

Curriculum Vitae
Dr. Mohamed E H Eltaib

*Mechanical Engineering Department, Faculty of Engineering,
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PROFESSIONAL ADDRESS

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Mechanical Engineering Department,
Kafrelsheikh, Egypt

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EDUCATION:

1. Ph.D. Mechanical Engineering, University of Dundee, UK, 2001
Thesis Title "Oscillating Tactile Probe for Robotics and Medical Applications"
2. M.Sc. Mechanical Engineering, Assiut University, Egypt, 1993.
Thesis Title "Development of a CAD/CAM Program for Selection of Fits and Tolerances with an Application to Limit Gauges"
3. B.Sc. Mechanical design and Production Engineering, Mansoura University, Egypt, 1986.

EMPLOYMENT:

1. Associate professor, July 2019-now, Mechanical Engineering Department, Faculty of Engineering, Kafrelsheikh University, Egypt
2. Associate professor, 2014-July, 2019, Mechanical Engineering Department, Faculty of Engineering, Assiut University, Egypt
3. Assistant Professor from February 2008-2018, Mechanical Engineering, College of Engineering, Qassim University, KSA
4. Assistant Professor from 2001-2014, Mechanical Engineering, Faculty of Engineering, Assiut University, Egypt
5. Visiting Scholar 1996-2001, Division of Mechanical Engineering and Mechatronics, University of Dundee, Dundee, UK
6. Assistant Lecturer 1993-2001, Assiut University, Egypt
7. Teaching and Research Assistant 1988-1993, Assiut University, Egypt

TEACHING EXPERIENCE:

Graduate:

1. Introduction to Mechatronics (MSc 2001- 2008)
2. Design of Computerized Numerical Control Machine (CNC) (PhD 2003-2004)

3. Mechatronics System Design (PhD 2006/2007)
4. Computer Aided Design of machine elements (Diploma 2007/2008)
5. Advanced Mechatronics (MSc 218-2019)

Undergraduate:

1. Computerized Numerical Control Machine (CNC) for 4th year mechatronic engineering
2. Machine Tool Design for 4th year design and production engineering
3. Mechanical Engineering Laboratory for 4th year design and production
4. Transducers for 4th year mechatronics engineering
5. Computer Aided Engineering Drawing (I),(II), Mechatronics& Robotics Program
6. Measurements and instrumentation, 3rd year mechatronics and 3rd year production
7. Mechatronics laboratory for 3rd year mechatronics
8. Graduation Projects for 4th year mechatronics and 4th year design and production Engineering
9. Mechatronics ME462, Qassim University
10. Introduction to engineering design-1 GE211, Qassim University, KSA
11. Introduction to engineering design -2 GE13, Qassim University, KSA
12. Measurements and instrumentation ME343, Qassim University, KSA
13. Introduction to mechatronics, Mechatronics& Robotics Program

RESERCH EXPERIENCE:

Research interests

CAD/CAM

MEMS –based tactile sensing for robotics and medical applications

Mechatronic systems design

Mechatronics Education

Haptic display for virtual reality simulators

Adaptive neuro-fuzzy inference system (ANFIS)

Piezoelectric actuators precise motion applications

Autonomous vehicles

Vibration energy harvesting

Design and manufacturing of nano-positioning system

Research Projects

1. **Design and Manufacturing of Mechanical Structure for Nanopositioning, Applications** King Abdulaziz City for Science and Technology, KSA, (2014-2016)
2. **Theoretical and experimental study of the methods for improving the efficiency of vibration energy harvesters**, Deanship of scientific research, Qassim University (2011-2013).
3. **Design of a computer-control system to guide an UGV to manipulate dangerous material in industrial areas in Al-Qassim area (phase1)**. SRD 011 753, Deanship of scientific research, Qassim University (2012-2013).

Postgraduate project supervision

Supervisor of M. SC. Projects

1. Intelligent mechatronics systems, (2018-now)

Co supervisor of a Ph. D. Projects

1. Tactile sensor for remotely operated vehicles (ROV), (2018-now)
2. "Development and Manufacturing of Micromachined Tactile Sensor for Soft Tissue Compliance Detection in Medical Applications", Assiut University, Assiut, Egypt in cooperation with Kyoto University, Kyoto, Japan (2002-2008)

Co supervisor of three M. Sc. Projects

1. Haptic force display system for virtual- reality surgical simulators, Assiut University, Assiut, Egypt (2002- 2007)
2. Surface roughness predication in end-milling operations, Assiut University, Assiut, Egypt (2003-2008)
3. Development of Microgripper Applying Smart Material (2004-2010)

Publications:

