Associate Professor, Energy Engineering Department
German Jordanian University
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Ammar A. Alkhalidi

Country of Citizenship: **Jordan**
Date of Birth: **1981**
Marital Status: **Married**

EDUCATION:

2007-2011	Ph.D.	Mechanical Engineering, University of Wisconsin-Milwaukee, USA.
2004-2006	M.Sc.	Mechanical Engineering, University of Jordan, Jordan.
1999-2004	B.Sc.	Mechanical Engineering, University of Jordan, Jordan.

PROFESSIONAL EXPERIENCE

1/2014 – date, GERMAN JORDANIAN UNIVERSITY, Amman, Jordan

01/2018 – date	Associate Professor, Energy Engineering Department, School of Natural Resources Engineering and Management.
01/2014 – 12/2017	Assistant Professor, Energy Engineering Department, School of Natural Resources Engineering and Management.
7/2015 – 10/2016	Energy Engineering Department, School of Natural Resources Engineering and Management, Head
10/2016-10/2017	University Council Member.

Major Achievements:

- Signing an MOU for Dual-Degree Agreement with the University of Wisconsin-Milwaukee.
- Implemented A New Study Plan For Energy Engineering Program. Review, Update and Implementation to Comply With Higher Education Accreditation Commission, Jordan.
- Prepared Tenders Document, Evaluated Offers To Build A 1.85 MWp Photovoltaics Power Generation Plant At GJU Campus.
- Acquired New Laboratory Equipment.
- Establishing a New Energy Engineering Department at Petra University. My Role Was To Develop The Study Plan And Laboratories.
- Supervise Solar Cooling Project Installed At GJU Campus On Building C. This Project Was Funded By GIZ.

Research Activity:

- Heat Transfer and Fluid Flow in Micro and Nano-Scale Geometry.
- Design of Micro-Scale Separator to Separate Tumor Cells and Blood Cells.
- Water and Wastewater Treatment Technology.
- Solar Disinfection.
- Wind Blade Design and Performance.
- Sustainable City Design.
- Energy Plus Shelter Design.
- Jordanian Building Code Review.
- PV Thermal Hybrid System.

9/2012 – 1/2014, The Hashemite University, Zarqa, Jordan

9/2012-1/2014	Assistant Professor, Mechanical Engineering Department, School of Engineering.

Major Achievements:

- Water Committee, Member. My Role Was To Develop Tender Documents To Establish A Water Treatment Plant To Serve The University Water Demand.
- Assistant Editor for Jordan Journal of Mechanical and Industrial Engineering (JJMIE).
- Organization committee for International Conference on Integrated Renewable Energy, Desalination and Water Supply, (IREDeW 2013).

Research Activity:

- Solar Desalination.
- Energy Use in Wastewater Treatment.

2007 – 2012, University of Wisconsin-Milwaukee, Milwaukee, WI, USA

2007 - 2011	Teaching Assistant.
2011 - 2012	Adjunct Professor, Mechanical Engineering Department, School of Engineering

Major Achievements:

- Renovate The Heat Transfer Lab.
- Prepared A New Manual For heat Transfer experiment Experiments.
- Renovate Hydrology Lab And Establish A Full Set of Experiment For Water Aeration.
- Reactivate American Institute of Aeronautics & Astronautics Student Organization at UWM.

Research Activity:

- Total Suspended Solids Removal Project. Proposed A New Design To Improve Solid Removal In Wastewater Treatment.
- Wind Turbine Blade Design. Improvement of Wind Turbine Blade Aerodynamics, Sponsored By WE-Energies (Energy Company for Wisconsin).
- Air Diffusers Design Improvement for Aeration Process in Wastewater Treatment Plant. Funded By ITT Sanitaire In Milwaukee, Wisconsin USA.

2006 – 2007, Consolidate Consultant Company (CC Group), Amman, Jordan

Department of Water and Environment. I Was Responsible For The Design and Supervision of The Mechanical Equipment (Pump and Lift Stations, Valve Chambers, Water Supply, and Wastewater Treatment) In Water Projects:

Major Achievements:

- Supervised The Water Treatment Plant of Al-Jeeza Al-Talibeia.
- Designed Wastewater Treatment Plant (Package Unit), R.O. Unit, Lift Station and Pump Room for Several Housing Compound.
- Design Water Supply Network for the Royal Village (10,000 Basic Users), Amman Jordan.
- Oil Shale Study Project. Study Water Supply and Wastewater Requirements.
- Al-Wehdah Dam Project. Supervised Mechanical Equipment Installation.

