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### CURRENT ACADEMIC POSITIONS

<b>Associate Vice President for Graduate Studies</b>	<b>2014-Present</b>
<i>Qatar University</i>	
<b>Professor</b>	<b>2014-Present</b>
<i>Department of Mechanical Engineering</i>	
<i>Qatar University</i>	
<b>Professor</b>	<b>2005-2015</b>
<i>Department of Mechanical Engineering</i>	
<i>United Arab Emirates University</i>	
<b>Professor</b>	<b>2007-Present</b>
<i>University of North Carolina at Greensboro</i>	
<b>Adjunct Professor</b>	<b>2010-Present</b>
<i>Joint School of Nanoscience and Nanoengineering</i>	
<i>North Carolina A &amp; T and University of North Carolina at Greensboro</i>	
<b>Affiliate Professor</b>	<b>2007-Present</b>
<i>Department of Chemistry and Medicinal Chemistry</i>	
<i>University of North Carolina at Greensboro</i>	
<b>Affiliate Professor</b>	<b>2007-Present</b>
<i>Department of Mechanical Engineering</i>	
<i>Florida State University</i>	
<b>ABET Evaluator</b>	<b>2012-Present</b>

### EDITORSHIPS

<b>Editor-in-Chief</b>	<b>2012-2016</b>
<i>Advances in Nano Research (Founding Editor)</i>	
<i>ISSN: 2287-237X (print), ISSN: 2287-2388 (Online)</i>	
<i>International Journal of Nano Science and Engineering (Founding Editor)</i>	
<i>ISSN 1923-7626 (Print), 1923-7634 (On-line)</i>	
<b>Guest Editor</b>	<b>2010-Present</b>
<i>International Journal of Nanoscience, Volume 8, Issue 3</i>	
<i>Journal of Allergy</i>	
<i>Advances in Mechanical Engineering</i>	
	<b>2009</b>
	<b>2012</b>
	<b>2012</b>

### Editorial Board Member

- International Journal of Theoretical and Applied Multiscale Mechanics
- Automatic Control of Physiological State and Function
- Nanotechnology
- International Journal of Dynamics of Fluids
- Journal of Biomagnetic Research and Technology

- Research Reviews in BioScience
- Recent Patents on Corrosion Science
- International Journal of Computation in Science and Engineering
- International Journal of Thermal and Environmental Engineering
- International Journal of Applied Mechanics
- Journal of Applied Mechanical Engineering
- Jordan Journal of Mechanical and Industrial Engineering
- The Open Mechanics Journal

### CURRENT INDUSTRIAL POSITIONS

<b>Chief Scientific Officer</b> <i>Quartek Corporation</i> <i>Greensboro, North Carolina</i>	<b>2004-Present</b>
<b>Chief Scientific Officer</b> <i>NanoMed Inc.</i> <i>DentalSafe Inc.</i> <i>ThermiaCure Inc.</i> <i>Greensboro, North Carolina</i>	<b>2007-Present</b>
<b>Chief Technical Consultant</b> <i>Alhameli Group</i> <i>Abu Dhabi, UAE</i>	<b>2008-Present</b>

### PAST ACADEMIC and INDUSTRIAL POSITIONS

<b>Professor and Chairman</b> <i>Department of Mechanical Engineering</i> <i>United Arab Emirates University</i>	<b>2003-2012</b>
<b>Professor and Chairman</b> <i>Materials Science and Engineering Interdisciplinary Graduate Program</i> <i>United Arab Emirates University</i>	<b>2003-2010</b>
<b>Professor</b> <i>Center for Nanomagnetism and Biotechnology</i> <i>Florida State University</i>	<b>2004-2007</b>
<b>Chief Executive Officer</b> <i>NanoMagnetics</i> <i>Tallahassee, FL</i>	<b>2004-2006</b>
<b>Deputy Director, Center for Nanomagnetism and Biotechnology</b> <i>Florida State University</i>	<b>2002-2007</b>
<b>Director, Biomagnetic Engineering Laboratory</b> <i>Florida State University</i>	<b>1998-2007</b>
<b>Professor and Chairman</b> <i>Engineering Management Master Program</i> <i>United Arab Emirates University</i>	<b>2004-2007</b>
<b>Associate Professor</b> <i>Departments of Mechanical Engineering</i> <i>Florida State University</i>	<b>1999-2004</b>
<b>Director, Multidisciplinary Design and Training Clinic</b> <i>Florida State University</i>	<b>1999-2004</b>

<b>Director, Communications and Multimedia Services</b> <i>Florida State University</i>	<b>1999-2004</b>
<b>Assistant Professor</b> <i>Department of Mechanical Engineering Florida State University</i>	<b>1997-1999</b>
<b>Instructor</b> <i>Department of Mechanical Engineering Florida State University</i>	<b>1995-1997</b>
<b>Adjunct Professor</b> <i>Department of Physics Florida A&amp; M University</i>	<b>1994-1996</b>
<b>Research and Teaching Assistant</b> <i>Department of Mechanical Engineering Florida State University</i>	<b>1993-1995</b>
<b>Guest Researcher</b> <i>Supercomputing Computational Research Institute</i>	<b>1993-Present</b>
<b>Research and Teaching Assistant</b> <i>Department of Mechanical Engineering The University of Iowa</i>	<b>1987-1989</b>

### HONORS & AWARDS

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
Khalifa Award, Distinguished Research Professor in the Field of Scientific Research	2011
National Institute of Health, Continuous Submission	2010-11
Florida State Research Foundation, Patent Application Honor Role	2009
Researcher of the Year, Honorable Mentions	2009
Research Project Award, United Arab Emirates University	2007
Nominee, Board of Directors, Bioelectromagnetics Society	2006
Florida State Innovators Award	2005
Florida State Research Foundation, Patent Application Honor Role	2005
Fellow, American Society for Mechanical Engineers	2005
IDEX Prize, Advanced Research and Technology	2005
IDEX Prize, Best Technology Introduced	2005
Teaching Incentive Award, Florida State University	2002
Engineering Research Award, Florida State University	2000
National Council on Undergraduate Research Award-Nominee	2000
University Teaching Award, Florida State University	2000
Dissertation Research Grant Award, Florida State University	1997
Keck Cellular Imaging Institute Fellowship, Iowa City, Iowa	1998
Resource Person for the USEE Project at the UNESCO Office in Cairo	1998
The International Who's Who of Information Technology	1998
Who's Who in Science and Engineering	1998-2010
SUCCEED/NSF Teaching Incentive Award ( <i>two consecutive years</i> )	1998 & 1999
University Outstanding Teaching Assistant Award, Florida State University	1997

Academic Leadership Award, Florida State University	1996
Doctorate Degree President Fellowship, Florida State University	1993
Graduate Scholarship, Arab Student International	1987-1989
Undergraduate Scholarship, United Nations Relief and Work Agency	1981-1986

### 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

#### Granted Patents

- **US 9,005,582, April 14, 2015**, Hyperthermia Therapeutic Agent Delivery System
- **US 8,951,501, February 10, 2015**, Noninvasive Thermometry Monitoring System
- **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.
- **WO 2010/114912, October 7, 2010**, Minimally Invasive Assessment of IgE Mediated Allergy
- **US 7,803,262, September 28, 2010**, Alignment of Carbon Nanotubes Using Magnetic Particles.
- **JP 2009000168453, December 3, 2009**, Method for Continuous Magnetic Separation of Components from Mixture
- **US 7,527,980, May 5, 2009**, Indirect Detection of cardiac Markers for Assessing Acute Myocardial Infarction.
- **US 7,527,979, May 5, 2009**, Devices and Methods for Rapid Detection of Pathogens.
- **China Patent, 1263458, December 7, 2006**, Continuous Magnetic Separation of Components from a Mixture (*Licensed to Johnson & Johnson*)
- **US 7,081,489, July 25, 2006**, Polymeric Encapsulation of Nanoparticles (*Licensed to NanoMed Inc.*)
- **Germany Patent, 69927359T2, July 13, 2006**, FORTLAUFENDE MAGNETISCHE ABTRENNUNG VON KOMPONENTEN AUS EINER MISCHUNG (Continuous Magnetic Separation of Components from a Mixture) (*Licensed to Johnson & Johnson*)
- **Hong Kong Patent, 1032554A1, March 3, 2006**, Continuous Magnetic Separation of Components from a Mixture (*Licensed to Johnson & Johnson*)
- **US 6,989,196, January 24, 2006**, Microencapsulation of magnetic material using heat stabilization (*Licensed to NanoMed Inc.*)
- **Norway Patent, 320231B1, November 14, 2005**, Continuous Magnetic Separation of Components from a Mixture (*Licensed to Johnson & Johnson*)
- **European Patent, 1056544B1, September 21, 2005**, Continuous Magnetic Separation of Components from a Mixture (*Licensed to Johnson & Johnson*)

- **Japan Patent, 2002503548T, May 30, 2002**, Continuous Magnetic Separation of Components from a Mixture (*Licensed to Johnson & Johnson*)
- **Czech Republic Patent, 20003040, November 7, 2001**, Continuous Magnetic Separation of Components from a Mixture (*Licensed to Johnson & Johnson*)
- **Hungary Patent, 102555, December 28, 2001**, Continuous Magnetic Separation of Components from a Mixture (*Licensed to Johnson & Johnson*)
- **China Patent, 1297380, May 30, 2001**, Continuous Magnetic Separation of Components from a Mixture (*Licensed to Johnson & Johnson*)
- **Spain Patent, 2249902, December 6, 2000**, Continuous Magnetic Separation of Components from a Mixture (*Licensed to Johnson & Johnson*)
- **European Patent 934256, December 6, 2000**, Continuous Magnetic Separation of Components from a Mixture
- **Turkey Patent, 200002375T, November 21, 2000**, Continuous Magnetic Separation of Components from a Mixture (*Licensed to Johnson & Johnson*)
- **Norway Patent, 2004163A0, October 19, 2000**, Continuous Magnetic Separation of Components from a Mixture (*Licensed to Johnson & Johnson*)
- **US 6,132,607, October 17, 2000**, System for Continuous Magnetic Separation of Components from a Mixture (*Licensed to Johnson & Johnson*)
- **US 6,129,848, October 10, 2000**, Method for Continuous Magnetic Separation of Components from a Mixture (*Licensed to Johnson & Johnson*)
- **US 6,036,857, March 14, 2000**, Apparatus for Continuous Magnetic Separation of Components from a Mixture (*Licensed to Johnson & Johnson*)
- **Australia Patent, 3301999A1, September 6, 1999**, Continuous Magnetic Separation of Components from a Mixture (*Licensed to Johnson & Johnson*)
- **World Intellectual Property Organization, 042219A1, August 26, 1999**, Continuous Magnetic Separation of Components from a Mixture (*Licensed to Johnson & Johnson*)
- **Germany Patent, 304897E, February 19, 1999**, Continuous Magnetic Separation of Components from a Mixture (*Licensed to Johnson & Johnson*)
- **Canada Patent 2320929, February 19, 1999**, Continuous Magnetic Separation of Components from a Mixture, (*Licensed to Johnson & Johnson*)

#### **Published Patents:**

- **US20140140916, May 22, 2014**, System for Producing Carbon Nanotubes from Combustion Engine Exhausts
- **JP 2014-509080, April 10, 2014**, Semiconducting Polymer
- **EP 20120747815, December 25, 2013**, Semiconducting Polymer
- **US 20130199082, August 8, 2013**, Red Palm Weevil Sensing and Control System
- **US 20130177610, July 11, 2013**, Nano-Metallic Alloy Delivery System for Treatment of Infected Cells and Legions
- **US 20130129630, May 23, 2013**, Hyperthermia Therapeutic Agent Delivery System
- **US 20130022531, January 24, 2013**, Filter and Process of Use to Produce Carbon Nanotubes from Automotive Exhausts
- **US 20120211732 A1, August 23, 2012**, Semiconducting Polymer
- **World Intellectual Property Organization 2012112897 A1, August 23, 2012**, Lower Extremity Vehicle Navigation Control System