Papers in Refereed Journals

1. Maher I, **MEH Eltaib**, AAD Sarhan, RM El-Zahry, Cutting force-based adaptive neuro-fuzzy approach for accurate surface roughness prediction in end milling operation for intelligent machining, The International Journal of Advanced Manufacturing Technology, 76 (5-8),2015
2. Maher I, **M E H Eltaib**, AAD, Sarhan, RM El-Zahry, Investigation of the effect of machining parameters on the surface quality of machined brass (60/40) in CNC end milling—ANFIS modeling , The International Journal of Advanced Manufacturing Technology 74 (1-4),2014, 531-537
3. Sherif, H., **Eltaib**, M, Alsuwaiyan, A, On the design of high power low frequency harvesters for car engine, SAE 2013 World Congress & Exhibition, Tech. Pap. 2013-01-1042,2013
4. Ahmed Fath El Bab, Koji Sugano, Toshiyuki Tsuchiya, Osamu Tabata, **Mohamed E. H. Eltaib**, and Mohamed M. Sallam, "Micromachined Tactile Sensor for Soft-Tissue Compliance Detection", IEEE ASME Journal of Microelectromechanical Systems, Vol. 21, No.3, June 2012,pp 635-645

5. Amr M. Elsayed, Ahmed A. Abo-Ismael , **Mohamed E. Eltaib** , Moumen T. El-Melegy “Characteristics of Smart Piezoelectric Actuators for Precise Motion Applications” Journal of Engineering Sciences, Vol. 37, No. 6, November 2009
6. A. M. R. Fath El Bab, K. Sugano, T. Tsuchiya, O. Tabata, **M. E. H. Eltaib** and M. M. Sallam, “Micro machined tactile sensor for soft tissue compliance detection”, Procedia Chemistry 1 (2009) 84–87
7. Ahmed M. R. Fath El Bab, Tomohisa Tamura, Koji Sugano, Toshiyuki Tsuchiya, Osamu Tabata, **Mohamed E. H. Eltaib**, Mohamed M. Sallam, "Design and Simulation of a Tactile Sensor for Soft-Tissue Compliance Detection", IEEJ Transaction on Sensors and Micromachines, Vol. 128-E, No. 5, pp. 186-192, 2008
8. M R. Fath El-Bab, **M. E. H. Eltaib**, M. M. Sallam and O. Tabata, "A Tactile Sensor for Compliance Detection", Sensors and Materials, Vol. 19, No. 3, 2007.
9. **Eltaib M E H**, Hewit J R, Tactile sensing technology for minimal access surgery-a review, Mechatronics, Vol. 13, 2003, pp 1163-1177.

Proceedings of Conferences

10. Alsuwaiyan, A, **Eltaib M E H**, Sherif, H, Ambient Vibrations Piezoelectric Harvester Array with Discrete Multiple Low Frequencies, International Conference Applied Technology, Informatics, Management, Engineering, and Environment, TIME-E2014, Institute of Electrical and Electronics Engineers (IEEE),2014
11. A. Fath El Bab, K. Sugano, T. Tsuchiya, O. Tabata, **M. Eltaib**, M. Sallam, New Compensation Technique for the Soft Tissue Stiffness Measurements Using Two Sensor Probes Configuration, Eurosensors XXIV Conference, Linz, Austria, September 5 – 8, 2010
12. Ahmed Fath El Bab, Koji Sugano, Toshiyuki Tsuchiya, Osamu Tabata, **Mohmed E H Eltaib** and Mohamed M Sallam, Micro-Machined Tactile Sensor for Soft Tissue Compliance Detection, Eurosensors XXIII Conference, Lausanne, Switzerland, 6-9 September, 2009.
13. Ahmed M. R. Fath El Bab, Tomohisa Tamura, Koji Sugano, Toshiyuki Tsuchiya, Osamu Tabata, Mohamed E. H. Eltaib, Mohamed M. Sallam, "Design and Simulation of a Tactile Sensor for Soft-Tissue Compliance Detection", Egypt - Japan International Symposium on Science and Technology (EJISST2008), Waseda University, Tokyo, Japan, 8~10 June 2008.
14. M. R. Fath El-Bab, T. Tamura, K. Sugano, T. Tsuchiya, O. Tabata, **M. E. H. Eltaib** and M. M. Sallam, " Design and Simulation of a Tactile Sensor for Soft-Tissue Compliance Detection", proceedings of the 24th sensor symposium on sensors, micromachine and applied systems, Tokyo, Japan, pp.248-253, October 2007
15. Soltan I. M., **M E H. Eltaib**, R. M. El-Zahry, Surface Roughness Prediction in End milling using Adaptive Neuro-Fuzzy Inference System, International Conference On Advances In Production Engineering, APE2007, 14 - 16 June 2007 Warsaw, Poland

