

# MOHAMMAD OMARI, Ph.D.

Jordan, Amman

## EDUCATION

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- PhD. in Mechanical Engineering from New Mexico State University (Jun. 2013).  
Dissertation title: Evaluation of Changes in Microstructure and Mechanical Performance of Metals via Electrical Resistivity Measurements. GPA (3.85)
- MS. in Mechanical Engineering from New Mexico state University (May 2011).  
Concentration in Materials Micromechanics. GPA (3.82).
- MS. in Industrial Automation from Yarmouk University, Jordan (May 2006).  
Thesis title: Development of a CAD/CAM system for forging process using finite element method. GPA (88.1/100).
- BS. Mechanical Engineering/Design and Production, Jordan University of Science and Technology, Jordan (July 2001).

## RESEARCH INTERESTS

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- Green bio-composites.
- General area of microstructure-property relations for heterogeneous materials and materials with defects. (Experienced in experimental techniques).
- Cross connection properties between elastic moduli and electrical resistivity.
- Dislocations study for metals under static and dynamic loading using both quantitative and qualitative techniques.
- General CAD/CAM and traditional manufacturing processes.

## PROFESSIONAL EXPERIENCE

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- Assistant Professor, *JUST. ME Dept.* Sep.2016 – Present
- Assistant Professor, *Hashemite University. ME Dept.* Aug.2014 – Sep.2016
- College Assistant Professor, *New Mexico State University. IE Dept.* Aug. 2013– Jun 2014
- Teaching Assistant, *New Mexico State University/Mechanical Engineering Dept.* 2009-2013
- Laboratory Engineer, *Jordan University of Science & Technology/ IE Dep.* 2002-2009
- Production and Quality Engineer, *AEICO LTD CO./ Jordan* Nov.2001-Sep.2002
- Quality Control Engineer and ISO Auditor, *AL-NASER group,* July2001–Oct.2001

## **PUBLICATION**

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- Predicting the potential of biomass-based composites for sustainable automotive industry using a decision-making model. F AL-Oqla, **M Omari**, A Al-Ghraibah, Lignocellulosic Fibre and Biomass-Based Composite Materials 1, 522
- Predicting the Effect of Nano-Structural Parameters on the Elastic Properties of Carbon Nanotube-Polymeric based Composites. A ALMAGABLEH, FM AL-OQLA, **MA OMARI** International Journal of Performability Engineering 13 (1)
- Evaluation of changes in plastic yields parameters of titanium CP-2 using electrical resistivity measurements. **Mohammad A. Omari**, Túri Balázs, and Igor Sevostianov. *Int. J. Fract.* Nov. 2013. <http://link.springer.com/article/10.1007%2Fs10704-013-9915-3>
- Estimation of changes in the mechanical properties of stainless steel subjected to fatigue loading via electrical resistance monitoring. **Mohammad A. Omari** and Igor Sevostianov. *Int. J. of Engineering Science*, 2013, 65:40–48. <http://www.sciencedirect.com/science/article/pii/S0020722513000281>
- Evaluation of the growth of dislocations density in fatigue loading process via electrical resistivity measurements. **Mohammad A. Omari** and Igor Sevostianov. *Int. J. Fract.* 2013, 179:229-235. <http://link.springer.com/article/10.1007/s10704-012-9780-5>
- Evaluation of changes in dislocation density in TI-CP2 in the process of quasi-static loading using electrical resistance measurement. Ignatius Yulianto, **Mohammad A. Omari**, and Igor Sevostianov. *Int. J. Fract.* 2012, 175:73–78. <http://link.springer.com/article/10.1007/s10704-012-9698-y>
- Development of a CAD/CAM system for simulating closed forging process using Finite Element Method. Faruq Al-Omari, Mohammad Al-Jarrah, **Mohammad A. Omari** and Mohammed Hayejneh. *Engineering Computations: International Journal for Computer Aided Engineering and Software*, 2009. 26:302-312. <http://www.emeraldinsight.com/journals.htm?articleid=1781048>
- Production Processes Lab. Handout (IE 464), 11 experiments in different manufacturing fields.

## **TEACHING DIFFERENT COURSES**

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- Industrial Drawing employs different draughting software.
- Strength of Materials including laboratory.
- Statistics for engineers.
- Engineering Statics.
- Numerical methods for engineers.
- Engineering Instrumentation.
- Control systems.
- Engineering Metrology including laboratory.
- Computer Integrated Manufacturing Systems.

- Industrial Automation and Machine Control including laboratory.
- CAD/CAM courses including laboratories.
- Mechanical behavior of materials including laboratory.

## **EQUIPMENT KNOWLEDGE**

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Universal Materials Testing Machine, Fatigue Testing Machine, Different Electron Microscopes (SEM and TEM), Optical microscopy, Atomic Force Microscopy (AFM), Lab Volt Robotic arm, CNC Turning and milling machines, X-Y table with servo motors controllers, Siemens PLC with pneumatic stations contains different sensors and actuators, Cutting Forces Dynamometer, many traditional metal machining equipments.

## **TRAINING COURSES**

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- Quality Control in Welding Work/ Royal scientific society (2003).
- PLC (Siemens S7 handling & programming) / Engineering Training Center (2004).
- Machining processes using traditional and CNC machines (2004).
- Energy Audit/ National energy research center (2005).
- Mechatronics/ Hashimy University (2005).
- ROBOTICS/ summer university, Lebanon (2005).
- Safety rules inside the industrial labs. (2006).
- Electron Microscopes (SEM and TEM). (2011).

## **COMPUTER SKILLS**

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- MS Office ( Excel, Word, Power Point).
- Statistical Data Analysis: MINITAB, STATISTICA.
- Scientific Package: Matlab.
- Machine programming: PLC and CNC G-Codes.
- CAD/CAM Packages: Pro/Engineer, AutoCAD, Gibbs CAM, COSMOS, Q-form, Abaqus.