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Present: The University of Jordan
Mechanical Eng. Dept.
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I. GENERAL

EDUCATION

Ph.D. in Mechanical Engineering,
Instrumentation and Control – December 1999
University of Houston – Houston, Texas

MS in Mechanical Engineering – August 1992
Texas A&M University – Kingsville, Texas

MS in Electrical Engineering – December 1991
Texas A&M University – Kingsville, Texas

BS in Mechanical Engineering – January 1989
University of Jordan – Amman, Jordan

ACADEMIC APPOINTMENTS

Present	Associate Professor, Dept. of Mechanical Eng., University of Jordan, Amman, Jordan
Oct 2010-Sep 2011	Assistant Professor, Dept. of Mechanical Eng., University of Jordan, Amman, Jordan
Sep 2000- Oct 2010	Taught graduate and undergraduate courses in Control Theory, System Dynamics, Pneumatic/Hydraulic Systems Design/Control, Automation, Mechatronics System Design, and Vibration Theory. Advised graduate students in their thesis and dissertation research projects in areas of control, automation and vibration. Supervised undergraduate hands-on graduation senior engineering projects (design and implementation of many projects on automation, control).
Sep 2011-2014	Visting Professor, Dept. of Mechanical Eng., University of Emirates, Al Ain, UAE Taught graduate and undergraduate courses in Dynamics and Advance control, System Dynamics and Control, and Mechanics of Materials.
Dec 1999-Oct Sep 2000	Post Doctorate, Dept. of Mechanical Eng., University of Houston, Texas, USA Performed multiple research projects on Predictive and Condition Based Maintenance, especially using LMI Methods for Failure Detection and Fault Tolerant Control.

Jan 1996- Dec 1999

Research/ Teaching Assistance, Mechanical Eng., University of Houston, Texas, USA
Designed instrumented and controlled a cantilevered beam testing bed with different damage scenarios as part of a predictive and condition based maintenance program using vibration signatures (health monitoring systems). Performed modal testing and modal analysis. Exposed to controllers, data acquisition systems, accelerometers, strain gauges, digital filters, and other devices. Performed multiple research papers on automation and controller designs using post modern control techniques. Assisted professors in teaching classes in control systems and vibrations.

May 1990- Jan 1993

Adjunct Faculty, Mathematic Dep. , Texas A&M University – Kingsville, Texas, USA
Adjunct Faculty, Mathematic Dep., DelMar College – Corpus Christy, Texas, USA
Taught undergraduate mathematic courses, such as Calculus, Business Math, and Algebra.

INDUSTRIAL APPOINTMENTS

Feb 1993 – Jan 1994

Parke Dewatt Medical Laboratories – Northbrook, Illinois
Systems Engineer

Installed and administered an Ethernet Local Area Network (LAN), interfaced medical Machines to personal computers, developed database programs, designed remote computer routines, and solved software and hardware problems as part of an automated control systems.

June 2007 – May 2008

Middle East Industries, Manufacturers of Euro-Boilers, Amman, Jordan
Research and Development

Investigated the feasibility of using Solar energy in Jordan using Dynamical Modeling of a House and simulating it using a recorded climate data. As a result of the study, I have developed a Cyclic PID Controller for use with the designed Hybrid Solar-Diesel Central Heating System with an auto Tune abilities.

Jan 2008 – Dec 2010

Director of JU Maintenance

a. Managed a complete team of engineers and technician around one hundred in JU facilities, including boiler steam house, utilities, medical equipment, chillers, ...etc.
b. A complete computer maintenance management system was implemented, enforced and managed.
c. Managed Major multimillion dollar projects, which were successfully built, installed and commissioned.

Jan 2012 – June 2014

Live Line Maintenance Project Manager

Worked as a project manager for Live Lines for Al Ain Distribution Company (AADC), Al-Ain-UAE. Live Line maintenance procedures were developed for AADC followed by training for engineers and technicians to implement and oversee contractors.