2004-2006, University of Jordan Amman, Jordan

Master Student and Research Assistant.

Research Activity:

- Condenser Design: A Full Review of The Condenser Performance In Greenhouse Desalination System Was Done To Increase Dehumidification Process Efficiency. A New Design Built From Plastic Material Was Developed and Tested. In The New Design, 16.5% Improvement Was Achieved Compared To The Latest Condenser Design For This Particular Application.

TEACHING EXPERIENCE

Accredited Teacher:

- Accredited Teacher: from the higher education accreditation commission in Jordan, in the field of water and wastewater technology.

Taught Courses:

Graduate-Level Courses

- **Research Methodology**, Jordan University of Science and Technology.
- **Seminar**, Jordan University of Science, Technology, and German Jordanian University.
- **Energy Efficiency**, Jordan University of Science and Technology.
- **Advanced Energy Conversion**, German Jordanian University.
- **Thermo-Fluid Sciences,** German Jordanian University.
- **Advanced Heat Transfer,** Hashemite University.

Undergraduate-Level Courses

- **Thermal and Hydrodynamic Equipment**, German Jordanian University.
- **Heat Transfer**, University of Wisconsin-Milwaukee, Hashemite University, and German Jordanian University.
- **Thermodynamic,** German Jordanian University.
- **Thermal Power Plant,** German Jordanian University.
- **Energy Conversion**, German Jordanian University.
- **Wind Energy Technology**, German Jordanian University.
- **Numerical Analysis,** Hashemite University.
- **Wastewater Treatment Engineering**, Hashemite University.
- **Engineering Drawing**, Hashemite University.
- **Fluid Dynamics**, University of Wisconsin-Milwaukee.
- **Engineering Fundamentals, ME110 & 111**, University of Wisconsin-Milwaukee.

GRADUATE STUDENT ADVISING

Supervisor and CO-Supervisor:

- Ibrahim Awad, German Jordanian University, ongoing.
- Dina Hatuqay, German Jordanian University, ongoing.
- Tareq Sabanekh, German Jordanian University, ongoing.
- Muna Al Qroum, German Jordanian University, ongoing.
- Yara Abu Zeitoun, German Jordanian University, 2018.
- Osama Al-Jolani, German Jordanian University, 2018.
- Abdel Ghaffar Al Kilany, German Jordanian University, 2018.
- Nouf Alheyari, German Jordanian University, 2017.

Committee Member:

- Hussein Al-Salami, German Jordanian University, 2015.
- Rami Hussein, German Jordanian University, 2016.
- Ala'a Alnatsheh, German Jordanian University, 2017.
- Hussain Sharadqah, Jordan University of Science and Technology, 2017.
- Mays Shaeli, German Jordanian University, 2017.
- Saif Al Hamad, Jordan University of Science and Technology, 2017.
- Hadeel Alnajar, German Jordanian University, 2018.
- Dema Abu Neamah, German Jordanian University, 2018.

SELECTED GRADUATION PROJECT

- Design of an Off-Grid Solar PV System for a Rural Shelter, Noor Hussain Al Dulaimi. **Top finalist in the 10th national technology parade.**
- Future Automotive Safety; Concept and Development Engineering Approach to Restraint and Safety Systems, And Prospect Requirements, Talal Al-Barakati, **Funded by key safety System, German.**
- Energy Efficient Aquaponics, **Khodra Aquaponics** Amman, Jordan case study. Dana Abusubaih.
- Design of solar water heater that uses **sand as energy storage** media and Fresnel licenses and solar collectors, Essa Kakish and Saif Jaber.
- Comparative Review of the **Jordanian Thermal Insulation Code**, Haya Hamasha.
- Wind Turbine Coupled with **Perpetual Motion**, Yazeed AL-Mousa, and Mustafa Zubeidy.

