



CURRICULUM VITAE



PERSONAL DETAILS

Name : Ir. Dr. Mohamed Sultan bin Mohamed Ali
Gender : Male
Nationality : Malaysian
Telephone : (Mobile) : 019-7550201, (Office): 07-5557165, (Fax):07-5566272
E-mail : sultan_ali@fke.utm.my,sultanali@utm.my
Website : <http://sultan.fke.utm.my>
Expertise : Microelectromechanical Systems (MEMS), Micro and Nano Fabrications, Smart Materials, Carbon Nanotubes, Silicon Nanowire, Energy Harvesting, Sensors and Actuators.

ACADEMIC QUALIFICATIONS

2012 : Ph.D. (Electrical and Computer Engineering- MEMS)
The University of British Columbia, Vancouver, Canada
2008 : M.Eng. (Electrical - Mechatronics and Automatic Control)
Universiti Teknologi Malaysia (UTM)
2006 : B. Eng. (Electrical - Mechatronics)
Universiti Teknologi Malaysia (UTM)
2001 : Diploma (Electrical – Mechatronics)
Universiti Teknologi Malaysia (UTM)

AWARD AND HONORS RECEIVED

1. Dean's Award, Faculty of Electrical Engineering, Universiti Teknologi Malaysia, *Outstanding undergraduate student, 2006, Malaysia.*
2. Student Travel Grant, Hilton Head Transducer Research Foundation, 2010, USA.
3. Graduate Student Award, *An Outstanding PhD Student with Excellent research achievement*, The Institute for Computing, Information and Cognitive Systems (ICICS) University of British Columbia, 2011, Canada.
4. Excellence Award, Universiti Teknologi Malaysia, *High Impact Publications, 2011, Malaysia.*
5. Student Travel Grant, IEEE MEMS Transducer Research Foundation, 2012, USA.
6. Excellence Award, Universiti Teknologi Malaysia, 2012, Malaysia.
7. Excellence Award, Universiti Teknologi Malaysia, *Indexed Publication, 2012, Malaysia.*
8. Silver Medal, Industrial Art and Technology Exhibition, Universiti Teknologi Malaysia, 2013.
9. Bronze Medal, Industrial Art and Technology Exhibition, Universiti Teknologi Malaysia, 2013.
10. Best Presentation Award, International Conference on Control, Automation and Systems (ICCAS), Seoul, Korea, 2014.

11. Teaching Award, Control and Mechatronics Engineering Department, Universiti Teknologi Malaysia, 2014.
12. Research Excellence Award, Faculty of Electrical Engineering, Universiti Teknologi Malaysia, 2015.

PROFESSIONAL MEMBERSHIP / QUALIFICATIONS / RECOGNITION

1. Member, Institute of Engineering Malaysia (**MIEM**): Membership no. 62011.
2. Senior Member, Institute of Electrical and Electronic Engineering US (**SMIEEE**) : Membership no. 92214683.
3. Member, The institution of Engineering and Technology (**MIET**), Membership no. 1100303422.
4. Chartered Engineer (**C.Eng**), Engineering Council, United Kingdom, Registration no. 615123.
5. Professional Engineer (**P.Eng**), Board of Engineers Malaysia, Registration Number 18069.

ADMINISTRATIVE EXPERIENCE

Faculty Level

1. Head of Mechatronics Laboratory, FKE (2012 – 2015)
2. Director, Final Year Project Exhibition, MIRCED 2014
3. Technical Committee, Final Year Exhibition 2013
4. Local Arrangement Committee, Final Year Exhibition 2015
5. Industrial Panel Committee, Final Year Exhibition 2016
6. Member, Faculty Information and Publication Unit (2013-2015)
7. Assistant Manager, ROBOCON (2013-2014)
8. Academic Advisor, SKEM (2008-2017)
9. Supervisor for Industrial Training Students Semester III Section 2015 / 2016- Sarawak (1 August 2016 – 3 August 2016)
10. Committee Member of "COPPA 2017 Control and Mechatronics Engineering Department, FKE". Faculty of Electrical Engineering. (26 Mac 2017 – Date).
11. Committee Member of "SAR Control and Mechatronics Engineering Department, FKE". Faculty of Electrical Engineering (2014).
12. Facilitator, How to Get Yourself Employed Program, 2013
13. Facilitator, Harvard Business School Case Study, 2013
14. Panel, Grad A Thesis Evaluation Committee, 2014
15. Facilitator, First Year Experience Program, 2015
16. Examiner, Master Tough Course Project, 2012-2017
17. Assistant Chairman, PhD Viva Voce, 2012-2017
18. Internal Examiner, Master by Research Thesis, 2017.

