

NASER S. AL-HUNITI

Professor of Mechanical Engineering

Professor

Mechanical Engineering Department

The University of Jordan

# Amman 11942-Jordan

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**Date of Birth** 1966

**Nationality** Jordanian

**Marital Status** Married – Three children

**ACADEMIC QUALIFICATIONS**

9/1992-4/1996 **Ph.D.**, University of Cincinnati, Cincinnati, OH, USA. Department of Aerospace Engineering and Engineering Mechanics**.** Major: Solids and Structures. Minor: Dynamics and Control. GPA: 4.0/4.0. Dissertation: Micromechanical Modeling of Woven and Textile Composites.

9/1989-12/1991 **M.Sc.**, The University of Jordan, Amman, Jordan. Mechanical Engineering Department. Major: Applied Mechanics. Average: 92.7% (Excellent). Thesis: Experimental Investigation of Thermal Spray of Metals with Particular Reference to Wear Resistance.

9/1985-6/1989 **B.Sc.**, The University of Jordan, Amman, Jordan. Mechanical Engineering Department. Major: Mechanical Engineering. Average: 85.9% (Excellent)1st Class Honors. Graduation Project: Experimental Evaluation of Drag Reduction in Conduits.

**ACADEMIC EXPERIENCE**

11/2006 – Present Professor, Mechanical Engineering Department, The University of Jordan, Amman, Jordan

8/2019 – 8/2020 Visiting Professor, Mechanical Engineering Department, American University of Sharjah, Sharjah (AUS), UAE

9/2018 – 8/2019 Visiting Professor, Mechanical Engineering Department, Jordan University of Science and Technology, Irbid, Jordan

9/2009 – 8/2011 Professor, Mechanical Engineering Department, Prince Mohammad Bin Fahd University (PMU), Al Khobar, Saudi Arabia.

11/2001- 11/2006 Associate Professor, Mechanical Engineering Department, The University of Jordan, Amman, Jordan.

9/1996 - 11/2001 Assistant Professor, Mechanical Engineering Department, The University of Jordan, Amman, Jordan.

9/2002 - 9/2003 Visiting Associate Professor, Mechanical Engineering Department, The Hashemite University, Zarqa, Jordan.

9/1991 - 9/1992 Lecturer, Philadelphia University, Jerash, Jordan

**ACADEMIC ADMINISTRATIVE EXPERIENCE**

9/2016 – 9/2018 Deputy-Dean, Deanship of Research, The University of Jordan

10/2012 – 1/2016 Director, Arab Council for Training Students of Arab Universities (ACTSAU), Association of Arab Universities

9/2011 – 9/2012 Deputy-Dean, Faculty of Engineering & Technology, The University of Jordan, Amman-Jordan

9/2009 - 9/2011 Chairman, Mechanical Engineering Department, Prince Mohammad Bin Fahd University, Al Khobar, Saudi Arabia

9/2007 - 9/2009 Deputy-Dean, Deanship of Research, The University of Jordan, Amman, Jordan

2/2008 - 9/2009 Chairman, Central Tenders Committee, The University of Jordan, Amman, Jordan

9/2006 - 9/2007 Chairman, Mechanical Engineering Department, The University of Jordan, Amman, Jordan

9/2003-9/2005 Chairman, Mechanical Engineering Department, The University of Jordan, Amman, Jordan

9/2001-9/2002 Deputy-Dean, College of Engineering and Technology, The University of Jordan, Amman, Jordan

**RESEARCH ACTIVITIES AND PUBLICATIONS**

**Research Interests:** Composite Materials, Thermo-Elasticity, Machinery Dynamics and Failure Analysis, Vibrations, Maintenance Techniques**,** Finite Element Modeling, Dental Strength and Failure Analysis.

