437-1438AH
- A member of the Higher Committee for Quality management at the physics department
- A member of the course and program reports and specifications committee

Conferences

- Participating in **the 4th Advanced Innovation & Engineering Exhibition (AiNEX2021)**, Kuala Lumpur, Malaysia, 30 August 2020.
- Participating in **Virtual Materials Technology Challenge 4.0 (v-MTC4.0)**, Kuala Lumpur, Malaysia, 2 Sep. 2020.
- Participating in **International Summit Of Innovation & Design Exposition 2020 (InSIDE2020)**, Kuala Lumpur, Malaysia, 13-14 April 2020.
- Attending **The Online National Conference on Environmental and Energy Materials (NCEEM-2020)**, organized by department of environment and energy materials, Sharda University during 27-28 June 2020.
- Attending the **Sixth Saudi International Meeting on Frontiers of Physics** (27 February- 1 March 2018).
- Attended the **scientific sessions of the 7th International Exhibition & Conference on Higher Education** entitled **“Saudi Universities and Vision 2030: Knowledge is the Oil of the Future”** in Riyadh, KSA and participated in JU booth during the period 12 - 15 April 2017

Medals and Awards

1. **Platinum Medal** and **The Best Innovator Award** (category: Higher Learning Institution – Academician) for the participation in the InSIDE2020 competition (INTERNATIONAL SUMMIT OF INNOVATION & DESIGN EXPOSITION 2020)
Khaulah Sulaiman, Hanan Alzahrani, Shahino Mah Abdullah and Siti Fairus Abdul Sani
13-14 April 2020
The title of innovation: “Highly sensitive organic-based UV-ray sensor operated at low voltage with real-time monitoring system”
2. **Gold Medal** at v-MTC4.0 (VIRTUAL MATERIALS TECHNOLOGY CHALLENGE 4.0),
Hanan Azahrani, Khaulah Sulaiman, Shahino Mah Abdullah and Siti Fairus Abdul Sani
2nd September 2020
poster presentation of title: “Solution-processed Organic Semiconductors for UV Light Detector”
3. **Gold Medal** at AiNEX2021 (THE 4TH ADVANCED INNOVATION & ENGINEERING EXHIBITION)
Hanan Azahrani, Khaulah Sulaiman, Shahino Mah Abdullah, Dr. Adilah Roslan, and Siti Fairus Abdul Sani
30 August 2021
poster presentation of title: “Ultrasensitive Organic-based UV Sensor Operated at Self-powered Mode for Real-time Monitoring System”

Publications

1. **Hanan Alzahrani**, Khaulah Sulaiman, Alaa Y. Mahmoud, and Rabab R. Bahabry. "Study of organic visible-blind photodetector based on Alq3: NPD blend for application in near-ultraviolet detection." *Optical Materials* 110 (2020): 110490.
2. Basir, Amirah, **Hanan Alzahrani**, Khaulah Sulaiman, Fahmi F. Muhammadsharif, Mohammad S. Alsoufi, Tahani M. Bawazeer, and Siti Fairus Ab Sani. "A study on optoelectronics and spectroscopic properties of TPD: Alq3 heterojunction films for the application of UV sensors." *Physica B: Condensed Matter* 600 (2021): 412546.
3. Basir, Amirah, **Hanan Alzahrani**, Khaulah Sulaiman, Fahmi F. Muhammadsharif, Alaa Y. Mahmoud, Rabab R. Bahabry, Mohammad S. Alsoufi, Tahani M. Bawazeer, and Siti Fairus Ab Sani. "An investigation on the optical parameters of TPD: Alq3 composite thin films." *Physica B: Condensed Matter* 606 (2021): 412816.
4. Basir, Amirah, **Hanan Alzahrani**, Khaulah Sulaiman, Fahmi F. Muhammadsharif, Shahino Mah Abdullah, Alaa Y. Mahmoud, Rabab R. Bahabry, Mohammad S. Alsoufi, Tahani M. Bawazeer, and Siti Fairus Ab Sani. "A novel self-powered photodiode based on solution-processed organic TPD: Alq3 active layer." *Materials Science in Semiconductor Processing* 131 (2021): 105886.
5. **Hanan Alzahrani**, Khaulah Sulaiman, Fahmi F. Muhammadsharif, Shahino Mah Abdullah, Alaa Y. Mahmoud, Rabab R. Bahabry, and Siti Fairus Ab Sani. "Effect of illumination intensity on a self-powered UV photodiode based on solution-processed NPD: Alq3 composite system." *Journal of Materials Science: Materials in Electronics* (2021): 1-12.
6. Mahmoud, Alaa Y., Khaulah Sulaiman, Rabab R. Bahabry, and **Hanan Alzahrani**. "Effect of Alq3 dopant on the optoelectronic parameters of NPD: Alq3 composite films." *Optical Materials* 120 (2021): 111481.
7. Mahmoud, Alaa Y., Khaulah Sulaiman, Rabab R. Bahabry, and **Hanan Alzahrani**. "Effect of donor on the performance of self-powered UV photodiodes based on solution-processed TPD: Alq3 and NPD: Alq3 active layers." *Optik* 244 (2021): 167538.
8. **Hanan Alzahrani**, Khaulah Sulaiman, Alaa Y. Mahmoud, and Rabab R. Bahabry. "Ultrasensitive self-powered UV photodetector based on a novel pn heterojunction of solution-processable organic semiconductors." *Synthetic Metals* 278 (2021): 116830.
9. Javed, Mohsin, Sana Iqbal, Muhammad Azam Qamar, Mohammad Shariq, Inas A. Ahmed, Amal BaQais, **Hanan Alzahrani** et al. "Fabrication of effective Co-SnO₂/sgcn photocatalysts for the removal of organic pollutants and pathogen inactivation." *Crystals* 13, no. 2 (2023): 163.
10. Hussain, Mushtaq, Syed Sulaiman Hussaini, Mohammad Shariq, **Hanan Alzahrani**, Arafa A. Alholaisi, Samar H. Alharbi, Sirajah A. Alsharif et al. "Enhancing Cu²⁺ Ion Removal: An Innovative Approach Utilizing Modified Frankincense Gum Combined with Multiwalled Carbon Tubes and Iron Oxide Nanoparticles as Adsorbent." *Molecules* 28, no. 11 (2023): 4494.
11. Natashah, Fadlan Arif, Amirul Ashraf Md Sabri, **Hanan Alzahrani**, Mohamad Hafiz Mamat, Nur Adilah Roslan, Tahani M. Bawazeer, Nourah Alsenany, Mohammad S. Alsoufi, and Azzuliani Supangat. "Dicarbocyanine-based organic humidity sensors." *Synthetic Metals* 293 (2023): 117299.

