



## DR. HASSAN KHALID AL- JUWHARI

### Work Address

The University of Jordan  
Physics Department  
Amman 11942, Jordan  
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### Home Address

Dahiet Al-Rasheed  
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## EDUCATION

- Ph.D. in Materials Science. The Pennsylvania State University, University Park, Pennsylvania 16802, U. S. A, December 2000.
- Bachelor of Science in Physics. The Yarmouk University, Irbid - Jordan, January 1986.

## ACADEMIC EXPERIENCE

**Full Professor in Physics**, The Physics Department, School of Science, University of Jordan, Amman, Jordan, May 2017 – **Present**.

**Associate Professor in Physics**, The Physics Department, School of Science, University of Jordan, Amman, Jordan, December 2012 – May 2017.

**International Baccalaureate Diploma Examiner**, IB Organization, Hague, Netherlands, June 2012 – **Present**.

**Associate Professor in Physics**, The Prince Hussein Bin Abdullah II Academy of Civil Protection, Amman, Jordan, Spring 2009/2010, Spring 2011/2012, Summer 2011/2012, Fall 2012/2013, and Fall 2016/2017.

**Assistant Professor in Physics**, The Physics Department, School of Science, University of Jordan, Amman, Jordan, 2004 – 2012.

**Assistant Professor in Physics**, The Physics Department, Faculty of Science, The Applied Science University, Amman, Jordan, September 2002 - February 2004.

**Assistant Professor in Physics**, The Basic Sciences, Philadelphia University, Jordan, Summer 2001/2002.

**Physics Lecturer**, The Math & Natural Sciences / The Physics Department, The Pennsylvania State University, Altoona Campus, Pennsylvania. Fall 1999 - Spring 2000.

**Physics Laboratory Technician**, The Physics Department, The Jordan University of Science and Technology (J.U.S.T.), Irbid, Jordan (December 1988- December 1990).

## ASSIGNMENTS & COMMITTEES

1. Accreditation Committee for the B.Sc. Program in Physics at The University of Jordan, Member, 2015 – Present.
2. Chairman / Physics Department, September 2015 – September 2016.
3. Chairman of the Accreditation Committee for the B.Sc. Program at the Department of Physics (2015/2016).

4. Vice Dean / School of Science, February – September 2015.
5. Assistant Dean / School of Science, Sept. 2006 – Nov. 2009; Sept. 2013 – Jan. 2015.
6. School of Science On-Line Computer Based Examination Officer, 2013 – August 2015.
7. Physics Department Council: 2004 – Present (Member).
8. Science School Council: 2006 – 2009, 2013 – 2016 (Member).
9. Physics Scientific Research & Seminar Committees (Member)
10. Ph.D. & M.Sc. Thesis Defense Examiner Committees (Member)
11. Ph.D., M.Sc. & B.Sc. Qualifying Exams Committees (Chair, Member)
12. Employee Interview Committee (Member)
13. M.Sc. & B.Sc. Physics Study Plans & Curriculum Committees (Member)
14. Physics B.Sc. Student Academic Advisor
15. Materials Science and Technology Program (Founding Committee / Member)
16. General Physics Courses Coordinator
17. General Physics Textbook Selection Committee (Member)
18. Departmental Laboratory & Space Allocation Committee (Member)
19. Computer Based Examinations (Founding Committee, Member)
20. Student Union Election Steering/Monitoring Committee (Chairman, Member)
21. Various Advanced R&D Characterization Tools/Apparatus Committees (Chairman, Member)
22. Student/Employee/Faculty Members Violation & Investigation Committees (Member)
23. X-Ray Diffraction Jordanian National Team (Member) 2007 – Present.
24. Several Scientific National/International Journals and Projects (Referee).
25. Blossom's Initiative for Blended Learning Team (Member), Static Equilibrium Teaching Material & Video Module, Massachusetts Institute of Technology (MIT), Cambridge, MA, USA, February 2008 – Present.