**Research-Related Positions and Activities:**

* Deputy-Dean, Deanship of Research, The University of Jordan (9/2007-9/2009, and 9/2016-9/2018)
* Member of the Engineering and Nanotechnology Committee, Scientific Research Fund, Ministry of Higher Education, Jordan (5/2014-8/2019)
* Member of the general committee of accrediting scientific journals, the University of Jordan (9/2016-9/2017)
* Chairman of the Eight Jordanian International Mechanical Engineering Conference (JIMEC 2014), 22-23/9/2014, Amman, Jordan.
* Member of the editorial board of the Jordan Journal of Mechanical and Industrial Engineering (JJMIE), (9/2012-12/2018)
* Member of the scientific committee of the Third International Conference on Composite Materials and Structures, Oran, Algeria, December, 2014
* Liaison Officer of the SRTD (Support to Research and Technological Development & Innovation Initiatives & Strategies in Jordan) funded by the European Union (8/2008-9/2009)
* Member of the scientific committee of the Seventh International Conference on Composite Science and Technology (ICCST/7), Sharjah, UAE, 2009.
* Reviewer for a number of journals including: Journal of Sound and Vibration, Journal of Composite Materials, Applied Composite Materials, Journal of Vibration and Control, Journal of Mechanics of Materials and Structures, Journal of Heat and Mass Transfer, Heat Transfer Engineering, Dirasat Journal, Al-Yarmouk Research Journal, Mu’tah Journal for Research and Studies.

**Research Fellowships:**

* German (DFG) fellowship (6/2005-9/2005): Finite Element Micro-Mechanical Damage of Composites. Institute for Material Testing, Material Science and Strength of Materials, University of Stuttgart, Germany
* German (DFG) fellowship (6/2008-8/2008): FEM study on the residual stresses in aircraft stringers produced by compound extrusion, InstitutfuerWerkstoffkunde I, University of Karlsruhe, Karlsruhe, Germany

**Funded Projects:**

* Suspension Design for Special Operations Unmanned Ground Vehicle (UGV). A students’ project funded by King Abdullah II Fund for Development (KAFD) in cooperation with King Abdullah II Design & Development Bureau (KADDB), 2017-2018
* Middle Eastern Partnership in Sustainable Engineering. TEMPUS project, supported by European Commission, 2011-2014
* Modeling, Design and Construction of a Composite Material Body Armor Plate Prototype. A students’ project funded by King Abdullah II Fund for Development (KAFD) in cooperation with King Abdullah II Design & Development Bureau (KADDB), 2012-2013
* Design and Construction of a Composite Material Chassis for a Formula Racing Car.A students’ project funded by King Abdullah II Fund for Development (KAFD) in cooperation with King Abdullah II Design & Development Bureau (KADDB), 2011-2012
* Design and Construction of a Compressed Air Vehicle (part of a team of researchers). Funded by the Deanship of Academic Research (DAR), The University of Jordan, 2009-2012
* Thermal Stresses in a Composite Slab Due to a Rapid Dual-Phase-Lag Laser Heating (single researcher). Funded by the Deanship of Academic Research (DAR), The University of Jordan, 1999-2001