Mar 2018 – Present

16MW PV (Rooftops and Parkings) Project Manager

Currently, I am Working as a project manager for the University of Jordan for their 16MW AC Power Generation using PV on Rooftops and Parkings.

RESEARCH AREAS

Control and Automation

Feedback Control Systems Analysis and Design; Modeling; Systems Model Reduction and System Filtering/Estimation; System Optimization and Optimal Control; Design Integration for Engineering Dynamical Systems; Electro-Mechanical Systems, Smart Materials and Aerospace Systems; Damage Assessment (Health Monitoring); Fault Intolerance (FDI); and Application in Structural Systems and Automation.

Mechanical and Aerospace Systems

Pursuing research in multi-objective control design, Linear Matrix Inequality (LMI) formulations of multi-objective and robust control problem, parameter estimation, vibration control, automation and system identification.

Alternative Energy Based Systems

Design and implementation of embedded control systems for alternative energy. Different control theories are to be tested, verified and validated using experimentation.

TEACHING AREAS

Undergraduate

System Dynamics and Modeling; Feedback Control; Modern Control, Digital Control, Fuzzy Logic and Neural Networks, Automation, Robotics, Vibrations; Pneumatic and Hydraulic Systems, Building Management Systems (BMS), Smart Structures, Numerical Analysis; Optimization; Automation, Programming for Engineering, and Mechatronics System Design.

Graduate

Advance Control Systems, Fuzzy Logic and Neural Networks, Optimal Control; Robust Control; Flight Dynamics and Control; Optimization Methods; Advance Mechanical Systems; Adaptive Control, None Linear Control; Linear Matrix Inequalities; Advance Vibrations, Modal testing, Structural Analysis; Advance Numerical Analysis, and Applied Mathematics.

AWARDS, HONORS & PROFESSIONAL ACCOMPLISHMENTS

1. SoS TÜV Outstanding Achievement Certificates as a Senior industrial trainer, 2011- 2018
2. TÜV Outstanding Achievement Certificates as a Senior industrial trainer, 2005-2011
3. Engineering Union Best Senior Projects in Jordan, *Design and Implementation of Handicap-Driving Aid*, 2017.
4. ASME/IEEE ISMA'08: 5th International Symposium on Mechatronics and Its Applications, second place award for best graduation project: **Hybrid Solar-Diesel System Controller Design and Implementation.**
5. ASME/IEEE ISMA'08: 5th International Symposium on Mechatronics and Its Applications, **Third place award** for best graduation project: **Inverted Pendulum Cart Design and Implementation.**
6. Outstanding Achievement Award, December 2007, Faculty for every Factory best industrial project (Top among 120 faculty projects), **Hybrid Solar-Diesel System for Central Heating System.**
7. Engineering Union Best Senior Projects in Jordan, *Design and Implementation of a Mobile Robot*, 2006.
8. Engineering Union Best Senior Projects in Jordan, *Design and Implementation of an Industrial Continuous Filling Machine*, Manufactured for the usage of Palestine Trading Company, 2005.
9. Solar car Mechatronics team leader, 2000 (45,000JD Project)
10. ASNT Gerald E. Smith Award, Health Monitoring Award, 1998
11. Who's Who Among Students in American Universities and Colleges, 1992
12. Fellowships (2) and Scholarships (7) , 1990-1993 and 1995-1999.

II. SCHOLARLY ACTIVITY

PUBLICATIONS

Books in Progress

Musa O. Abdalla, **Mechatronics System Design and Implementation**, Text Book.

Book Chapters

Salih Akour, Mohammad Al-Husban and Musa O. Abdalla, "**Design and Optimization of Defense Hole System for Uniaxially Loaded Laminates**", Evon Abu-Taieh, Asim El-Sheikh and Mostafa Jafari (Ed.), Technology, Engineering and Management in Aviation: Advancements and Discoveries, Publisher: IGI-Global, USA, 2010. Chapter in an edited book.