## RESEARCH EXPERIENCE

**Applied Research Laboratories – Founding Committee Member** (Advanced Performance Materials Laboratories), The School of Science, The University of Jordan. **2006 – Current:** Played Crucial Role in the Establishment of Advanced R&D facilities on the premises of the School of Science.

**Laboratory Assistant**, The International Center for Actuators and Transducers (ICAT), Intercollege Materials Research Laboratory (IMRL), The Pennsylvania State University. June 1, 2000 – August 31, 2000.

**Visiting Research Assistant**, The International Center for Actuators and Transducers (ICAT), Inter-college Materials Research Laboratory (IMRL), The Pennsylvania State University. January 1, 2000 – May 31, 2000.

**Graduate Research Assistant**, The Phosphor Technology Center of Excellence (PTCOE), Intercollege Materials Research Laboratory (IMRL), The Pennsylvania State University. January 1995 – June 2000.

## INDUSTRIAL (Post Graduate Research & Development) EXPERIENCE

**Phosphor Scientist**, Display Research Laboratories, Inc., San Diego, California, U. S. A, September, 2001 – May, 2002.

**Phosphor Engineer**, PixTech Display Company, Inc., Boise, Idaho, U. S. A, November 2000 – August, 2001.

## RESEARCH INTERESTS

1. **Synthesis and Characterization of Luminescent Materials, Photoluminescence, Crystal Structure.**  
Luminescent materials including Phosphors in powder and thin film forms prepared by various methods and techniques including spin coating, spray pyrolysis, thermal evaporation, & electron beam. With special interest and focus on particle size especially in the nano-scale. Synthesis methods including the conventional solid state technique, the low temperature sol-gel method, and the hydrothermal relatively low temperature method. Characterization methods including structural, optical, electrical, and thermal analysis, etc.
2. **Structure-Property Relations**  
Investigating experimentally and/or theoretically the structural influence on the optical, thermal, and electrical properties of various types of materials in different forms including powders, polymers, thin films, and composites.
3. **Brilliant Light Emitting Materials for Lightings and Next Generation of Smart Panel Displays**  
Investigating the effects of various Rare-Earth doping/co-doping on the UV-Vis-IR luminescence behavior of various phosphor materials with the intension of either identifying new potential candidates or improving currently existing ones in terms of their relative intensities, quantum efficiencies, ease of depositions, area coverage, efficient particle sizes, and their concentration quenching curves. Great emphases are focused on the theoretical assignments, explanation and interpretation of the emission/excitation spectra in order to predict and/or consolidate the experimental results and findings.

## PUBLICATIONS / CONFERENCES / PROCEEDINGS

1. Structural, Optical and Vibrational Properties of ZnO Microrods Deposited on Silicon Substrates. Bashar I. Lahlouh, Shadia J. Ikhmayies, **Hassan K. Juwhari**. **Journal of Electronic Materials**, Accepted Manuscript (2018).
2. Synthesis, Characterization, Crystal Structure and Fluorescence of a New Samarium Schiff-Base Complex. Abdel Aziz Abu-Yamin, Murad A. AlDamen, Mutasem O. Sinnokrot, **Hassan K. Juwhari**, Mahmoud Salman, Ibrahim Sarairah, Jibril Al-hawarin, Mohammad S. Mubarak. **Journal of Structural Chemistry**, Accepted Manuscript (2018).
3. The  $\gamma$ -irradiation Effect on the Optical Properties of CdTe Thin Films Deposited by Thermal Evaporation Technique. F Afaneh, M Okasha, K Hamam, A Shaheen, M Maghrabi, B Lahlouh, **Hassan K Juwhari**. **Materials Science-Medziagotyra**, **24(1)** 3-9 (2018).
4. Investigation of Thermal and Electrical Properties for Conductive Polymer Composites. **Hassan K. Juwhari**, A. Abuobaid, Z. Elaimat, A. Zihlif. **Journal of Electronic Materials**, **46(10)** 5705–5714 (2017).
5. Hydrothermal Synthesis, Crystal Structure, and Photoluminescent Properties of  $\text{Li}[\text{UO}_2(\text{CH}_3\text{COO})_3]_3[\text{Co}(\text{H}_2\text{O})_6]$ . M.A. AlDamen, **Hassan K. Juwhari**, A.M. Al-zuheiri, L.A. Alnazer. **Crystallography Reports**, **62(7)** 1164–1168 (2017).
6. V European Conference on Renewable Energy Systems (ECRES 2017), August 2017.

