

CURRICULUM VITAE

TAISIR HASAN ALGHANIM

September 2015

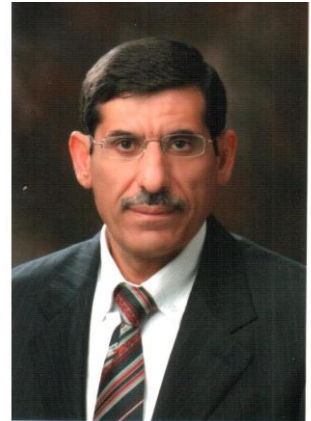
PERSONAL

Date and Place of Birth: 1957, Sarra, Jordan
Nationality : Jordanian
Status : Married
Native Language : Arabic.

Position : Professor of Electrical Engineering

Present Address :

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College of Engineering, Zarqa University.
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EDUCATION

Ph.D. in Electrical Engineering from King Fahd University of Petroleum & Minerals (KFUPM), Dhahran, Saudi Arabia, 1991.

M.Sc. in Electrical Engineering from KFUPM , Dhahran, Saudi Arabia, 1985.

B.Sc. in Electrical Engineering from University of Jordan, Amman, Jordan, 1981.

THESIS TITLES

- (1) "Null steering in phased and adaptive arrays by controlling the element positions", Ph.D. Dissertation, June, 1991.
- (2) "An FFT method of digital radar signal processing to enhance range resolution", M.Sc. Thesis, Jan. 1985.

ACADEMIC EMPLOYMENT

- 2014 - till now : Professor in Elect Engg Dept., Zarqa University, Amman, Jordan
- 2012 - 2014 : Professor in Electrical and Computer Engg Dept. , King Abdulaziz University, Kingdom of Saudi Arabia
- 2006-2012 : Professor in Elect Engg Dept., Al-Ahliyya Amman University, Amman, Jordan.
- 1998- 2006 : Associate Professor in Elect Engg Dept., Al-Ahliyya Amman Univ, *(Except the period, Oct. 2001-Jan. 2002, at the Hashemite University)*
- 1995- 1998 : Assistant Professor in Elect Engg Dept., Al-Ahliyya Amman Univ.
- 1991- 1995 : Assistant Professor in Elect Engg Dept., Philadelphia University, Amman, Jordan
- 1985-1991 : Lecturer, KFUPM, Dhahran, Saudi Arabia.
- 1982-1985 : Research Assistant, KFUPM, Dhahran, Saudi Arabia.

Record of Courses Taught at University Level

Undergraduate Program:

- | | |
|---------------------------------|-----------------------------------|
| 1- Signal Analysis and Systems | 7- Wave Propagations |
| 2- Analog Communication | 8- Electronics |
| 3- Digital Communication | 9- Electrical Circuits |
| 4- Communication Circuits | 10-Logic Circuit Design |
| 5- Communication Systems | 11- Probability for Communication |
| 6- Mobile Communication Systems | 12- Mathematics for Engg. |

Graduate Program (MSc):

- 1- Digital Communication
- 2- Wireless Communication

Research Experience

- Adaptive antenna arrays for the Ph.D. work.
- Experimental antenna array design and measurements using the Scientific Atlanta 1783 microwave receiver for pattern measurements
- Radar signal processing.
- Under water communication project, (synchronization).

Field of Research Interests

- Adaptive arrays for interference suppression
- Antenna array signal processing
- Mobile communication systems
- Radar signal processing

Administration and Committee Service

- Dean of Faculty of Engineering at Zarqa University, 2014/2015.
- Dean of Faculty of Engineering at Al-Ahliyya Amman University, 2007-08.
- Deputy Dean of Faculty of Engineering at Al-Ahliyya Amman University, 2006-07.

- Chairman of Electronics and Communication Engineering Department at Al-Ahliyya Amman University, 2005/06.
- Chairman of Electrical Engineering Department at Philadelphia University, 1991-93
- Participant in many committees as a member or as chairman, that were formed by the University. The following are the most important:
 - Accreditation, Curriculum, Appointment and Promotion, Scientific Research Council, Higher Education Council, and Tendering committees.*
- Participant in many committees as a member or as chairman, that were formed by the Faculty of Engineering. The following are the most important:
 - Research, Quality Assurance, Strategic Plan, Curriculum, Student Training, and Student Investigation committees.*