University Level

1. Head of Protom-i Research Group (Jan 2017- present)
2. Head, UTM Clean Room Development Project, (2014-2017)
3. Member, RU Sekretariat 2008-2009
4. Advisor, UTM Games, Sports Unit 2013
5. Fellow, Kolej Tun Hussien Onn Residence College (KTHO) 2006-2009
6. Fellow, Tun Ghafar Baba Residence 2012-2014
7. Fellow, Kolej Tuanku Canselor 2014-2015
8. Deputy Director, ASIMO Honda Visit, 2008
9. Member, RMK 10 Laboratory Rolling Plan Committee, (2013-2015)
10. Advisor, "Mengapai Anugerah Diraja" Program , FKE-KTC-Jurutek (2013).
11. Committee Member, Sirim-UTM Biosensor Collaboration (2013).
12. Facilitator, Residence College Student Committee Camp, 21 Nov 2014 – 23 Nov 2014.

13. Advisor, New Student Orientation Week at Kolej Tuanku Canselor, 2012-2014.
14. Advisor, IEM Students Industrial Visit to Flextronics, May 2015.

National Level

1. National Robocon Competition 2018, Logistic Unit Lead.

International Level

1. Technical Committee, Control Instrumentation and Mechatronics Conference 2008.
2. Technical Committee, Asian Control Conference (ASCC), 2015.
3. Technical Committee, Asia Simulation Conference (AsiaSim), 2017.
4. Technical Program Chair, International Conference on Electrical Electronics Communication and Control Engineering (ICEECC), 2017.
5. Technical Committee and Session Chair, IEEE Sensors Conference, 2015.
6. Session Chair, IEEE Conference of Biomedical, Engineering and Sciences (IECBES 2016)

Others

1. President, Yayasan Pelajaran Johor Alumni Committee (2017-present)
2. Advisor of Science Competition, SRJK (T) Desa Cemerlang (2015-2016)

OTHERS EXPERIENCE

Industrial Experience

- May 2001-June 2003 : **Assistant Engineer at Flextronics Technology Sdn. Bhd. Senai.** Specialized in Electronics and RF product manufacturing process. Responsible of all technical support issues in design, PCBA, completed box-build product and process related for customers (HP, Infocus, Motorola, etc.) in USA. Incharge person for failure analysis and debug of the customer return units.
- May 2006-Dec 2006 : **Failure Analysis Engineer at Jabil Circuit Sdn. Bhd.** a leading electronic manufacturing service provider. Responsible of head- count management for technicians, productivity planning, provide technical support in component and PCBA level failure analysis to customers including Motorola and Seagate. Managing 160 technicians and 2 assistant engineers. Also responsible to train technicians and test engineers on the PCBA operation and test procedures.
- Feb 2015-Feb 2016 : **Senior Engineer at Flextronics Shah Alam Sdn. Bhd.** Led failure analysis lab setup and customer return reduction projects. Also responsible to provide failure analysis service to all projects in Flextronics such as Ingenico, HP, Xerox, Touchtune, Dyson, Brooks, Sun Edison and Trinasolar. There are also several project on test development projects conducted during the service.

RESEARCH ACTIVITIES

Research Grant (Principal Researcher)