7. Room Temperature Photoluminescence of Spray-Deposited ZnO Thin Films on glass substrates. **Hassan K. Juwhari**, S.J. Ikhmayies, B.I. Lahlouh. **International Journal of Hydrogen Energy**, **46(10)** 5705–5714 (2017).
8. Radioactivity Concentrations and Dose Assessment for Agricultural Soil Samples around the Jordanian Petroleum Refinery in Zarqa/Jordan. F. Afaneh, M. Al-Momani, J. Al-Jundi, A. Aldrabee, **Hassan Juwhari**. **International Journal of Low Radiation**, **10(3)** 234-243 (2016).
9. IV European Conference on Renewable Energy Systems (ECRES 2016), August 2016.
10. Crystal structures, optical properties, and TD-DFT study of a Zinc(II) Schiff-base complex derived from salicylaldehyde and N1-(3-aminopropyl)propane-1,3-diamine. M. A. AlDamen, N. Charef, **Hassan K. Juwhari**, K. Sweidan, M.S. Mubarak, D.G. Petter. **Journal of Chemical Crystallography**. 46(10-12): 411-420 (2016).
11. Structural, magnetic, and Mössbauer spectroscopy of Cu substituted M-type hexaferrites. Ahmad Awadallah, S.H. Mahmood, Y. Maswadeh, I. Bsoul, M. Awawdeh, Q.I. Mohaidat, **Hassan Juwhari**. **Materials Research Bulletin**, 74: 192–201(2016).
12. Characterization, Fate, and Re-suspension of Aerosol Particles (0.3–10 $\mu$ m): The Effects of Occupancy and Carpet Use. T. Hussein, L. Dada, **Hassan Juwhari**, D. Faouri, **Aerosol and Air Quality Research**, 15 (6): 2367-2377 (2015).
13. Optical dispersion functions of Co<sub>2-x</sub>Eu<sub>x</sub>VSn using ab-initio calculations. N. Talal, J. Khalifeh, A. Mousa, **Hassan Juwhari**. **International Journal of Modern Physics B**. 29 (28): 1550195 (2015).
14. Investigation of physical ageing effect in Se90In4Sn6 glass. O Lafi, M Imran, **H. Juwhari**, M Abdullah. **Radiation Physics and Chemistry**, 112: 1-5 (2015).
15. Effects of Heat Treatment on the Phase Evolution, Structural, and Magnetic Properties of Mo-Zn Doped M-type Hexaferrites. S. Mahmood, A. Aloqaily, Y. Maswadeh, A. Awadallah, I. Bsoul, M. Awawdeh, **Hassan Juwhari**. **Solid State Phenomena**, 232: 65-92 (2015).
16. Synthesis and Crystal Structure of New Lacunary Wells-Dawson with an Unprecedented Eu-Substituted Sandwiched Cluster. MA AlDamen, **Hassan K. Juwhari**, J Kfawein. **Journal of Cluster Science**, 26 (5): 1683-1692 (2015).
17. International Aerosol Conference, Proceedings, 2014, Busan, Korea, August 2014.
18. The Spring International Conference on Advances in Physics (CAP-S 2014), Proceedings, Shanghai, China, April 2014.
19. Structural and magnetic properties of Mo-Zn substituted (BaFe<sub>12-4x</sub>Mo<sub>x</sub>Zn<sub>3x</sub>O<sub>19</sub>) M-type hexaferrites. S.H. Mahmood, A.N. Aloqaily, Y. Maswadeh, A. Awadallah, I. Bsoul, **Hassan K. Juwhari**, **Material Science Research India** 11 (1): 9-20 (2014).
20. Magnetic properties and hyperfine interactions in M-type BaFe<sub>12-2x</sub>Mo<sub>x</sub>Zn<sub>x</sub>O<sub>19</sub> hexaferrites. S.H. Mahmood, G.H. Dushaq, I. Bsoul, M. Awawde, **Hassan K. Juwhari**, B. Lahlouh, and M. AlDamen. **Journal of Applied Mathematics and Physics** 2 (5): 77-87 (2014).
21. Structural, electronic, vibrational and dielectric properties of LaBGeO<sub>5</sub> from first principles. R. Shaltaf, **Hassan K. Juwhari**, B. Hamad, J. Khalifeh, G.-M. Rignanese, and X.Gonze. **Journal of Applied Physics**, 115(7): 074103 (2014).
22. A Study on the DC-Electrical and Thermal Conductivities of Epoxy/ZnO Composites doped with