Patents

Internationally Registered Patent through the University of Jordan: **Active Shock Absorber System**, World Intellectual Property Organization / Patents, United Nations. Status: **Accepted and Pending**

Journal Publications

1. Abdalla, M., Abu Quba, H., "Natural Cooling of two axis Tracking Photovoltaic Module," Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, accepted to appear on July 2019 issue.
2. Abdalla, M., Al-Jarrah, T., "Optimal Fuzzy Controller: Rule Base Optimized Generation," Control Engineering and Applied Informatics (CEAI), Vol.20, No.2 pp. 76-86, 2018.
3. Abdalla, M., Shagarin, T., "Industrial Process Control Using LPV," Modern Applied Science; Vol. 11, No. 9; 2017, Published by Canadian Center of Science and Education.
4. Abdalla, M., Abu Quba, H., "PV Improved Power Using Off-Normal Sun Tracking," Modern Applied Science; Vol. 11, No. 11; 2017, Published by Canadian Center of Science and Education.
5. Abdalla, M., etal, "Solar-Diesel Hybrid Model and Control for Central Heating," Applied Mechanics and Materials Vol. 705 (2015) pp 305-312. Trans Tech Publications, Switzerland.
6. Abdalla, M., Al-Khawaldeh, E., "Applied Mechanics and Materials Vols. 110-116 (2012) pp 5336-5341. Trans Tech Publications, Switzerland.
7. Abdalla, M., Al-Jarrah, T., "Fuzzy Logic Control of an Electrical Traction Elevator," Jordan Journal of Mechanical and Industrial Engineering (JJMIE), March 2011, Pages 97 -106.
8. Abdalla, M., Shabatat, N., Al Qaisi, M., "Linear Matrix Inequality based Control of Vehicle Active Suspension System., " Vehicle System Dynamics Journal, Vol. [47](#), Issue [1](#), 2009 , pages 121–134, Taylor & Francis.
9. Abdalla, M., Euripeds, N., and Grigoriadis, K., "LMI_Based Filtger Design for Fault Detection and Isolation Using a Reference Model," *Dirasat: Engineering Sciences*, Vol. 35, No. 1, 2008, pp. 35-43, University of Jordan.
10. Euripedes, N., Abdalla, M., and Grigoriadis, K., "Robust Fault Estimation of Uncertain Systems Using an LMI-based Approach," *International Journal of Robust and Nonlinear Control*, 2008; **18**:1657-1680, Wiley InterScience.
11. Abdalla, M., and Alsmadi O. "Model Reduction via Reducibility Matrix, " *International Journal of Simulation and Modeling*, Donghua university (Eng. Ed.), 23, No. 6, 2006.

12. Abdalla, M., "Matrix Norms and their Sensitivity to Noise a Computational Study," *WSEAS Transactions on Systems*, Vol. 4, No. 11, 2005, pp. 2096-2100.
13. Abdalla, M., Grigoriadis, K., and Zimmerman, D., "An Optimal Hybrid Expansion-Reduction Damage Detection Method," *Journal of Vibration and control*, Sage Publications 122, No. 4, 2003, pp. 448-445.
14. Abdalla, M., Grigoriadis, K., and Zimmerman, D., "Enhanced Damage Detection Using Linear Matrix Inequalities Methods," *ASME: Journal of vibration and acoustics*, 122, No. 4, 2000, pp. 448-455.
15. Abdalla, M., Grigoriadis, K., and Zimmerman, D., "An Optimal Hybrid Expansion-Reduction Damage Detection Method," *Journal of Vibration and Control*, 122, No. 4, 2000, pp. 448-455.
16. Abdalla, M., Grigoriadis, K., and Zimmerman, D., "Enhanced Structural Damage Detection Using Alternating Projection Methods," *AIAA Journal*, Vol. 36, No. 7, 1998, pp. 1305-1311.

