
Samer Zyoud, M.S.
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Mathematics and Sciences
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Academic Background

PhD. Universiti Sains Malaysia (In Progress)
M.Sc. University of Baghdad.
B.Sc. University of Mousel.

Professional Memberships

62001317 Physical Review, 2019

WORK EXPERIENCE

Work Experience

SENIOR LECTURER, Ajman University (September, 2021 - Present), Ajman, United Arab Emirates.
LECTURER, Ajman University (September, 2011 - 2021), Ajman, United Arab Emirates.

TEACHING

Courses Taught

Courses from the Teaching Schedule: Engineering Physics I, Engineering Physics II, Fundamentals of Ecology-OH, Research Methodology /ARB/WEB

Courses taught, but not in the Schedule:

Engineering Physics I, Engineering Physics II, Physics I, Physics II, Fundamentals of Ecology, Physics – Foundation, Special Topics in Science, Engineering Math I, Engineering Math II, Engineering Math III, Engineering Math IV, Math for Management, and Reserch Methodology.

Teaching Activities

Assurance of Learning - Teaching

2019 - *Other teaching accomplishments and contributions.*

2019 - *Contribution in course design and delivery.*

2019 - *Contribution in program/curriculum development:.*

2019 - *Use of technology and modern methodologies to enhance teaching.*

INTELLECTUAL CONTRIBUTIONS

Intellectual Contributions Grid

Category	DBS	CTP	LPS	Total
Articles in Refereed Journals	22			22

Articles-in-Progress (All)	6			6
Publications of Non-refereed or Invited Papers	8			8

Refereed Articles

- Zyoud, S.H. (2022). Ionization Radiation Shielding Effectiveness of Lead Acetate, Lead Nitrate, and Bismuth Nitrate-Doped Zinc Oxide Nanorods Thin Films: A Comparative Evaluation. *Materials*, 15(1), 3.
- Zyoud, S.H. (2021) Numerical Modeling of High Conversion Efficiency FTO/ZnO/CdS/CZTS/MO Thin Film-Based Solar Cells: Using SCAPS-1D Software. *Crystals* 2021, 11, 1468.
- Zyoud, S.H. (2021). Numerical Modelling Analysis for Carrier Concentration Level Optimization of CdTe Heterojunction Thin Film–Based Solar Cell with Different Non–Toxic Metal Chalcogenide Buffer Layers Replacements: Using SCAPS–1D Software. *Crystals* 2021, 11, 145.
- Zyoud, S. H. (2021). Influence of Magnetic Field on Level of Linearly Polarized Laser Beam Passing through Faraday Crystal. In *Defect and Diffusion Forum* (Vol. 408, pp. 129-140). Trans Tech Publications Ltd.
- Zyoud, S.H. (2021). Numerical Simulation for Optimization of ZnTe-Based Thin-Film Heterojunction Solar Cells with Different Metal Chalcogenide Buffer Layers Replacements: SCAPS–1D Simulation Program. *Int. Rev. Model. Simul.* 2021, 14, 79–88.
- Zyoud, S.H. (2021) Effect of Absorber (Acceptor) and Buffer (Donor) Layers Thickness on Mo/CdTe/CdS/ITO Thin Film Solar Cell Performance: SCAPS–1D Simulation Aspect. *Int. Rev. Model. Simul.* 2021, 14, 10–17
- Zyoud, S. H. (2021). Zinc Oxide in Photocatalytic Removal of *Staphylococcus aureus* and *Klebsiella pneumoniae* from Water with Ultraviolet and Visible Solar Radiations. *JOM*, 73 (1), 420-431.
- Zyoud, S. H. (2021). ZnO-Based Catalyst for Photodegradation of 2-Chlorophenol in Aqueous Solution Under Simulated Solar Light Using a Continuous Flow Method. *JOM*, 73 (1), 404-410, doi: <https://doi.org/10.1007/s11837-020-04478-w>.
- Zyoud, S. H. (2021). The effect of Blended Learning on Achievement of student's dentistry collage in physics course: Case Study of Ajman University. *The Electronic Journal of e-Learning (EJEL)*, 19 (1), 1-17.
- Zyoud, S. H. (2020). Removal of acetaminophen from water by simulated solar light photodegradation with ZnO and TiO₂nanoparticles: Catalytic efficiency assessment for future prospects. *Journal of Environmental Chemical Engineering*, 8(4) (104038)., doi: DOI: 10.1016/j.jece.2020.104038.
- Zyoud, S. H. (2020). Raw clay supported ZnO nanoparticles in photodegradation of 2-chlorophenol under direct solar radiations. *Journal of Environmental Chemical Engineering*, 8 (5), 104227, doi: <https://doi.org/10.1016/j.jece.2020.104227>.
- Zyoud, S. H. (2020). Raw-clay-supported ZnO nanoparticle catalysts in self-sensitized tetracycline photodegradation: Zero point charge and pH effects. *Journal of Environmental Chemical Engineering*, 8 (5), 104227, doi: <https://doi.org/10.1016/j.jece.2020.104227>.
- Zyoud, S. H. (2020). The Impact of Temperature on the Performance of Semiconductor Laser Diode. *International Journal of Advanced Science and Technology*, 29 (6), 1167-1180.
- Zyoud, S. H. (2020). Diabetes and the COVID-19 pandemic: What should the diabetes patients know? *Pharmaceutical Sciences*, 26, S87-S90, doi: DOI: 10.34172/PS.2020.75.
- Zyoud, S. H. (2020). Growth of interface region in 2D wet foam. *Crystals*, 10(8) (703), 1-12, doi: DOI: 10.3390/cryst10080703.
- Zyoud, S. H. (2019). The Influence of magnetic field on pulse distribution of laser diode. *Universal Journal of Electrical and Electronic Engineering*, 6 (5), 323-328, doi: DOI: 10.13189/ujeee.2019.060503.