FUNDED RESEARCH PROJECTS

- Solar Disinfection for water and wastewater, Seed Grant**. Funded By German Jordanian University, ($ 35,000).**
- Wind Turbine Combined With Perpetual Motion Investigation. **Funded By The Deanship of Research and Graduate Study, German Jordanian University, ($ 1,000).**
- Photovoltaic/Thermal Panels Investigation for Jordanian Weather. **Funded By The Deanship of Research and Graduate Study, German Jordanian University, ($ 1,000).**
- Investigation of The Techno Commercial Potential For Cooling of Photovoltaic Modules, Grant (Commercialization / Applied Research), and SRTD-II Is The Second Phase of The "Support To Research, Technological Development And Innovation In Jordan" Project. **Funded By The European Union, ($ 740,000).**

- Development of Higher Education Teaching Modules on The Socio-Economic Impacts of The Renewable Energy Implementation, **DESIRE, Is An ERASMUS+ PROGRAMME Funded By The European Commission ($ 950,000).**
- Design of Prefabricated Energy Plus Building Performance Designed For Remote Areas In Jordan. **Funded By Maani Venture, Amman Jordan ($ 5,000).**
- Air Diffusers Design Improvement for Aeration Process in Wastewater Treatment Plant. **Funded By ITT Sanitaire** In Milwaukee, Wisconsin, USA **($ 120,000)**.
- Swept Blade Design For Wind Energy Turbine. **Funded By WE-Energies (Energy Company For Wisconsin),** Milwaukee, Wisconsin, USA **($ 15,000)**.
- Condenser Design for Greenhouse Desalination System. **Funded By The Middle East Desalination Research Center**, Muscat, and Sultanate of Oman **($36,000)**.

PATENTS

- US 20130099401A1: Air Bubble Creation Enhancement for Rubber Membrane Air Diffusers Ryoichi Samuel Amano and Ammar Alkhalidi, U.S.

HONORS AND AWARDS

- **GOLD** - Graduate of the Last Decade Awards (Graduate Degrees), 2015, University of Wisconsin-Milwaukee.
- **Chancellor Award** for Graduate Students, University of Wisconsin-Milwaukee, 2007-2011.
- **A.E.S.T.E** (The International Association for the Exchange of Students for Technical Experience) Training Fellowship, 7/2003 - 9/2003.

AMMAR ALKHALIDI PROFILE AT:

Research gate: https://www.researchgate.net/profile/Ammar_Alkhalidi

Google Scholar: https://scholar.google.com/citations?user=uvGpuXMAAAAJ&hl=en

PRACTICAL EXPERIENCE

- Consultant, Coalition of Energy Services Associations (CESA) Funded by **USAID**: Evaluation criteria developer, Responsible of developing tailored evaluation criteria for Accrediting Jordanian Energy Service Providers (ESPS). The tailored criteria have to consider Jordanian culture, energy market status and improving this market.
- Reviewer, Coalition of Energy Services Associations (CESA) Funded by **USAID**: Accreditation Committee Member, Responsible of Application Review to Accredit

Jordanian Energy Service Providers (ESPS), and provides expertise suggestion to improve Applicant companies.

- Consultant, Solar Power Services (SPS) Germany: Developer, Energy Efficiency and Renewable Energy Policy for the Jordanian Water Sector. Funded By **GIZ**. My Role Was To Develop General Policies For To Improve Energy Efficacy In Pump Station and Introduce Renewable Energy In Jordanian Water Sector.
- Owner representative, **Al-Moasron Company L.T.D**, A 530 kWp Photovoltaics Power Generation Plant at company premises in Sahab, Amman, Jordan.
- Consultant, **Jawad Modern Bakeries**, Solve an overheat problem in Retarder Proofer (Controlled temperature and humidity room). This unit was designed for Europe and is not compatible with Jordanian weather.
- Owner representative, **Al-Zaineh for Metal Forming Co**, A 1.1 MWp wheeling Photovoltaics Power Generation Plant in Mwagar, Amman, Jordan.

PROFESSIONAL MEMBERSHIPS

- Member, of The American Society of Mechanical Engineers, ASME.
- Member, of The American Institute of Aeronautics and Astronauts, AIAA.
- Member, Jordan Engineers Association, JEA.