- Carbon Black. **Juwhari Hassan**; Zihlif A, Elimat A., Ragosta G. **Radiation Effects and Defects in Solids**, 169(6): 560-572 (2014).
23. First principles study of structural, electronic and optical properties of the fluoroperovskite  $\text{RbCaF}_3$  crystal. Mousa, A.A., Khalifeh, J.M., Mahmoud, N.T., **Juwhari, H.K.**, **American Journal of Condensed Matter Physics** 3(5): 151-162 (2013).
  24. LinkSCEEM HPC Roadshow 2013, The University of Jordan, Amman - Jordan, February 2013.
  25. Third LinkSCEEM Thematic Workshop, Nicosia - Cyprus, February 2013.
  26. Effects of molybdenum concentration and valence state on the structural and magnetic properties of  $\text{BaFe}_{11.6}\text{Mo}_x\text{Zn}_{0.4-x}\text{O}_{19}$  hexaferrites. Dushaq, G.H., Mahmood, S.H., Bsoul, I., **Juwhari, H.K.**, Lahlouh B., and AlDamen M. **Acta Metallurgica Sinica (English Letters)** 26 (5): 509 - 516 (2013).
  27. Nanocrystalline CdS:In Thin Films Prepared by Spray-Pyrolysis Technique. S.J. Ikhmayies, **Hassan K. Juwhari**, R. Ahmad-Bitar. **Journal of Luminescence** 141: 27-32 (2013).
  28. The energetic, electronic and magnetic structures of  $\text{Fe}_{2-x}\text{Co}_x\text{VSn}$  alloys: ab-initio calculations Mahmoud, N.T., Khalifeh, J.M., Mousa, A.A., **Hassan K. Juwhari**, et al. **Physica B: Condensed Matter**. 430: 58-63 (2013).
  29. Hydrothermal synthesis of  $\text{Eu}^{2+}$ -activated borosilicate phosphors with the danburite structure **Hassan K. Juwhari**, W.B. White. **Materials Letters** 88: 16-18 (2012).
  30. Infrared photoluminescence of sol-gel spin-coated films of rare-earth activated lanthanum silicate **Hassan K. Juwhari**, M. Kilani, B. Lahlouh, S. Abedrabbo, and K. Al-Saleh. **Materials Letters**. 87: 80-83 (2012).
  31. Luminescence of rare earth borosilicates with the stillwellite and related structures. **Hassan K. Juwhari**, W.B. White. **Materials Letters** 64(15): 1751-1754 (2010).
  32. Optoelectrical properties of epoxy/silica nanocomposites. Alzubi, R, **Hassan K. Juwhari**, Zihlif. A, and Ragosta G. **Materials Technology: Advanced Performance Materials** 25(1): 14-18 (2010).
  33. **Hassan K. Juwhari** and William B. White. Hydrothermal synthesis of borosilicate phosphors based on the stillwellite structure. Extended abstracts, **The Second International Conference on The Science and Technology of Display Phosphors**, November, 159 – 162, (1996).
  34. Erdei, S., R. Roy, G. Harshe, **H. Juwhari**, D. Agrawal, F.W. Ainger, and W.B. White. The effect of powder preparation processes on the luminescent properties of yttrium oxide based phosphor materials. **Materials Research Bulletin** 30: 745 – 453, (1995).
  35. S. Abedrabbo, B. Lahlouh, **H. Juwhari**, O. Gokce, A. Fiory, and N. Ravindra. Optical Emission of Doped Sol-Gel Films Deposited on Silicon. **TMS2013. 142<sup>nd</sup> Annual Meeting & Exhibition**. March 3 - 7, 2013. San Antonio, Texas, USA.
  36. LinkSCEEM HPC Roadshow 2013. High Performance Computing For Scientists and Engineers, February 28<sup>th</sup>, 2013. Amman – Jordan.
  37. Climate Research. Third LinkSCEEM Thematic Workshop. February 2013. Nicosia – Cyprus.
  38. SESAME-JSPS School and SESAME 9<sup>th</sup> Users Meeting. Amman, Jordan.
  39. SESAME-JSPS School and SESAME 8<sup>th</sup> Users Meeting. Petra, Jordan.