- **World Intellectual Property Organization 2012112893 A1, August 23, 2012**, Semiconducting Polymer
- **US 20120184872 A1, July 19, 2012**, Noninvasive Thermometry Monitoring System
- **US 20120064128, March 15, 2012**, Nano-Metallic Alloy Delivery System for Treatment of Infected Cells and Legions.
- **EP 20120747864, February 17, 2012**, Lower Extremity Vehicle Navigation Control System
- **US 2012002087, January 26, 2012**, Process to Produce Carbon Nanotubes from Microalgae
- **US 20110158893, June 30, 2011**, Process to Produce Carbon Nanotubes from Microalgae
- **US 20110059550, March 10, 2011**, Minimally Invasive Assessment of IGE Mediated Allergy
- **US 20110000198, January 6, 2011**, Filter and Process of Use to Produce Carbon Nanotubes from Automotive Exhausts
- **US 20100028677, February 4, 2010**, Nano-metallic Alloy Delivery System for Treatment of Infected Cells and Legions.
- **US 2010029435, October 7, 2010**, Minimally Invasive Assessment of IgE mediated Allergy.
- **World Intellectual Property Office, 2010114912**, Minimally Invasive Assessment of IgE mediated Allergy.
- **US 20100099941, April 22, 2010**, Method for Hyperthermia Treatment.
- **US 20090068114, March 12, 2009**, Noninvasive Thermometry Monitoring System.
- **US 20090068112, March 12, 2009**, Magnetic Nanoparticles for Imaging.
- **US 20090074670, March 19, 2009**, Hyperthermia Therapeutic Agent Delivery System.
- **US 20090218266, September 3, 2009**, Water Treatment and Methods.
- **US 20090226939, September 10, 2009**, System and Assay for Detection of Cardiac Markers for Assessing Acute Myocardial Infarction.
- **US 20090226890, September 10, 2009**, Assay and Systems for Rapid detection of Pathogens.
- **US 20080063679, March 13, 2008**, Nanocomposites with Residual Biocidal and Biostatic Properties.
- **US 20060040412, February 23, 2006**, Indirect Detection of Cardiac Markers for Assessing Acute Myocardial Infarction.
- **US 20060211061, September 21, 2006**, Device and Methods for rapid Detection of Pathogens.
- **US 20050239948, October 27, 2005**, Alignment of Carbon Nanotubes Using Magnetic Particles.
- **US 20050249817, November 10, 2005**, Magnetic Particle Composition for Therapeutic Hyperthermia.
- **US 20040065969, April 8, 2004**, Microencapsulation of Magnetic Material Using Heat Stabilization.
- **US 20040126254, July 1, 2004**, Surface micromachined mechanical micropumps and fluid shear mixing, lysing and separation microsystem.
- **US 20030146529, August 7, 2003**, Polymeric encapsulation of nanoparticles.

#### Patent Applications

- **US 61/444704**, Semiconducting Polymer and Method of Use
- **US 61/444722**, Foot-Based Navigation for Mobility Device and Method of Use
- **US 61/563740**, Red Palm Weevil Sensing and Control
- **US 11/868475**, Article and Method of Novel Antimicrobial Delivery System
- **US 11/858157**, Nanocomposites with biocidal actions
- **US 11/671250**, Biocidal nanocomposites
- **US 11/073431**, Immunoassay kit using magnetic nanoparticles and method for use thereof
- **US 12/041145**, Water treatment and methods of use
- **US 09/394380**, Magnetic based botanical growth system and methods

- **US 09/552614**, Magnetic enhancement of yeast metabolism
- **US 60/443252**, Rapid diagnosis of acute myocardial infarction using magnetic immunoassay
- **US 60/602420**, Indirect detection of myoglobin for assessing acute myocardial infarction
- **US 60/602417**, Portable sensor for markers detection
- **US 10/831493**, Magnetic nanocomposite gels for ophthalmic applications
- **US 10/697412**, Minimally invasive implantable synthetic cartilage
- **US 12/205623**, Hyperthermia Therapeutic Agent Delivery System
- **US 60/970566**, Hyperthermia Treatment Monitor System
- **US 60/971286**, Magnetic Nanoparticles for Imaging
- **US 11/868475**, Article and Method of Novel Antimicrobial Delivery System
- **US 12/751574**, Minimally Invasive Assessment of IgE Mediated Allergy
- **US 12/496808**, Filter and Process of Use to Produce Carbon Nanotubes from Automotive Exhausts
- **US 12/647439**, Process to Produce Carbon Nanotubes from Microalgae
- **US 11/671675**, Nanocomposites with Residual Biocidal and Biostatic Properties
- **US 60/888343**, Colored Magnetic Nanoparticles and its Applications Thereof
- **US 60/888079**, Self Contained Magnetic Immunoassay
- **US 60/978109**, Contrast Agent and a Method for Applying Such Agent
- **US 60/981478**, Novel Antimicrobial Preservative
- **US 60/468604**, Magnetic nanocomposite gels for ophthalmic applications
- **US 11/204459**, Assays and Systems for Rapid Detection of Pathogens
- **US 11/204463**, System and Assay for Detection of Cardiac Markers
- **US 60/970561**, Attenuated Bacteria as Hyperthermia Therapeutic Agent Carrier
- **US 60/971286**, Guided Delivery Imaging Agents
- **US 61/085375**, Nanocidals for Treatment of Infected Cells and Legions
- **US 61/027449**, Multifunctional Nanoparticles for Guided Monitoring and Interventions
- **US 12/205565**, Non-Invasive Thermometry Monitoring System
- Rapid Magnetic Diagnosis Device and Related Method
- Magnetically Driven Disposable Blood Pump
- Magnetic Technology for Washing of Thawed Human Platelets
- Detection of Cell Micro Motion Using Hall Effect Transducer
- Magnetic Near Infra Red Spectroscopy for Oxymetry Diagnosis
- Near Infra Red Spectroscopy for Glucose Diagnosis
- Rapid Magnetic Isolation of Platelets
- Method of Synthesis of Polyethylene Magnetic Nanocomposite
- Magnetic Assay Method
- Treatment of Cancer by Magnetic Field
- Process and Composition for Termite Detection and Treatment

#### Copyright Software

Queue Tracker	2001
Queue View	2001

#### PUBLICATIONS

##### Books:

- **Haik, Y.**, Shahin, T., Sangarappillai Sivaloganathan, "Engineering Design Process, 3<sup>rd</sup> Edition" Cengage Learning, 2016
- **Haik, Y.**, Shahin, T., "Engineering Design Process, 2<sup>nd</sup> Edition", Cengage Learning, ISBN-13: 978-0-495-66816-9, ISBN-10: 0-495-66816-8, 2010.

- **Haik, Y.,** Shahin, T., Hareb, K. *Editors* "Proceedings of the International Conference on Bio-Nanotechnology: Future Prospects in the Emirates," University Press 2006
- **Haik, Y.,** Saghir Z., Chacha, M., Alamiri, A., Kazim A. *Editors* "Proceedings of the 2nd International Conference on Thermal Engineering, Theory and Applications," University Press, ISBN 9948-02-128-2 2006
- **Haik, Y.** "Engineering Design Process," (**Chinese Language**), Cengage Learning, ISBN 9787302106160, 2005
- **Haik, Y.** "Engineering Design Process," (**Korean Language**), Cengage Learning, Learning, ISBN 13-9788958320357, 2004.
- **Haik, Y.** "Engineering Design Process," (**Thai Language**), Cengage Learning, ISBN 9780495668169, 2004
- **Haik, Y.** "Interactive Dynamics: MathCad and Working Model," Nelson Thomson Learning, ISBN 0534405940, 9780534405946 2003
- **Haik, Y.** "Engineering Design Process," Brooks/Cole Thomson Learning, ISBN 0-534-38521-4 2002
- **Haik, Y.,** "Engineering Design Process," (**Portuguese Language**), Cengage Learning, ISBN 9780534380144, 2002
- **Haik, Y.,** Kilani, M. "Essentials of Pro/E," Brooks/Cole Thomson Learning, ISBN 0-534-37864-1 2001
- **Haik, Y.,** Kilani, M. "Essentials of Pro/E," (**Japanese Language**) Cengage Learning 2001
- **Haik, Y.** "Introduction to Physical Science," Burgess Publishing, Inc. 1997  
ISBN 0-8087-9806-5
- Threplton, M., **Haik, Y.** "Physical Science Lab Manual," Burgess Publishing, Inc. 1997  
ISBN 0-8087-7856-0
- **Haik, Y.** "Dynamics Supplemented with Working Model and Mathcad," Contracted Brooks/Cole Thomson Learning
- **Haik, Y.** "Dynamics Supplement with Working model and Matlab," Contracted with Brooks/Cole

### Monographs

- **Haik, Y.** "Introductory Course of Dynamics Supplemented with Matlab and Working Model" 230 pages monograph
- Chen, C. J., **Haik, Y.** "Essential Topics in Fluid Mechanics and Heat Transfer," 400 pages monograph
- **Haik, Y.** "C++ for Engineers," 100 pages monograph
- **Haik, Y.** "Engineering Mechanics," 440 pages monograph. These notes are ranked 7<sup>th</sup> among the top 20 visited learning resources in Engineering Mechanics in Engineering Pathway of the National Science Digital Library.

### Students Manuals

- Haik, Y., **Heat Transfer**, covers the three modes of heat transfer with several examples.
- Haik, Y., **CAD**, covers the topics discussed including manual of using Pro/Mechanica for analysis.
- Haik, Y., **Dynamics**, covers the use of working model and mathcad in simulation and analysis
- Haik, Y., **Mechanics**, covers mechanics material assisted with web tools.
- Haik, Y., **Pro/E**, covers detailed hands on procedure for engineering solid modeling.



**Articles & Book Chapters (in descending order by year):****2016**

- Al-Haik M. Y., Zakaria M. Y., Hajj M. R., Haik Y. "Storage of Energy Harvested from a Miniature Turbine in a Novel Organic Capacitor," Journal of Energy Storage, DOI: 10.1016/j.est.2016.01.008.
- Ramadi K B, Mohamed Y A, Al-Sbiei A, Al Marzooqi S, Bashir G, Al Dhanhani A, Sarawathiamma D, Qadri S, Yasin J, Nemmar A, Fernandez-Cabezudo M J, **Haik Y**, al-Ramadi B K, "Acute Systemic Exposure to Silver-based Nanoparticles Induces Hepatotoxicity and NLRP3-dependent Inflammation," Nanotoxicology, DOI: 10.3109/17435390.2016.1163743.
- Dagher S, **Haik Y**, Tit N, Ayesha A, "PbS/CdS Heterojunction Quantum Dot Solar Cells," Journal of Materials Science: Materials in Electronics, Vol. 27, No. 4, pp. 3328-3340, 2016.
- Ayesha, A, Thaker S, Haik Y, "Selective H<sub>2</sub>S Sensor Based on CuO Nanoparticles Embedded in Organic Membranes," Sensors and Actuators: B. Chemical, Vol. 231, pp. 593-600, 2016.

**2015**

- Alnaqbi MA, Mohsin MA, Busheer RM, **Haik Y**, "Microwave Assisted Glycolysis of Poly (ethylene terephthalate) Catalyzed by 1-butyl-3-methylimidazolium Bromide Ionic Liquid," Journal of Applied Polymer Science, Vol. 132, No. 12, 2015
- Obaidat IM, Issa B, **Haik Y**, "Magnetic Properties of Magnetic Nanoparticles for Efficient Hyperthermia," Nanomaterials, Vol. 5, No. 1, pp. 63-89, 2015.
- 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, Vol. 82, pp. 125-130, 2015.
- Taher H, Al-Zuhair S, Al-Marzouqi AH, **Haik Y**, Farid M, "Properties of Biodiesel Produced by Enzymatic Tranesterification of Lipids Extracted from Microalgae in Supercritical Carbon Dioxide Medium" World Academy of Science, Engineering and Technology, Vol. 9, No. 8, pp. 840-843, 2015.
- Aldajha S, **Haik Y**, Moustafa K, Alomari A, "High and Low Speed Impact Characteristics of Nanocomposites," Advanced Materials Research, Vol. 1105, pp. 62-66, 2015.
- Obaidat IM, Issa B, Albiss BA, **Haik Y**, "Temperature Dependence of Saturation Magnetization and Coercivity in Mn<sub>0.5</sub>Zn<sub>0.5</sub>Gd<sub>0.02</sub>Fe<sub>1.98</sub>O<sub>4</sub> Ferrite Nanoparticles," Materials Science and Engineering, Vol. 92, No. 1, 012012, 2015.
- Taher H, Al-Zuhair S, Al-Marzouqi A H, **Haik Y**, Farid M, "Growth of Microalgae using CO<sub>2</sub> enriched air for Biodiesel Production in Supercritical CO<sub>2</sub>," Renewable Energy, Vol. 82, pp. 61-70, 2015.
- Obaidat IM, Issa B, Albiss BA, **Haik Y**, "Investigating Negative Magnetization and Blocking Temperature in Aggregates of Ferrite Nanoparticles," Materials Science and Engineering, Vol. 92, No. 1, 012011, 2015

**2014**

- Tit N, Dagher S, Ayesha A, **Haik Y**, "Confinement Effects on Electronic Properties of ZnO Quantum Dots," Advanced Science, Engineering & Medicine, Vol. 6, pp. 1-9, 2014.
- Taher H, Al-Zuhair S, Al-Marzouqi A H, **Haik Y**, Farid M, "Mass Transfer Modeling of *Scenedesmus* sp. Lipids Extracted by Supercritical CO<sub>2</sub>," Biomass and Bioenergy, Vol. 70, pp. 530-541, 2014.
- Taher H, Al-Zuhair S, Al-Marzouqi A H, **Haik Y**, Farid M, "Enzymatic Biodiesel Production of Microalgae Lipids under Supercritical Carbon Dioxide: Process Optimization and Integration," Biochemical Engineering Journal, Vol. 90, pp. 103-113, 2014.
- Ayesha A I, Mahmoud S T, Ahmad S J, **Haik Y**, "Novel Hydrogen Gas Sensor Based on Pd and SnO<sub>2</sub> Nanoclusters," Materials Letters, Vol. 128, pp. 354-357, 2014.