REVIEWER

- Journal of Energy Resources Technology, ASME.
- Sustainable City and Society Journal, Elsevier.
- International Journal of Thermal Sciences, Elsevier.
- International Journal of Rotating Machinery, Hindawi.
- Canadian Journal of Physics, NRC research press.
- Energy and Buildings, Elsevier.
- Energy and Environment, SAGE Journals.
- International Journal of Renewable Energy Research.
- Jordan Journal of Mechanical and Industrial Engineering.
- The Jordanian Journal of Physics.
- The 10th National Technology Parade, Queen Rania Center for Entrepreneurship.
- JSESD (مجلة الطاقة الشمسية والتنمية المستدامة).
- International Journal of Exergy (IJEX).

CONFERENCES SESSION CHAIR

- International Conference on Integrated Renewable Energy (IREDEW 2013), Desalination and Water Supply, Amman, Jordan. October 7th-9th, 2013.
- The 8th International Renewable Energy Congress (IREC 2017), March 21-23, 2017, Amman Jordan.
- The 5th Edition of the International Renewable and Sustainable Energy Conference (IRSEC'17), December 4-7, 2017, Tangier Morocco.

PUBLICATIONS: JOURNAL PAPERS

- Mazin Obaidat, Ahmed Al-Ghandoor, Patrick Phelan, Rene Villalobos, and **Ammar Alkhalidi**, 2018. Energy and Exergy Analyses of Different Aluminum Reduction Technologies. *Sustainability*, Vol. 10(4), p.1216. https://doi:10.3390/su10041216.

- Wael Al-Kouz, Ahmad Al-Muhtady, **Ammar Alkhalidi**, Haneen Saadeh, Suhil Kiwan, aiman alshare, Two-dimensional analysis of low-pressure flows in a square cavity with two fins, *International Journal of Thermal Sciences*, Elsevier, Vol. 126, 2018, pp 181–193. https://doi.org/10.1016/j.ijthermalsci.2018.01.005.

- Wael Al-Kouz, Suhil Kiwan, **Ammar Alkhalidi**, Ma'en Sari, Aiman Alshare, Numerical study of heat transfer enhancement for low-pressure flows in a square cavity with two fins attached to the hot wall using Al2O3-air nanofluid, Strojniški vestnik - *Journal of Mechanical Engineering*, Accepted.

- **Ammar Alkhalidi**, Louy Qoaider, Amjad Khashman, Abdel Rahman Al-Alami, Said Jiryes, "Energy and Water as Indicators for Sustainable City Site Selection and Design in Jordan using smart grid", *Sustainable Cities and Society*, Elsevier, Vol. 37, 2018, pp. 125-132. https://doi.org/10.1016/j.scs.2017.10.037.

- **Ammar Alkhalidi**, Suhil Kiwan, Wael Al-Kouz, Aiman Alshare, Ma'en Sari, "Rarefaction and Scale Effects on Heat Transfer Characteristics for Enclosed Rectangular Cavities Heated From Below", *Thermal Science*. Accepted. https://doi.org/10.2298/TSCI170621234A.

- Wael Al-Kouz, Suhil Kiwan, Aiman Alshare, Ahmad Hammad, and **Ammar Alkhalidi**, "Two Dimensional Analysis of Low Pressure Flows In The Annulus Region Between Two Concentric Cylinders With Solid Fins". *Jordan Journal of Mechanical and Industrial Engineering,* Vol. 10 (4), 2016, pp. 211-214.

- **A. Alkhalidi**, P. Bryar, and R. Amano, "Improve Mixing In Water Aeration Tanks Using Innovative Self-Powered Mixer and Power Reclamation From Aeration Tank", *Jordan Journal of Mechanical and Industrial Engineering*, Vol. 10 (3), 2016, pp. 253 – 261.

- W. Al-Kouz, M. Sari, S. Kiwan, and **A. Alkhalidi**, "Rarefied Flow and Heat Transfer Characteristics over a Vertical Stretched Surface", *Advances in Mechanical Engineering*, Vol. 8(8), 2016, 1–13.