Special Academic Experience

- Editorial board member of the “Jordanian Journal of Computers and Information Technology”. (Sponsored by Ministry of Higher Education, Jordan)
- Designed the experiment setups for the following laboratories: Communication, Logic Circuit Design, Electrical Circuits, and Electronics.
- Laid down the equipment specifications for the following laboratories: Communication, Logic Circuit Design, Electrical Circuits, and Electronics. Philadelphia University, 1991-95.
- M.Sc. program coordinator at Al-Ahliyya Amman univ.
- Participating in laying down the M.Sc. degree plan at Al-Ahliyya Amman univ.
- A member in many committees (formed by the Ministry of Higher Education) for the general and specialty accreditation of many universities (in Jordan).
- A member in the committees that laid down the criteria for the "communication" specialty and "computer and communication" specialty formed by the Ministry of Higher Education.
- Co-advisor for a graduate student, Jordan University, 1996-98
Thesis Title: *Null steering using phase shifters*
- External examiner for several M.Sc. students at Jordan University, and Science and Technology University.
- Instructor of a short course entitled "Antenna theory and applications", held at KFUPM, Dhahran, Saudi Arabia, May 25-29, 1991.
- Understanding and practicing ABET accreditation process.

Conferences

Attending the following conferences

- Symposium on Antenna Technology and Applied Electromagnetics (**ANTEM'90**), Winnibeg, Canada, August 15-17, 1990.
- International Conference on Electronics, Circuits and Systems (**ICECS'95**), Amman, Jordan, December 17-21, 1995.

- 1st Middle East Workshop on Simulation and Modeling (**MESM'99**), Amman, Jordan, March 1-2, 1999.
- 7th International Conference on Intelligent Engineering Systems (**INES 2003**), Assiut-Luxor, Egypt, March 4-6, 2003.
- 14th International Conference on Computer Theory and Applications (**ICCTA 2004**), Alexandria, Egypt, September 28-30, 2004.
- 2007 IEEE International Conference on Signal Processing and Communication (**ICSPC07**), in Dubai, United Arab Emirates (UAE), 24-27 November 2007.
- 9th IEEE International Symposium on Signal Processing and Information Technology (**ISSPIT09**), in Ajman, United Arab Emirates (UAE), 14-16 December, 2009.
- First Symposium on Wireless Sensor and Cellular Networks (**WSCN'12**), Tabuk, Kingdom of Saudi Arabia, December 15-18, 2012.
- Second Symposium on Wireless Sensor and Cellular Networks (**WSCN'13**), Jeddah, Kingdom of Saudi Arabia, December 13-16, 2013.
- The International Conference on Electrical and Electronic Engineering, Telecommunication Engineering, and Mechatronics (**EEETEM 2015**), Asia Pacific University of Technology and Innovation (APU), Kuala Lumpur, Malaysia, September 8-10, 2015.

Membership in professional organizations

- Jordan Engineers Association

PUBLICATIONS IN REFEREED JOURNALS

- 1- T. H. Ismail and M. M. Dawoud, "*Null steering in phased arrays by controlling the element positions*", IEEE Trans. Antennas Propagat., vol. AP-39, pp.1561-1566, Nov. 1991
- 2- M. M. Dawoud and T. H. Ismail, "*Experimental verification of null steering by element position perturbations*", IEEE Trans. Antennas Propagat., vol. AP-40, pp.1431-1434, Nov. 1992
- 3- M. J. Mismar and T. H. Ismail, "*Null steering using minimax by controlling only the currents' amplitudes*", International Journal of Electronics", vol. 78, pp. 409-415, Feb. 1995
- 4- M. J. Mismar and T. H. Ismail, "*Eigen-approach for wide band interference suppression*", International Journal of Electronics, vol. 82, no. 6, pp. 655-662, June 1997.
- 5- M. J. Mismar and T. Ismail, "*Linear array pattern synthesis with multiple broad nulls using partial amplitude control*", Journal of King Saud University, vol. 9, [Engineering Sciences No. 2], pp. 239-250, 1997.
- 6- T. H. Ismail, A. M. Mustafa, and M. J. Mismar, "*Spectral estimation and resolution of closely spaced radar target scatterers*", International Journal of Electronics, vol. 83, no. 3, pp.417-427, Sept. 1997.
- 7- T. H. Ismail and M. J. Mismar, "*Wide band interference suppression using Linear programming*", Dirasat - Natural and Engineering Sciences, vol.24, no.3, pp.453-460, October 1997

