

**Manal Mustafa**  
Department of Mechanical Engineering,  
Faculty of Engineering,  
Hashemite University, Zarqa, Jordan  
Mobile: 00962 77 9395168  
E-mail: [m\\_mustafa@hu.edu.jo](mailto:m_mustafa@hu.edu.jo)

## EDUCATION

---

- 2009-2011: M.Sc. in Mechanical Engineering.  
The University of Jordan.  
(GPa. 3.63) (Very Good)  
Thesis Title:  
“COMPLIANT MECHANISM SYNTHESIS USING MINIMUM POTENTIAL ENERGY METHOD”
- 1999-2004: B.Sc. in Mechanical Engineering/ Mechatronics.  
Jordan University of Science and Technology.  
(GPa 81.9) (Very Good)

## SKILLS

---

- Languages:** Arabic (Native), English (Fluent).
- Computer Languages:** V.Basic, Basic, C/C++, Matlab.
- CAD:** AutoCAD, Pro Engineer, Autodesk Inventor, Solid Works.
- MS Office:** MS Word, Excel, PowerPoint.
- Electromechanical Design:** Implementation of a control system for a line following robot using ATmega128 microcontroller – including motor control circuits and algorithms-.

## EMPLOYMENT

---

- September 2011-Present:** Lecturer, Department of Mechanical Engineering, Hashemite University.  
Main responsibilities:
- Academic duties:
    - o Teaching the following courses  
Strength of Materials (ME 212),  
Dynamics (ME 231),  
Engineering Measurements (ME 302),  
Numerical Analysis (ME 303),  
Thermal 1 Lab. (ME325),  
Strength of Materials Lab. (ME 330),  
Mechanical Drawing (ME 445),  
Control and Vibrations Lab. (ME535),  
Electro-Mechanical Systems (ME 542),
    - o Numerical Analysis Course Coordinator Fall 2012-Spring 2014.
    - o Dynamics Course Coordinator Spring 2017 , Fall 2017
    - o Supervising several Graduation Projects.
    - o Academic advisor for students registered in years 2011, 2013 and 2017.
  - Administrative duties within Mechanical Engineering Department:
    - o Department board Secretary
    - o Member of the departments' Accreditation and Quality Assurance Committee.
    - o Member of the departments' ABET Accreditation Committee
    - o Member of the Organizing Committee for IReDew 2013 Conference.
    - o Alumni Committee Coordinator.
    - o Liaison officer for department website.

- Administrative duties within Faculty of Engineering:
  - o Member of the Quality Assurance Committee 2012-2013.

**June 2013-September 2013:** Visiting Researcher, the Faculty of Mechanical Engineering and Naval Architecture (FSB), University of Zagreb, Croatia.

Main responsibilities:

- Worked on developing an RO model for H2RES Software.

**March 2010 – January 2011:** Part time lecturer, Industrial Engineering Department, University of Jordan.

Main responsibilities:

- Teaching Pro Engineer software.

**April 2009 – March 2010:** Industrial Coordinator, Outreach Consultation Unit, University of Jordan.

Main responsibilities:

- Liaison officer between faculty members and local Industry.
- Organizing Job Fair of 2009 at the university.

## PUBLICATIONS

---

- M. Dado, M. Mustafa. **“Compliant Link Shape Synthesis Using Energy Minimization Method”**. (2011) 4<sup>th</sup> *International Congress Design and Modeling of Mechanical Systems: CMSM'2011, Tunisia*.
- M. Mustafa, T. Novosel, G. Gašparović, N. Duić, G. Krajačić, **“Desalination and Water Storage Modelling in H2RES Energy Planning Model”**, (2013) *SDEWES Conference, Dubrovnik, Croatia*.
- M. Dado, M. Mustafa. **“Potential Energy Approach for Large Deflection Analysis of Beams Under General Loading and Different End Conditions Using Optimization Techniques”**. (2014) *The 8<sup>th</sup> Jordanian International Mechanical Engineering Conference (JIMEC'8), Amman, Jordan*.
- T. Novosel, et. al. **“Integration of Desalination and Renewables, a Demonstration of the Desalination Module in the H2RES Model: Case Study for Jordan”**. (2014) *Chemical Engineering Transactions Vol. 39*.
- T. Novosel, et. al. **“Integration of renewables and reverse osmosis desalination – Case study for the Jordanian energy system with a high share of wind and photovoltaics”** (2015), *Energy Vol. 92*.
- Luka Perkovic, et. al. **“Modeling of optimal energy flows for systems with close integration of sea water desalination and renewable energy sources: Case study for Jordan”**, (2016) *Energy Conversion and Management, Vol. 110*.

## PERSONAL INFORMATION

---

**Date of Birth:** 20. 6. 1981

**Place of Birth:** Zarqa / Jordan

**Nationality:** Jordanian