- W. Al-Kouz, A. Alshare, **A. Alkhalidi,** and S. Kiwan, "Two-Dimensional Analysis of Low Pressure Flows In The Annulus Region Between Two Concentric Cylinders", *Springerplus*, 2016, Vol. 5, pp. 5-29, Doi 10.1186/S40064-016-2140-6.

- **A. Alkhalidi**, H. Al Ba'ba'a, And R. Amano, "Wave Generation In Subsurface Aeration System: A New Approach To Enhance Mixing In Aeration Tank In Wastewater Treatment". *Desalination and Water Treatment*, 2016, doi:10.1080/19443994.2016.1172263.

- **A. Alkhalidi**, S. Kiwan, W. Al-Kouz, and A. Alshare "Conjugate Heat Transfer in Rarefied Gas in Enclosed Cavities, *Vacuum*, Vol. 130, 2016, Pp. 137–145. Doi:10.1016/J.Vacuum.2016.05.013.

- A. Alshare, W. Al-Kouz, M. Hader and A. **Alkhalidi,** "Heat Transfer Characteristics in Sinusoidal Wavy Microchannels", *Journal of Mechanical and Industrial Engineering*, Vol. 10 (1), 2016, Pp. 75- 83.

- **A. Alkhalidi**, M. Qandil, and H. Qandil, "Analysis of Ocean Thermal Energy Conversion Power Plant Using Isobutane As The Working Fluid*", Int. J. of Thermal & Environmental Engineering,* Volume 7, No. 1, 25-32, 2014, Doi: 10.5383/Ijtee.07.01.004.

- **A. Alkhalidi,** and R. Amano, "Factors Affecting Fine Bubble Creation and Bubble Size For Activated Sludge," *Water and Environment Journal*, Vol. 29, pp. 105–113, 2015, Doi: 10.1111/Wej.12083.

- **A. Alkhalidi,** Y., Zurigat, B., Dawoud, T. Aldoss, and G., Theodoridis, "Condenser Designs for Greenhouse Desalination", *Int. J. of Sustainable Water and Environmental Systems*, 2013, Vol. 5, No. 1, 1-6. Doi: 10.5383/Swes.05.01.001.

Submitted Journal Paper for Publication

- **Ammar Alkhalidi** and Suhil Kiwan. A Comparative Study between Jordanian Overall Heat Transfer Coefficient (U-Value) and International Building Codes.
- Ahmed A. Alkhafaji, **Ammar Alkhalidi**, Ryoichi S. Amano, Effect of Water Column Height on the Aeration Efficiency Using Pulsating Air Flow.
- **Ammar Alkhalidi**, Ryo Amano, and Mohammad Khawaja, KLa Relation With Bubble Size, Bubble Release Rate, And Number Of Bubbles.

Journal Paper Under Preparation

- **Ammar Alkhalidi,** Mohamad Khawaja and Abdel Ghaffar Al Kelany. Repurpose waste-material to cooling PV panels, save the environment and improve panel efficiency.
- **Ammar Alkhalidi,** and Yara Zaytoon, Waste-material used to reduce heating load in lightweight shelters without significant increase in the shelter weight.

- **Ammar Alkhalidi**, and Osama Al-Jolani, Modeling and simulation of the residential green building model for Jordan.
- **Ammar Alkhalidi**, Suhil Kiwan, Wael Al-Kouz, Aiman Alshare, Wavy Bottom Surface Effects on Rarefied Heat Transfer Characteristics for Enclosed Rectangular Cavities Heated From Below.

PUBLICATIONS: CONFERENCE PAPERS

- Suhil Kiwan, Hisham Ahmad, **Ammar Alkhalidi**, Photovoltaic Cooling Using Phase Change Materials (PCM), Experimental Investigation For Jordanian Weather, The 9th International Renewable Energy Congress (IREC 2018), March 20 - 22, 2018 in Hammamet, Tunisia.

- **Ammar Alkhalidi**, "Wind Turbine Coupled with Perpetual Motion". The 5th Edition of the International Renewable and Sustainable Energy Conference (IRSEC'17), Dec. 4-7, 2017, Tangier, Morocco.