16. Ali A S, **M E H Eltaib** and A A Abo-Ismail, Haptic force display system for virtual-reality surgical simulators, Forth International Conference on Mechanical Engineering Advanced Technology for Industrial Production (MEATIP4), Assiut - Egypt December 12-14, 2006
17. Soltan I. M., **M E H Eltaib**, R. M. El-Zahry, Surface Roughness Prediction in End milling using Multiple Regression and Adaptive Neuro-Fuzzy Inference System, Forth International Conference on Mechanical Engineering Advanced Technology for Industrial Production (MEATIP4), Assiut- Egypt December 12-14, pp 614-620, 2006
18. Ali A S, **M E H Eltaib** and A A Abo-Ismail, Mechatronics force display system for virtual-reality surgical simulator, 2nd Assiut University International Workshop on Mechatronics Educations, Luxor, Egypt, February, 2006.

TRAINING COURSES

1. **University Management**, a 3-day, training course for academic staff, Center of staff skills developments, Mansoura University, Egypt, June 2014, Egypt
2. **Blackboard Learning Management System 1**, Qassim University, Saudi Arabia, 2015
3. **Blackboard Learning Management System 2**, Qassim University, Saudi Arabia, 2017
4. **Mastering Training Design using 4MAT**, a 5-day training course, Academic Development Deanship in collaboration with About Learning USA, 2014
5. **Writing case studies**, a 1-day, workshop, Qassim University, 2014
6. **E-Learning course, JUSUR, Learning Management System**, a 3-day training course, National Center for E-learning, KSA, Arabia 2011.
1. **Introduction to engineering design using active learning approach**
Engineering Experience Office (EEO), Cairo, Egypt
(2-27/8/2008 for total 120 hours)
2. **Applying technology in teaching**, skills development of faculty members, Assiut University, Egypt, 6-9/5/2006
3. **Courses design**, skills development of faculty members, Assiut University, Egypt, 30-31/5/2006
4. **Effective communications skills**, skills development of faculty members, Assiut University, Egypt, 9-12-4-2005
5. **The law issues in universities**, skills development of faculty members, Assiut University, Egypt, 26-28/4/2005
6. **Management of scientific research (1)**, skills development of faculty members, Assiut University, Egypt, 18-20/2/2006

ACADEMIC ADMINISTRATION AND COMMITTEES

1. Member of the academic committee for Mechatronics & Robotics Program, Assiut University, 20018-now
2. Coordinator of quality assurance, Mechatronics Program, Mechanical Engineering Department, Assiut University, 2018-now

3. Coordinator-College of Engineering Postgraduate Committee College of Engineering, Qassim University, 2015 -2017
 4. Member of financial committee, deanship of scientific research, Qassim university, 2015-2018
 5. Member of the Mechanical engineering Department subject committee for preparation of self-study report for ABET, College of Engineering, Qassim University, KSA, 2010-2015
 6. Member of the Mechanical engineering Department committee for preparation of self-study report for ABET, College of Engineering, Qassim University, KSA, 2008-2010
 7. Co-Manager and Coordinator of Assessment and quality control "development of mechatronics courses for undergraduate program project" (DMCUP) Grant No.A-085-10, at University of Assiut, Egypt, funded by Egyptian Ministry of Higher education, Higher Education Enhanced Project fund (HEEPF) April 2004-March 2006.
 8. Member of the Egyptian delegation to JAPAN to establish "Egypt Japan University for Science and Technology (EJUST)" April 2007
 9. Member of the academic committee for Mechatronics & Robotics Program, Assiut University, 2006-2007
 10. Member of the working group for developing Curricula for the "Mechatronics & Robotics Engineering" Educational Program with credit hours system for Undergraduate Students, Assiut University, 2006
 11. Member of the group for establishing the Mechatronics Laboratory, Mechanical Engineering Department, Faculty of Engineering, Assiut University, 2004-2006
 12. Member of the group for developing the teaching material of the following courses: Introduction to mechatronics, Mechatronics system design, PLC, Mechatronics LAB I and Mechatronics Lab II, www.eedclearning.com, 2004-2006
 13. Mechatronics Program Co- Coordinator of "Self Evaluation Study for Internal Quality Assurance System" of the Faculty of Engineering-Assiut University, QAAP, 2005
 14. Member of the committee for Upgrading the Mechanical Engineering Curricula, Faculty of Engineering Assiut University, Egypt 2004
 15. Head of the research evaluation group of Self-evaluation study for Quality Assurance, Faculty of Engineering, Assiut University, Egypt, 2003
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