- 8- M. J. Mismar and T. H. Ismail, "*Partial control for wide band interference suppression using eigen-approach*", IEEE Trans. Antennas Propagat., vol. AP-46, no. 4, pp.600-602, April 1998.
- 9- T. H. Ismail, M. J. Mismar, and M. M. Dawoud, "*Linear array pattern synthesis for wide band sector nulling*", Progress In Electromagnetics Research, PIER 21, pp. 91-101, 1999.
- 10- M. J. Mismar and T. H. Ismail, "*Pattern nulling by iterative phase perturbation*", Progress In Electromagnetics Research, PIER 22, pp. 181-195, 1999.
- 11- T. H. Ismail and M. J. Mismar, "*Null steering with arbitrary Phase Perturbations using dual phase shifters*", Journal of Electromagnetic Waves and Applications, Vol. 13, No.8, pp. 1021-1029, 1999.
- 12- M. J. Mismar and T. H. Ismail, "*Null Steering with element Failures Using Partial Controlled Linear Arrays*", Electromagnetics, Vol.23, No. 5 , pp. 445-454, July 2003.
- 13- D. I. Abu-Al_Nadi, M. J. Mismar, and T. H. Ismail, "*Genetically Evolved Phase-Aggregation Technique for Linear Arrays Control*", Progress In Electromagnetics Research, PIER 43, pp.287-304, 2003.
- 14- T. H. Ismail, D. I. Abu-Al_Nadi, and M. J. Mismar, "*Phase-only control for antenna pattern synthesis of linear arrays using Levenberg-Marquart algorithm*", Electromagnetics, vol. 24, no. 7, pp.555-564 , 2004.
- 15- D. I. Abu-Al_Nadi, T. H. Ismail, and M. J. Mismar, "*Interference Suppression by Element Position control of Phased Arrays Using LM Algorithm*", Int. J. Electron. Commun. (AEÜ), vol. 60, pp.151-158, 2006.
- 16- M. J. Mismar, T. H. Ismail, and D. I. Abu-Al_Nadi, "*Analytical Array Polynomial Method for Linear Antenna Arrays with Phase-Only Control*", Int. J. Electron. Commun. (AEÜ), vol. 61 pp.485-492, 2007.
- 17- M. A. Taha, D. I. Abu-Al_Nadi, and T. H. Ismail, "*Maximum Likelihood Estimation of the double directional parameters in the MIMO communication system using the Particle Swarm Optimization*", Electromagnetics, vol. 28, no. 7, pp.401-410, 2008.
- 18- Z. Hamici and T. H. Ismail, "*Digital Amplitude Control For Interference Suppression Using Immunity Genetic Algorithm*", Progress In Electromagnetics Research C, Vol. 11, 21-38, 2009.
- 19- Taisir H. Ismail and Zoubir Hamici, "*Array Pattern Synthesis using Digital Phase Control by Quantized Particle Swarm Optimization*", IEEE Trans. Antennas Propagat. vol. AP-58 no. 6, pp.2142-2145, June 2010.
- 20- D. I. Abu-Al_Nadi, T. Ismail, H. Al-Tous, and M. J. Mismar, "*Design of Linear Phased Array for interference suppression using Array Polynomial Method and Particle Swarm Optimization*", Springer, Wireless Personal Communications, Vol.63 (2), 501-513, 2012.

PUBLICATIONS IN REFEREED CONFERENCES

1. M. Dawoud and T. Ismail, "*New method of null steering by element position perturbations*", Symposium on Antenna Technology and Applied Electromagnetics, ANTEM'90, Winnibeg, Canada, PP.123-128, August 1990.
2. T. H. Ismail and M. J. Mismar, "*Multiple wide band interference suppression using only the current amplitudes*", International Conference on Electronics, Circuits and Systems, **ICECS'95**, Amman, Jordan, 468-470, December 1995.

3. T. H. Ismail, "*Pattern Synthesis With Broad Nulls Using Partial Weighted Eigen-Approach*", First Middle East Conference on Simulation and Modeling, **MESM'99**, A Publication of the Society for Computer Simulation, Amman, Jordan, pp.52-55 , March 1999.
4. M. J. Mismar, T. H. Ismail and D. I. Abu-Al_Nadi, "*Interference Suppression Using Phase-Only Controlled Linear Arrays With Element Failures*", 7th International Conference on Intelligent Engineering Systems (**INES 2003**), Assiut-Luxor, Egypt, pp.713-715, March, 2003.
5. T. H. Ismail, "*Dual Phase Control for Null Steering using Beam Space Method*", 14th International Conference on Computer Theory and Applications (**ICCTA 2004**), Alexandria, Egypt, (*the paper appears as a soft copy on the conference's CD*), September 28-30, 2004.
6. M. J. Mismar, D. I. Abu-Al_Nadi, and T. H. Ismail, "*Pattern Synthesis with Phase-Only Control Using Array Polynomial Technique*". IEEE International Conference on Signal Processing and Communication (**ICSPC07**), in Dubai, United Arab Emirates (UAE), 24-27 November, 2007. pp.444-447.
7. Z. Hamici T. and H. Ismail, "*Optimization of Thinned Arrays Using Stochastic Immunity Genetic Algorithm*", 9th IEEE International Symposium on Signal Processing and Information Technology (**ISSPIT09**), in Ajman, United Arab Emirates (UAE), 14-16 December, 2009. pp.378-383.
8. T. H. