

Ziad O. Abu-Faraj, Ph.D.

Dean for Research

Professor of Biomedical Engineering

EAC Program Evaluator, ABET Inc.

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BIOGRAPHICAL SKETCH

Ziad O. Abu-Faraj, Ph.D. received the B.E. degree in Electrical Engineering from the American University of Beirut-Lebanon in 1988. Specializing in Biomedical Instrumentation and Biomechanics/Biomaterials, he obtained the M.S. and Ph.D. degrees in Biomedical Engineering from Marquette University-USA in 1991 and 1995, respectively. During 1995-1997, he served a Post-Doctorate Research Fellowship in Pediatric Motion Analysis at Shriners Hospital for Children-Chicago. He was employed by the US Department of Veterans Affairs at the Milwaukee Zablocki VA Medical Center: during 1990-1992 as Research Assistant in the Sensory Motor Laboratory, and 1993-1995 as Research Associate in the Department of Rehabilitation Medicine Service. In 1998, he was appointed as Lecturer in the Electrical and Computer Engineering Department at the American University of Beirut, and in 1999 as Adjunct Assistant Professor in the Computer Science Department at Notre Dame University-Lebanon. In 2002, he was contracted as Academic Expert in the Tempus III Education Program of the European Commission. In the same year, he joined the American University of Science & Technology-Lebanon as Assistant Professor and Founding Chair of a comprehensive premier regional program in Biomedical Engineering and was promoted to Associate Professor in 2006. In 2010, Dr. Abu-Faraj received another appointment at AUST to Chair the Department of Computer & Communications Engineering. From 2013 till 2018, he was appointed as the Dean of the Faculty of Engineering; and, in 2014, he led an accreditation team and attained official accreditation of the engineering programs by the Engineering Accreditation Commission of ABET Inc., Baltimore, MD, USA. On October 1, 2018, he was appointed as the Dean for Research at AUST. Dr. Abu-Faraj is a Charter Member of the Gait and Clinical Movement Analysis Society-USA, a Senior Member of the IEEE Engineering in Medicine and Biology Society-USA, a Member of the Biomedical Engineering Society-USA, and a Member of the Order of Engineers and Architects-Lebanon. In October 6-7, 2016, he was the General Chair of the Third Middle East Conference on Biomedical Engineering that was held in Beirut, Lebanon. In July 2017, Dr. Abu-Faraj was appointed as Program Evaluator for the Engineering Accreditation Commission of ABET Inc. On October 1, 2017, Dr. Abu-Faraj was promoted to the rank of Full Professor of Biomedical Engineering. During the same year, he was appointed as a consultant for the Economic and Social Commission for West Asia (ESCWA) Technology Center of the United Nations, New York City, NY, USA. Dr. Abu-Faraj has served as a technical reviewer on a number of refereed international journal articles, book chapters, and conference papers.



Dr. Abu-Faraj is the Editor of a comprehensive two-volume research handbook in Bioengineering/Biomedical Engineering entitled "*Handbook of Research on Biomedical Engineering Education and Advanced Bioengineering Learning: Interdisciplinary Concepts*", published by IGI-Global, Hershey, PA, USA in 2012. He has written over 60 peer-reviewed research articles in several areas of Biomedical Engineering. His research interests are in Biomedical Engineering Education; Kinesiology and Orthopaedic Biomechanics: *Human Movement Analysis, Postural Stability, Measurement of Human Performance, and Plantar Pressure Analysis*; Rehabilitation Engineering; Neural Engineering; Biomedical Instrumentation and Control: *Portable Microprocessor-Based Data Acquisition Systems, Biosensors, and*

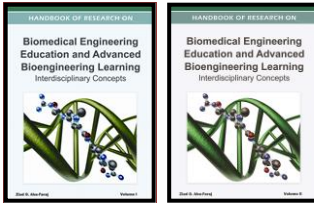
Biocontrol Systems; Biorobotics and Machine Learning; and Biomedical Computing: Biosignals and Systems, Biostatistical Analysis, and Modeling of Physiological Systems. Professor Abu-Faraj has a special interest in the following patient populations: Vision Impairment, Cerebral Palsy, Spinal Cord Injury, Muscular Dystrophy, Poliomyelitis, Idiopathic Scoliosis, Leg Length Discrepancy, and Diabetes Mellitus.