- **Ammar Alkhalidi**, "Sustainable City Design, Aqaba, Jordan". The 8th International Renewable Energy Congress (IREC 2017), March 21-23, 2017, Amman, Jordan.

- **Ammar Alkhalidi,** and Ryo S. Amano, "K_La Relation with Bubble Size, Bubble Release Rate, and Number of Bubbles". International Conference on Water, Energy, and Environment (ICWEE 2017) February 28 – March 2, 2017, Sharjah, UAE.

- Ryoichi S. Amano, **Ammar Alkhalidi**, and Ahmed Alkhafaji. "Study of Aeration by Using Pulsating Air Flow", 55th AIAA Aerospace Sciences Meeting, AIAA SciTech Forum, (AIAA 2017-1837), Grapevine, Texas. https://doi.org/10.2514/6.2017-1837.

- Hammad, A., Al-Kouz, W., Alshare, A., Kiwan, S., and **Alkhalidi, A**. (2016). Flow characteristics for low pressure solar parabolic trough collector. Proceeding of SEE 2016 conference, Osaka – Japan, 21-23 November, 2016.

- Louy Qoaider, **Ammar Alkhalidi**, and Nouf Alheyari, "Investigation of The Cooling of PV Modules Using Phase Change Materials", The 9th International Conference on Sustainable Energy and Environmental Protection (SEEP 2016), 22–25 September 2016, Kayseri, Turkey.

- W. Al-Kouz, S. Kiwan, A. Alshare, and **A. Alkhalidi**, "Flow and Heat Characteristics of Low Pressure Flows in the Annulus Region between Two Concentric Horizontal Cylinders", 9th International Conference on Thermal Engineering: Theory and Applications, March 24-26 2016, Abu Dhabi, UAE.

- **A. Alkhalidi**, H. Jarad, M. Juaidy, and L. Qoaider, (2015), "Glass Properties Selection for Core and Shell High Rise Residential Building in Moderate Climate", 5th JIIRCRAC '15 2015 5th Jordanian Conference on Refrigeration and Air Conditioning, 5th JIIRCRAC. 12-14 January 2015. Aqaba, Jordan.

- Al Ba'ba'a, H., Prada, M., Olson, C., **Alkhalidi, A**. Amano, R. and Li, J., (2014), "An Experimental Study of Reducing Back Pressure of Fine Air Diffuser Used In Wastewater Plants", Proceedings of ASME: FEDSM, August 3-7, 2014, Chicago, IL.

- **A. Alkhalidi**, "Solar Steam Generator, Using Saturated Ponds", (IREDEW 2013) International Conference on Integrated Renewable Energy, Desalination and Water Supply, Amman, Jordan. October 7th-9th, 2013.

- **Alkhalidi** and Zurigat, "Condenser Designs For Greenhouse Desalination", ICEWE 2013- International Conference On Energy, Water & Environment, The Hashemite University, Zarqa, Jordan, April 21-23, 2013.

- R. S. Amano, **Ammar Alkhalidi,** and Patrick Bryar, "Design of A Deflector For Water Aeration In Wastewater Treatment". Proceedings of 2012 ASME IMECE International Mechanical Engineering Congress & Exposition November 9-15, 2012, Houston, Texas, USA.

- **Alkhalidi,** and Amano, "Total Suspended Solid (TSS) Removal by Using Swirl Flow Separator". Proceedings of the ASME 2012 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference ASME DETC/CIE August 12-15, Chicago, Illinois.

- **Alkhalidi,** and Amano, "Water Aeration in Wastewater Treatment". Proceedings of the ASME 2012 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference ASME DETC/CIE August 12-15, Chicago, Illinois.

- **Alkhalidi,** and Amano, "Bubble Deflector to Enhance Fine Bubble Aeration for Wastewater Treatment in Space Usage". American Institute of Aeronautics and Astronautics (AIAA-ASM). Nashville TN, Jan. 2012.

- Xu, Amano, and **Alkhalidi**, "Aerodynamic Analysis in Lean Blade Effects in Centrifugal Compressor". Proceedings of 2011asme IMECE: ASME International Mechanical Engineering Congress & Exposition November 11-17, 2011, Denver, Co.