Training courses, and workshops

- ***“UV/VIS analysis for Semiconductor Research”*** Workshop, Kuala Lumpur, Malaysia 2/4/2019
- ***“Program Specification”*** Workshop, Riyadh, KSA 7-8/10/2018
- ***“Quality management for quality units & programs coordinators workshop”***, 10 hours, Jazan University 2016
- ***“Classes Management”*** Workshop, 5 hours, Jazan University
- ***“Modern Teaching Strategies”***, 5 hours, Jazan University
- ***“Management basics and analysis of research data by using SPSS program for statistical analysis and its applications in scientific research”*** Workshop, 5 hours, Jazan University
- ***“Nanotechnology scientific program”***, 6 hours, KAU, 2015
- ***“Public Speaking Skills”***, 2 hours, KAU, 2015
- ***“The Secret of a Good Presentation”***, 3 hours
- ***“Publishing Skills”***, 2 hours, KAU, 2015
- ***“Scientific Poster”***, 2 hours, KAU, 2015
- ***“Smart Goals”***, 2 hours, 2015, KAU

Online lectures from Saudi Physical Society:

- ***“Quantum Mechanics: Its Origin and Basic Principles”***, 2 hours, 2015
- ***“Future of Nanotechnology”***, 2 hours, 2015
- ***“Research Skills”***, 6 hours, 2015

Online workshops from Saudi Digital Library:

- ***“Tour on Oxford Journals”***, 2 hours, 2015
- ***“Taylor and Francis eBooks”***, 1 hour, 2015
- ***“Dar Almandomah Database”***, 1 hour, 2015
- ***“Springer Protocols Database”***, 1 hour, 2015
- ***“ProQuest Database”***, 1 hour, 2015
- ***“How to get Published”***, 1 hour, 2015
- ***“Overview of the Nature.com platform”***, 1 hour, 2015
- ***“SAGE Premier Journals”***, 1 hour, 2015
- ***“GRE test prep course”***, KAPLAN 2012, Denver, Colorado, USA.
- ***“ICDL Certificate”***, 2009, New Horizon, Jeddah, KSA.
- ***“How to Make a good Impression”***, 9 hours course, 2009, KAU.
- ***“Meeting Management”***, 7 hours course, 2009, KAU.
- ***“Effective Planning”***, 10 hours, 2009, KAU.
- ***“Effective Communication Skills”***, 12 hours, 2009, KAU.
- ***“Excellence in the work environment”***, 4 hours, 2009, KAU.
- ***“Creative Thinking”***, 2009 KAU