- Zyoud, S. H. (2019). Photocatalytic degradation of phenazopyridine contaminant in soil with direct solar light. *Environmental technology*, 40 (22), 2928-2939, doi: <https://doi.org/10.1080/09593330.2018.1459873>.
- Zyoud, S. H. (2019). Enhancement of electrochemically deposited pristine CdTe film electrode photoelectrochemical characteristics by annealing temperature and cooling rate. *Optik*, 197, 163220, doi: <https://doi.org/10.1016/j.ijleo.2019.163220>.
- Zyoud, S. H. (2019). Kaolin-supported ZnO nanoparticle catalysts in self-sensitized tetracycline photodegradation: Zero-point charge and pH effects. *Applied Clay Science*, 182, 105294, doi: <https://doi.org/10.1016/j.clay.2019.105294>.
- Zyoud, S. H. (2019). Direct sunlight-driven degradation of 2-chlorophenol catalyzed by kaolinite-supported ZnO. *International Journal of Environmental Science and Technology*, 16 (1735-1472), 6267-6276, doi: <http://doi.org/10.1007/s13762-019-02272-z>.
- Zyoud, S. H. (2019). Characteristics of Semiconductors Laser under Influence of Magnetic Field. *Journal of Advanced Research in Dynamical and Control System*, 11 (10), 682-689, doi: <http://dx.doi.org/10.5373/JARDCS/V11SP10/20192858>.
- Zyoud, S. H., & Karajeh, B. (2009). Synthesis of Palladium nanoparticles under reflux and microwave mode of heating in glycerol and oleic acid comparative study. *The International Conference for Nanotechnology Industries, King Abdullah Institute for Nanotechnology*.

Non-Refereed Articles

Zyoud, S. H. (2020). Removal of acetaminophen from water by simulated solar light photodegradation with ZnO and TiO₂ nanoparticles: Catalytic efficiency assessment for future prospects. *International Mathematics Research Notices*, 8, 104038, doi: DOI: 10.1016/j.jece.2020.104038.

Luo, L. (2020). Synthesis of submicron-sized carbon-doped TiO₂ for photodegradation of formaldehyde from wood-based panels. *OP Conference Series: Materials Science and Engineering*.

Gerwin U, F. (2021). Bibliometric analysis of bacterial central nervous system infection research in Southeast Asia. *BMC Neurology*.