**Journal Publications:**

1. H. Hinnawi, H., A. Al-abadi, and **N. S. Al-Huniti**, Effect of Aspect Ratio on Overall Thermal Performance of Forced Convective Heat Transfer Utilizing Turbulent Nanofluid Flow,*ASME Journal of Thermal Science and Engineering Applications* (Accepted), 2020.
2. **Naser S. Al-Huniti**, **N. S.** A Comparative Study of Large Deflections of Composite Beams under Thermo-Mechanical Loading. *Composites: Mechanics, Computations, Applications*, Vol. 10(4), pp. 311-332 2019.
3. **Naser S. Al-Huniti**, [The effect of graphene on the deflections of multiscale composites under thermo-mechanical loading](https://scholar.google.com/scholar?oi=bibs&cluster=14984930117310560464&btnI=1&hl=en). Materials Research Express, Vol. 6(11), pp. 115017, 2019.
4. Mohammad Halawa and **Naser Al-Huniti**, Optimum Design of Carbon/Epoxy Composite Pressure Vessels Including Moisture Effects. *Journal of Composites Science*, Vol. 3(3), 65, 2019
5. Fatima Ghassan Al-Abtah, **Naser Al-Huniti**, Elsadig Mahdi, [Simulation-Based Parametric Study for the Hybrid Superplastic Forming of AZ31](https://www.sciencedirect.com/science/article/pii/S1877050919312001). Procedia Computer Science, Vol. 158, pp. 177-197, 2019.
6. Ahmad Y. Al-Maharma and **Naser Al-Huniti,** Critical Review of the Parameters Affecting the Effectiveness of Moisture Absorption Treatments Used for Natural Composites. *Journal of Composites Science*, Vol. 3(1), 27, 2019
7. Ahmad Y. Al-Maharma, Polat Sendur, **Naser Al-Huniti,** Critical review of the factors dominating the fracture toughness of CNT reinforced polymer composites. *Materials Research Express*, Vol. 6 (1), Article ID. 012003, 2018
8. Othman Al-Hawamdeh, Ibrahim Abu-Alshaikh, **Naser Al-Huniti**, Finite Element Coding of Functionally Graded Beams under Various Boundary and Loading Conditions. *Journal of Applied Research on Industrial Engineering,* Vol. 4 (4), 2017, pp. 279–290
9. **Naser Al-Huniti,** A Generalized Approach for Composite Beam Deflections. *Composites: Mechanics, Computations, Applications*, Vol. 8 (3), 2017, pp. 221-238
10. **Naser Al-Huniti** and Sami Alahmad, Transient Thermo-Mechanical Response of a Functionally Graded Beam under the Effect of a Moving Heat Source. *Advances in Materials Research,* Vol. 6 (1), 2017, pp. 27-43
11. Ahmad Y. Al-Maharma, **Naser Al-Huniti,** The Effect of Nano-Sized Air Bubbles on the Mechanical Properties and Natural Frequencies of a Multi-Cracked Composite Bar. *International Journal of Engineering Research in Africa*, Vol. 30, 2017, pp. 65-84
12. Adnan I. O. Zaid, **N. S. Al-Huniti** and K. Y. S. Eyal-Awwad, Effect of molybdenum addition to ZA22 grain refined by titanium in the cast and after pressing by ECAP**,** *IOP Conf. Series: Materials Science and Engineering,* 146 (2016)
13. Firas Jarrar, Reem Jafar, Olga Tulupova, Farid Enikeev and **Naser Al-Huniti**, Constitutive Modeling for the Simulation of the Superplastic Forming of AA5083. *Materials Science Forum*, Vols. 838-839 (2016), pp. 512-517
14. Reem A. Jafar, Firas S. Jarrar, **Naser S. Al-Huniti**, Two-Stage Approach for Improving the Thickness Distribution in Superplastic Forming. *Journal of Materials Science Research.* Vol 4 (1), 2015, pp. 12-27
15. Wala Majid Amin, **Naser S Al-Huniti**, Ushtar W Amin, Motasum A Abu-Awad, Sheyar W Amin, Yousef A Abousy. Influence of Root Posts and Retained Coronal Dentin on Fracture Resistance and Failure Pattern of Endodontically Treated Maxillary Incisors. *Journal of Current Surgery*, Vol 3 (2), 2013, pp. 73-81