Refereed Conference Proceeding Publications

1. Musa Abdalla, etal, "Multi-Layer Optimization Algorithm", Proceedings of the International Conference on Advances in Mathematics, Computers and Physical Sciences, Thailand, March 2019. Asian Institute of Technology Conference Center (AITCC).
2. Musa Abdalla, etal, "Solar-Diesel Hybrid Model and Control for Central Heating", International Conference on Renewable Energy Technologies (ICRET 2014), Hong-Kong, 2014.
3. Salih Akour, Mohammad Al-Husban and Musa O. Abdalla, "Design and Optimization of Stress Relief System for Uniaxially Loaded Laminates", International Conference on Applied Mechanics, Material and Manufacturing, Muscat, Oman, 2010.
4. Abdalla, M., Al Jarah, T., "Optimal Fuzzy PID Controller for an Elevator System," The seventh international Mechanical Engineering Conference JIMEC'7, Amman, Jordan, 2010.
5. Abdalla, M., "Particle Swarm Optimization (PSO) for Structural Damage Detection," Proceedings of the 3rd International Conference on Applied Mathematics, Simulation, and Modeling (ASM'09), Athens, Greece, 2009.
6. Abdalla, M., "Model Reduction via Particle Swarm Optimization (PSO)," Proceedings of the 20th IASTED International Conference on Modeling and Simulation, Banff, Alberta, Canada, 2009.
7. Alsmadi, O. and Abdalla, M., "Reducibility Matrix Based Model Reduction vi Recurrent Neural Network Tuning," Proceedings of the 26th International IASTED Conference on Modeling, Identification, and Control, Innsbruck, Austria, 2007.
8. Alsmadi, O. and Abdalla, M., "Order Model Reduction for Two- Time- Scale Systems Based on Neural Network Estimation, " Proceedings of the 15th Mediterranean Conference on Control & Automation, IEEE, Athens, Greece, 2007.
9. Abdalla, M. and Alsmadi O. "Model Reduction via Reducibility Matrix," International Conference on Intelligent Systems and Knowledge Engineering, ISKE Shanghai, China 2006.
10. Dado M., Abdalla M., "An Automatic Continuous Filling Machine for Dry Bulk Material: A Case Study in Mechatronics System Design, " Proceeding of the 2nd International Conference on Mechatronics, ICOM'05, Kuala Lumpur, Malaysia, 2005.

11. Abdalla, M., Euripeds, N., and Grigoriadis, K., "Fault Detection and Isolation Filter for Linear Parameter Varying Systems," Proceedings of the American Control Conference (ACC), IEEE, Arlington, Virginia, USA, 2001.
12. Nobrega, N., Abdalla, M., and Grigoriadis, K., "LMI-Based Filter Design for Fault Detection and Isolation," 39th Proceedings of CDC, IEEE, Sydney, Australia, USA, 2000.
13. Abdalla, M., Grigoriadis, K., and Zimmerman, D., "Iterative LMI Expansion-Reduction damage Detection Method," Proceedings of the American Control Conference, Chicago, Illinois, 2000.
14. Abdalla, M., Grigoriadis, K., and Zimmerman, D., "LMI Hybrid Expansion-Reduction Damage Detection Method," Proceedings of the 18th International Modal Analysis Conference, San Antonio, Texas, 2000.
15. Abdalla, M., Grigoriadis, K., and Zimmerman, D., "Structural Damage Detection Using Strain Data via Linear Matrix Inequality Based Methods," Proceedings of the American Control Conference, San Diego, California, 1999.
16. Abdalla, M., Grigoriadis, K., and Zimmerman, D., "Structural Parameter Identification and Damage Detection via LMI," Proceedings of IFAC, The International Federation of Automatic Control, Beijing, p. R. China, 1999.
17. Abdalla, M., Grigoriadis, K., and Zimmerman, D., "Experimental Validation of the LMI Methods for Structural Damage Detection," Proceedings of the 17th International Modal Analysis Conference, California, 1998.
18. Abdalla, M., Grigoriadis, K., and Zimmerman, D., "Enhanced Structural damage Detection Using Linear Matrix inequalities," Proceedings of the 16th International Modal Analysis Conference, California, 1998.
19. Abdalla, M., Grigoriadis, K., and Zimmerman, D., "Enhanced Structural damage Detection Using Alternating Projection," Proceedings of the 15th International Modal Analysis Conference, Orlando, 1997.
20. Abdalla, M., Wang, R., and McLauchlan, R., "Solving Lyapunov Equations Symbolically," Proceedings of the International Federation of Automatic Control Conference, Evanston, Illinois, 1995.

