

Dr. Eng. Alaa A. AbuZaiter

*Head Department of Biomedical Engineering,
Faculty of Applied Engineering and Urban Planning,
University of Palestine (UP), Gaza, Palestine.*



Personal Data:

Address: Alabrag St., Tel al-Hawa, Gaza, Palestine

Birth Date: 30 June, 1987.

Nationality: Palestinian.

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Educational and Qualifications:

- **2013 - 2016** PhD Degree in (Micro-Electro-Mechanical Systems - MEMS), Faculty of Electrical Engineering in University Technology Malaysia (UTM), Johor, Malaysia.
- **2011 - 2013** Master Degree in Engineering (Electrical – Mechatronics & Automatic control) in University Technology Malaysia (UTM), Johor, Malaysia. Taught course - CGP 3.68/4
- **2005 - 2009** Bachelor Degree in Mechatronics Engineering, Very Good Average (81.5%), From Al-Azhar University – Gaza, Palestine.

Work Experience:

- **9/2017 – Now** Head Departments Biomedical Engineering at Faculty of Applied Engineering and Urban Planning in University of Palestine, Gaza, Palestine.
- **9/2018 – Now** Senior Lecturer in Faculty of Engineering and Information Technology at Al-Azhar University-Gaza, Palestine. (Part time)
- **2/2017 – 9/2017** Senior Lecturer at Engineering Department in Palestine Technical College, Deir Al Balah, Palestine.
- **01/2017 – 07/2018** Senior Lecturer at Faculty of Technology and Applied Sciences in Al-Quds Open University , Gaza , Palestine. (Part time)
- **10/2013 – 07/2016** Research Assistance in Micro-Electro-Mechanical Systems - MEMS Laboratory, in University Technology Malaysia (UTM), Johor, Malaysia.
- **07/2009 – 08/2011** Repair engineer - Maintenance department, performed maintenance services and fixed copying machines, printers, sceneries and faxes ... etc. in Copy Max Company, Gaza, Palestine
- **06/2008 – 09/2008** Repair engineer - Maintenance department (under training), to performed

maintenance services and fixed copying machines, printers, sceneries and faxes ... etc. in Copy Max Company, Gaza, Palestine

Publications:

Journals:

1. M. S. Mohamed Ali, **A. AbuZaiter**, C. Schlosser, B. Bycraft and K. Takahata. Wireless Displacement Sensing of Micromachined Spiral-Coil Actuator Using Resonant Frequency Tracking. *Sensors*. 2014. 14(7): pp. 12399 – 409. **Impact Factor = 2.47**
2. **A. AbuZaiter**, M. Nafea, A. A. M.Faudzi, S. Kazi and M. S. Mohamed Ali. Thermomechanical behavior of bulk NiTi Shape-Memory-Alloy Microactuators based on Bimorph Actuation. *Microsystem Technologies*. 2015. 21 (8): pp. 1–7. **Impact Factor = 1.58**
3. **A. AbuZaiter**, E. L. Ng, S. Kazi and M. S. Mohamed Ali. Development of Miniature Stewart Platform Using NiTiCu Shape-Memory-Alloy Actuators. *Advances in Materials Science and Engineering*. 2015. 9 2015: pp. 1 – 9. **Impact Factor = 1.37**
4. **A. AbuZaiter**, M. Nafea, and M. S. Mohamed Ali. Development of a Shape-Memory-Alloy Micromanipulator Based on Integrated Bimorph Microactuators. *Mechatronics Journal*. 2016. 38, pp. 16-28. **Impact Factor = 2.42**
5. **A. AbuZaiter**, O. Faris, M. Nafea and M. S. Mohamed Ali. Design and Fabrication of a Novel $XY\theta z$ Monolithic Micro-Positioning Stage Driven by NiTi Shape-Memory-Alloy Actuators. *Smart Materials and Structures*. 2016. 25 10: pp. 105004. **Impact Factor = 2.96**
6. M. Nafea, **A. AbuZaiter**, S. Kazi and M. S. Mohamed Ali. Frequency-Controlled Wireless Passive Thermopneumatic Micromixer. *Journal of Microelectromechanical Systems*. 2016. PP(99): 1-13. **Impact Factor = 2.12**.
7. F. A. M. Ghazali, C. K. Mah, **A. AbuZaiter**, P. S. Chee, and M. S. Mohamed Ali. "Soft Dielectric Elastomer Actuator Based Micropump." *Sensors and Actuators A: Physical*. 2017. **Impact Factor = 2.49**.
8. D. Daud, **A. AbuZaiter**, P. L. Leow, M. S. Mohamed Ali. The effects of the silicon wafer resistivity on the performance of microelectrical discharge machining. *The International Journal of Advanced Manufacturing Technology*. 2018. **Impact Factor = 2.21**.

Conferences:

1. **A. AbuZaiter** and M. S. Mohamed Ali. Analysis of Thermomechanical Behavior of Shape-Memory-Alloy Bimorph Microactuator. 5th International Conference Intelligent Systems Modelling & Simulation (ISMS 2014). 27–29 January, 2014. Langkawi, Malaysia: IEEE. 2014. pp. 390 – 393.
2. **A. AbuZaiter**, M. Nafea, A. A. M. Faudzi, S. Kazi and M. S. Mohamed Ali. Micromanipulator Based on Integrated Shape-Memory-Alloy Bimorph Actuators. 40th Micro & Nano Engineering (MNE 2014). 22–26 September, 2014. Lausanne, Switzerland: Elsevier. 2014. pp. 70.
3. **A. AbuZaiter**, E. L. Ng, S. Kazi and M. S. Mohamed Ali. Miniature parallel manipulator using NiTiCu shape-memory-alloy microactuators. 10th Asian Control Conference 2015 (ASCC 2015). 31 May – 3 June, 2015. Kota Kinabalu, Malaysia: IEEE. 2015. pp. 1 – 4.
4. M. Nafea, **A. AbuZaiter**, O. Faris, S. Kazi, and M. S. Mohamed Ali. Selective wireless control of a passive thermopneumatic micromixer. 29th IEEE International Conference on Micro Electro Mechanical Systems (MEMS 2016). 24 – 28 January, 2016. Shanghai, China: IEEE. 2016. pp. 792-795.