16. Wala Majid Amin, **Naser S. Al-Huniti**, Noor I. Hasan, Dina W. Al-Nimri, Saba A. Al-Najdawi, Ushtar Amin, Sheyar Amin, Effect of Ferrule Location on Fracture Resistance and Failure Pattern of Endodontically Treated Maxillary Incisors Restored with Quartz Fiber Posts. *Journal of Medicine and Medical Sciences*. Vol 4(9), 2013, pp. 343-352
17. Feras H. Darwish, M. A. Al-Nimr, and **Naser S. Al-Huniti.** Transient Response of a Clamped Slab under Pressure and Thermal Loads. *Journal of Thermal Stresses*, Volume 35, 2012, pp. 470-484
18. **Naser S. Al-Huniti,** Fadi Al-Faqs and Osama Abu Zaid. Finite Element Dynamic Analysis of Laminated Viscoelastic Structures.*Applied Composite Materials,* Volume 17, Issue 5, 2010, pp. 489-498
19. [Abu Sneineh, A](http://www.emro.who.int/Library/Databases/wxis.exe/Library/Databases/iah/?IsisScript=iah/iah.xic&base=imemr&form=A&user=guest&lang=i&nextAction=search&indexSearch=%5eiAU%5exAU%20%5eyINVERTED%5euAU_&exprSearch=Abu%20Sneineh,%20Awni%20Taleb)., AlSharif, A., [Khatib, M., Amer](http://http:/www.emro.who.int/Library/Databases/wxis.exe/Library/Databases/iah/?IsisScript=iah/iah.xic&base=imemr&form=A&user=guest&lang=i&nextAction=search&indexSearch=%5eiAU%5exAU%20%5eyINVERTED%5euAU_&exprSearch=Khatib,%20M.%20Amer) [Shennak, Mustafa M.](http://www.emro.who.int/Library/Databases/wxis.exe/Library/Databases/iah/?IsisScript=iah/iah.xic&base=imemr&form=A&user=guest&lang=i&nextAction=search&indexSearch=%5eiAU%5exAU%20%5eyINVERTED%5euAU_&exprSearch=Shennak,%20Mustafa%20M.), [Chakik, Refaat M.](http://www.emro.who.int/Library/Databases/wxis.exe/Library/Databases/iah/?IsisScript=iah/iah.xic&base=imemr&form=A&user=guest&lang=i&nextAction=search&indexSearch=%5eiAU%5exAU%20%5eyINVERTED%5euAU_&exprSearch=Chakik,%20Refaat%20M.), [**Al Huniti, Naser S.**](http://www.emro.who.int/Library/Databases/wxis.exe/Library/Databases/iah/?IsisScript=iah/iah.xic&base=imemr&form=A&user=guest&lang=i&nextAction=search&indexSearch=%5eiAU%5exAU%20%5eyINVERTED%5euAU_&exprSearch=Al%20Huniti,%20Naser%20S.), Assessment of gastric emptying in normal Jordanians individuals, Journal of Bahrain Medical Society, Vol 22(2), 2010, pp.1-12
20. **Naser S. Al-Huniti** and M. A. Al-Nimr. [Steady-State Thermoelastic Behavior of a Two-Anisotropic Layer Thick Plate Strip](file:///D%3A/F/MY%20Publications/Journal%20Articles/Std_Anist_Thck_plt.pdf). *International Journal of Computational Methods in Engineering Science and Mechanics*, Vol. 7(5), 2006, pp. 381-388
21. **Naser S. Al-Huniti**. [Computation of Member Stiffness in Bolted Connections Using Finite Element Analysis](file:///D%3A/F/MY%20Publications/Journal%20Articles/Stff_Bltd_Conn_FEA.pdf). *Mechanics Based Design of Structures and Machine*s, Vol. 33 (3), 2005, pp.331-342
22. S. Masoud and **Naser S. Al-Huniti**. [Effect of Support Stiffness on the Stability of a Rotor System with Blade Flexibility](file:///D%3A/F/MY%20Publications/Journal%20Articles/Supp_Stff_Stblt_Rot.pdf). *International Journal of Modeling and Simulation*, Vol. 25 (2), 2005, pp. 127-134
23. **Naser S. Al-Huniti** and M. A. Al-Nimr. [Dynamic Thermoelastic Response of a Heated Thin Composite Plate using the Dual-Phase-Lag Heat Conduction Model](file:///D%3A/F/MY%20Publications/Journal%20Articles/Thn_Comp_Plt_DPhL.pdf). *Heat Transfer Engineering*, Vol. 26, No. 9, 2005, pp. 41-49
24. **Naser S. AL-Huniti**. [Dynamic Behavior of a Laminated Beam Under a Moving Heat Source](file:///D%3A/F/MY%20Publications/Journal%20Articles/Lmntd_beam_Mvng_Src.pdf). *Journal of Composite Materials*, Vol. 38 (23), 2004, pp. 2143-2160
25. **Naser S. Al-Huniti** and M. A. Al-Nimr, [Thermoelastic Response of a Heated Thin Composite Plate using the Hyperbolic Heat Conduction Model: Lumped analysis](file:///D%3A/F/MY%20Publications/Journal%20Articles/Thn_comp_plt_Lmpd.pdf). *International Journal of Thermal Sciences*, Vol. 43 (10), 2004, pp 959-965
26. **Naser S. Al-Huniti**, M. A. Al-Nimr, and Maher Daas. [Transient Variations of Thermal Stresses and the Resulting Residual Stresses within a Thin Plate During Welding Processes](file:///D%3A/F/MY%20Publications/Journal%20Articles/Trns_Strs_Plt_Wldng.pdf). *Journal of Thermal Stresses*, Vol. 27 (8), 2004, pp. 671-689
27. **Naser S. Al-Huniti** and M. A. Al-Nimr. [Thermoelastic Behavior of a Composite Slab under the Dual-Phase-Lag Model](file:///D%3A/F/MY%20Publications/Journal%20Articles/Cmp_Slb_DPhL.pdf). *Journalof Thermal Stresses*, Vol. 27 (7), 2004, pp. 607-623
28. **Naser S. Al-Huniti** and M. A. Al-Nimr. Dynamic [Thermoelastic Response of a Heated Thin Composite Plate under the Hyperbolic Heat Conduction Model](file:///D%3A/F/MY%20Publications/Journal%20Articles/Thn_Comp_Plt_Hyp.pdf). *International Journal of Heat and Technology*, Vol. 22 (1), 2004, pp. 179-185
29. **Naser S. AL-Huniti**, M. A. Al-Nimr and M. M. Meqdad. [Thermally Induced Vibration in a Thin Plate under the Wave Heat Conduction Model](file:///D%3A/F/MY%20Publications/Journal%20Articles/Thrm_Vib_Thn_Plt.pdf). *Journal of Thermal Stresses*, Vol. 26 (10), 2003, pp. 943-962
30. Osama Abu-Hammad and **Naser Al-Huniti**. The out of Alignment Dental Implants. The Behavior of the System. *Egyptian Dental Journal*, Vol. 47 (4), 2001, pp. 1657-1664
31. MalakNaji, M. Al-Nimr and **Naser S. Al-Huniti**. Thermal Stresses in a Rapidly Heated Plate Using the Parabolic Two-Step Heat Conduction Model. *Journal of Thermal Stresses*, Vol. 24 (5), 2001, pp. 399-410
32. **N. S. Al-Huniti**, M. A. Al-Nimr and M.Naji, [Dynamic Response of a Rod Due to a Moving Heat Source Under the Hyperbolic Heat Conduction Model](file:///D%3A/F/MY%20Publications/Journal%20Articles/Rod_Mov_Src_Hyp.pdf). *Journal of Sound and Vibration*, Vol. 242 (4), 2001, pp. 629-640
33. M. I. Qaisi and **N. S. Al-Huniti**. [Large Amplitude Free Vibration of a Conservative System with Inertia and Static Non-Linearity](file:///D%3A/F/MY%20Publications/Journal%20Articles/Lrg_Ampl_Vib_Nnlnr.pdf). *Journal of Sound and Vibration*, Vol. 242 (1), 2001, pp. 1-7.
34. Mohammad H. F. Dado, **Naser S. Al-Huniti**, and A. Karim Eljabali. Dynamic Simulation Model for Mixed-Loop Planar Robots with Flexible Joint Drives. *Mechanism and Machine Theory*, Vol. 36 (4), 2001, pp. 547-559
35. M. A. Al-Nimr and **Naser S. Al-Huniti**. [Transient Thermal Stresses in a Thin Elastic Plate Due to a Rapid Dual-Phase-Lag Heating](file:///D%3A/F/MY%20Publications/Journal%20Articles/Trns_Strs_Plt_DPhL.pdf). *Journal of Thermal Stresses*, Vol. 23 (8), 2000, pp. 731-746
36. **Naser S. Al-Huniti** and M. A. Al-Nimr. [Behavior of Thermal Stresses in a Rapidly Heated Thin Plate](file:///D%3A/F/MY%20Publications/Journal%20Articles/Thrml_Strs_Plt_Rapd.pdf). *Journal of Thermal Stresses*, Vol. 23 (4), 2000, pp. 293-307