No	Title	Period	Amount	Type	Agency
1	Development of Out-of-Plane Shape-Memory-Alloy Wireless Microactuators	Dec 2012- Dec 2013	RM100,000.	GUP Tier 1 (Vot. 04H85)	UTM
2	Development of MEMS Wireless Drug-Delivery Device	July 2013- June 2015	RM300,000	PRGS (Vot. 4L625)	MOHE
3	Radio-Controlled MEMS implantable Device with Selective and Controlled-Release Capability using Shape-Memory-Alloy Microactuators	1 Oct 2013 - 31 March 2016	RM320,000	E-Science (Vot. 4S088)	MOSTI
4	Wireless Micropumps	July 2014- June 2015	RM78,000	Post Doctoral Fund (Vot. 01E57)	UTM
5	A Study and Analysis of Wireless Resonant Micro-Heaters: A Path for Wireless-Control of MEMS Actuators	Dec 2013- Dec 2015	RM80,000	FRGS (Vot. 4F386)	MOHE
6	Harmony Search Algorithm: Study and Analysis towards Self-tuning Intelligent Control for Precise Positioning of Piezo-actuated Stage	Nov 2014 - Oct 2016	RM89,200	FRGS (Vot. 4F646)	MOHE
7	Tuneable 3D Spiral-coil Inductor by Localized Bimorph Actuation	April 2015- Oct 2016	RM50,000	GUP Tier 1 (Vot. 10H40)	UTM
8	Non-Traditional Micromachining Technique of Undoped Silicon Wafer using Electrical Discharge Machining	Feb 2015- Feb 2016	RM60,000	Industry Grant (Vot. 4C067)	Mikrotools Singapore
9	Electrical Discharge Machining for Micromachining of Silicon Wafer	Aug 2015- July 2017	RM24,000	Matching Grant (00M83)	UTM
10	Development of Monolithic Micro-Positioning Stage Driven by Niti Shape-Memory-Alloy Microactuator	July 2016- June 2018	RM50,000	GUP Tier 1(Vot. 14H31)	UTM
11	Shape-Memory-Alloy Wireless Active Stent for Percutaneous Transluminal Angioplasty	July 2017- June 2019	RM39,000	GUP Tier 1(Vot. 17H61)	UTM
12	Wireless MEMS Implantable Thermo-Pneumatic Drug-Delivery Device for Therapeutic Applications	Aug 2017 – Aug 2019	RM 92,220	PRGS (Vot. 4L690)	MOHE
Total			RM 1,281,420		

Research Grant (Members)

No	Title	Period	Amount	Type	Agency
1	Selective membrane for Detecting Nitride, Phosphate, and Heavy Metals based on Planar Magnetic Sensors	March 2014 – March 2016	RM198,100	EScience Fund (Vot 4S098)	MOSTI
2	Fabrication of Wearable Thermo-Electric Power Harvesting Device	July 2014-June 2016	RM83,000	Flagship (Vot. 02G13)	UTM
3	Comparison of conductive anodic materials and proton exchange membranes (PEMs) for enhanced bioelectricity generation using microbial fuel cell	July 2014-June 2016	RM99,000	FRGS (Vot. 4F505)	MOHE
4	Study of Human Skill in Expected and Guided Conditions for Human Adaptive Mechatronics	Dec 2012 – Dec 2013	RM40,000	GUP Tier 2 (Vot. 08J52)	UTM
5	Optimization of Krylov Substance and Diem-Anoldi on Microelectromechanical Systems: A Model Order Reduction Technique	Sept 2010 – August 2012	RM34,000	GUP Tier 1 (Vot. 09H82)	UTM
6	Relationship between shear wave velocity and compressibility indices of cohesive soil using Constant Rate Strain equipped with bender element devices.	Dec 2014 – Nov 2016	RM86,526	PRGS (4F658)	MOHE
7	Blood Glucose Monitoring and Classification Using Near Infrared Spectroscopy.	Nov 2015-Oct 2017	RM50,000	GUP Tier 1 (Vot. 12H20)	UTM
8	Development of capacitive Stent for Monitoring In-Stent Artery Blockage	Feb 2016-Jan 2018	RM50,000	GUP Tier 1 (Vot. 12H92)	UTM
9	Early Screening of Leukemia Using NIR Spectroscopy VIA PLSR Model	July 2016-June 2018	RM 50,000	GUP Tier 1 (Vot. 14H79)	UTM
Total			RM 690,626		

INDUSTRY CONSULTATIONS (PROJECT LEADER)

No.	Project	Duration	Amount	Agency
1	Non-Traditional Silicon Micromachining using Electrical Discharge Machining	Feb 2015-Feb 2016	RM 60,000	Mikrotools, Singapore
2	Failure Analysis Laboratory Setup	Feb 2016-Aug 2016	RM 60,000	Flextronics PTP, Johor
3	Antireflective Coating for Infra-Red Thermal Analysis	Oct 2016-Jan 2017	RM50,036	Zugo Photonics, Shah Alam
4	Chip-on-Board Valeo Failure Analysis	Jan 2017-Feb 2017	RM 7,155	Jabil Circuit, Guongzhou, China