INVITED PRESENTATIONS

Invited Conference Presentations

1. "Optimal Fuzzy PID Controller for an Elevator System," 7th international Mechanical Engineering Conference JIMEC'7, Amman, Jordan, 2010.
2. "Structural Damage Detection Using Strain Data via Linear Matrix Inequality Based Methods," 1999 American Control Conference, San Diego, California, 1999.

Invited Seminars and Lectures

1. "Damage Detection and Health Monitoring using Linear Matrix Inequalities (LMI)," University of Jordan, Mechanical Engineering Department Seminar for the Faculty Members, July 2000.
2. Presented a speech, "Collaboration between the Industry and the Academia," Open forum with the industry in Jordan, Hayat Hotel, 2003.
3. "New Trends in Mechatronic Systems Design," University of Jordan, Faculty of Engineering and Technology, Seminar on Engineering and Science Awareness day, May 2002.

SPONSORED RESEARCH PROJECTS

1. CO₂ Super Critical Extraction Implementation and Control, Jordan Higher Education, \$60,000 (PI: Hadadeen, Co-PI: Abdalla 50%), Amman-Jordan, June. 2009.
2. Hybrid Solar-Diesel Central Heating Controller Design, Research Center at University of Jordan, \$20,000 (PI: Abdalla), Amman-Jordan, Jan 2008.
3. Design, automation and Implementation of Process Training Experiments, General Electric (ITC), \$100,000 (Collaboration with an American team from ITC to train the Iraqis), Jun 2005.

III. TEACHING AND ADVISING

COURSES TAUGHT (University of Jordan)

Graduate Level PhD

ME 0904901: Engineering Mathematics
ME 0904904: Mechanical Systems and Control
ME 0904906: Fuzzy Logic and Neural Network
ME 0904914: Optimal Control
ME 0904916: Non-Linear Systems and Control

Graduate Level Master

ME 0904702: Numerical Analysis
ME 0904704: Engineering Math
ME 0904716: Advance Control

Undergraduate Level

ME 0904202: Computer Programming for Engineers
ME 0904418: System Dynamics and Control
ME 0904521: Robotics and Automation
ME 0904536: Design of Mechatronics Systems
ME 0904537: Design of Hydraulic and Pneumatic Systems
ME 090580: Modern Control Systems
ME 090583: Autotronics

STUDENT ADVISING

Ph.D. Students

1. Omar Shiply, *Damage detection in mechanical structures based on incomplete modal data (Crack parameter estimation)*, Ph.D Dissertation completed in December in May 2002.
2. Mohammad Al-Husban, *Design and Optimization of Hole Defense System for Fiber Reinforcement in Laminated Plates*, Ph.D Dissertation completed in June 2009.