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LIST OF RECENT PUBLICATIONS

1. **Abu-Faraj ZO, Al Chamaa W, Al Hadchiti A, Sraj Y, and Tannous J. Design and Development of a Heart Attack Detection Steering Wheel.** Proceedings of the 11th International Conference on BioMedical Engineering and Informatics (BMEI 2018), 6 pp., October 13-15, 2018, Beijing, China.
2. **Abu-Faraj ZO. Strengths, Weaknesses, Opportunities, and Challenges (SWOC) of Health Technologies in Arab Countries.** ESCWA Technology Center Report: Regional Forum on “National Knowledge and Technology Development and Transfer Systems”, 51 pp., November 27-29, 2017, ESCWA, United Nations House, Beirut, Lebanon.
3. Boustany G, Itani AED, Youssef R, Chami O, and **Abu-Faraj ZO. Design and Development of a Rehabilitative Eye-Tracking Based Home Automation System.** Proceedings of the Third Middle East Conference on Biomedical Engineering (MECBME'16), pp. 30-33, October 6-7, 2016, Beirut, Lebanon.
4. **Abu-Faraj ZO, Harris GF, Smith PA, Hassani S. Human Gait and Clinical Movement Analysis.** In: Wiley Encyclopedia of Electrical and Electronics Engineering, Second Edition, John Wiley & Sons, Inc., New York, USA, pp. 1-34, December 15, 2015.
5. **Abu-Faraj ZO, Abdul-Al MM, and Al-Deeb RA. Leg Length Discrepancy: A Study on In-Shoe Plantar Pressure Distribution.** Proceedings of the 8th International Conference on BioMedical Engineering and Informatics (BMEI 2015), pp. 381-385, October 14-16, 2015, Shenyang, China.
6. Mattar R, Diab J, Wehbe S, Merhej C, and **Abu-Faraj ZO. Normative Plantar Pressure Distribution in Asymptomatic Adult Subjects: A Pilot Study.** Proceedings of the Third International Conference on Advances in Biomedical Engineering, pp. 230-233, September 16-18, 2015, Hadat-Beirut, Lebanon.
7. **Abu-Faraj ZO. Biomedical Engineering Education in the Middle East and North Africa.** Proceedings of the 2nd Middle East Conference on Biomedical Engineering, pp. 317-320, February 17-20, 2014, Doha, Qatar.
8. **Abu-Faraj ZO, Faraj YT, Mohtar KH, Rammal MM. Characterization of Plantar Pressures in Visually Impaired Individuals: A Pilot Study.** Proceedings of the 6th International IEEE EMBS Conference on Neural Engineering, pp. 1549-1553, November 6-8, 2013, San Diego, CA, USA.
9. **Abu-Faraj ZO - Editor. Handbook of Research on Biomedical Engineering Education & Advanced Bioengineering Learning: Interdisciplinary Concepts.** Hershey, PA, USA: IGI Global, Two-Volume

Set, pp. 1123, February 2012. <http://www.igi-global.com/book/handbook-research-biomedical-engineering-education/58270>



10. **Abu-Faraj ZO. Bioengineering/Biomedical Engineering Education.** In: Abu-Faraj ZO (Editor). Handbook of Research on Biomedical Engineering Education & Advanced Bioengineering Learning: Interdisciplinary Concepts. Hershey, PA, USA: IGI Global, pp. 1-59, February 2012.
11. **Abu-Faraj ZO, Jabbour E, Ibrahim P, Ghaoui A. Design and Development of a Prototype Rehabilitative Shoes and Spectacles for the Blind.** Proceedings of the 5th International Conference on BioMedical Engineering and Informatics, pp. 683-687, October 16-18, 2012, Chongqing, People Republic of China.