

Dr. Bandar Hakim

Assistant Professor, Department of Electrical and Computer Engineering, King Abdulaziz University

Education

• Ph.D.	Electrophysics	University of Maryland, College Park, MD, USA	2006
• M.S.	Electrical Engineering	Penn State University, University Park, PA, USA	2000
• M.S.	Computer Engineering	Florida Institute of Technology, Melbourne, FL, USA	1998
• B.S.	Electrical Engineering	King Abdulaziz University, Jeddah, SA	1996

Academic Experience

• 2015-Present	King Abdulaziz University SA	Assistant Professor
• 2009–2013	École Polytechnique Fédérale de Lausanne, Switzerland	Senior Scientist
• 2008–2009	Mount Sinai School of Medicine, New York, NY, USA	Research Scientist
• 2007–2008	The Catholic University of America, Washington, DC, USA	Research Scientist
• 2003–2007	FDA/Center for Devices and Radiological Health, USA	Research Scientist

Non-Academic Experience

• 2014–2015	École Polytechnique Fédérale de Lausanne, Switzerland	Consultant
• 2013–2014	Osyпка AG, Rheinfelden-Herten, Germany	Consultant
• 2012–2013	Bredam SA, St-Sulpice, Switzerland	Consultant
• 2000–2001	Preschutti and Associates Inc., State College, PA, USA	Development Engineer

Funded Research Projects and Patents from the Last Five Years

- Design of High-Performance Terahertz Photoconductive Nano Antennas, KAU Deanship of Scientific Research, 2019
- Performance Enhancement of Array Antennas using Metasurface Superstrates, KAU Deanship of Scientific Research, 2018
- Investigation of Brain Waves for Early Detection of Alzheimer's Disease, KAU Deanship of Scientific Research, 2016
- System for Tissue Marking and Treatment. WO/2013/008204
- Magnetic Ablation Escorting for Treatment of Atrial Fibrillation, Swiss Commission for Technology and Innovation CTI, CHF1'200'000, 2009–2012

Principal Publications/Presentations from the Past Five Years

- Hakim, Bandar and Kumar, Ashwani and Yousaf, Jawad and Sheikh, Muntasir and Rmili, Hatem and Mitra, Raj, Performance Enhancement of Array Antennas using Metasurface Superstrates, *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, 2020
- Rmili, Hatem and Oussama, Boularess and Yousaf, Jawad and Hakim, Bandar and Mitra, Raj and Aguilu, Taoufik and Tedjini, Smail, Robust Detection for Chipless RFID Tags Based on Compact Printable Alphabets, *Sensors MDPI*, 2019
- Mehri, Sondos and Rouissi, Ines and Rmili, Hatem and Hakim, Bandar and Mitra, Raj, Frequency Reconfigurable Fractal CPW-Fed Antennas Designed for Telecommunication Applications, *Applied Computational Electromagnetics Society Journal*, 2019
- Alsulami, Muflih and Rmili, Hatem and Mehri, Sondos and Hakim, Bandar and Sheikh, Muntasir and Mitra, Raj, Design of a Frequency Reconfigurable Notched-Band Ultra-Wideband Antenna for Cognitive Radio Applications, *Applied Computational Electromagnetics Society Journal*, 2019
- Alansari, Mukhtar and Kamel, Mahmoud and Hakim, Bandar and Kadah, Yasser, Study of wavelet-based performance enhancement for motor imagery brain-computer interface, *2018 6th International Conference on Brain-Computer Interface (BCI)*, 2018

Current Membership in Professional Societies and Organizations

- Referee for the Institute of Physics (IOP) Publications.
- Institute of Electrical and Electronics Engineers (IEEE) Member.
- Saudi Scientific Society for Biomedical Engineering (SSSBE) Member.

Honors and Awards

- Maestro-AF medtech project, CTI Medtech 2010. Top 3 award nominee among 50 other medtech projects selected by the CTI Medtech expert panel, August 2010.
- Postdoctoral Research Fellowship from Oak Ridge Associated Universities/Oak Ridge Institute for Science and Education (FDA/Center for Devices and Radiological Health), June 2006–June 2007.
- Research Fellowship from Oak Ridge Associated Universities/Oak Ridge Institute for Science and Education (Ph.D. Electrical Engineering), August 2003–August 2005.

Institutional and Professional Services

- ABET Oversight Committee Member.
- Senior Design Project Committee Member.
- Graduate Studies Committee Member.