

1. Name: **Issam Mahfoodh Rajab Bait Bahadur**
2. Education – degree, discipline, institution, year: -
 - Ph.D., Mechanical and Industrial Engineering, University of Toronto, Canada, March 2013.
 - M.Sc., Mechanical and Industrial Engineering, University of Toronto, Canada, June 2006.
 - B.Sc., Mechanical and Industrial Engineering Sultan Qaboos University, Oman, May 2003.
3. Academic experience – institution, rank, title (chair, coordinator, etc. if appropriate), when (ex. 1993-1999), full time or part time: -
 - Mechanical & Industrial Engineering, Sultan Qaboos University
 - Assistant Professor (FT), 2013-Present
 - Lecturer (FT), 2006-2013
 - Demonstrator (FT), 2003-2006
4. Non-academic experience – company or entity, title, brief description of position, when (ex. 1993-1999), full time or part time: -
5. Certifications or professional registrations: -
6. Current membership in professional organizations: -
 - American Society of Mechanical Engineers (ASME).
 - The Institute of Electrical and Electronics Engineers (IEEE).
7. Honors and awards: -
 - Letter of Appreciation from the Dean of College of Engineering for receiving the First Prize in the poster competition within the international conference on Renewable Energy (ICREGA'14) in United Arab Emirates, March 2014.
 - Best paper nomination (one of 10 finalists of 400 papers) “A Micromachined Resonant Force Sensor for a Compliant Passive Microgripper” at Proc. IEEE Int. Conference on Mechatronics and Automation in 2005.
 - Letter of Appreciation from the Vice Chancellor of Sultan Qaboos University for the outstanding performance and participation in the Third Engineering Students Gathering in 2008.
8. Service activities (within and outside of the institution): -
 - Assistant Dean for Undergraduate Studies (ADUS)
 - Advisor, Society of Mechanical Engineers (SME).
 - Member, Faculty Mentored Undergraduate Research Award Program (FURAP) scholarships granted by The Research Council of Oman (TRC) Evaluation Committee, 2013.
 - Program Co-chair, 2014 IEEE International Conference on Mechatronics and Automation (ICMA), China.
 - Supervisor and co-supervisor, Final Year Projects.
 - Team leader, The Second Generation Sultan Qaboos University Solar Car (Sultana), 2003.

9. Briefly list the most important publications and presentations from the past five years: -

JOURNAL ARTICLES

- IM Bahadur, JK Mills, “Overview of the automation of embryo biopsy for pre-implantation genetic diagnosis”, International Journal of Mechatronics and Automation, Vol. 1, issue. 3, pp. 201-212, 2011.
- Alam, K., Bahadur, I. M., & Ahmed, N. (2015). Cortical bone drilling: An experimental and numerical study. Technology and Health Care, 23(2), 1-12.
- Alam, K., Hassan, E., & Bahadur, I. (2015). Experimental measurements of temperatures in ultrasonically assisted drilling of cortical bone. Biotechnology & biotechnological equipment, 29(4), 753-757.

CONFERENCE PUBLICATIONS

- Bahadur, I.M.; Mills, J.K., “A Mechanical Perforation Procedure for Embryo Biopsy,” Complex Medical Engineering (CME), 2013 IEEE/ICME International Conference on, 25-28 May 2013.
- Bahadur, I.M.; Mills, J.K., “Robust Autofocusing in Microscopy Using Particle Swarm Optimization,” Mechatronics and Automation (ICMA), 2013 International Conference on, 4-8 Aug. 2013.
- Goher, K., Al-Yahmadi, A., & Bahadur, I. (2016, December). Kinematic analysis of the sit-to-stand mechanism of a reconfigurable wheelchair. In Biomedical Engineering and Sciences (IECBES), 2016 IEEE EMBS Conference on (pp. 788-791). IEEE.
- Ghodsi, M., Ziaiefar, H., Amiryan, M., Honarvar, F., Hojjat, Y., Mahmoudi, M. and Bahadur, I. (2016, April). Lamb wave feature extraction using discrete wavelet transformation and Principal Component Analysis. In Nondestructive Characterization and Monitoring of Advanced Materials, Aerospace, and Civil Infrastructure 2016 (Vol. 9804, p. 98041F). International Society for Optics and Photonics.
- Ghodsi, M., Saleem, A., Özer, A., Bahadur, I., Alam, K., Al-Yahmadi, A., ... & Sheykhholeslami, M. R. (2016, April). Elimination of thermal instability in precise positioning of Galfenol actuators. In Behavior and Mechanics of Multifunctional Materials and Composites 2016 (Vol. 9800, p. 980008). International Society for Optics and Photonics.
- Bahadur, I. M., Wong, C. Y., Jiang, X., & Mills, J. K. (2017, August). Dynamic modelling and embryo zona pellucida perforation experiments with piezoelectric actuated micro-needles. In Mechatronics and Automation (ICMA), 2017 IEEE International Conference on (pp. 445-450). IEEE.

TECHNICAL REPORTS

- Issam M. Bahadur “An Automated Microsurgery System for Embryo Biopsy.” Ph.D. Dissertation.
- Issam M. Bahadur “Design and Modelling of a Resonant Force Sensor for Passive Micro-Gripping.” M.Sc. Dissertation.
- Solar Car Team “The Second Generation SQU Solar Car.” Final year project report.

10. Briefly list the most recent professional development activities: -