No.	Project	Duration	Amount	Agency
5	Schotky Diode Electrical Characteristic Test	Feb 2017	RM 4,685	GES Manufacturing, Johor
6	Failure Analysis of Sciex PCBA for Tuning Error	March 2017-April 2017	RM 14,310	GES Manufacturing, Johor
7	Anion Contamination Analysis on PCBA	April 2017	RM 5,787	GES Manufacturing, Johor
8	Electroless Nickel Imersion Gold (ENIG) PCBA Analysis	May 2017-June 2017	RM 7,632	GES Manufacturing, Johor
9	Failure Analysis for THRIH-92357-113J Board Error Code	Aug 2017-Oct 2017	RM 9,858	Flextronics Medical Sdn. Bhd
10	NCR Tower Board Failure Analysis for C6 and C8 Capacitor Related Failure	Oct 2017-Nov 2017	RM 7,208	GES Manufacturing, Johor
11	Fourier Transform Infra Red Spectroscopy Anaysis for Fiber on PCBA	Nov 2017	RM 2,968	Flextronics Medical Sdn. Bhd
12	Dye and Pry Analysis for PCBA Mounted Ball Grid Array	Nov 2017	RM 3,074	Flextronics Medical Sdn. Bhd
Total			RM 232,713	

TEACHING ACTIVITIES

Semester	Sem	Subject Code	Subject	Credit Hour
2008/2009	1	SEE2003	Electrical Technology	3
2008/2009	1	SEE2003	Electrical Technology	3
2008/2009	2	SEE1123	Electrical Instrumentation and Measurements	3
2012/20013	1	SKEU1002	Electrical Technology	2
2012/20013	1	SKEU2002	Electrical Technology	2
2012/2013	2	SEL4533	Elect. Technology for Management	2
2012/2013	2	SEU 2012	Electronics	2
2012/2013	2	SKEU 2012	Electronics	2
2013/2014	1	SKEU 2012	Electronics	2
2013/2014	1	SEU 2012	Electronics	2
2013/2014	2	SKEU 2012	Electronics	2
2013/2014	2	SEU 2012	Electronics	2
2014/2015	1	SKEE1023	Circuit Theory	3
2015/2016	2	SKEE1043	Circuit and System	3
2016/2017	1	SKEE1023	Circuit Theory	3
2016/2017	2	SKEE1043	Circuits and Systems	3
2017/2018	1	SKEE1023	Circuit Theory	3
Total				42

SUPERVISION***Post-Doctoral Fellow***

No.	Year	Name	Status	Title	Roles
1	2014	Dr. Chee Pei Song	Completed	Radio-Controlled MEMS implantable Device using Shape-Memory-Alloy	Main Supervisor

PhD Students

No.	Year	Name	Status	Title	Roles of Supervision
1	2013	Alaa AbuZaiter	Graduated	Integration of Shape-Memory-Alloy for Microactuation	Main Supervisor
2	2013	Marwan Nafea	On-Going (Draft)	Wireless Thermopneumatic Micropump for Implantable Devices	Main Supervisor
3	2013	Mohamad Amri bin Zainal	On-going (Draft)	Wireless control of Thermoresponsive Material for Microfluidic Application	Main Supervisor
4	2014	Dzulaikha binti Daud	On-going	Non-Traditional Micromachining Technique for Silicon Wafer using Electrical Discharge Machining	Main Supervisor
5	2014	Krishna Veni Selvan	On-going	Cu-Ni Metal Array Flexible Thermoelectric Device	Main Supervisor
6	2015	Omer Faris Hikmat	On-going	Tunable Inductor using 2 -Way Shape-MemoryActuator	Main Supervisor
7	2015	Tariq Rahman	On-Going (Draft)	Dual Bellow Pneumatic Soft Actuators	Main Supervisor
8	2017	Ang Yong Xian	On-Going	Shape-Memory-Alloy Wireless Active Stent for Percutaneous Transluminal Angioplasty	Main Supervisor
9	2017	Md. Nazibul Hassan	On-Going	Silicon Nanowire Array Thermoelectric Generation	Main Supervisor

MSc. Student (Research)

No.	Year	Name	Status	Title	Roles of Supervision
1	2013	Saif Eddine Hadji	Completed	Simultaneous Localization and Mapping Algorithms	Co-Supervisor
2	2013	Ahmad Bukhari Aujih	Completed	Study of Human Skill in Expected and Guided Conditions for Human Adaptive Mechatronics	Co-Supervisor

No.	Year	Name	Status	Title	Roles of Supervision
3	2014	Aqilah binti Tahrim	On-Going	Silicon Nanowire Thermoelectric Device	Co-Supervisor
4	2017	Farah Afiqa Mohd Ghazali	On-Going	Soft Dielectric Elastomer Actuated Micropump	Main Supervisor

Final Year Project (Undergraduate)

No.	Year	Name	Title
1	2009	Mod Nizal bin AB Malek	An Evolutionary Tuning Technique of PID Controller for Cruise Control System Using Metamodeling Technique
2	2009	Nur Maisarah binti Mohd Sobran	Automatic Vehicle Distance Control System
3	2009	Mohamad Izuan bin Mohamad Sargini	Metamodeling Approach in Optimizing Controller Parameters for A Water Tank System
4	2009	Abdul Rasyid bin Mohamad Ali	Optimization of Controller Parameter for A Couple Tank System using Metamodeling Technique
5	2009	Lee Wei Siang	Climbot- Window Climbing Robot
6	2013	Mohammad Muz'zakir bin Ramlan	Automated Cloth Folding Device Actuated by Shape-Memory-Alloy Actuators
7	2013	Jong Yung Sheng	Development of Mini Robotic Arm Using Shape-Memory-Alloy
8	2013	Wan Mohd Khairul Anwar	Development of Shape-Memory-Alloy Microdiffuser Pump
9	2013	Ahmad Ridzuan bin Mat Aris	Shape-Memory-Alloy Automated Valve for Microfluidic Application
10	2014	Ng Ee Leen	Miniature Steward Platform using Shape-Memory-Alloy Microactuators
11	2015	Muhammad Azri bin Muhammad	Automated Electroplating System
12	2015	Muhammad Asyraf bin Raslim	Characterization of Shape Memory Polymer Actuator
13	2015	Mohamed Fathullah	Wireless Shape Memory Polymer Microgripper
14	2015	Mah Che Ken	Dielectric Elastomer Micropump
15	2016	Mohd Hairul Fauzi bin Wahid	In-Pipe Cleaning and Repair Robot
16	2018	Choong Mun Tho	MEMS Triboelectric Power Harvester
17	2018	Mohamad Aniq Bin Ahmad Nizan	Electromagnetic Power Harvesting Fidget Spinner

PUBLICATIONS

JOURNAL

ISI Indexed Journals :