5. O. Faris, **A. AbuZaiter**, M. Nafea and M. S. Mohamed Ali. A Monolithic Tunable Out-Of-Plane Inductor Based on NiTi Two-Way Shape-Memory-Alloy. 19th IEEE International Conference on Solid-State Sensors (Transducers 2017). 18 – 22 June, 2017. Kaohsiung, Taiwan. IEEE. 2017.

Book chapters:

1. J. Y. Sheng, **A. AbuZaiter** and M. S. Mohamed Ali. (2013). Development of Mini Robotic Arm Using Shape-Memory-Alloy Actuators. In Khairul Hamimah Abas, Anita Ahmad and Shahdan Sudin. (Ed.) Progression of SEI & SEM Final Year Projects. Volume 1 (pp. 53 – 68). Johor, Malaysia: UTM Publisher.
 2. M. M. Ramlan, **A. AbuZaiter** and M. S. Mohamed Ali. (2014). Automated Cloth Folding Device Actuated by Shape-Memory-Alloy (SMA) Actuators. In Herlina Abdul Rahim, Anita Ahmad, Shahdan Sudin and Khairul Hamimah Abas. (Ed.) Progression of SEI & SEM Final Year Projects. Volume 3 (pp. 15 – 30). Johor, Malaysia: UTM Publisher
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Training Courses:

- Training to use Micro-Machine Center (CNC) – January, 2015 in MicroTools Company.
 - Workshop in MEMS device: Design and fabrication for engineering application held on 12th May 2014 in University Technology Malaysia (UTM), Johor, Malaysia.
 - LYX workshop held on 25th November 2014 at the University Technology Malaysia (UTM), Johor, Malaysia.
 - Training course of English Language, 60 hours, Jannait Institute for languages, Gaza - Palestine.
 - Project Management, 12 Hours, in Palestinian Non-Governmental Organization Network – PNGO, Gaza, Palestine.
 - Strategic Planning, 12 Hours, in Palestinian Non-Governmental Organization Network – PNGO, Gaza, Palestine.
 - How to Use SPSS, 45 Hours, in Sigma center for Statistics, Gaza – Palestine.
 - Design and Drawing in Auto-CAD, 60 Hours, Information Technology Link "IT Link", Gaza – Palestine.
 - Microsoft ICDL, 80 Hours.
 - Activity Workshop, 4th – 6th Jan 2013, UTM International Student Centre (UTM ISC)
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Professional Skills:

- Ability to give lectures and seminars and workshops with high quality.
 - Extensive knowledge of the methodologies of control and automation, mechanical design and Instrumentation & Measurement.
 - Familiar with electronic and electrical circuits design and simulation and programming microcontroller chips.
 - Professional in design and fabricate a micro-device using MEMS fabrication techniques.
 - Familiar with CNC machines and ability to write G-Code to program the machines.
 - Self-starter with excellent communication and project management skills.
 - Ability to interact with customers in a professional manner.
 - Leadership skills and ability to work within team as well as work under pressure.
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CV

Computer Skills:

- Strong working knowledge of Microsoft Office Applications like Word, Excel and PowerPoint.
- MATLAB and Simulink.
- COMSOL Multiphysics Simulation software.
- Latex software.
- SolidWorks 2015 for 3D design and animation.
- Design and Drawing in Auto-CAD.
- Design Electrical circuits and simulation in Proteus7 Professional.
- Programming Microcontrollers using C language and MicroCode Studio.
- Product Design 3D with Autodesk Inventor.
- Internet access and emails.
- Statistics program: SPSS Program.

Award and Honors Received:

- Certificate of Excellent: For Excellent (Grade B1) achievement in the PhD thesis.
- Silver Medal: For invention at the 15th Industrial Art and Technology Exhibition (INATEX 2013). Dewan Sultan Iskandar (DSI), UTM, Johor, Malaysia.
- Bronze Medal: For invention at the 15th Industrial Art and Technology Exhibition (INATEX 2013). Dewan Sultan Iskandar (DSI), UTM, Johor, Malaysia.
- Bronze Medal in ISS welcome match tagged "ISS football CUP" in 16th March 2013, Organized by Sport Department of International Student Society- Central.
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Language Skills:

- o Arabic, Native language.
- o English, V. Good reading, writing and conversation.

References:

Full name	Institution	Phone	E-mail
Dr. Mohamed Sultan Mohamed Ali.	University Technology Malaysia, Malaysia	Tel: +6019 7550201 Fax: +607 5566272	sultan_ali@fke.utm.my
Assoc. Prof. Dr. Zaharuddin Mohamed	University Technology Malaysia, Malaysia	Tel: +607 5557019 Fax: +607 5566272	zahar@fke.utm.my
Assoc. Prof. Dr. Fawzy A. M. Abu Jarad	Al-Azhar University, Palestine	Tel: +970 599 759056	f.jarad@alazhar.edu.ps

Documents references are available upon request.