40. Scanning Electron Microscopy (SEM) Training Course, FEI Academy, FEI Europe B.V., November 8 - 12, 2009, Eindhoven – Netherlands.
41. XRD, SC-XRD & XRF Crash Course, Bruker AXS GmbH, August 23-29, 2009, Karlsruhe – Germany.
42. SESAME-JSPS School and SESAME 7<sup>th</sup> Users Meeting. Cairo University, Cairo, Egypt.
43. SESAME 6<sup>th</sup> Users Meeting. Days Inn, Amman, Jordan. Nov. 17-19, 2007.

## HONORS, GRANTS & AWARDS

- Several Grants, for Research & Development Projects, funded by various agencies including the Scientific Research Support Fund (S.S.R.F) of the Ministry of Higher Education, the Deanship for academic research at The University of Jordan, Shoman Institute, and Blossom's Initiative for Blended Learning (MIT).
- Special International Tuition Grant-in-aid award, The Pennsylvania State University.
- Graduate Lecturer/Researcher, The Pennsylvania State University, PA, USA.
- Grant-in-aid, The Second International Conference on The Science and Technology of Display Phosphors, Plasma, San Diego, CA, USA.
- Graduate Research Assistantship, The Pennsylvania State University, University Park, PA, USA.

## ACADEMIC SUPERVISING

### A. Supervisor (Ph.D.)

1. Amro Al-Ma'ayta, "Optical and Electrothermal Properties of Polypropylene / Nickel Composites," **The University of Jordan**, Amman, **Ongoing**.
2. Batool Abu-Saleh, "Optical and Electrothermal Properties of Ultrafine Aluminum Particles dispersed in poly (methyl methacrylate) polymer," **The University of Jordan**, Amman, **Ongoing**.
3. Omar Hussein, "Physical characterization of polypropylene/graphene nanocomposites," **The University of Jordan**, Amman, Jordan, 2016.
4. Hussam Miqdad, "Physical study on poly (ethylene oxide) composites dispersed with alum particles and doped with carbon black nanoparticles," **The University of Jordan**, Amman, Jordan, 2015.

### B. Supervisor (M.Sc.)

1. A'laa Emran, "The effect of tin additive on thermal properties of Se.Pb Semiconducting Glasses," **The University of Jordan**, Amman, Jordan, **Ongoing**.
2. Yaseen Atieh, "Synthesis and characterization of organic luminescent materials doped with ions of rare earth metals," **The University of Jordan**, Amman, Jordan, 2016.
3. Malik Abu-Rashed, "A study on the electrical and thermal conduction in Iron/polystyrene composites," **The University of Jordan**, Amman, Jordan, 2015.
4. Bian Al-Zoghol, "Optical and Impedance properties of Nickel / (Polymethyl methacrylate) thin films," **The University of Jordan**, Amman, Jordan, 2015.