- Taher H, Al-Zuhair S, Al-Marzouqi A H, **Haik Y**, Farid M, "Effective Extraction of Microalgae Lipids from Wet Biomass for Biodiesel Production," Biomass and Bioenergy, Vol. 66, pp. 159-167, 2014.
- Aldajah S, **Haik Y**, Moustafa K, "Compatibility of Teaching Styles with Learning Styles: A Case Study," European Journal of Educational Sciences, Vol. 1 No.1, 2014.
- Haik M, Ayesh A, Abdulrehman T, **Haik Y**, "Novel Organic Device using Au-Pt-Ag Nanoparticles as Charge Storage Elements," Materials Letters, Vol. 124, pp. 67-72, 2014.
- **Haik Y**, Aldajah S, Moustafa K, Hayek S, AlOmari A, "Thermal Characterization of Nanoclay Nanocomposites," Global Journal of Researches in Engineering: Mechanical and Mechanics Engineering, Vol 14, Issue 2, pp. 38-44, 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
- Aldajah S, **Haik Y**, Moustafa K, Alomari A," FEM Modeling of Nanocomposites Low Speed Impact Behavior," International Journal of Engineering and Technology, Vol. 6, No. 4, 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.
- Dagher S, Ayesh A, Tit N, **Haik Y**, "Influence of Reactant Concentration on the Optical Properties of ZnO Nanoparticles," Materials Technology: Advanced Performance Materials, Vol. 29, No. 2, pp. 76-82, 2014.
- Dagher S, **Haik Y**, Ayesh A, Tit N, "Hetrojunction Solar Cell Based on p-Type PbS Quantum Dots and two n-type Nanocrystals CdS and ZnO," International Conference on Renewable Energy Generation and Application, 2014.
- Moustafa K, **Haik Y**, "Pipeline Parameter Identification and Leak Localization Using Experimental Data," ASME International Congress, PVP2014-28248, 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.
- Al Hatti A, Shaikha I, Al Shamsi M, Abdulrehman T, **Haik Y**, "Catalytic Characterization of Size Based Gold Nanoparticles for Applications in Fuel Cells," International Conference on Renewable Energy Generation and Application, 2014.
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- Ayesh A., Mohsin M., Haik M., **Haik Y.**, "AC Impedance Spectroscopy of Immi-bromide Doped Poly Vinyl Alcohol,"
- **Haik Y.**, Mohsin M., Hossin A., "Thermomechanical Properties of Biodegradable Membrane based on Poly Vinyl Alcohol and DBU Butl Chloride," Journal of Biomaterial.
- **Haik Y.**, Qadri S., Ashraf S., "Magnetic Carbon Nanotubes for Removal of Acridine Orange Dye," Journal of Hazardous Materials.
- **Haik, Y.**, Orij C., Sawafta R., Al-Haik, M., Aldajah S., Hayek, S., "Mechanical Properties of Polymeric Films Formed in Deuterated Ionic Liquids," Journal of Applied Polymer Science
- **Haik, Y.** "Effect of High Magnetic Field on Gluconated Blood Cells"
- **Haik, Y.** "Mathematical Modeling for Biomagnetic Fluid Dynamics," Journal of Nonlinear Mechanics.
- Zwolenski, A., Cordovaz, M., **Haik, Y** "Rapid Diagnosis of AMI,"
- **Haik, Y.**, Pai, V. M., "Properties of Human Blood in High Magnetic Field,"
- Motta, M., **Haik, Y.** "Near Infra-Red Spectroscopy of Magnetically Induced changes on Human Hemoglobin with High and Low Oxygen Concentration,"
- Kilani, M., Galmbous, P., **Haik, Y.** "Electrostatically Actuated Surface Micromachined Offset Planetary Gear Pump Design,"
- Jaw, S. Y., **Haik, Y.**, "Development of Color Particle Image Velocimetry and Its Applications,"

#### Presentations (*in descending order per year*)

##### 2014

- Haik Y, "Seawater Battery," Arab Academy of Science, Beirut, 2014
- Al Hatti A, Shaikha I, Al Shamsi M, Abdulrehman T, Haik Y, "Catalytic Characterization of Size Based Gold Nanoparticles for Applications in Fuel Cells," International Conference on Renewable Energy Generation and Application, 2014.

- Taher H, Al-Zuhair S, Al-Marzouqi A, Haik Y, Farid M "Effectiveness of Enzymatic Biodiesel Production from Microalgae Oil in Supercritical Carbon Dioxide," International Conference on Renewable Energy Generation and Application, 2014.
- Abdulrehman T, Yousif Z, Al Ameri S, Abdulkareem I, Abdulla A, Haik Y, "Enhancing the Performance of Mg-Al Brine Water Batteries using Conductive Polymer PEDOT:PSS," International Conference on Renewable Energy Generation and Application, 2014.
- Abulkareem I, Al Ameri S, Yousif Z, Dagher S, Haik Y, "Dye and Nanoparticles Sensitized Solar Cells," International Conference on Renewable Energy Generation and Application, 2014.
- Dagher S, Haik Y, Ayesh A, Tit N, "Hetrojunction Solar Cell Based on p-Type PbS Quantum Dots and two n-type Nanocrystals CdS and ZnO," International Conference on Renewable Energy Generation and Application, 2014.

### 2013

- Haik Y "PhD: Make of a scientist," (Invited), PhD students orientation at the United Arab Emirates University, November 2013.
- Haik Y "Is Biodiesel from Microalgae Safe for the Environment," (**Keynote**), Symposium on the Chemistry and the Environment, University of Sharjah, May 16, 2013.
- Haik Y, "Microalgae: Multitude of Energy Products," (**Invited**) International Conference on Renewable Energy and Its Future in the Arab World, Amman-Jordan April 22-24, 2013
- Haik Y., "Converting Waste to Energy Products," (**Invited**) Aridland Aquaculture Symposium & Workshop, Al Ain 24-27, March 2013.
- Haik Y, "Converting Waste to Energy Products," (**Invited**) AlgaeWorld MENA, Dubai, Feb 25-27, 2013.

### 2011

- Haik, Y., Kilani M., C-J Chen, "Surface Micromachined Von Karman Micropump," 11<sup>th</sup> International Conference on Fluid Control, Measurements and Visualization, Keelung-Taiwan, 2011.
- Haik, Y. "From Order of Magnitude to Nanotechnology," (**Invited**) 11<sup>th</sup> International Conference on Fluid Control, Measurements and Visualization, Keelung-Taiwan, 2011.
- Kumar A. R., Haik Y. "Antimicrobial Activities of Endophytic Fungi Isolate from Medicinal Tree Azadirachta Indica A.Juss," 3<sup>rd</sup> International Conference on Nanotechnology, Al Ain UAE, 2011.
- Baboo V. J., Ayesh A. I., Mohsin M A, Haik Y., "Fabrication and Characterization of PVA-PAA Membrane of Controlled Conductivity," 3<sup>rd</sup> International Conference on Nanotechnology, Al Ain UAE, 2011.
- Al Shamsi M. Laleye L C, Haik Y. "Antimicrobial Activity of Silver Nanoparticles and their Alloys on Foodborne Pathogens Escherichia coli O157:H7, Listeria Monocytogenes and Salmonella Typhmurium," 3<sup>rd</sup> International Conference on Nanotechnology, Al Ain UAE, 2011.
- Pattambi S., Haik Y., "Comparative Study of the Effectiveness of Hybrid Nanoparticles and Leaf Extract of Azadirachta Indica Against the Symbiotic Microflora of Red Palm Weevil," 3<sup>rd</sup> International Conference on Nanotechnology, Al Ain UAE, 2011.
- Tit N, Dagher S., Ayesh A., Haik Y., "Origins of Bowing Character in Wurtzite ZnOS Ternary Alloys," 3<sup>rd</sup> International Conference on Nanotechnology, Al Ain UAE, 2011.
- Dagher S, Ayesh A, Tit N, Haik Y., "Enhanced Performance of Hybrid Polymer ZnO Solar Cell due to Embedded Graphene Cu2O Layer," 3<sup>rd</sup> International Conference on Nanotechnology, Al Ain UAE, 2011.
- AbdulRahman T, Mohsin M, Haik Y. "Controlled Insulin Release from Poly (Acrylic Acid-Co-Methacrylamide Phenylboronic Acid) 3<sup>rd</sup> International Conference on Nanotechnology, Al Ain UAE, 2011.

- AbdulRahman T, Haik Y. "Nanoindentation of Different Species of Microalgae," 3<sup>rd</sup> International Conference on Nanotechnology, Al Ain UAE, 2011.
- Anyaba W E, Haik Y. "Nanoparticles Based Approach for Contamination Management in Microalgae Open Ponds System," 3<sup>rd</sup> International Conference on Nanotechnology, Al Ain UAE, 2011.
- Allam M., Mohsin M., Ayesha A., Haik Y. "Physical Properties of PVA Plasticized with Algal Glycerol," 3<sup>rd</sup> International Conference on Nanotechnology, Al Ain UAE, 2011.
- Haik M, Ayesha A, Moshin M, Haik Y. "Conductive Polymer Blends and its use in Storage Devices," 3<sup>rd</sup> International Conference on Nanotechnology, Al Ain UAE, 2011.
- Al Rawadeh M, Haik Y. "Removal of Arsenic and Cadmium from Water Using Magnetic Nanoparticles," 3<sup>rd</sup> International Conference on Nanotechnology, Al Ain UAE, 2011.

## 2010

- Haik, Y., "Nanotechnology: What works for the Region" (**Keynote**) International Conference on Applied Mechanics, Materials and Manufacturing, Muscat, December 12-15, 2010.
- Haik, Y. "Converting Waste to Valuable Products," (**Invited**) Residential College, Al Ain, November 23, 2011.
- Haik, Y. "NanoMaterials in Biofuel Production," (**Invited**) International Seminar on NanoMaterials, Damascus, September 21-23, 2010.
- Haik, Y. "Converting Waste to Energy Product," (**Invited**) International Conference on Alternative and Renewable Sources of Energy, Beirut, 25-26 November, 2010.
- Haik, Y. "Converting Waste to Energy Products," (**Invited**) WETEX 2010, Water, Energy Technology & Environment Exhibition, Dubai, 09-11 March, 2010.
- Haik, Y. "Converting Waste to Energy Products," (**Invited**), Royal Chemical Society-UAE Branch, May 14, 2010.
- Haik Y. "Converting Waste to Energy Products," (**Invited**) International Engineering Conference on Arid Regions, May 1-2, King Faisal University, 2010.
- Haik, Y. "Converting Waste to Energy Product," (**Invited**) Royal Chemical Society, Dubai, May 14, 2010.
- Haik, Y. "Nanotechnology: What works for the UAE?" (**Invited**) Abu Dhabi Food Control Authority, May 26, 2010.
- Haik, Y. "Sustainable Production of Biofuel," (**Keynoter**) The 8<sup>th</sup> Global Conference on Sustainable Manufacturing, Abu Dhabi, 22-24 November, 2010
- Khashan S A, Haik Y., Elnajjar E. "CFD Simulation for Biomagnetic Separation Involving Dilute Suspensions," 7<sup>th</sup> International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, Antalya, Turkey, 19-21 July 2010.
- Haik, Y., Qadri, S. "Nanocidals for Osteomyelitis Management," ASME First Global Congress on Nanoengineering for Medicine and Biology, February 7-10, Houston, 2010.
- Haik, Y. "Nanotechnology Based Approach for Cancer Management," (**Invited**) BioAsia 2010: The Global Biobusiness, Hyderabad, India, February 2-4, 2010.
- Khashan S, Haik Y., "Magnetophoresis and Diffusion Interactions involving the Transport of Magnetic Microparticles," Seventh International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, 19-21 July, Antalya-Turkey.
- Moustafa K A F, Haik Y., Aldajha S., Omar F. "Leak Localization in Pipelines via Computational Pipeline Monitoring," ASME Pressure Vessels and Piping Division Conference, July 18-22, Washington, 2010.
- Haik Y., Hendrix J., Kialni M., "Flow in Crescent Micropump," AUS Symposium on Mechatronics, Sharjah, 2010.