- **Alkhalidi,** and Amano, "Factor Affecting Bubble Creation and Bubble Size". Proceedings of 2011asme IMECE: ASME International Mechanical Engineering Congress & Exposition November 11-17, 2011, Denver, Co.

- **Alkhalidi,** and Amano, "Study of Air Bubble Creation For Aerospace Applications". American Institute of Aeronautics and Astronautics (AIAA) San Diego, Aug. 2011. Water Aeration Project - Study of Enhanced Aeration System, Proceedings of 2011asme IDETC: ASME International Design Engineering Technical Conference August 28-31, 2011, Washington, Dc.

- Amano, Malloy, and **Alkhalidi** "Improvement of Wind Turbine Blade Aerodynamics," Proceedings of the 1st International Nuclear and Renewable Energy Conference (Inrec10), Amman, Jordan, March 21-24, 2010.

- **Alkhalidi**, A., Zurigat, Y., Dawoud, B., Aldoss, T. and Theodoridis, G. "Performance of A Greenhouse Desalination Condenser: An Experimental Study," Proceedings of the 1st International Nuclear and Renewable Energy Conference (Inrec10), Amman, Jordan, March 21-24, 2010.

- **Alkhalidi** and Amano "Study of Air Bubble Creation," Proceedings of ASME 2010 10th Biennial Conference on Engineering Systems Design and Analysis Yeditepe University in Istanbul, Turkey, July 12-14, 2010.

PRESENTATIONS AT PROFESSIONAL MEETINGS

- Evaluation of Solar Cooling project at German Jordanian University **Funded by GIZ Jordan**, Under International Climate Initiative (ICI), Dead Sea, Jordan, May 24-25, 2017.

- Energy Efficiency and Renewable Energy in Jordanian Water Sector, **Jordan Engineers Association**, Mechanical Engineering Scientific Committee, May 3, 2017.

- Energy Efficiency in Water and Waste Water Treatment, Summer School at University of Applied Sciences Jena, Jena, Germany. June 19-30, 2016. **Funded By DAAD.**

- Solar Cooling For Industry And Commerce (SCIC) **Funded By GIZ Jordan**, Under International Climate Initiative (ICI), Dead Sea, Jordan, December 15-17, 2015.

- Lattice Boltzmann Method For Fluid Flow Presented During The Jordan-German Winter Academy Meeting. Amman February 5-12, 2006. **Funded By DAAD.**

TRAINING COURSES:

- Train the Trainer program of the GJU project with a scholarship from **DAAD** during the period of 07.09.2017 to 07.10.2017.
- STAR CCM+ CFD Software, CD-ADAPCO, At University of Wisconsin-Milwaukee, March 25-26, 2011.

- Cradle CFD Software Training Course. Cradle Company at University of Wisconsin Milwaukee, Feb 11-12, 2010.
- Corrosion and Cathodic Protection, Jordan Engineering Association Training Center Aug 13-17, 2006.
- Computer Maintenance Software and Hardware, University of Jordan Internet and Computer Club, June 18-29, 2000.

SOCIAL ACTIVITIES:

- Co-Founder of Jordanian Young Scientists Academy (JYSA), JYSA Is A Nonprofit Organization That Aims To Advance The Academic Exchange of Outstanding Young Researchers In Jordan, May 2014.
- President, American Institute of Aeronautics & Astronautics Student Organization At UWM May 2009-June 2010.

REFERENCES:

- Prof. Suhil Kiwan, School of Natural Resources, Dean, kiwan@just.edu.jo.
- Dr. Munjed Alsharif School of Natural Resources, Dean, Munjed.Alsharif@gju.edu.jo.
- Prof. Shaher M. A. Rababeh, Faculty of Engineering, Dean, srababeh@yahoo.com.
- Prof. Moh'd Sami Ashhab, Mechanical Engineering Department, Chair, sami@hu.edu.jo.
- Prof. Ryo Amano, Mechanical Engineering Dep., Academic advisor, amano@uwm.edu.
- Prof. Anoop Dehingra, Mechanical Engineering Department Head, dhingra@uwm.edu.
- Prof. Yousef Zurigat, Mechanical Engineering Dep., Professor, zurigat@yahoo.com.