**Conferences:**

1. **Naser S. Al-Huniti**, Nonlinear Large Deflection Analysis of Laminated Composite Beams. *2017 Eleventh International Conference on Composite Science and Technology (ICCST/11), American University of Sharjah, Sharjah, UAE*
2. Ahmad Y. Al-Maharma, **Naser Al-Huniti,** The Effect of Carbon Nanotubes Enforcement on the Effective Elastic and Dynamic Properties of a Composite Blade. *The 8th Jordanian International Mechanical Engineering Conference, 22-23 September, 2014, Amman-Jordan*
3. **Naser S. Al-Huniti,** Fadi Al-Faqs and Osama Abu Zaid, Finite Element Dynamic Analysis of Laminated Viscoelastic Structures. *Seventh International Conference on Composite Science and Technology (ICCST/7), January 20-22/1/2009, Sharjah, UAE*
4. Firas S. Jarrar and **Naser S. Al-Huniti**, [Buckling behavior of laminated metal-matrix composite plates with cutouts](file:///D%3A/1/CV-alhuniti.DOC). *The sixth Jordanian International Mechanical Engineering Conference (JIMEC’6), October, 2007, Amman-Jordan*
5. **Naser S. Al-Huniti** and Osama M. Al-Habahbeh, [Composite LPG Cylinders as an Alternative to Steel Cylinders: Finite Element Approach](file:///D%3A/F/MY%20Publications/Conferences/Comp_LPG_Clndr_FE.pdf).*International Conference on Manufacturing and Material Processing (ICMM2006),* Kuala Lumpur, Malaysia, March, 2006*,* pp. 363-368
6. Osama Al-Habahbeh and **Naser S. Al-Huniti,** [Composite Pressure Vessels in Petroleum Industry: Status and Outlook](file:///D%3A/F/MY%20Publications/Conferences/Comp_PV_Petr_Lit.pdf).*Proceedings of the 5th International Conference on Composite Science & Technology*, Sharjah, UAE, February 2005, pp. 401-406
7. **Naser S. Al-Huniti** and Adnan I. O. Zaid, Simulation of the Free Upsetting of a Metallic Ring Using Finite Element Analysis. *3rd International Conference on Advanced Manufacturing Technology (ICAMT 2004)*, Kuala Lumpur, Malaysia, (11-13) May, 2004, pp. 687-692.
8. **Naser S. Al-Huniti** and Nesreen Hasan, Analytic Geometry Formulation of the Kinematic Equations of a Seven-Degree-of-Freedom Robot Manipulator. *First International Conference on Mechatronics*, Kuala Lumpur, Malaysia, 2001, pp. 162-172.
9. Mohammad H. F. Dado and **Naser S. Al-Huniti,** A Compliant Four-Bar Mechanism Synthesis using the Pseudo-Rigid-Body Model. *Seventh International Conference on Production Engineering, Design and Control*, Alexandria, Egypt, 2001, pp. 913-923.
10. **Naser Al-Huniti** and Adnan Nayfeh, Constitutive Relation Modeling of Woven and Textile Composites. *Fifth International Conference on Composites Engineering*, Las Vegas, USA, 1998, pp. 85-94.
11. A. I. Zaid and **N. Al-Huniti**, Experimental Investigation of Hot and Cold Spraying of Metals with Particular Reference to Wear Resistance. *Fifth International Conference on Petroleum, Mining, & Metallurgical Engineering*, Suez, Egypt, 1997, pp. 204-215.