Masters Students

1. Nabeel Shibatat, *Vehicle's Active Suspension System*, Thesis completed in May 2004.
2. Amjad Massad, *Stability Analysis for Mobile Robots in Rough Terrain*, Thesis completed in April 2005.
3. Tamir Shagareen, *Industrial Optimal Multivariable Control of Temperature*, Thesis completed in May 2007.
4. Nabeel...*Cyclic PID Controller Design/Implementation for Hybrid Solar-Diesel*, Thesis completed in May 2010.
5. Tagreed Al-Jarrah, *Fuzzy PID Controller Design for an Elevator System*, Thesis completed in Dec 2010.
6. Enas Al-Khawaldeh, *Optimal Damage Detection Sensor Placement*, Thesis is completed in Jun 2011.
7. Mohammad Al Quran, *Optimal Model Reduction using Reducibility Matrix*, Thesis is completed in Jun 2011.
8. Anas Nassar, *Unmanned Helicopter Controller Design and Implementation*, Thesis is completed in Jun 2011.
9. Esra'a Abu Reyash, *Control Techniques for Energy and Indoor Environmental Quality Management for a Meeting Room*, Thesis completed in March 2017.
10. Hanan Abu Quba, *Automatic Optimal Positioning of a Photovoltaic Module*, Thesis completed in April 2017.
11. Tamara Mahid, *Dual Harvest of Solar and Wind Energies*, Thesis Completed in Dec 2018.
12. Alaa Alsotary, *Composite Robotic Arm Design, Analysis and Control*, Thesis completed in Jan 2018. Co-Advisor
13. Suad Al Haj Mustafa, *Experimental Investigation of Control Techniques of Energy and Indoor Environmental Quality Management in a Meeting Room*, Thesis to be completed in August 2019.
14. Ahmad Aid, *Enhanced Electrolysis using PZT Material*, Thesis to be completed in August 2019.
15. Mohammaed Qitishat, *Damage Detection in a Plate*, Thesis to be completed in Dec 2019.

IV. PROFESSIONAL ACTIVITIES

EDITORSHIPS AND PROGRAM COMMITTEES

1. International Program Committee (IPC), 29th IASTED International Conference on Modeling, Identification, and Control (MIC 2011), which took place in Innsbruck, Austria from February 16, 2009 to February 18, 2009.
2. International Program Committee (IPC), 30th IASTED International Conference on Modeling, Identification, and Control (MIC 2011), which took place in Innsbruck, Austria from February 15 to 17, 2010.
3. International Program Committee (IPC), 31st IASTED International Conference on Modeling, Identification, and Control (MIC 2011), which is to take place in Innsbruck, Austria from February 14, 2011 to February 16, 2011.

CONFERENCE AND SHORT-COURSE ORGANIZATION

1. Program Committee and Founder (Collaboration with Engineering Union), 1st International Conference on Mechatronic Systems, Amman, Jordan, Oct 14, 2003.
2. Session Chair the 26th International IASTED Conference on Modeling, Identification, and Control, Innsbruck, Austria, February 2007.
3. Session Chair for the Third German-Jordan Workshop on Renewable Energy, 17-23 Oct 2010.
4. Session Chair for the Second German-Jordan Workshop on Renewable Energy and Alternative Fuels, 10-17 Oct 2009.

SCIENTIFIC REVIEW PANELS

1. **Reviewer**, Transactions of the Institute of Measurement and Control, 2016-Present
2. **Reviewer**, Journal of Mechanical Science and Technology, 2016-Present
3. **Reviewer**, International Journal of Robust and Nonlinear Control, 2007- Present
4. **Reviewer**, International Journal of Dirasat, University of Jordan, 2001 – Present
5. Teibah University, Saudi Arabia, Technical Review and Evaluation of their Mechatronics Program Curriculum, April 2011.
6. Army and Police Forensic Technical Review, 2009-Present.
7. Review of Engineering Union Best Senior Projects Committee, 2008.
8. Jordan – German University, curriculum development committee for the Mechanical and Mechatronics Departments, 2007.
9. Jordan Higher Education standards committee member for the Mechatronic Engineering.
10. Industry and Trade Ministry Technical Review for Patents, 2000-Present.