Zyoud, S. H. (in press, 2021). Effect of Absorber (Acceptor) and Buffer (Donor) Layers Thickness on Mo/CdTe/CdS/ITO Thin Film Solar Cell Performance: SCAPS-1D Simulation Aspect. *International Review on Modelling and Simulations (IREMOS)*.

Zyoud, S. H., & Abdelkader, A. (in press, 2021). Influence of Magnetic Field on Level of Linearly Polarized Laser Beam Passing through Faraday Crystal. *Defect and Diffusion Forum*.

Zyoud, S. H., & Abdelkader, A. (in press, 2021). Numerical simulation for optimization of ZnTe-based thin-film heterojunction solar cells with different metal chalcogenide buffer layers replacements: a SCAPS-1D simulation model. *International Review on Modelling and Simulations (IREMOS)*.

Working Papers

Zyoud, S. H. (2020). "Measure the effect of secondary school achievement on physics and mathematics on the academic achievement of the students of the Faculty of Engineering."

SERVICE

Service to the Institution

Department Assignments

Member:

2020-2021: Scientific Research Committee

2020-2021: Department Council

College Assignments

Member:

2020-2021: International Academic Accreditation Committee

2020-2021: Planning and Budget Committee

Chair:

2019-2020 – 2020-2021: AU's Collection Development Committee

2019-2020 – 2020-2021: Office of International Academic Affairs

2018-2019 – 2020-2021: Facilities for technology-driven teaching and learning

2013-2014 – 2019-2020: Budget and planning team

2011-2012 – 2019-2020: Student Reception Committee

Member:

2019-2020: Honoring Distinguished Researchers Committee

University Assignments

Committee Member:

2019-2020 – 2020-2021: AU's Collection Development Committee

2019-2020 – 2020-2021: Office of International Academic Affairs

2013-2014 – 2020-2021: Budget and planning team

2016-2017 – 2019-2020: Fundraising Council team

Member:

2020-2021: International Academic Affairs Committee

Service to the Profession

Academic Conference: Moderator / Facilitator

2020: 3rd International Conference on Recent Trends in Multi-Disciplinary Research (ICRTMDR-2020), Maldives, Virtual (International). Dec. 26-27, 2020

Academic Conference: Panelist

2021: Department of Science Technology & Research , Dubai, Virtual (National). **The first Innovation@UAE Majlis is taking place on Feb. 22,2021**

2021: Webinar "Coping with a Pandemic: From Strategies to Resilience", College of Lake County, USA & Ajman University, UA, Virtual (International). AU, Feb. 3, 2021

Service to the Community

Speech / Presentation at a Community Meeting

2021: ACS Materials Letters Webinar Series, Feb. 18,2021

Professional Development

DS: Research-Related Conference/Seminar

2020: RE-SOURCING Conference Drivers of Responsible Sourcing. Find common ground, prompt collective action, create lasting change Virtual Conference. **Jan. 18-19, 2021**

Instructional-Related Conference

2020: Smart City Without Borders: Challenges and Opportunities during COVID-19. **Oman Smart City Platform (SCP)**, Jun. 10-11, 2020,

Other Professional Development

2021: Focus Group Study Artificial Intelligence UAE. Feb. 15, 2021

2020: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. Ask us Anything' webinar with characterization and formulation experts. Dec. 15, 2020

2020: THE BIG 5 Solar International Building & Construction Show,. 23 -26 Nov. 2020 Dubai, UAE

2019: First Sharjah Int. Spring School in PDEs and Numerical Analysis. Feb. 15, 2021

2019: THE BIG 5 Solar International Building & Construction Show,. 25 – 28 NOV. 2019, Dubai, UAE

2018: THE BIG 5 Solar International Building & Construction Show,. 26 -29 Nov. 2018, Dubai. UAE

Professional Seminars / Workshops

2021: Springer Nature Webinar (UAE) - Step-by-step Guide on How to Prepare a Successful Paper. Feb. 22, 2021

2021: Investing in African Health Systems, Digital Health and Telemedicine. SSCG Consulting.Feb. 4, 2021

2021: American-chemical-Society (ACS) Materials Letters Webinar Series. The ACS Materials Letters Webinar Series features world renowned experts highlighting the most impactful and transformative materials research at the interface between materials science and other disciplines, such as chemistry, engineering, physics, and biology, Feb. 18, 2021