- Obaidat I, Issa B, Haik Y., "Controlling the Magnetic Properties of Ferrite Nanoparticles," Fourth Saudi Science Conference, Almdinah Almunawarrah, March 21-24, 2010.
- Haik Y., Selim M. Y. E., Abdulrehman T., "Combustion of Raw Algae Oil and Its Methyl Ester in a Diesel Engine," ASME 10<sup>th</sup> Biennial Conference on Engineering Systems Design and Analysis, July 12-14, Istanbul, Turkey, 2010.
- Issa B, Obaidat I. M., Qadri S., al-Ramadi B., Haik Y. "NMR Relaxation of  $Mn_{0.5}Zn_{0.5}Gd_xFe_{(2-x)}O_4$  Hyperthermia Nanoparticles: Effects of Coating," ISMARM & ESMRMB Joint Annual Meeting & Exhibition, Stockholm, Sweden, 1-7 May 2010.

## 2009

- Issa B., Haik Y., "Characterization of MR Relaxation Enhancement by New Magnetic Nanoparticles," International Conference on Medical Physics, Dubai, 2008.
- Haik Y., "Converting Waste to Energy Products," (**Keynote**), The International Conference and Exhibition on Green Energy and Sustainability for Arid Region & Mediterranean Countries, Amman-Jordan, 2009.
- Issa B., Qadri S., Haik Y., "NMR MRI Relaxometry of  $Mn_{0.5}Zn_{0.5}Gd_xFe_{(2-x)}O_4$  Nanoparticles," World Molecular Imaging Congress, Presentation #0671, September 23-26, 2009, Montréal, Canada.

## 2008

- Issa B, al-Ramadi B., Qadri S., Hayek S., Haik Y., "Minimally Invasive Magnetic Hyperthermia Therapy," (**Invited Talk**), International Conference on Medical Physics, Dubai, 2008
- Haik Y. "Applications of Nanomagnetics," (**Invited Educational Session**), International Conference on Medical Physics, Dubai, 2008
- Haik Y., "Nanotechnology in UAE," Asia Nanotechnology Summit, Abu Dhabi, 2008.

## 2007

- Haik, Y. "Nano-Food," (**Invited**), Abu Dhabi Food Control Authority, December 2007.
- Haik, Y. "Nano Bio Diagnostics," (**Invited**), University of North Carolina at Greensboro, May, 2007.
- Haik, Y. "Developments in Biomagnetic Fluid Dynamics," (**Invited**), University of Sharjah, May, 2007.
- Hayek, S., Chen, C-J., Flores, G., Batich, C. D., Haik, Y. "Magnetic Hyperthermia Study of Mn-Zn-Fe Nanoparticle System as Possible low-Tc Agents for Magnetic Particle Hyperthermia," Materials Research Society, Paper #1019-FF07-08, 2007.
- Haik, Y., "Nanomagnetics in Microbiodiagnostics," 5<sup>th</sup> International Conference in Computational Heat and Mass Transfer, Banff-Canada, 2007.
- Haik, Y. "Nanomagnetics," (**Invited**), Department of Chemistry, United Arab Emirates University, May, 2007
- Haik Y., "Nanomagnetics in Biotechnology," 3<sup>rd</sup> International Conference on Thermal Engineering Theory and Applications, (Keynote), Amman-Jordan, 2007.
- Al Haik M S, Garmestani H, Haik Y., "Controlling Residual Stress in Metal Matrix Ceramic Fiber Composite," Materials Research Society, Paper No. 0977-FF03-03, 2007.
- Haik, Y., Kanuri S. "Magnetic Separation for the Removal of red Blood Cells", 3<sup>rd</sup> International Conference on Thermal Engineering Theory and Applications, Amman-Jordan, 2007.
- Haik Y., "ABET EC2000: Compliance to Competence," (**Invited**) 24<sup>th</sup> Arab Engineering Education Conference, Amman-Jordan, 2007
- Haik Y., Moustafa K A, "Learning Styles for Engineering Students at UAE," 24<sup>th</sup> Arab Engineering Education Conference, Amman-Jordan, 2007
- Haik Y., Hendrix J., Kilani M., Galambos P "Surface Micromachined Crescent Micropump," 3<sup>rd</sup> International Conference on Thermal Engineering Theory and Applications, Amman-Jordan, 2007.

## 2006

- Haik, Y., Sista R., Qablan A., Chen C-J., Palanki, S. "Rapid isolation of AMI Markers using Nanomagnetic Particles," Nanotechnology Conference and Trade Show, Boston, 2006.
- Hayek S., Haik, Y., Chen C-J. "Application of Nanomagnetic Particles in Hyperthermia Cancer Treatment," Nanotechnology Conference and Trade Show, Boston, 2006.
- Sharma, R., Haik, Y., Chen C-J. "A Search of Superparamagnetic Iron-Oxide-Myoglobin as Potential nanoparticles Based Magnetic Resonance Imaging Marker in Mouse Heart Imaging," Nanotechnology Conference and Trade Show, Boston, 2006.
- Haik, Y., Sawafta R., "Nanomagnetic Particles in Rapid Diagnostics", (**invited**) Particles, Orlando, 2006.
- Haik, Y., "Nanomagnetics in Micro Bio-Diagnostics," (**Invited**), American University of Sharjah, November, 2006.
- Haik, Y. "Applications of Magnetic Nanoparticles in Rapid Diagnostics," Workshop on Nanotechnology, University of Sharjah, 2006.
- Haik, Y. Hejase, H., Khashan, S. Mohite V. "Magnetic Nanoparticles for Self-controlled Hyperthermia," 7<sup>th</sup> UAEU Research Conference, Al Ain, 2006.
- Al Haik, M. S., Haik, Y. "Effect of Carbon Nanotube Chirality on the Adhesion to DNA," Materials Research Society Annual Meeting, Boston, 2006.

## 2005

- Haik, Y., Yuan, H., Scniederman, G. S. "Effect of Static Magnetic Field on CHO K1 Cells in Vitro" 1<sup>st</sup> UAE International Conference on Biological and Medical Physics, March 27-30, Al Ain UAE, 2005.
- Haik, Y., Mohite V. "Magnetic Hyperthermia for Cancer Therapy," 1<sup>st</sup> UAE International Conference on Biological and Medical Physics, March 27-30, Al Ain UAE, 2005.
- Haik, Y., Hendrix, J., Zowlinski A., Kilani M. "Flow Characteristics in Microfluidics," Second American University of Sharjah International Symposium on Mechatronics, April 19-21, Shrajah-UAE, 2005.
- Haik Y. "Bionanotronics," (**Invited**) Second American University of Sharjah International Symposium on Mechatronics, April 19-21, Shrajah-UAE, 2005.
- Haik, Y. "Flow Characteristics in Micromechanical Systems" 6<sup>th</sup> UAEU Research Conference, Al Ain, 2005.
- Haik, Y., Sista R., Qablan A., Palanki, S. "The Detection of the Severity of Acute Myocardial Infarction (AMI) using Magnetic Microspheres," American Institute of Chemical Engineers, Annual Meeting, Cincinnati, OH, Oct. 30- Nov. 4, 2005.

## 2004

- Haik, Y. "Applications of Nanomagnetics in Biotechnology," Faculty of Medicine and Health Sciences, UAEU, 2004
- Haik, Y., Chatterjee, J., Chen, C. J. "Assisted Alignment of Carbon Nanotubes," Nanotechnology Conference and Trade Show, Boston, 2004
- Haik, Y., Hendrix, J., Kilani, M., Galambus, P. and Chen, C. J. "Characterization of Micropumps for Biomedical Applications," Nanotechnology Conference and Trade Show Boston, 2004.
- Haik, Y., Qablan A., Zowlinski, A. and Chen C-J. "Glucometers to Detect for Heart Attack," Nanotechnology Conference and Trade Show, Boston, 2004.
- Yuan, H., Schneiderman, S., Haik, Y., Chen C-J "Effects of High Steady Magnetic Field on Chinese Hamster Ovary Cell Line CHO-K1," 5<sup>th</sup> International Conference on Scientific and Clinical Applications of Magnetic Carriers, May 20-22, Lyon-France, 2004.
- Chatterjee, J., Bettge, M., Haik, Y., Chen C-J "Synthesis and Characterization of Polymer Encapsulated Cu-Ni Magnetic Nanoparticles for Hyperthermia Applications," 5<sup>th</sup> International

Conference on Scientific and Clinical Applications of Magnetic Carriers, May 20-22, Lyon-France, 2004.

- Yuan, H., Schneiderman G. S., Haik, Y., Chen C-J "Effects of Low and High Magnetic Field on Mammalian Cells," 26<sup>th</sup> Annual Meeting, Bioelectromagnetic Society, June 20-24, Washington DC, 2004 (Best Presentation, 3<sup>rd</sup> Place)

### 2003

- Kilani, M. I., Galambos, P. C., Haik, Y. and Chen, C-J. "Surface Micromachined Viscous Spiral Pump," Nanotechnology Conference and Trade Show, San Francisco, Feb 23-27, 2003.
- Haik, Y., Chatterjee, J. and Chen C-J. "Synthesis of Magnetic Nanocomposite Gels for Ophthalmic Applications" Nanotechnology Conference and Trade Show, San Francisco, Feb 23-27, 2003.
- Chen, C-J., Haik, Y., Jaw, S-Y, Kanuri, S., Chatterjee, J. and Kilani, M. "Fluid and Particle Motion in Micro Systems and Biomedical Applications," **(Keynote)** 3<sup>rd</sup> International Conference on Computational Heat and Mass Transfer, May 26-30, Banff, Canada, 2003.
- Haik, Y., Chen, C-J and Chatterjee, J. "Magnetic Nanoparticles in Medical Applications," 3<sup>rd</sup> Annual Conference of the Medical School, April 15-16, Irbid, Jordan, 2003.
- Chen, C-J., Haik, Y., Chatterjee, J. "Nanomagnetics in Biotechnology," **(Keynote)** 10<sup>th</sup> International Conference on Composites/Nano Engineering, New Orleans, July 20-26, 2003.
- Chen, C-J., Haik, Y., Jaw, S. Y., Chatterjee, J., Kilani, M. "Some Aspects of Nanotechnology, Microtechnology and Biomedical Applications," **(Keynote)** 7<sup>th</sup> International Symposium on Fluid Control, Measurement and Visualization, Sorrento, August 2003.
- Jaw, S.Y., Haik, Y., Hwang, R. R., Chen, C-J. "Measurements of Soap Bubble Collapse using Color PIV," 16<sup>th</sup> ASCE Engineering Mechanics Conference, Seattle, Washington, July 16-18, 2003.

### 2002

- Chatterjee, J., Haik, Y., Chen C-J. "Nanomagnetic Gel: Synthesis and Characterization," Particles, (Invited), Orlando-FL, April 20-23, 2002.
- Chatterjee, J., Haik, Y. and Chen, C-J. "Synthesis of Polyethylene Magnetic Nanoparticles," 4<sup>th</sup> International Conference on the Scientific and Clinical Applications of Magnetic Carriers, (Local Conference Organizer), Tallahassee, FL, May 9-11, 2002.
- Zheng, P., Kilani, M., Haik, Y., and Chen, C.J. "Fabrication of NdFeB Thin Film and Its Application in MEMS," Proceedings of ASME Congress and Exposition, New Orleans, Nov. 17-22, 2002.
- Haik, Y., Chatterjee, J. and Chen, C.J. "Synthesis of Magnetic Nanocomposite Gels for Ophthalmic Applications" Trends in Nanotechnology, September 9-13, Santiago de Compostela, Spain 2002.
- Kilani, M., Galambos, P.C., Haik, Y. and Chen, C.J. "A surface Micromachined Spiral-Channel Viscous Pump," Proceedings of ASME Congress and Exposition, New Orleans, Nov. 17-22, 2002.