1. **M.S. Mohamed Ali**, S.S Abdullah, D.C. Osman, Controllers Optimization for a Fluid Mixing System using Metamodeling Approach, *International Journal of Simulation Modeling (IJSIMM)*, Volume 8, 2009, pp. 48-59. **(Q2, IF 1.6883, Corresponding Author)**
2. **M.S. Mohamed Ali**, K. Takahata, Frequency-Controlled Wireless Shape-Memory-Alloy Microactuators Integrated using an Electroplating Bonding Process, *Sensors and Actuators A: Physical*, Volume 163, Issue 1, 2010, pp. 363-372. **(Q1, IF 2.201, 1st UTM Author)**
3. W. Khalid, **M.S. Mohamed Ali**, M. Dahmardeh, Y. Choi, P. Yaghoobi, A. Nojeh, K. Takahata, High-Aspect-Ratio, Free-Form Patterning of Carbon Nanotube Forests using Micro-Electro-Discharge Machining, *Diamond and Related Materials*, Volume 19, Issue 11, 2010, pp. 1405-1410. **(Q2, IF 2.125, 1st UTM Author)**
4. **M.S. Mohamed Ali**, K. Takahata, Wireless Microfluidic Control with Integrated Shape-Memory-Alloy Actuators Operated by Field Frequency Modulation *J. Micromech. Microeng.*, Volume 21, 2011, 075005, (10pp). **(Q2, IF 1.768, 1st UTM Author)**
5. **M.S. Mohamed Ali**, B. Bycraft, C. Schlosser, B. Assadsangabi, K. Takahata, An Out-of-Plane Spiral-Coil Inductor Formed using Locally Controlled Bimorph Actuation *Micro Nano Lett.* Volume 6, Dec. 2011, pp. 1016-1018. **(Q4, 0.722, 1st UTM Author)**
6. A.R. Muhammadi, K. Chen, **M.S. Mohamed Ali**, K. Takahata, Radio aneurysm coils for noninvasive detection of cerebral embolization failures: A preliminary study", *Biosensors and Bioelectronics*, Volume 30, 2011, pp. 300-305. **(Q1, IF 7.476, 1st UTM Author)**
7. A. Bsoul, **M.S. Mohamed Ali**, K. Takahata, Piezoresistive Pressure Sensor Using Vertically Aligned Carbon-Nanotube Forests, *IET Electronics Letters*, Volume 47, Issue (14), 2011, pp. 807-808. **(Q3, IF 0.854, 1st UTM Author)**
8. B. Assadsangabi, **M.S. Mohamed Ali**, K. Takahata, Bidirectional actuation of ferrofluid using micropatterned planar coils assisted by bias magnetic fields, *Sensors and Actuators A: Physical*, Volume 173, 2012, pp. 219-226. **(Q1, 2.201, 1st UTM Author)**
9. T. Saleh, **M.S. Mohamed Ali**, M. Mehraghani, A. Nojeh, K. Takahata, Carbon Nanotube: From Darkest Material to Reflective Mirror, *Applied Physics Letter*, 103, 2012, 213758 (4pp). **(Q1, IF 3.142, 1st UTM Author)**
10. A. Bsoul, **M.S. Mohamed Ali**, A. Nojeh, K. Takahata, Carbon Nanotube Based Strain Sensor, *Applied Physics Letter*, 100, 2012, 213510 (3pp). **(Q1, IF 3.142, 1st UTM Author)**
11. M. Dahmardeh, **M.S. Mohamed Ali**, T. Saleh, M. Mehraghani, A. Nojeh, K. Takahata, High-Power MEMS Switch Enabled by Carbon-Nanotube Contact and Shape-Memory-Alloy Actuator, *Physica Status Solidi (a)*, Volume 21, Issue 4 2013, pp. 631-638. **(Q2, IF 1.648, 1st UTM Author)**
12. A. Mehdizadeh, **M.S. Mohamed Ali**, N. Wang, K. Takahata, S. Al-Sarawi, D. Abbott, A Recoil Resilient Lumen Support, Design, Fabrication and Mechanical Evaluation, *J. Micromech. Microeng.* Volume 23, 2013, pp. 1-13. **(Q2, 1.731, 1st UTM Author)**
13. A.R. Muhammadi, **M.S. Mohamed Ali**, C. Shlosser, K. Chen, K. Takahata, Inductive Antenna Stent: Design, Fabrication, and Characterization, *Journal of Micromechanics and Microengineering*, Volume 23, 2013, 025015, (9pp). **(Q2, 1.731, 1st UTM Author)**
14. **M.S. Mohamed Ali**, B. Bycraft, K. Takahata, Radio-controlled Out-of-plane Microactuators using Shape-memory Alloy Spiral-coil Inductor, *IEEE Journal of Microelectromechanical System*, Volume 22, 2013, pp. 331-338. **(Q1, IF 1.939, 1st UTM Author)**