2020: Virtual SSCG Africa Healthcare Forum. Investment Opportunities in the African Health Systems, Digital Health and Telemedicine on Feb. 3-4, 2021

2020: Stuart Ross. How To Make Your First 10k Online, Jul. 20, 2020

2020: Webinar room: <https://event.webinarjam.com/t/click/3vy12arh9wiy0gfxq0c32nh7liq>. Develop Your Voice to Become a Powerful, Confident & Engaging Speaker, Aug. 7, 2020

2020: Office of Environmental Health and Safety, AU. Safety in Times of COVID-19, Sep. 28, 2020

2020: Office of Development and Alumni Affairs, AU. How to stand out during the pandemic, Sep. 29, 2020

Technology-Related Training

2021: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. **Laser Diffraction Masterclass: Why do you Need Material Optical Properties?, [February 11 - 16:30 CET](#)**

2021: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. **Focus on Food - Veganuary Food Reformulation, [January 30 - 16:30 CET](#)**

2021: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. **Full Spectrum Analysis for Geological Exploration and Mining Using the ASD TerraSpec® Halo, [January 23 - 16:30 CET](#)**

2021: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. **Laser Diffraction Masterclass - Method Transfer, [January 21 - 16:30 CET](#)**

2020: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. **Particle Sizing in Acronyms Simple Approaches to Targeting Methods and Resolving Measurement Challenges. Dec. 1, 2020**

2020: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. **Focus on Focus on Food Chocolate, [December 12 - 16:30 CET](#)**

2020: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. **Elemental Analysis Masterclass 3 The Basics of Sample Preparation for XRF, [November 27 - 16:30 CET](#)**

2020: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. **Keys to Successful Analysis Borate Fusion of Sand & Aluminosilicates , [November 26 - 16:30 CET](#)**

2020: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. **Focus on Pharma: The Zetasizer Ultra A Novel Assay for Measuring Adeno Associated Virus (AAV), [November 21 - 16:30 CET](#)**

2020: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. **Focus on Food Webinar Series Formulation Development, [October 8 - 16:30 CET](#)**

2020: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. **Focus on Pharma: Biophysical Characterization of an RSV Antigen at Low Temperatures, [November 12 - 16:30 CET](#)**

2020: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. **Focus on Food Coffee Characterization, [November 7 - 16:30 CET](#)**

2020: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com.

Focus on Battery Research The Importance of Particle Size Analysis, [November 5 - 16:30 CET](#)

2020: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com.

Characterizing Material Properties for Additive Manufacturing Online Seminar, [October 22 - 16:30 CET](#)

2020: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. **Focus on Pharma: Solid Form Analysis Webinar Series Extend your Understanding, [October 10 - 16:30 CET](#)**

2020: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. **Focus on Food Webinar Series Formulation Development, [October 8 - 16:30 CET](#)**

2020: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com.

Elemental Analysis Masterclass 1 The Theory of X-ray Fluorescence (XRF), [October 17 - 16:30 CET](#)

2020: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. **Focus on Bioequivalence: Assessing in vitro Bioequivalence Nano drug delivery systems, [October 24 - 16:30 CET](#)**

2020: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom
Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. **Keys to Successful
Analysis of Chlorine in Cement by Borate Fusion & XRF , October 29 - 16:30 CET**

2020: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom
Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. **Elemental Analysis
Masterclass - Wavelength & Energy Dispersive XRF Explained, October 31 - 16:30
CET**

2020: Malvern Panalytical Grovewood Road, Malvern, Worcestershire, WR14 1XZ, United Kingdom
Lelyweg 1, 7602 EA Almelo, the Netherlands www.malvernpanalytical.com. X-ray Diffraction
Masterclass: Setting the Specifications for Quality Control, Sep. 30, 2020

2019: not. STRATEGIA for Development, conducted at Dubai, UAE Training Performance
Entitled Welding Technologies: Welding & Fabrication.

JAN 14 – 15, 2019.

Honors/Awards

Honor

2020: 3ed Position in Scientific Research, College of Humanities and Sciences.