**Master Theses Supervised:**

* Otman Khaled, Thermoelastic Analysis of Bi-directional Functionally Graded Beams.
* Laith Alnsour, The Effect of the Thermo-Mechanical Coupling Terms in Beams and Plates
* Amro Mohammad, Damping Characteristics of Viscoelastic Composite Laminates in a Hygrothermal Environment.
* Mohammad Al-Saqarat, Reliability, Preventive Maintenance**,** Risk and Availability Anlysis of a Container Gantry Crane
* Ala'a Alsotary, Composite Robotic Arm Design, Analysis and Control
* Hedaya Salaheen, Implementating Total Productive Maintenance (TPM) Approach at Neonate Intensive Care Unit (NICU)
* Abdullah Alibrahim, Dynamic Response of a Composite Wind Turbine Blade Reinforced with Carbon Nano Tubes Due to Impact Loading
* Zaid AL-Atari, Mechatronic Design of Solar Tracking System for Compact Linear Fresnel Reflectors
* Ahmad Al-Maharmeh, Structural Health Monitoring of Wind Turbine Blades Fabricated From Composite Materials Reinforced with Carbon Nanotubes
* Duaa Jilani, Energy Saving and Structural Safety of a Composite Vessel of Nuclear Power Reactor
* Khaled Eyal-Awwad, Effect of Molybdenum Addition to Zinc-Aluminum Alloy (ZA22), Grain Refined By Ti or Ti+ B, on Its Mechanical Characteristics After Extruding in the Equal Channel Angular Pressing (ECAP)
* Reem Jafar, Using Finite Element Simulation to Predict the Effect of the Preform Cavity in Two-stage Superplastic Forming
* Fatima Al-Abtah, Simulation-Based Optimization of the Hybrid Superplastic Forming of AZ31
* Sami Al-Ahmad, Investigation of the Thermo-Mechanical Behavior of a Functionally Graded Beam under the Effect of a Moving Heat Source
* Hani Daradkeh, Hygrothermal Effects on the Deflection –Induced Voltage and Stresses in Composite Piezoelectric Structures
* Fadi Faqs, Dynamic Behavior of Composite Structures with Visco-Elastic Damping Layer
* Osama M. Al-Habahbeh, [Composite LPG Cylinders as an Alternative to Steel Cylinders](file:///D%3A/F/MY%20Publications/Conferences/Comp_LPG_Clndr_FE.pdf) Used in the Local Market
* Maher Da’as, Transient Variations of Thermal Stress and the Resulting Residual Stresseswithin a ThinPlate During Welding Processes
* Meqdad Meqdad, [Thermally Induced Vibration in a Thin Plate under the Wave Heat Conduction Model](file:///D%3A/F/MY%20Publications/Journal%20Articles/Thrm_Vib_Thn_Plt.pdf)

**Sample of the award winning-graduation projects in the annual Jordanian competition organized by the Jordanian Engineers Association:**

* Design and Manufacturing of a Plastic Injection Molding Machine
* Design and Modification of an Automobile Steering and Suspension Systems
* Design and Manufacturing of  Base Displacement Meter
* Design and Construction of a Composite-Material Chassis for a Formula Racing Car
* Design and Modeling of an Automobile Regenerative Braking System
* Energy Generation from Road Bumps

**TEACHING EXPERIENCE**

**Undergraduate Courses:**

Mechanics of Machines, Machine Design I, Machine Design II, Elements of Machine Design, Applications in Machine Design, Statics, Dynamics, Vibrations, Strength of Materials, Dynamic Systems, Finite Element Method, Smart Materials and Structures, Vibrations lab., Strength of Materials lab., Graduation Project (supervision)

**Graduate Courses:**

Research Methodology, Advanced Engineering Mathematics, Continuum Mechanics, Theory of Elasticity, Theory of Plasticity, Theory of Plates, Composite Materials, Advanced Solid Mechanics, Advanced Measurements, Maintenance Methods and Techniques

**Accreditation Experience**

* Chairman of the national committee to revise the accreditation criteria of Mechanical Engineering and related programs (Aerospace, Nuclear, Mechatronics, Materials, Fire Fighting) in Jordan (6/2017- 6/2018)
* Team Coordinator, ABET Accreditation Engineering preparation for the Mechanical Engineering program, University of Jordan (9/2003- 9/2007)
* ABET accreditation preparation committee member (2011-2015).

