

YUSEF HAIK, Ph. D.
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SUMMARY

Yusef Haik is an internationally recognized scholar in the field of nanotechnology. He made notable contribution to the creation of novel nanomaterial that have seen applications in magnetic hyperthermia, onsite diagnostics, antimicrobials and solar cells. He is an inventor of over 100 patents and patent applications, many of which have been licensed. His publication record included over 250 peer-reviewed articles, textbooks and conference proceedings. He is honored with a number of prestigious awards, including among many, the HH Sheikh Khalifa Award for Distinguished Research Professor, Arab Thoughts Foundation and the FUIW-FUMI Research Award. He is a fellow of the American Society of Mechanical Engineers (ASME) and a member of more than a dozen international societies. He serves as the Editor in Chief and on the editorial board for more than a dozen international journals. His academic career has included appointments in engineering (Mechanical, Biomedical and Nanoengineering) and science (Medicinal Chemistry, Physics and Nanoscience) programs. He is an ABET evaluator. His administrative appointments include Director for Research Centers, Department Chair and Graduate Programs Director. He led the creation of a number of degree programs.

CURRENT ACADEMIC POSITIONS

Professor <i>Department of Mechanical Engineering</i> <i>United Arab Emirates University</i>	2005-Present
Professor <i>University of North Carolina-Greensboro</i>	2008-Present
Editor-in-Chief <i>Advances in Nano Research</i> <i>ISSN: 2287-237X (print), ISSN: 2287-2388 (Online)</i> <i>International Journal of Nano Science and Engineering</i> <i>ISSN 1923-7626 (Print), 1923-7634 (On-line)</i>	2012-Present
	2010-Present

EDUCATION

PhD	Mechanical Engineering	Florida State University-Tallahassee-FL	1997
MSc	Mechanical Engineering	University of Iowa-Iowa City-IA	1994
BSc	Mechanical Engineering	University of Jordan-Amman-Jordan	1986

PATENTS (partial list)

- **US 8,796,673, August 5, 2014**, Semiconducting Polymer
- **US 8,590,416, November 26, 2013**, Lower Extremity Vehicle Navigation Control System
- **US 8,480,992, July 9, 2013**, Filter and Process of Use to Produce Carbon Nanotubes from Automotive Exhausts
- **US 8,236,270, August 7, 2012**, Process to Produce Carbon Nanotubes from Carbon Rich Waste
- **US 8,057,776, November 15, 2011**, Process to Produce Carbon Nanotubes from Microalgae
- **US 7,998,755, August 16, 2011**, System and Assay for Detection of Cardiac Markers for Assessing Acute Myocardial Infarction
- **US 7,989,221, August 2, 2011**, Assays and Systems for Rapid Detection of Pathogens
- **US 7,842,281, November 30, 2010**, Magnetic Particle Composition for Therapeutic Hyperthermia.
- **US 7,803,262, September 28, 2010**, Alignment of Carbon Nanotubes Using Magnetic Particles.

Honors & Awards (partial list 2010-2013):

Florida State Innovators Award	2012
University Research Development Award of the Federation of the Universities of the Islamic World – ISESCO	2012
Arab Creativity Award –Technological Creativity, Arab Thought Foundation	2011

PUBLICATIONS**Articles & Book Chapters (partial list out of 250)**

- Abdulrehman T, Yousif Z, Al Ameri S, Abdulkareme I, Abdulla A, **Haik Y**, "Enhancing the Performance of Mg-Al Brine Water Batteries using Conductive Polymer PEDOT:PSS," Renewable Energy, 2014, in press.
- Ayesh A I, Mahmoud S T, Ahmad S J, **Haik Y**, "Novel Hydrogen Gas Sensor Based on Pd and SnO₂ Nanoclusters," Materials Letters, Vol. 128, pp. 354-357, 2014.
- Issa B., Obaidat I, Hejassi R H, Qadri S, **Haik Y**, "NMR Relaxation in Systems with Magnetic Nanoparticles, A Temperature Study," Journal of Magnetic Resonance Imaging, Vol. 39, pp. 648-655, 2014
- Dagher S, **Haik Y**, Ayesh A, Tit N, "Synthesis and Optical Properties of Colloidal CuO Nanoparticles," Journal of Luminescence, Vol. 151, pp. 149-154, 2014.
- Taher H, Al-Zuhair S, Al-Marzouqi A H, **Haik Y**, Farid M, Tariq S, "Supercritical Carbon Dioxide Extraction of Microalgae Lipid: Process Optimization and Laboratory Scale-up," Journal of Supercritical Fluids, Vol. 86, pp. 57-66, 2014.
- Moustafa K., Aldajah S., Hayek S., Alomari A, **Haik Y**., "Role of Nanofillers in Low Speed Impact Enhancement Composites," Journal of Composite Materials, Vol. 48, No. 14, pp. 1735-1744, 2014.
- Alomari A, Aldajah S, Hayek S., Moustafa K, **Haik Y**, "Experimental Investigation of the Low Speed Impact Characteristics of Nanocomposites," Materials and Design. Vol. 47, pp. 836-841, 2013.
- Josh V, Haik M Y, Ayesh A, Mohsin M A, **Haik Y**, "Electrical Properties of Sorbitol Doped PVA-PAA Polymer Membranes," Journal of Applied Polymer Science, Vol. 128, Issue 6, pp. 3861-3869, 2013.
- Ayesh A, Qadri S., V. J. Baboo, Haik M, **Haik Y**, "Nano-floating organic memory devices utilizing Ag-Cu nanoparticles embedded in PVA-PAA Glycerol Polymer," Synthetic Metals, Vol. 183, pp. 24-28, 2013.
- Fernandez-Cabezudo M, Sarawathiamma D, Nemmar A, **Haik Y**, Al-Ramadi B, "Systemic Administration of Metallic Nanoparticles Initiates an Acute NALP3-mediated Inflammatory Response," Journal of Immunology, Vol. 188, 2012.
- Obaidat I M, Issa B, Albiss B A, Qabaja G, Al Khaili N E, Karam Z A, Hefaity A M, S. Qadri, Al Okour A, **Haik Y**, "Finite Size and Surface Effects in Ferrite Nanoparticles," Journal of Nanoengineering and Nanomanufacturing, Vol. 2, pp. 1-7, 2012.

SUPERVISION:**Ph.D. Dissertations (5 completed, 2 in progress)****MS Theses (11 completed 3 in progress)****FUNDED RESEARCH (\$20M):****Editorial Boards (14 international Journals)****International and Local Conference Chair (7 International Conferences)****Review/Consultant for International Government and Agencies:**

- Reviewer, Oman Research Council
- Reviewer, Romania Executive Agency for Higher Education
- Reviewer, Pennsylvania State Fund, Bionanotechnology
- Reviewer, Florida Department of Health
- Reviewer, National Institute of Health (IMST-13)

Member (Chair) of University/College/Department Committees (partial list)

- Chair, IP Evaluation Committee
- Chair, PhD QER Committee
- Member University Policy Advisory Group
- Member University Graduate Board

Professional Membership (partial list):

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| • The American Society of Mechanical Engineers (ASME) (Fellow, 2005) | 1984 |
| • The American Institute for Aeronautic and Astronautics (AIAA) | 1993 |
| • The American Society for Engineering Education (ASEE) | 1993 |
| • The American Association for the Advancement of Science (AAAS) | 1997 |