PROFESSIONAL AFFILIATIONS

1. American Society of Nondestructive Testing (ASNT)
2. American Institute of Aeronautics and Astronautics (AIAA)
3. American Society of Mechanical Engineers (ASME)
4. Institute of Electrical and Electronics Engineers (IEEE)

DEPARTMENT AND UNIVERSITY COMMITTEES

1. PhD Qualifying Exam Evaluator, 2001 – Present
2. Promotion & Tenure Committee, College of Engineering, 2010 – Present.
3. Mechanical Engineering Faculty Search Committee, 2009 – Present.
4. **Director**, JU Hospital and Facilities, Jan 2008 – Dec 2009.
 - a. Managed a complete team of engineers and technician around one hundred in JU facilities, including boiler steam house, utilities, medical equipment, chillers, ...etc.
 - b. A complete computer maintenance management system was implemented, enforced and managed.
 - c. Managed Major multimillion dollar projects and they were successfully commissioned.
5. **Director**, JU Industrial Consultation Center, Jan 2009 – Dec 2010.
 - a. Managed the industrial and educational consultations for the university of Jordan. This center provides diversity of Engineering consultation, and hands on training.
 - b. Advised on the technical and educational training courses.
6. Engineering Team Leader for Establishing Universal Heart Center, Jordan University, 2008 –2010.
7. ABET Steering Committee, JU Mechanical Engineering Department, 2007 – 2010.
8. Graduate Degree Plan Renewal Committee, Mechanical Engineering, Jordan University 2007.
9. Undergraduate Degree Plan Update Committee, Mechanical Engineering, Jordan University 2007.
10. Undergraduate Degree Plan Update Committee, Mechanical Engineering, Jordan University 2005.
11. **Director**, Mechatronics Engineering Program, University of Jordan 2002 – 2007
 - a. Initiated and established (procurement, specifications, tendering, and technical equipment evaluation) two Laboratories: Mechatronics Design (Open time Lab), Sensors and Actuators.
 - b. Devised a comprehensive degree plan for the Mechatronics Program.
 - c. Managed senior year projects evaluations/referee and students affairs.
 - d. Lead the Program to be an independent department.

12. **Director**, Pneumatic and Control Laboratories, 2002 – Present.
 - a. Initiated and established the two Laboratories (procurement, specifications, tendering, and technical equipment evaluation).
 - b. Wrote experiment manuals.
 - c. Trained Engineers.
13. Mechanical Engineering Representative in the College of Engineering Steering Committee, 2006.
14. Central Tender Committee Member and Technical Advisor (Multimillion dollars per year purchase orders), Jordan University, 2003 – 2006.
15. Innovation Center Establishing Committee, College of Engineering, 2003.
16. College of Engineering Representative in the University Steering Committee, Jordan University, 2002.
17. College of Engineering Sports Committee, College of Engineering, Jordan University, 2001-Present

INDUSTRIAL COURSES (Conducted with TÜV, GL Academy, Tadreeb and SoS Training)

1. Plant Startup, Commissioning and troubleshooting (frequent popular course),
2. Root Cause Failure Analysis and Failure Modes (frequent popular course),
3. Machinery Vibration Diagnosis and Control (frequent popular course),
4. Rotating Machines Reliability, Maintenance and Troubleshooting
5. Hydraulics and Pneumatics Systems, Maintenance and Troubleshooting
6. Reliability Centered Maintenance,
7. Mechanical Seals, Maintenance and Troubleshooting,
8. Control and Safety Valves, Operation and Maintenance,
9. Pumps and Compressors, Operation and Maintenance,
10. Advanced Maintenance Strategies,
11. Turbines, Compressors and Pumps operation, maintenance and Troubleshooting
12. Instrumentation and Control Loops,
13. Advance Process Control,
14. Engineering Codes and Standards (TEMA, ASME, DIN,...etc)
15. Turbines Maintenance and Control
16. Fired Heaters Heat Exchangers Operation, Maintenance and Control
17. Total Productive Maintenance (TPM),
18. Failure Mode Analysis and Maintenance Scheduling,
19. Mechanical Engineering for None Mechanicals,
20. Process Safety Design and Principles.

HOBBIES

Karate, Programming, Reading, Volleyball, Chess, and swimming

REFERENCES

Will be provided upon request