15. B. Assadsangabi, **M.S. Mohamed Ali**, K. Takahata, Planar Variable Inductor Controlled by Ferrofluid Actuation, *IEEE Trans. Magnetics*, Volume 49, 2013, pp. 1401-1406. **(Q2, IF 1.277, 1st UTM Author)**
16. **M.S. Mohamed Ali**, N. Wang, K. Takahata, Analysis of Micropatterned Wireless Resonant Heaters for Wireless-Control of MEMS Thermal Actuators, *Microsystem Technologies*, Volume 20, Issue 2, 2014, pp. 235-241. **(Q3, IF 0.974, Corresponding Author)**
17. **M.S. Mohamed Ali**, A. AbuZaiter, C. Schlosser, B. Bycraft, K. Takahata, Wireless Displacement Sensing of Micromachined Spiral-Coil Actuator Using Resonant Frequency Tracking, *Sensors*, Volume 14, Issue (7), 2014, pp. 12399-12409. **(Q1, IF 2.033, Corresponding Author)**
18. A. AbuZaiter, E.L. Ng, S. Kazi, **M.S. Mohamed Ali**, Development of Miniature Stewart Platform Using TiNiCu Shape-Memory-Alloy Actuators, *Advances in Materials Science and Engineering*, Volume 2015, pp. 1-9. **(Q3, IF 1.010, Corresponding Author)**
19. A. Abuzaiter, M. Nafea, A.A. Mohd Faudzi, S. Kazi, **M.S. Mohamed Ali**, Thermomechanical behavior of bulk NiTi shape-Memory-Alloy Microactuators based on Bimorph Actuation, *Microsystems Technology*, Volume 22, Issue (8), 2015, pp. 2125-2131. **(Q3, IF 0.974, Corresponding Author)**
20. M. A. Zainal, S. Shahlan, **M.S. Mohamed Ali**, Micromachined Shape-Memory-Alloy Microactuators and Their Application in Biomedical Devices, *Micromachines*, Volume 6, Issue (7), 2015, pp. 879-901. **(Q3, IF 1.295, Corresponding Author)**
21. P.S. Chee, M.N. Minjal, P.L. Leow, **M.S. Mohamed Ali**, Wireless Powered Thermo-Pneumatic Micropump using Frequency-Controlled Heater, *Sensors Actuators A*, Volume 233, 2015, pp. 1-8. **(Q1, IF 2.201, Corresponding Author)**
22. K. Selvan **M.S. Mohamed Ali**, Micro-scale energy harvesting devices: Review of methodological performances in the last decade. *Renewable and Sustainable Energy Review*, Volume 54, 2016, pp. 1035-1047. **(Q1, IF 6.798, Corresponding Author)**
23. P.S. Chee, M.N. Minjal and P.L. Leow, **M.S. Mohamed Ali**, Thermal Analysis of Wirelessly Powered Thermo-Pneumatic Micropump Based on Planar LC Circuit, *Journal of Mechanical Science and Technology*, Volume 30, Issue 6, pp. 2659-2665, 2016. **(Q3, IF 0.761, Corresponding Author)**
24. A. AbuZaiter, M.N. Minjal, **M.S. Mohamed Ali**, Development of Shape-Memory-Alloy Micromanipulator based on Integrated Bimorph Microactuators, *Mechatronics*, Volume 38, pp. 16-28, Sept. 2016. **(Q1, IF 1.871, Corresponding Author)**
25. A. AbuZaiter, O. Faris Hikmat, M.N. Minjal, **M.S. Mohamed Ali**, Design and Fabrication of a Novel XYZ Monolithic Micro-Positioning Stage Driven by NiTi Shape-Memory-Alloy Actuators, *Smart Materials and Structures*, 25 (10), pp. 1-10, Oct 2016. **(Q1, IF 2.769, Corresponding Author)**
26. O. F. Hikmat, **M.S. Mohamed Ali**, RF MEMS Inductors and Their Applications-A Review, *IEEE Journal of Microelectromechanical Systems*, 26, pp. 17-41, Jan 2017. **(Q1, IF 1.985, Corresponding Author)**
27. M. A. Zainal, A. Ahmad, **M.S. Mohamed Ali**, Frequency-Controlled Wireless Shape Memory Polymer Microactuator for Drug Delivery Application, *Biomedical Microdevices*, Feb 2017, 19, 1 (8). **(Q2, IF 2.225, Corresponding Author)**
28. X. Chen, D. Brox, B. Assadsangabi, **M. S. Mohamed Ali**, K Takahata, A stainless-steel-based implantable pressure sensor chip and its integration by microwelding, *Sensors and Actuators A: Physical*, 257, pp. 134-144, Mar 2017. **(Q1, IF 2.201, 1st UTM Author)**
29. M. Nafea, A. Abuzaiter, S. Kazi, **M. S. Mohamed Ali**, Frequency-Controlled Wireless Passive Thermopneumatic Micromixer, *IEEE Journal of Microelectromechanical Systems*, 26(3), pp. 691-703, April 2017. **(Q1, IF 1.985, Corresponding Author)**