### C. Associate Supervisor (M.Sc. & Ph.D.)

1. Nazih Sewan, "Synthesis & Characterization of Luminescent Materials (Rare-earth doped Barium Aluminates)," Ph.D., **The University of Jordan**, Amman, Jordan, 2014.
2. Ibrahim Al-Hawarat, "Optical Properties of  $\text{Se}_{90}\text{Pb}_{10-x}\text{Sn}_x$  ( $x = 0, 2$ ) Chalcogenide," M.Sc., **Al-Balqa Applied University**, Al-Salt, **Ongoing**.
3. Alaa Al-Bitar, "An Estimate Value for the number and Mass Size Distributions of Aerosol Particles (.01 – 10  $\mu\text{m}$ ) at the Campus of the University of Jordan in Amman during Spring 2014," M.Sc., **The University of Jordan**, **Ongoing**.
4. Mohammad Okasha, "The Effect of Gamma Irradiation on The Optical Properties of The Fabricated CdTe Thin Films on Both Commercial Glasses and Quartz Substrates," M.Sc., **The Hashemite University**, Zarqa, Jordan, 2015.
5. Mariana Khaled Khalil, "Structural and Characterization Properties of Rare Earth Doped Zinc Oxide" M.Sc., **The University of Jordan**, Amman, Jordan, 2013.
6. Hatem Omar Babaa, "Synthesis and Characterization of Luminescent Materials," M.Sc., **The University of Jordan**, Amman, Jordan, 2009.
7. Ruba Ibraheem Al-Zu'bi, "Optical and Electrical Properties of Silica/Epoxy Nanocomposite," M.Sc., **The University of Jordan**, Amman, Jordan, 2008.

#### **D. Thesis Defense Committee Member (Ph.D.)**

1. Hammad Al-Dalain, "Optical and Electrothermal Properties of Oil Shale Particles Dispersed in Epoxy Polymer," **The University of Jordan**, Jordan, 2015.
2. Ibrahim Ayish, "A Study on the Physical Properties of Poly (Ethlene Oxide) / Zinc Oxide Composite Doped with Iodine," **The University of Jordan**, Jordan, 2015.
3. Abdallah Mahasneh, "Charge states measurement of thin solid films resulting from ion-atom electrons exchange phenomenon," **The University of Jordan**, Jordan, 2005.

#### **E. Thesis Defense Committee Member (M.Sc.)**

1. Safa' Ibrahim, "Modeling thermophoretic deposition of aerosol particles onto smooth surfaces," **The University of Jordan**, Jordan, 2016.
2. Sawsan Malek, "Modeling electrostatic drifting of aerosol particles towards smooth surfaces," **The University of Jordan**, Jordan, 2016.
3. Motasem Al Halaigah, "Spatial-Temporal variation of fine aerosol particles in Amman during the spring season of year 2014," **The University of Jordan**, Jordan, 2016.
4. Abdulsalam Farhat, "Two-Point Resistance for the Circular Ladder," **The University of Jordan**, Jordan, 2016.
5. Mohammad Al-Marahfeh, "Photoionization of Argon by UV Radiation," **The Hashemite University**, Zarqa, Jordan, 2016.
6. Mashour Al-Momani, "Mass spectroscopic studies of heavy metal pollution impact on agricultural soil around Jordan petroleum refinery and Al-Hussein thermal power station in Al-Zarqa city (Jordan)," **The Hashemite University**, Zarqa, Jordan, 2015.