### 2001

- Chen, C. J., Haik, Y., Jaw, S. Y., Chatterjee, J., "Effects of Magnetic Field on Biological Cells and Applications," American Physical Society Annual Meeting, Session 6.004 Magnetism in Soft Matter, Seattle, Washington, March 14, 2001
- Kilani, M. I., Galambos, P. C., Haik, Y., Chen, C.J. "University-National Laboratory Collaboration on MEMS Design Education," ASME International Mechanical Engineering Congress and Exposition, Nov. 11-16, 2001, New York, NY.
- Kilani, M. I., Galambos, P. C., Haik, Y. Chen, C. J. "Electrostatically Actuated Surface Micromachined Offset Planetary Gear Pump Design," ASME International Mechanical Engineering Congress and Exposition, Nov. 11-16, 2001, New York, NY.
- Jaw, S. J., Haik, Y. and Chen, C. J., "Visualization of Magnetic Micro-sphere Mixing in Biological Fluid Flow Using Color PIV," ASCE-ASME-SES 2001 Joint Applied Mechanics and Materials Summer Conference, Turbulence session, San Diego CA, June 26-29, 2001.

- Chen, C. J., Haik, Y., Jaw, S. Y., Chatterjee, J., "Fundamentals of Bio-Magnetic Fluid Mechanics and Its Application," (Invited) 8<sup>th</sup> International Symposium on Flow Modeling and Turbulence Measurements, Tokyo, Japan, Dec. 4-6, 2001
- Chen, C. J., Haik, Y., Kilani, M., Jaw, S.Y., Zheng, P. "Development of Magnetically Driven Mini and Micro Pump," 8<sup>th</sup> International Symposium on Flow Modeling and Turbulence Measurements, Tokyo Japan, Dec 4-6, 2001.

## 2000

- Kilani, M. I., Haik, Y., Jaw, S. Y. and Chen, C. J., "Investigation of Magnetically Driven Screw Pumps for Blood Flow Applications," 14<sup>th</sup> Engineering Mechanics Conference (ASCE), Austin, Texas, 21-24 May, 2000.
- Haik, Y., Kilani, M. and Chen, C. J. "Development of Magnetic MEMS," 3<sup>rd</sup> International Conference on the Scientific and Medical Applications of Magnetic Carriers, Rostock, Germany, May 1-6, 2000.
- Jaw, S.Y., Haik, Y. and Chen, C.J. "Development of Color Particle Image Velocimetry and its Application in Rotating Flow" 9<sup>th</sup> International Symposium on Flow Visualization, Edinburgh, Britain, August 22-25, 2000.
- Chen, C.J, Haik, Y., Jaw, S.Y. and Chattarjee, J. "Development in Bio-magnetic Fluid Dynamics and its Applications" International Symposium on Recent Advances in Experimental Fluid Mechanics, Kanpur, India, December 18-20, 2000.

## 1999

- Haik, Y., Chen, C. J. and Pai, V. M., "Numerical Simulations of Biomagnetic Fluid Dynamics," 3<sup>rd</sup> ASME/JSME Joint Fluids Engineering Conference, FEDSM99-6984, San Francisco, California, July 18-23, 1999.

## 1998

- Pai, V. M., Haik, Y., Chen, C. J. and Walder, H. "Development of a prototype for Magnetic Separation Device of Red Blood Cells," 10<sup>th</sup> International Conference on Mechanics in Medicine and Biology, Honolulu, Hawaii, 1998.
- Chen, C J., Haik, Y., Pai, V. N. and Da Motta, M., "Human Hemoglobin in High Magnetic Field," 1998 Annual Report of National High Magnetic Field Laboratory, Tallahassee, FL, 1998.
- Pai, V. M, Haik, Y. and Chen, C. J. "Bio-Magnetic Fluid Dynamics," 13<sup>th</sup> U.S. National Congress of Applied Mechanics, June 21-26, Gainesville, FL, 1998.
- Pai, V. M., Tsai, J., Haik, Y. and Chen, C. J. "Development of Magnetic Micromachines," 13<sup>th</sup> U.S. National Congress of Applied Mechanics, June 21-26, Gainesville, FL, 1998.
- Haik, Y., Chen, C. J. and Pai, V. M. "Finite Analytic Numerical Simulation of Biomagnetic Fluid in Three Dimensional Square Duct," 13<sup>th</sup> U.S. National Congress of Applied Mechanics, June 21-26, Gainesville, FL, 1998.
- Haik, Y., Chen, C. J. and Pai, V. M. "Magneto Viscous Effect of Human Blood," 13<sup>th</sup> U.S. National Congress of Applied Mechanics, June 21-26, Gainesville, FL, 1998.
- Haik, Y. "Collaborative Learning of Engineering Mechanics," 13<sup>th</sup> U.S. National Congress of Applied Mechanics, June 21-26, Gainesville, FL, 1998.
- Chen, C. J., Haik, Y. and Somya S. "Interaction of Magnetic Fluid with Ferrofluid in Channel Flow," 13<sup>th</sup> U.S. National Congress of Applied Mechanics, June 21-26, Gainesville, FL, 1998.
- Haik, Y. and Chen, C. J. "Visualization of Magnetic Cell Separation," 8<sup>th</sup> International Symposium on Flow Visualization, Italy, 1998.
- Motta M. A., Pai, V. M., Haik, Y. and Chen, C. J. " High Magnetic Field Influence on the Human Hemoglobin Light Absorption," 20<sup>th</sup> Annual Meeting of the Bioelectromagnetics Society, St. Pete Beach, 1998.

- Haik, Y., Pai, V. and Chen, C. J. "Development of Magnetic Device for Cell Separation," 2<sup>nd</sup> International Conference on the Magnetic Carriers and Its Applications, Cleveland, 1998.
- Pai, V. M., Chen, C. J. and Haik, Y. "Microscopic Flow Visualization of Blood and Analog Fluids," 2<sup>nd</sup> International Conference on the Magnetic Carriers and Its Applications, Cleveland, 1998.
- Haik, Y. and Chen, C. J. "Effect of Magnetic Field on Human Blood," 1<sup>st</sup> Latin American Conference on Biomedical Engineering, November 11-14, Mexico, 1998.
- Motta, M., Pai, V. M., Haik, Y. and Chen, C. J. "High Magnetic Field Action on Deoxyhemoglobin Light Absorption Spectra," 1<sup>st</sup> Latin American Conference on Biomedical Engineering, November 11-14, Mexico, 1998.
- Chen, C. J. and Haik, Y. "Development of Magnetic Fluid Dynamics and Its Applications," 7<sup>th</sup> International Symposium on Flow Modeling and Turbulence Measurements, Taiwan, 1998.

#### 1997

- Chen, C. J., Lin, W., Haik, Y. and Carlson K. D. "Finite Analytic Modeling of Complex Flows," **(Keynote)** 5<sup>th</sup> Triennial International Symposium on Fluid Control, Measurements and Visualization, Hayama, Japan, 1997.
- Haik, Y., Chen, C. J. and Kuncicky, D. "Development of Multimedia Distance Learning for Engineering Mechanics," International Conference on Engineering Education, 1997.
- Chen, C. J., Haik, Y., Pai, V. M. and Da Motta, M., "Human Flow in High Magnetic Field," 1997 Annual Report of National High Magnetic Field Laboratory, pp.9-10, Tallahassee, Fl., 1997.

#### 1996

- Pai, V., Haik, Y. and Chen, C. J. "Modeling of Biomagnetic Fluid Dynamics," 6<sup>th</sup> International Symposium on Flow Modeling and Turbulence Measurements, 1996.
- Pai, V. M., Haik, Y. and Chen, C. J. "Bio-Magnetic Fluid Dynamics," ASME FED-237, Fluids Engineering Division Conference, 1996.
- Haik, Y., Chen, C. J. and Pai, V. M. "Magnetic Fluid Dynamics of Blood Flow," 11<sup>th</sup> ASCE Engineering Mechanics Specialty Conference, 1996.
- Chen, C. J., Haik, Y. S. and Pai, V. M. "Development of Biomagnetic Fluid Dynamics," 9<sup>th</sup> International Symposium on Transport Phenomena in Thermal-Fluids Engineering, Singapore, 1996.

#### 1994

- Haik, Y. S. and Chen, C. J. "Finite Analytic Numerical Solution with Combined Modes of Heat Transfer," International Mechanical Engineering Congress and Exposition, HT-9, 1994.
- Chen, C. J., Haik, Y. S. and Bravo, R. H. " Numerical Visualization of Heat Transfer Characteristics of a Heated Rectangular Block in Channel Flow," National Heat Transfer Conference, HTD- 1989.
- Chen, C. J., Haik, Y. S., Bravo, R. H. and Sheikoslami, M. "Numerical Flow Visualization of Two Dimensional Viscous Flow in Internal Complex Geometries," ASME Winter Annual Meeting, 1988.

### GRADUATE STUDENT AND RESEARCH SCHOLARS SUPERVISION

#### Ph.D. Dissertations

<b>Mohammed Kilani</b> ( <i>Mechanical Engineering</i> ), Florida State University, <i>Design, Fabrication and Characterization of Surface Machined Micropumps</i>	2002
<b>Pan Zheng</b> ( <i>Mechanical Engineering</i> ), Florida State University, <i>Development of Magnetic MEMS &amp; its Applications</i>	2003
<b>Yuan Hang</b> ( <i>Biomedical Engineering</i> ), Florida State University, <i>Effect of High Steady Magnetic Field on Cancer</i>	2004
<b>Shahnaz Qadri</b> ( <i>Medicinal Chemistry</i> ), University of North Carolina at Greensboro, <i>Nanocidals Therapy for Osteomyelitis</i>	2012
<b>Sawasan Dagher</b> ( <i>Materials</i> ), United Arab Emirates University,	2014

**Quantum Dot Based Solar Cells**

**Hanifa Tahir** (Chemical Engineering), United Arab Emirates University (Co-Advisor)  
Algal Biofuel 2014

**Mariam Alshamsi** (Food & Agriculture), United Arab Emirates University (Co-Advisor)  
Antimicrobial in Food Industry 2015

**PhD- in Progress**

**Neha Jacob** (Materials), United Arab Emirates University, (Co-Advisor)  
Nanocomposites 2012-

**MS Theses**

**Sridhar Kanuri** (Biomedical), Florida State University, 1999  
Color Particle Image Velocimetry & its Application in the Design of a Magnetic Separation System

**Manuel Cordovez** (Biomedical), Florida State University, 1999  
Point of Care Diagnosis of Acute Myocardial Infarction using Magnetic Immunoassays

**Andrew Zwolinski** (Mechanical), Florida State University, 2000  
The Characterization of Microfluidic Channels for Biodiagnosis

**Jason Hendrix** (Mechanical), Florida State University, 2002  
Design and Analysis of Mechanical Micropump

**Virendra Mohite** (Mechanical), Florida State University, 2002  
Self-Controlled Magnetic Hyperthermia

**Anuraga Kosuri** (Mechanical), Florida State University, 2004  
Nanomagnetic Particles Assisted Alignment of Carbon Nanotubes

**Omar Refai** (Mechanical), Florida State University, 2004  
Characterization of Mechanical Micropumps

**Rachel Gahagan** (Mechanical), Florida State University, 2004  
Design of a Micro Analysis System

**Nidal Alshwawreh** (Electrical), United Arab Emirates University, 2006  
Fabrication of 3-D Micro Antennas by Localized Electro-Deposition

**Ammar Al Omari** (Mechanical), United Arab Emirates University, 2010  
Characteristics of Nanocomposites under Low Speed Impact

**Anyaba Wilson** (Environmental Science), United Arab Emirates University 2013  
Nanoparticles Based Approach for Contamination Management in Microalgae open pond system

**Hazem Elshorbagy** (Mechanical Engineering), United Arab Emirates University 2014  
In situ Magnetic Hyperthermia for Enhanced Oil Recovery

**Mohamed Faris** (Mechanical Engineering), United Arab Emirates University 2014  
Material Optimization of Bipolar Plate used in Proton Exchange Membrane Fuel Cell

**Hanaa Elsayed** (Mechanical Engineering), United Arab Emirates University ongoing  
Image Guided Convection Enhanced Drug Delivery

**Postdoctoral and Research Fellows**

**Jhunu Chatterjee**, (Polymer Chemistry), Florida State University, 1999- 2004  
Synthesis of Nanomagnetic Composites

**Abulqassem Kandahari**, (Medical Doctor), Florida State University, 1997-1998  
Effect of High Magnetic Field on Plants