30. F.A. Mohd Ghazali, C.K. Mah, A. Abuzaiter, P.S. Chee, **M.S. Mohamed Ali***, Soft Dielectric Elastomer Actuator Based Micropump, *Sensors and Actuators: A Physical*, 263, pp. 276-284, August 2017. **(Q1, IF 2.499, Corresponding Author)**.
31. T. Rehman, A. A. Ahmad Faudzi, D.O.E. Dewi, **M. S. Mohamed Ali***, Design, Characterization and Manufacturing of Circular Bellows-Pneumatic Soft Actuator, *International Journal of Advanced Manufacturing Technology*, August 2017. (in Press) **(Q2, IF 2.201, Corresponding Author)**.
32. M.A. Zainal, M. Y. Yunos, R. Abdul Rahim, **M.S. Mohamed Ali***, Wireless Valving for Centrifugal Microfluidic Disc, *IEEE/ASME Journal of Microelectromechanical Systems*, September 2017. (In Press) **(Q2, IF 2.124, Corresponding Author)**.
33. D. Daud, A. AbuZaiter, P. L. Leow, **M. S. Mohamed Ali***, The Effects of the Silicon Wafer Resistivity on the Performance of Micro-Electrical-Discharge Machining, *International Journal of Advanced Manufacturing Technology*, October 2017. (in Press) **(Q2, IF 2.201, Corresponding Author)**.

SCOPUS Indexed Journals :

34. M.N. Malek, **M.S. Mohamed Ali**, Evolutionary Tuning Method for PID Controller Parameters of a Cruise Control System Using Metamodeling, *Modeling and Simulation in Engineering*, Volume 2009, pp. 1-8. **(1st UTM Author)**
35. Z.N.A. Hamid, N.A. Wahab, **M.S. Mohamed Ali**, R.A. Rahim, M.A. Yunos, Comparison of Thermoelectric (TEG) Performance Parameter Between Modelling and Simulation Results and Manufacturer Datasheet For HZ-20 HZ-14, *Journal Teknologi*, Volume 73, Issue (3), 2015, pp. 25-29. **(Co-author)**
36. S.E. Hadji, S. Kazi, T.H. Hing, **M.S. Mohamed Ali**, A Review: Simultaneous Localization and Mapping Algorithms, *Journal Teknologi*, Volume 73, Issue (2), 2015, pp. 25-29. **(Co-author)**
37. A. Abd. Tahrim, A. Ahmad, **M.S. Mohamed Ali**, A review on the potential of silicon nanowires (SINWS) in thermoelectric energy harvesters, *Journal Teknologi*, Volume 77, Issue (17), 2015, pp. 11-17. **(Co-author)**

H INDEX : 10 (Google Scholar) ; 10 (Scopus)

PROCEEDINGS/CONFERENCE

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INVITED/GUEST SPEAKER

1. Engineering Education and Job Prospects, presented at Kolej Yayasan Pelajaran Johor, Kota Tinggi, Johor 14 September 2016.
2. **Electrical Engineering Branches**, presented at Kolej Yayasan Pelajaran Johor, Kota Tinggi, Johor 21 September 2017.

OTHER ACTIVITIES

1. Reviewers of various international journals including;
 - a) IEEE Transaction on Power Electronics
 - b) Transactions of the Institute of Measurement and Control
 - c) Sensor and Actuator A Physical Journal
 - d) Microsystem Technologies
 - e) Biomedical Microdevices
 - f) Journal of Applied Research and Technology
 - g) Measurement Journal
 - h) Jurnal Teknologi
 - i) ASME Journal of Mechanical Design
 - j) Energy Technology
 - k) Journal of Sensors
 - l) Smart Materials and Structures
 - m) Micro and Nanosystems Journal
 - n) ASME Shape Memory and Superelasticity
2. Reviewer for Springer book proposal "Shape Memory Alloy Valves – Basics and Potentials 2013.
3. Reviewers of various conference papers including IEEE SENSORS 2013, IEEE SENSORS 2015, IEEE MEMS 2014, CIM'09 and ICIAS12, ASCC 2015, IEEE WEECON 2015.
4. Reviewer for Book Chapter, Micro-Nano System Engineering, UTHM Publisher 2017.
5. Technical Committee for CIM 2008, ASCC 2015, Nasdec 208, Nasdec 2014, AsiaSim 2017, Sensors 2015.
6. Session Chair, IEEE SENSORS 2015, Jeju Korea.
7. Session Chair, NASDEC 2008 & 2014 Skudai, Johor.
8. Session Chair, IEEE Conference of Biomedical, Engineering and Sciences, 2016, Kuala Lumpur.
9. Session Chair, Asia Simulation Conference 2017 (AsiaSim 2017), Melaka.