7. Bayan al-Malaji, "Comparative study of structural and optical properties of Lead Iodide and Mercury Iodide crystals fabricated by the Silica-Gel and Solution-Growth Methods," **The University of Jordan**, Jordan, 2014.
8. Nuha Al Zaben, "Theoretical investigation of the electronic, structural, dielectric and vibrational properties of LaBSiO<sub>5</sub> from density functional theory," **The University of Jordan**, Jordan, 2014.
9. Samar Al Sakhel, "Experimental study of the thermal properties of Se<sub>100-x</sub>Sn (x=2,4,6, &8) semiconducting glasses," **The University of Jordan**, Jordan, 2010.
10. Mohammad Al-Shahatit, "Optical properties of metal doped titanium oxide films prepared by sol-gel spin coating technique," **The University of Jordan**, Jordan, 2010.
11. Mohammad Jubran, "Effect of ytterbium as a co-doped on light efficiency of erbium doped silicon," **The University of Jordan**, Jordan, 2007.
12. Mashaal Al-Khalidi, "Application of radiobiological models in the prediction of clinical outcome in radiotherapy patients," **The University of Jordan**, Jordan, 2006.
13. Mohammad Hasan, "Properties of CuInSe<sub>2</sub> prepared by chemical spray pyrolysis," **The University of Jordan**, Jordan, 2006.
14. Tahani Al-Aqrabawi, "Determination of attenuation and self-absorption correction factors for gamma analysis of environmental samples," **The University of Jordan**, Jordan, 2005.
15. Rami Zurikat, "Electrical conduction in doped crystalline silicon," **The University of Jordan**, Jordan, 2005.

#### **F. Supervisor / B.Sc. Students / Materials Science & Technology Major**

- 1) Student Name: Issa Al-Khateeb  
Project Title: "Characterization of Europium Doped Hydroxyapatite Phosphors"  
**The University of Jordan**, Jordan, 2012.
- 2) Student Name: Rawan Al-Esaa  
Project Title: "Synthesis and Characterization of Luminescent Materials"  
**The University of Jordan**, Jordan, 2011.
- 3) Student Name: Sana' Al-Tal  
Project Title: "Characteristics of Some Commercial Phosphors"  
**The University of Jordan**, Jordan, 2010.
- 4) Student Name: Jamila Al-Hadidi  
Project Title: "Characterization of Luminescent Materials"  
**The University of Jordan**, Jordan, 2010.

#### **G. International Baccalaureate / Diploma Examiner**

**More than 50 Science Projects** (Extended Essays) were evaluated and marked for Students from the Global International Community including those from **Canada, United States, Sweden, Peru, United Kingdom, India, Ukraine, Hong Kong, China, Italy, and Saudi Arabia.**

#### **H. Science Project Supervisor for School Teachers / Shoman Institute, Amman – Jordan.**

#### **I. Science Project Examiner for School Students / Invention Institute for Creativity, Amman – Jordan.**



## COURSES TAUGHT OR DEVELOPED

- **Graduate Course in Materials Physics:** Suggested, Constructed, & Developed.
- **Solid State Physics**, for B.Sc. Physics Students in their **4<sup>th</sup> Year**.
- **Thermal Physics**, for B.Sc. Physics Students in their **3<sup>rd</sup> Year**.
- **Software Packages I & II**, in B.Sc. Physics for Physics Students in their **2<sup>nd</sup> and 3<sup>rd</sup> Year**.
- **Radiation Physics**, for B.Sc. Physics Students in their **2<sup>nd</sup> Year**.
- **Modern Physics**, for B.Sc. Physics Students in their **2<sup>nd</sup> Year**.
- **Optics**, for B.Sc. Physics Students in their **2<sup>nd</sup> Year**.
- **Electricity & Magnetism**, for **2<sup>nd</sup> Year** Students in Materials Science & Technology Major.
- **General Physics**, for Students in their **Freshman** Year Majoring in Science, Engineering, Medicine, Dentistry, Habitational Sciences, and/or Agricultural Engineering.
- **Practical Physics I**, for **Freshman** Students Majoring in Science, Engineering, or Dentistry.
- **Ethics and Skills of University Life**, for **Freshman** Students from all Majors.

## ATTRIBUTES

- Leader and Team Player: Works Well with People at all Levels.
- Adapt Quickly to Changing Situation while Easily Implementing New Concepts.
- Technically Oriented with Strong Academic Background.
- Self-Motivated, Enthusiastic, & Accustomed to Hard Work and Responsibility.

## REFERENCES

- **Emeritus Prof. William B. White**  
Materials Research Institute & Department of Geosciences  
The Pennsylvania State University  
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- **Prof. Marouf Al-Hajj**  
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- **Prof. Shaher Al-Momani**  
Deanship of Academic Research / Dean  
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