**Mohammed Yousef**, (Biochemistry), Florida State University, 2001

<i>High Steady Magnetic Fields Cellular Effects</i>	
<b>David Headly</b> , (Chemistry), Florida State University,	1999-2001
<i>Conductivity of Water under High Magnetic Fields</i>	
<b>Mohammed Kilani</b> , (Mechanical Engineering), Florida State University, 2002	
<i>Microfluidic Diagnostic System</i>	
<b>Ahmad Qablan</b> , (Biology), Florida State University,	2003
<i>Diagnosis Systems</i>	
<b>Martin Bettge</b> , (Material Science), Florida State University,	2003
<i>Nanomagnetic Particles by CVD</i>	
<b>Gaylordia Sue Schneiderman</b> , (Biology), Florida State University,	2003
<i>High Steady Magnetic Field Effect on Cancer</i>	
<b>Riaz Khan</b> , (Organic Chemistry), Florida State University,	2004
<i>Synthesis of Nanomagnetic Carriers</i>	
<b>Akela Ghazawi</b> , (Biology), United Arab Emirates University,	2005-2006
<i>Magnetic Hyperthermia</i>	
<b>Mohammed Gharib</b> , (Pharmacy), United Arab Emirates University,	2005-2006
<i>Detection of Latex Allergen in Saliva</i>	
<b>Karishma Fernandes</b> (Nutrition), University of North Carolina at Greensboro,	2008
<i>Detection of Allergy Markers</i>	
<b>Ashley Ganoë</b> (Biology), University of North Carolina at Greensboro,	2008
<i>Antimicrobials</i>	
<b>Ashraf Sawafta</b> (Biology), University of North Carolina at Greensboro,	2009
<i>Medicinal extracts</i>	
<b>Ghassan Qabaja</b> (Chemistry), University of North Carolina at Greensboro,	2009
<i>Nanocapsules</i>	
<b>Rabab Jarrar</b> –Fulbright Fellow (Physics), University of North Carolina at Greensboro,	2009
<i>Nanoclays</i>	
<b>Taher Abdulrahman</b> (Biochemistry), United Arab Emirates University,	2009-
<i>Biodiesel</i>	
<b>Habib Abdulrahman</b> (Chemistry) United Arab Emirates University,	2008-
<i>Nanoparticles</i>	
<b>Sarmadia Ashraf</b> (Biotechnology), University of North Carolina at Greensboro,	2009
<i>Dye Separation</i>	
<b>Asiful Hossain</b> (Material Science), United Arab Emirates University	2010
<i>Nanocomposites</i>	
<b>Alex Ranjit Kumar</b> (Biotechnology), United Arab Emirates University	2011
<i>Antimicrobial</i>	
<b>Salih Pattambi</b> (Biotechnology), United Arab Emirates University	2011
<i>Antimicrobial</i>	
<b>Asmaa Al Hati</b> (Mechanical Engineering), United Arab Emirates University	2012-
<i>Composites</i>	
<b>Mohamad Raneesh</b> (Chemistry), United Arab Emirates University	2012
<i>Plastic Reuse</i>	
<b>Dhanya Sarawathamma</b> (Biology), United Arab Emirates University	2012
<i>Hyperthermia</i>	
<b>Joan Ascnaath</b> (Biotechnology), United Arab Emirates University	2012
<i>Antimicrobial</i>	

<b>Kamala (Chemistry), United Arab Emirates University</b>	2014
<i>Surface Functionalization</i>	
<b>Hanan Shagfa (Electrical Engineering), United Arab Emirates University</b>	2013
<i>Electrical Properties of Composites</i>	
<b>Reneesh Muhammad (Polymer Chemistry), United Arab Emirates University</b>	2013
<i>Impregnation of Polymers with Nanofillers</i>	
<b>Master Sponsored Research Projects</b>	
<b>Punit Nakar, Venkata Chagautt</b>	
<i>Compact Wireless Property Inventory Device, Communication and Multimedia, \$2000,</i>	1999
<b>Punit Nakar, Venkata Chagautt</b>	
<i>Standalone Environment Conditions Communication Device, Communication and Multimedia, \$2000,</i>	1999
<b>Ravindra Bapatla, Tachfine Bouachrine</b>	
<i>Device for Detection of Submicron Cellular Motion, Oregon Health Clinic, \$5000,</i>	2000
<b>Venkata Chagautt</b>	
<i>Temperature Monitoring System, Communication and Multimedia, \$2000,</i>	2000.
<b>Undergraduate Sponsored Research Projects</b>	
<b>Tasos Tsangrides, Andrew Zwolenski, Gilbert Shrouder</b>	
<i>Florida Space Consortium, Effect of Microgravity on Yeast Growth, \$2000,</i>	1998
<b>John Davis, Sasha Grek</b>	
<i>FSU Research Foundation, Effect of High Magnetic Field on Yeast, \$5000,</i>	1998
<b>Andrew Parry, Kevin Shinholser, James Sizemore</b>	
<i>NSF/SUCCEED, Reconstruction of 6-Tesla Superconducting Magnet, \$5000,</i>	1999
<b>Andrew Parry, Kevin Shinholser, James Sizemore</b>	
<i>NSF/SUCCEED, Yeast Cultivator in a 19-Tesla Hybrid Magnet, \$5000,</i>	1999,
<b>John Conn, Andrew Zwolenski, Mark Sheer, Scott Sowell, Boris Sanchez</b>	
<i>INRange Pharmaceutical, Controllable Drug Dispensing System, \$15,000,</i>	2001
<b>Rachel Lengo and Terica</b>	
<i>Biomagnetic Engineering Lab, Effect of Magnetic Field on Botanical Systems,</i>	2002
<b>Daniel Braley</b>	
<i>Biomagnetic Engineering Lab, CPIV of Laminar Mixing,</i>	2002
<b>Chris Batsch, Nick Hartney, Ben Robertson</b>	
<i>Puget Sound Naval Shipyard, Internal Pipe Cutter, \$8000,</i>	2003
<b>Syreeta Banks, Steven Downey, Donnel Jones</b>	
<i>MDTC, Total Knee Cartilage Deterioration Support System, \$1000,</i>	2003
<b>Ali Almasri,</b>	
<i>Abu Dhabi Water, Electricity Authority, Biodiesel, \$81,743</i>	2009
<b>Hazim Alshorbagy, Abdulrahman Ghbash, Mohamed Ali</b>	
<i>ENOC, \$13623</i>	2010

### RESEARCH INTEREST

- Biosensors
- BioMEMS
- Novel Bio-polymers
- Magnetic Hyperthermia



- *Rapid Diagnostics*
- *Magnetic Separation*
- *Nano-biocidals*
- *Biofuel*

### GRANT and CONTRACT SUPPORT (\$22M):

• Therakos Inc. "Magnetic Device for Blood Cell Separation"	<u>(\$177k)</u>	1996-97
• Therakos Inc. "Clinical Device for Cell Separation"	<u>(\$200k)</u>	1997-98
• Therakos Inc. "Magnetically Driven Blood Pump"	<u>(\$200k)</u>	1998-99
• Sandia National Laboratory "Magnetic MEMS"	<u>(\$50k)</u>	1999-01
• National Science Foundation (NSF) "SUCCEED"	<u>(\$550k)</u>	1999-02
• NSF SUCCEED "Multidisciplinary Design"	<u>(\$45k)</u>	1999-00
• Florida Space Grant Consortium "Student Microgravity Experiment"	<u>(\$2k)</u>	1999-00
• Sandia National Laboratory "Magnetically Driven Micro Pump"	<u>(\$50k)</u>	2000-01
• Walker Cancer Institute "Effect of High Magnetic Field on Cancer"	<u>(\$15k)</u>	2000-01
• Florida State University "Magnetic Separation of Platelets"	<u>(\$100k)</u>	2000-01
• Oregon Health Center "Magnetic Sensor for Cell Thickness"	<u>(\$5k)</u>	2000-01
• NSF SUCCEED "Multiple Team Multidisciplinary Projects"	<u>(\$10k)</u>	2001
• NSF SUCCEED "Multidisciplinary Design"	<u>(\$70k)</u>	2001
• Various Source for MDTC projects	<u>(\$200k)</u>	2001
• MARTECH "Synthesis of Magnetic Polymeric Nanocomposite"	<u>(\$29k)</u>	2001
• Sandia National Lab "Electrostatically Driven Micropumps"	<u>(\$25k)</u>	2001
• SUN Microcomputers "Matching Grant for Educational Equipment"	<u>(\$45k)</u>	2001
• NSF SUCCEED "MDTC and Faculty Development"	<u>(\$90k)</u>	2002
• Florida State University Research Foundation "Magnetic MEMS"	<u>(\$100k)</u>	2001-02
• Florida State University Research Foundation "Pre-CANmTAS"	<u>(\$125k)</u>	2002-03
• Florida State University Research Foundation "CNB"	<u>(\$1M)</u>	2003-06
• Sandia National Lab "Micro Systems"	<u>(\$21k)</u>	2003
• Navy Ship Yard "Pipe Cutting Tool"	<u>(\$8k)</u>	2003
• Sandia National Lab "Micro Pumps"	<u>(\$20k)</u>	2004
• BarrierMed "Detection of Latex Allergy,"	<u>(\$1M)</u>	2003
• UAEU, "Magnetic Hyperthermia,"	<u>(\$55k)</u>	2004-06
• Sandia National Lab "Integrated Microsystems"	<u>(\$25k)</u>	2005
• Department of Homeland Security "Airway Epithelial Cell based Biosensor for Airborne Biological/Chemical Warfare Agents"	<u>(\$200k)</u>	2003-05
• Florida Department of Health "Rapid Detection of AMI"	<u>(\$100k)</u>	2005-06
• UAEU, "Micromachining of Array Wire Micro-Electrodes"	<u>(\$5.5k)</u>	2005-06
• UAEU, "Sensitive Glucometer for Detection of Cardiac Markers"	<u>(\$8k)</u>	2005-06
• UAEU, "Detection of Latex Allergen from Saliva Sample"	<u>(\$8k)</u>	2005-06
• UAEU, "Effect of Magnetic Field on Drug Resistivity"	<u>(\$8k)</u>	2005-06
• UAEU, "Color Particle Image Velocimetry"	<u>(\$5.5k)</u>	2005-06
• UAEU, "Magnetic Alignment of Carbon Nanotubes,"	<u>(\$55k)</u>	2005-07
• UNCG, "Center for Nanobiosciences,"	<u>(\$2M)</u>	2007
• UAEU, "Rapid Detection of Biomarkers,"	<u>(\$55k)</u>	2005-07
• UNC, "Rapid Detection of Allergy Indicators,"	<u>(\$200k)</u>	2008-09

• NRF, "Center for Nanosciences and Nanoengineering,"	(\$13.6M)	2008-13
• NIH, "Noninvasive Thermometry Monitoring System,"	(\$380k)	2009-11
• British Council "Multifunctional Nanoparticles,"	(£32k)	2009-10
• Emirates Foundation "Non-invasive Temperature Monitoring,"	(\$55k)	2009-11
• Emirates Foundation "Bacterial delivery System,"	(\$35.5k)	2010-11
• UAE-COE "Glucose Fuel Cell,"	(\$32k)	2011-13
• NRF-UAEU, "Cells Mechanics under Hyperthermia,"	(\$68k)	2010-12
• NRF-UAEU, "Glucose Mediated Insulin Release,"	(\$202k)	2011-13
• Exeed, "Alteration of Mechanical Properties for Polymeric Fiber,"	(\$27k)	2013
• GreenNanoTek, "Production of Carbon Nanotubes from Waste,"	(\$152k)	2013
• ADASI, "Composite with Enhanced Electrical Properties,"	(\$139k)	2013-14
• Boeing, "Thermally Conductive Polymer)	(\$13.5k)	2013-14
• NRF, "Impregnation of Polymers with Carbon Nanotubes,"	(\$44k)	2013-14
• EMAL, "Seawater Battery,"	(\$13.5k)	2013-14
• ONRG, "FLUCOME2015,"	(\$15k)	2015
• QNRF, "FLUCOME2015,"	(\$26k)	2015
• QNRF, "Osteomyelitis Management,"	(\$890k)	2015-18
• QNRF, "Type 1 Diabetes Immune Therapy,"	(\$900k)	2016-19
• QU, "Carbon Black"	(\$40k)	2015-16
• ADASI, "UAV Nanocomposites,"	(\$700k)	2016-17

**Multidisciplinary Design and Research Projects:** *These projects recruited student-teams from different engineering disciplines. Each team consists of 4 to 6 students. The projects are industry sponsored and address real industrial problems.*

