

Dr. Hassen M. OUAKAD

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EDUCATION

- Ph.D. Mechanical Engineering, State University of New-York, Binghamton, NY, USA, 2010.
- M.S. Computational Mechanics, Co-Diploma from Tunisia Polytechnic School, La-Marsa, & Virginia Polytechnique Institute and State University, Virginia, Tunisia-USA, 2008.
- B.Sc. Mechanics and Structures, Tunisia Polytechnic School, La Marsa, Tunisia, 2007.

ACADEMIC EXPERIENCE

- Associate Professor, Mechanical & Industrial Engineering Department, Sultan Qaboos University (SQU), Muscat, OMAN, September 2018-Present (FT).
- Associate Professor, Mechanical Engineering Department, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, KSA, May 2016-August 2018 (FT).
- Assistant Professor, Mechanical Engineering Department, King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, KSA, September 2011-April 2016 (FT).
- Postdoctoral Research Assistant at the Department of Petroleum Engineering, Texas A&M at Qatar (TAMUQ), Doha, State of Qatar, January 2011-August 2011 (FT).

CERTIFICATIONS OR PROFESSIONAL REGISTRATIONS

- Professional Main Engineer, from the Tunisian Engineering Council, Tunisia (Reg# 8125565).

CURRENT MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- American Society of Mechanical Engineers (ASME), 2008-present (Membership# 9744228).
- Institute of Electrical & Electronics Engineers (IEEE), 2010-present (Membership# 93086485).
- Member, Tunisian Engineers Association, 2007-present (Membership# 08125565).
- Member, Saudi Society of Mechanical Engineers (SSME), 2011-present (Membership# 149725).
- Member, International Association of Engineers (IAENG), 2013-present (Membership# 131832).

HONORS AND AWARDS

- Recipient of the Excellence in Research Award, Deanship of Scientific Research, King Fahd University of Petroleum and Minerals, Academic Year 2017-2018.
- Recipient of the Excellence in Academic Advising Award, College of Engineering Sciences, King Fahd University of Petroleum and Minerals, Academic Year 2016-2017.
- Recipient of the Excellence in Teaching Award, College of Engineering Sciences, King Fahd University of Petroleum and Minerals, Academic Year 2015-2016.
- Recipient of the outstanding academic achievement in graduate studies award in the Mechanical Engineering Department of the Watson School of Engineering and Applied Sciences (State University of New-York, Binghamton, NY, USA), Academic Year 2009-2010.

SERVICE ACTIVITIES (within & outside of the institution)

- Associate Editor in the IEEE Access Journal, since January 2019,
- Associate Editor in the SPRINGER Microsystem Technologies, since March 2019.
- Associate Editor in the SAGE Journal of Vibrations and Control, since September 2019.
- Member of the Editorial Board the Journal of Applied and Computational Mechanics (JACM), since 2016 (soon to appear in the ISI index list, application submitted on January 2017).
- Member of ABET Committee of the Mechanical Engineering Department, KFUPM, Academic Year 2016/2017.
- Member of the University Planning Standing Committee, KFUPM, Academic Year 2015-2016.

- Member of the Postgraduate Studies and Research Committee of the Mechanical & Industrial Engineering Department, SQU, Academic Year 2019/2020.
- Mechanical Engineering Student Society Advisor, SQU, Academic Year 2019/2020.

RECENT PRINCIPAL PUBLICATIONS

JOURNAL ARTICLES

- Hassen M. Ouakad, Hamid M. Sedighi, “Static and dynamic response of CNT nanobeam using nonlocal strain and velocity gradient theory”, *International Journal of Nonlinear Mechanics*, vol. 110, pp. 44-57, 2019.
- Amin Mohammed, Hassen M. Ouakad, Ahmet Sahin, Haitham Bahaidarah, “Vertical Axis Wind Turbine Aerodynamics: Summary and Review of Momentum Models”, *ASME Journal of Energy Resources Technology*, Accepted, in press, 2019.
- Tausiff, F. Mohammad, Hassen M. Ouakad, Hussain M. Al-Qahtani, Alofi, Abdulrahman, “Local nonlinear dynamics of MEMS arches actuated by fringing-field electrostatic actuation”, *Nonlinear Dynamics*, vol. 95(4), 2907-2921, 2019.
- Hassen M. Ouakad, Fehmi Najar, "Nonlinear Dynamics of MEMS Arches Assuming Out-of-Plane Actuation Arrangement." *ASME Journal of Vibration and Acoustics*, vol. 141 (4), 041010, 2019.
- Amin Mohammed, Hassen M. Ouakad, Ahmet Sahin, Haitham Bahaidarah, “Parametric Study and Comparison of Aerodynamics Momentum-Based Models for Straight-Bladed Vertical Axis Wind Turbines”, *Arabian Journal for Science and Engineering*, vol. 141(5): 050801(10 pages), 2019.
- Hassen M. Ouakad, “Nonlinear structural behavior of a size-dependent MEMS gyroscope assuming a non-trivial shaped proof mass”, *Microsystem Technologies*, accepted, online DOI: <https://doi.org/10.1007/s00542-019-04530-z>, 2019.

CONFERENCE PROCEEDINGS ARTICLES

- Mohammad H Hasan, Hassen M Ouakad, Nizar R Jaber, Md Abdullah Al Hafiz, Fadi Alsaleem, Mohammad Younis, " An Experimental and Theoretical Investigation of Double Resonance Activation in Electrostatic MEMS Resonators.", *ASME 2018 ASME 2018 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference*, August 26–29, Quebec City, Quebec, Canada, 2018.
- Ali AlSaleh, Hassen M. Ouakad, " Analysis of the Lateral Vibrations of an Unbalanced Jeffcott Rotor.", *14th International Conference on Vibration Engineering and Technology of Machinery (VETOMAC XIV)*, September 10-12, Lisbon, Portugal, 2018.
- Mohammad H Hasan, Fadi Alsaleem, Hassen M. Ouakad, “A novel threshold pressure sensor based on nonlinear dynamics of MEMS arches”, *ASME 2017 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference*, American Society of Mechanical Engineers, Cleveland, Ohio, USA, August 6-9, 2017.

PROFESSIONAL DEVELOPMENT ACTIVITIES

- Program Assessment by ABET, King Fahd University, October 2016.
- Guest Speaker at Nanotek 2016 with title of the presentation: “Dynamic Response of an Electrostatically Actuated Carbon Nanotube based NEMS Actuators” Crowne Plaza Dubai, Dubai, UAE, April 21st, 2016.
- Invited seminar: “Smart Microbeam MEMS based Designs of Competent Functionalities”, Physical Science and Engineering Division, King Abdullah University of Science and Technology, Engineering Science Hall, Building 9, Room 2325, KSA, November 20th, 2017.
- Invited seminar: “Nonlinear Nonlocal Behavior of Electrically Actuated Carbon Nanotube Resonators Assuming Fractional Continuum Mechanics Theory”, Workshop on: Fractional Models in Science & Engineering: Theory & Computation, King Fahd University of Petroleum and Minerals, Building 20, Room 103, KSA, December 20th, 2017.
- Invited seminar: “Introduction to Mechatronic and Control Systems”, American University of the Middle East, Engineering Building, Al-Ahmedi, Kuwait, March 21st, 2018.