**COMPUTER SKILLS**

ANSYS (Finite Element Analysis), MS Office applications (Word, Power Point, Excel,…), Matlab, Mathematica, AutoCAD

**TECHNICAL EXPERIENCE**

##### Consultancy and Professional Committees:

* A Certified Consultant Engineer in the area of Mechanical Engineering, Jordan Engineers Association
* A member of the Engineering and Nano Technology Committee (Scientific Research Fund)
* Faculty-For-Factory (FFF) program of collaboration between the University of Jordan and Jordanian industries. Second round of the FFF program (Summer 2004). The project was concerned with the design and manufacturing of the Shell-and-Tube Heat Exchanger and wasjointly supported by the Jordan-United States Business Partnership (JUSBP) and Petra Engineering Industries Company
* Faculty-For-Factory (FFF) program of collaboration between the University of Jordan and Jordanian industries. Participated in the first round (Summer 2003) was supported by the Industrial Research Fund – the Higher Council for Science and Technology and hosted by Petra Engineering Industries Company. The project was concerned with the development of some of the company’s production stages, mainly sheet metal works, punching and pressing processes
* A member of the technical team for the design and construction of a vacuum dehydrating malaxer to reduce moisture content of olive paste to improve oil separation in conventional or Sinolea systems. Prince Ali Bin Nayef olive oil extractors (2003-2004)
* Reviewer for project proposals and final project reports for the Higher Council for Science and Technology
* Member of technical committees in the Jordan Standards and Metrology Organization

**Short Courses:**

1. Machinery Failure Analysis and Prevention
2. Gears: Design and Manufacturing
3. Technical Writing for Engineers in the Field

**Workshops and Training Attended**

1. Smart Plus Research by Data Science & Big Data Analysis Techniques, Organized by the Accreditation and Quality Assurance Center, The University of Jordan, March, 8, 2018
2. Follow-up training for the development of the MSc program in Maintenance Engineering, Tempus IV project “Middle Eastern Partnership in Sustainable Engineering”, University of Ljubljana, Ljubljana, Slovenia, June 14-21, 2014
3. EU-Industry-Specific Seminar: Higher Education Institutes (HEI)-Industry Partnership and Long Life Learning (LLL) Courses targeting Industry. Tempus IV project “Middle Eastern Partnership in Sustainable Engineering”, Technical University of Berlin, Berlin, Germany, 25-28 September 2013
4. Training for the development of a new MSc program in Maintenance Engineering, Tempus IV project “Middle Eastern Partnership in Sustainable Engineering”, University of Ljubljana, Ljubljana, Slovenia, 26 May-8 June 2013
5. Productive Business Conversation, Organized by Prince Mohammad Bin Fahd University, Al Khobar, Saudi Arabia,18-19 May 2010
6. FP7 Funding and Partnership, Organized by the European Commission, Brussels, Belgium, 6-13 June 2009
7. Grant Writing and Funding Sources Workshop, The National Center for Biotechnology, Amman-Jordan, 10 Nov 2007
8. Application challenges of NDT in Jordan Industries, The Hashemite University, Zarqa, Jordan. 17 May 2007.
9. ABET Accreditation Workshops: Three workshops organized by the University of Jordan, 2005-2007
10. Rules and Goals of University Teaching. Organized by the University of Jordan. September 1996

**Membership of Professional Organizations:**

Jordan Engineers Association (JEA)