• NSF/SUCCEED, Aquaculture Filtration Design,	(\$3000)	2000
• Harris Corporation, DSP Algorithm to Synthesizable VHDL Process,	(\$15,000)	2000
• Dow Chemical, Ethylene Glycol Process Automation,	(\$15,000)	2000
• Federal Highway Administration, Signal Timing Optimization,	(\$5000)	2000
• Cargil, Material Failure of a Newly Lined Evaporator Vessel,	(\$10,000)	2000
• Talla Com, Cooling Methods of the Power Amplifier,	(\$10,000)	2000
• Cargil, Prediction of Mineral Grade of Blended Rocks,	(\$10,000)	2001
• Shaw, Modified Yarn Transport System,	(\$7,500)	2001
• Shaw, Ergonomic Package Handling System,	(\$7,500)	2001
• Ford, Vehicle Integrity in Crash,	(\$40,000)	2001
• Engelhard, Evaporator System,	(\$15,000)	2001
• INRange Pharmaceutical, Drug Dispensing System,	(\$15,000)	2001
• Navy, Anchoring System for Unmanned Underwater Vehicle,	(\$10,000)	2001
• NHMFL, Structural Support of Superconducting Outsert Magnet,	(\$3000)	2001
• National Upper Cervical Chiropractic Research Association, Supine Leg Check Device,	(\$8000)	2002
• Bowen Biomedical Equipment, Medical Adhesive dispensing Device,	(\$10,000)	2002
• ETC, Gasoline sensor,	(\$5,000)	2002
• ETC, Magnetic Bed,	(\$5,000)	2002
• Capital Medical Corporation, Static Elbow Brace Splint,	(\$10,000)	2002

**Proposals Pending & in the Making:**

- |  |          |
|--|----------|
| 1. QNRF, "Theranostic for Cancer Therapy," | (\$900k) |
| 2. QNRF, "T1D Immune Therapy,"             | (\$900k) |
| 3. ADASI, "Phase II Nanocomposites"        | (\$800k) |
| 4. AlHameli "NCC production"               | (\$150k) |

**COURSES TAUGHT****Undergraduate Courses:**

BioMEMS  
 Introduction to Bioengineering  
 Fluid Dynamics I & II  
 Selected Topics in Bioengineering  
 Fundamentals of MEMS  
 Thermodynamics  
 Heat Transfer  
 CAD  
 ME Tools  
 Introduction to Mechanical Engineering  
 Engineering Mechanics  
 Dynamic Systems I  
 Dynamics  
 General Physics  
 Introduction to Physical Science  
 Introduction to Design  
 Dynamics and Vibrations

**Graduate Courses:**

Convective Heat Transfer  
 Topics in Fluid Mechanics and Heat Transfer  
 Viscous Flow  
 Intermediate Heat Transfer  
 Introduction to MEMS  
 Fundamentals of Micro Systems  
 Biomagnetics  
 Research Methods

**Other Courses Prepared to Teach**

Advanced Fluid Mechanics  
 Advanced Heat Transfer  
 Bio-Mechanics  
 Bio-Heat Transfer  
 Bio-Fluids

**CURRICULUM DEVELOPMENT****New Programs Developed**

BS and MS degrees in Aerospace Engineering: Developed a new program of aerospace engineering in support of Mubadala initiative in UAE.

Developed a dual BS-MS degree program in Mechanical Engineering. The dual degree program is now implemented in all engineering disciplines.

Master of Materials Science and Engineering Program: Developed and modernized the Materials Science and Engineering Master Program. The whole curriculum has been changed to meet the demands by new industry.

Master of Engineering Management: Initiated and developed the program to meet the increase demand by the industry.

Mechanical Engineering: Modernized the curriculum based on semi-integrated curriculum approach. Was successful in achieving ABET accreditation for the Program.

PhD in Mechanical Engineering. Developed a PhD program for Mechanical Engineering.

### **New Courses Developed and Taught**

EML 3004: *Introduction to Mechanical Engineering*, the course covers fundamentals of engineering design, it is one of the cornerstones for the mechanical engineering program. Mechanical Engineering students must take this course and Engineering Tools as first two courses in Engineering.

EML 3002: *ME Tools*, the course is divided into five different segments; Introduction to thermodynamics, communication skills, Mathcad, drafting using Pro/E and workshop.

EML 5509: *Introduction to MEMS*, the course presents the fundamentals of electromechanical systems fabrication and its applications.

EML 5505: *Topics in Fluid Mechanics and Heat Transfer*, this course presents topics in computational fluid dynamics and heat transfer, and topics in experimental techniques in fluid mechanics.

EML 5507: *Biomagnetism*, this course presents recent developments on the effect of electromagnetic fields on biosystems.

MECH 525: *Introduction to Bioengineering*, this course presents recent development in bioengineering with emphasis on biomechanics, biomaterials, bioinstrumentations.

MECH 520: *BioMEMS*, this course covers the fundamentals of BioMEMS, including microfabrication, chip material, lab-on-chip design, sensors and actuators, genomics and proteomics.

### **Modified Courses:**

EML 4535: CAD, in addition to develop understanding in CAD, students are asked to use CAD tools for virtual prototyping and building knowledge on design for assembly concepts.

EML 3012: *Dynamic System I*, Computational and simulation tools such as Mathcad, Matlab and Working model are implemented in the course.

MECH 310: Dynamics and Vibrations, this course was developed at UAEU, manual of five different sections were developed, including Matlab, MathCad, Working Model, theory, solved examples and problems.

MECH 342: Fluid II, 10 laboratory experiments were developed, computational tools were implemented and contemporary issues in microfluidics were illustrated.

### **Multimedia Assisted Classes**

All classes have web component that enable students access to class material. I instituted Blackboard technology course management system for web delivery at the College of Engineering.

### **Computer Use**

Developed interactive software for fluid flow and heat transfer simulation based on the finite analytic method. I have used computer extensively for teaching. Also, designed and

implemented technology for on-line delivery for certificate programs and graduate courses for the college of engineering.

### **Integrated Curriculum**

Developed introductory classes that prepare students for integrated curriculum in Mechanical Engineering. Organized workshops to prepare for integrated curriculum program in Mechanical Engineering.

### **Project Enhanced Instruction**

Instituted an open ended engineering project in all courses that I have taught, to provide students with in depth understanding of the material taught.

### **Undergraduate Research:**

Employed undergraduate students as research assistants in my research labs. All undergraduate students participated in the research efforts have chosen to enroll as graduate students.

### **Biomechanics Curriculum:**

Member of the university committee at Florida State University to institute Biomechanics track at the College of Engineering. Supervised two research projects on biomechanics.

## **ACCREDITATION (ABET) EXPERIENCE**

- ABET Evaluator 2012-present
- Lead the Mechanical Engineering Department at the United Arab Emirates University through two cycles of ABET reviews (NGR each)
- Served as Mock-Up evaluator for the Jordan University for Science and Technology (Evaluated 5 programs (Mechanical, Electrical, Industrial, Chemical and Biomedical)) during one visit. 3 programs applied and obtained NGR.
- Conducted workshops and Seminars on ABET preparation (University of Jordan, Hashemite University, United Arab Emirates University)
- Attended ASEE, ABET, Rose-Hulman and SUCCEED workshops on ABET-EC2000 preparation
- Conducted 3-Day ABET Preparation Workshop, University of Jordan
- Consulted for University of Jordan (one summer). The consultation resulted in developing for the department of Mechanical Engineering a frame work for the SSR, defined educational objectives and program outcomes, gathered constituencies input and approval of educational objectives, plans to modify the curriculum and implantation of course outcomes across the curriculum that measures the program outcomes. Worked with the department of electrical engineering to define program objectives and outcomes and outline a plan to develop the SSR.
- Consulted for Hashemite University, Jordan. Worked with the department of mechanical engineering to develop educational objectives and program outcomes.
- Organized, Symposium on Engineering Education (2009). Conducted workshop on ABET Preparation along with two past presidents of ABET.
- Attended workshops and conferences by ABET.
- Authored papers on student learning and on ABET accreditation.

## **ADMINISTRATIVE POSITIONS**

***Associate Vice President for Graduate Studies***  
*Qatar University*

***2014-Present***

*Manage the graduate studies affairs for all the University.*

*Develop policies to govern quality graduate programs*

*Streamline degree monitoring processes*

*Set the vision for future expansion*

**Chairman, Department of Mechanical Engineering**

**2003-2007& 2008-2012**

*United Arab Emirates University*

Supervise the affairs of the department, 18 faculty members, 3 instructors, 6 laboratory technicians.

Supervised ABET visit preparation.

**Director, Center for Research Excellence in Nanobiosciences**

**2007-Present**

*University of North Carolina at Greensboro*

**Chairman- Materials Science and Engineering**

**2003-2007**

*United Arab Emirates University*

Supervise an interdisciplinary program. Prepared self study report for external evaluation visit.

Developed a modified plan for the program.

**Founding Chairman- Engineering Management**

**2004-2007**

*United Arab Emirates University*

Collaborative Master Degree program between the College of Engineering and College of Business.

**Director, Communications and Multimedia Service**

**2001-2004**

Supervise 35 professionals, temporary employees and students with average annual operational budget of \$0.5M. (<http://www.eng.fsu.edu/cmservices.htm>)

**Director, Computing and Communication Services**

**1999-2001**

Supervised 25 professionals, temporary employees and students with average annual budget of \$0.35M

**Director, Multidisciplinary Design and Technology Clinic**

**1999-2004**

Founded and directed MDTC as a tool to provide infrastructure to integrate projects that have roots in the industry to courses and capstone design projects, provide the experiential learning environment for students and integrate this experience in the curriculum and to be the liaison between the faculty members and the industrial partners that will provide the engineering problems for the students. MDTC is being institutionalized at the College of Engineering where its functions are integrated into the curriculum of all five departments.

The program involved 50 undergraduate and graduate students, 13 faculty members and one staff coordinator. Budget generated in one year reached \$0.2M. (<http://www.eng.fsu.edu/mdtc>)

**Director, Engineering Technology Center**

**2002-2004**

Founded and directed ETC as a center to provide product development, rapid prototyping and adaptive design to local and national consumers. ETC is structured as for profit organization that has ties to the university through contractual agreements. ETC was founded in the summer of 2002. Students are hired on demand basis. A student may work on several projects within one semester.

**Director, Biomagnetic Engineering Laboratory**

**1998-2007**

Research laboratory with four labs: (Nanoparticles Lab, MEMS Lab, Bio Lab and Fluid Diagnostics Lab). Average research expenditure per year is \$0.5M. (<http://biomag.eng.fsu.edu>)

**Director, Florida Engineering Education Delivery System (FEEDS)**

**2001- 2004**

Direct, on-line and distance learning activities for the College of Engineering. FEEDS is a state wide system for delivery of engineering curriculum across the 12 state universities.

**(Founding Coordinator) Certificate Program Coordinator**

**2000-2004**

Instituted certificate programs for the college of engineering. Graduate certificate program in water resources that allow students to enroll as graduate students or continuing education students has been instituted at the Department of Civil and Environmental Engineering. Certificate programs in material

science (ME), engineering management (IE) are being developed. In addition, a networking academy (cisco academy) was also instituted and was made open for all who wish to pursue a career in information technology including high school students.

**President, HPC Engineering Services** **1998-2000**

Founded and managed the engineering consulting firm.

**President, ADC Education Services** **1997-1998**

Educational consulting firm

**President, Nanomagnetism and Biotech Inc.** **2003-2007**

Nano-Biotechnology Company

### EDITORIAL BOARDS

- Founding Editor-in-Chief, Advances in Nano Research (Techno Press)
- Founding Editor-in-Chief, Journal of Nanosciences and Nanoengineering (IASKS)
- Founding Editor in Chief, Journal of Nanosciences and Nanoengineering (Proposed ASME)
- Editor in Chief, Journal of Nanobiosciences (proposed International House)
- International Journal of Theoretical and Applied Multiscale Mechanics
- The Open Mechanics Journal
- Nanotechnology
- Applied Mechanical Engineering
- International Journal of Dynamics of Fluids
- Journal of Biomagnetic Research and Technology
- Jordan Journal of Mechanical and Industrial Engineering
- Research Reviews in BioScience
- Recent Patents on Corrosion Science
- International Journal of Computation in Science and Engineering
- International Journal of Thermal and Environmental Engineering
- International Journal of Applied Mechanics

### INTERNATIONAL AND LOCAL CONFERENCE CHAIR

- Chair, International Conference on Fluid Control, Doha, Qatar 2015
- Chair, Advances in Nanotechnology Research, Seoul, Korea 2015
- Chair, Advances in Nanotechnology Research, Seoul, Korea 2013
- Chair, 3<sup>rd</sup> International Conference on Nanotechnology, Al Ain 2011
- Co-Chair, International Conference on Energy, Water and Environment, Sharjah 2011
- Chair, Symposium on Engineering Education, Al Ain 2009
- Chair, 2<sup>nd</sup> International Conference in Nanotechnology, Abu-Dhabi 2008
- Chair, International Conference on Bio-Nanotechnology-Al Ain 2006
- Chair, 2<sup>nd</sup> International Conference on the Thermal Engineering Theory and Applications 2004-06
- Organizer, Mini-symposium on Entrepreneurship 2004
- Local Organizer for the Forth International Conference on the Scientific and Clinical Applications of Magnetic Carriers 2001-02

### Member on Organizing/Scientific/Advisory Committees of Conferences

- 3<sup>rd</sup> International Conference on Nanotechnology (Chair) 2011
- International Conference on Energy, Water and Environment (Chair) 2011

- International Conference on Applied Mechanics, Materials and Manufacturing 2010
- International Conference on Energy, Water and Environment 2010
- 7<sup>th</sup> International Mechanical Engineering Conference 2010
- International Nuclear and Renewable Energy Conference 2010
- International Conference on Nanotechnology (Chair) 2008
- 4<sup>th</sup> International Conference on Energy Research and Development-Kuwait 2008
- International Conference on Knowledge Management-Germany 2007
- 1<sup>st</sup> International Conference on Nanotechnology and Its Applications, Sharjah 2007
- 5<sup>th</sup> International Conference on Thermal Engineering, Canada 2007
- International Conference on Energy and Environment, Malaysia 2006
- International Conference on Thermal Engineering Theory and Applications (Chair) 2006
- International Conference on Bionanotechnology (Chair) 2006
- Program Committee, 3<sup>rd</sup> IASME-WSEAS Microscale Flow and Heat Transfer 2004-05
- International Advisory Committee, 3<sup>rd</sup> International Conference on Energy Research and Development- 2004-05
- 4<sup>th</sup> International Conference on Magnetic Carriers 2002

### **PROFESSIONAL COMMITTEES**

- Member of the ASEE Entrepreneur Education Committee 2001-
- Member of the ASEE Bioengineering Division 2001-
- Member of the ASME Biomechanical Division 2000-
- Member of the ASME Fluid Engineering Division 2000-
- Advisory Board, 21<sup>st</sup> Engineers 2000

### **REVIEW/CONSULTANT FOR INTERNATIONAL GOVERNMENT AND AGENCIES**

- Reviewer, Romania Executive Agency for Higher Education 2012
- Reviewer, Pennsylvania State Fund, Bionanotechnology 2012
- Reviewer, Florida Department of Health 2012
- Reviewer, National Institute of Health (IMST-13) 2012
- Reviewer, National Institute of Health, SBIR/STTR Biomaterials Section 2011
- Reviewer, Pennsylvania State-Fund, Bionanotechnology 2010
- Reviewer, National Institute of Health, SBIR/STTR Biomaterial section 2010
- Reviewer, National Institute of Health, Stem Cells Challenge Grants 2009
- Reviewer, National Institute of Health, Special Session ZEB1-OSR B 2009
- Reviewer, National Institute of Health, Devices and Detection 2009
- Reviewer, National Institute of Health, Challenge Grant Panel 23 2009
- Reviewer, National Institute of Health, Challenge Grant 12 2009
- Reviewer, Canada Research Council 2008
- Reviewer, National Institute of Health 2008
- Reviewed 14 Projects for Arab Science and Technology Foundation 2007-08
- Reviewer, National Institute of Health-USA- Drug Delivery Study Section 2005
- Member, Liaison Committee- University & National Authority on Standardization 2005-2007
- ABET Preparation Consultant University of Jordan 2007-08
- ABET Mock-up Visit Consultant, University of Jordan for Science and Technology 2008
- Reviewer National Institute of Health, Drug Delivery Study Section 2005



- Reviewer for the government of Slovakia 2003
- National Science Foundation Panel Reviewer 2001
- Resource Person, Upgrading Science & Engineering Education, UNESCO 1998-
- Engineering Consultant, AGRI Products 1994-96

### **REVIEWS FOR JOURNALS**

- Journal of Material Sciences
- Journal of Visualization
- Arabian Journal for Science and Engineering
- Biotechnology Progress
- Journal of Magnetism and Magnetic Materials
- AIAA Journal of Thermophysics
- Book Reviewer, McGraw Hill Companies
- NanoMedicine
- Journal of Alloys and Compounds
- Macromolecules
- Langmuir
- Communication in Numerical Methods of Engineering
- Physics of Fluids
- Journal of Nano and Micro Fluidics
- Journal of Biomedical Research
- Recent Patents in Corrosion

### **MEMBER (CHAIR) OF UNIVERSITY/COLLEGE/DEPARTMENT COMMITTEES**

#### **Qatar University**

- Chair, Core Curriculum Evaluation Taskforce 2014-
- Chair, University Graduate Committee 2014-
- Member, University Promotion Committee 2014-
- Member, University Academic Council 2014-
- Member, University Research Council 2014

#### **United Arab Emirates University**

- Chair, IP Evaluation Committee 2012-13
- Chair, PhD Quality Enhancement Review Committee 2012-13
- Member University Policy Advisory Group 2011-12
- Member University Graduate Board 2009-14
- Member Selection Committee, Vice Provost for Research 2009
- Chair Executive Committee, Material Science and Engineering 2003-2010
- Chair Executive Committee, Engineering Management 2003, 2007
- Member, National Committee on Mechanical Standards 2004-2007
- Member, Department Promotion Committee 2003-Present
- Committee on Faculty Affairs, United Arab Emirates University 2003

#### **University of North Carolina-Greensboro**

- Member of Committee to establish Joint School of Nanosciences and NanoEng. 2007-2008
- Member Selection Committee, Center for Biodiversity 2008

## Florida State University

- Member of Ph.D. Dissertation Committee, Mechanical Engineering 1999-
- Chairman of FAMU-FSU College of Engineering Computer Committee 1999-00
- Member of FAMU-FSU College of Engineering Curriculum Committee 1999-00
- Graduate Seminar Coordinator, Department of Mechanical Engineering 1998-99
- Faculty Advisor for the ASME Student Chapter 1998-01

## FACULTY DEVELOPMENT

### Attended Effective Teaching Workshops:

- SUCCEED Faculty Development workshops by Richard Felder and Rebecca Brent, Georgia Tech, 1997, FAMU-FSU, 1998, Clemson, 1999, UF 2001.
- Faculty Development workshops, 1997, 1998, 1999, 2000, 2001, 2002
- Best Assessment Processes III, Rose-Hulman Institute, 2000
- Pacific Crest, Process Education Teaching Institute, 1997
- Sandia MEMS Course, 1997
- Sandia Computational Course, 1994.

### Presented Talks on Effective Teaching

- Sultan Qaboos University, (Invited Workshop Presenter), Know your students learning and thinking preferences, 2010
- UAEU Learning and teaching Styles, 2004-05
- FAMU-FSU Web Assisted Classes, 1997
- Multimedia Distance Learning for Engineering Mechanics, International Conference on Engineering Education, Chicago, IL, 1997
- Collaborative Engineering Education, 13<sup>th</sup> US National Congress on Applied Mechanics, Gainesville, FL, 1998.
- Project Based Engineering Mechanics, International Conference on Engineering Education, Charlotte, NC, 1999.

### Educational Conferences Session Chair

- 13<sup>th</sup> U.S. National Congress of Applied Mechanics, 1998
- International Conference of Engineering Education, 1997, 1998, 1999
- Symposium on Technology Transfer and Technology Retention, 2004
- American Physical Society, 2002

### NSF-UAE Collaboration

Developed a proposal to establish collaboration between the United States National Science Foundation and the United Arab Emirates. A new National Institute for Scientific Research is currently being proposed to the Minister of Higher Education and Research.

## PROFESSIONAL MEMBERSHIP

- The American Society of Mechanical Engineers (**ASME**) (**Fellow, 2005**) 1984
- The American Society for Heating and Refrigeration Engineers (**ASHRE**) 1984
- The American Institute for Aeronautic and Astronautics (**AIAA**) 1993
- The American Society for Engineering Education (**ASEE**) 1993
- Tallahassee Scientific Society (**TSS**) 1993

- The American Society for Industrial and Applied Mathematics (**SIAM**) 1996
- The Institute for Electrical and Electronic Engineers (**IEEE**) 1996
- The American Association for the Advancement of Science (**AAAS**) 1997
- The American Chemical Society (**ACS**) 1999
- Bioelectromagnetics Society (**BEMS**) (*Life Member*) 2002
- American Association for the Advancement of Science 2002

### **Community Service Committee**

- President of Leon County School District Parent Leadership Council 1996-2007
- President for the ICT Executive Committee 1995-1996
- Chairman of the ICT Board of Trustees 2001-2002
- Appointed Member, City of Tallahassee Human Relation Committee 2001-2007
- Recruiting Supervisor, Help the College in Recruiting Freshmen 2001-2007
- Sunshine Scholars Competition Judge 2002

### **Education Outreach Programs**

- Supervised zero gravity experiment for a group of 4 students who conducted experiment at the NASA facilities, 1998
- Instituted Cisco Academy at the College of Engineering. This program goal is to provide training for IT sector. The program started in 2001.
- Instituted Engineering Challenge Competition for high school students in surrounding counties. The goal of this program is to provide a medium for students to explore engineering and science as a carrier. The engineering challenge runs twice a year. The program started in 2001.
- Instituted Engineering Certificate Program. The goal of this program is to provide education for on the job engineers and can be used as medium for enhancing graduate education. The program started with one graduate certificate program in water management and is expected to grow to five programs in the near future.
- Instituted MDTC at the College of Engineering. MDTC is growing as a program that foster industrial collaboration with the College of Engineering. The program is being used as a tool to enhance the economic development in North Florida by assisting start up companies small businesses in developing prototypes at a reasonable cost.
- Sponsored the solar car competition for middle school students.
- Hosted students visit from high schools in the surrounding counties. Students toured the facilities at the Biomagnetic Engineering Lab.
- Sponsored scientific projects at local high schools.
- Program Evaluator for Al-Ghurair Academy in Dubai, United Arab Emirates, to foster educational program between the Academy and Florida State University. Acted as liaison person. Transfer program between the academy and the college of engineering are being developed.
- Member of the university team to evaluate the initiation of the School of Alternative Medicine. Attended a conference in Toronto and visited the Canadian College of Chiropractic and made recommendations to the provost.

### **IN THE NEWS**

- Sharjah TV, MBC, TV24 covering a new invention, 2013
- All local newspapers covering a new granted patent, 2013.
- Ulom Aldar, 2012
- "United Arab Emirates Awards 37 Grants," Gulf News, November 9, 2010.

- Zoi Constantine, "A TV show with a future," *The National*, April 17, 2009.
- Mohsen Albloushi, "Researchers at UAEU develop a Nano device," *Aletihad (Arabic)*, May 16, 2009
- Rashed Alnuiami, "Researchers at UAEU succeed in extracting biodiesel from algae," *Al-Khaleej*, October 16, 2009.
- Dubai TV-interview and news segment "Extracting biodiesel from Algae," October 2009.
- Abu Dhabi TV-Interview and news segment "Nano-biotechnology for cancer," May 2009
- Matt Evans, "Yousef Haik: UNCG Nanobioscientist has big plans for helping the university and the Triad, tap the science commercial potential," *The Business Journal*, January 24, 2008.
- Matt Evans, "UNC-Greensboro to spin off firm in NanoAccelerator," *The Business Journal*, July 17, 2008.
- "Nano-bio research center developing cancer treatment to ease chemo side effects," *Small Times*, July 23, 2008.
- Daniel Bradsley, "Nanotechnology gets funding boost," *The National*, Nov. 22, 2008
- "Small Size, big plans," *UNCG Research*, 2008
- Matt Evans, "Triad schools plan nanobio center," *The Business Journal*, November 5, 2007.
- Steve Gilliam, "Triad Business, academic leaders win \$100,000 grant to plan," *Nanotechnology Now*, November 2, 2007.
- Matt Evans, "PTEN plans 2008 nano conference," *The Business Journal*, November 20, 2007.
- "Grants Help UNCG shape state's economic future," *Nano Werk*, December 21, 2007
- "Nanopump," *Florida Trend*, November 1, 2002
- Al Arabia TV, Interview and news segment "Cancer management," 2004
- Rotana TV, Interview "Nanotechnology," 2004
- Roger Dobson, "Portable device can detect heart attacks," *Mail online*, 2002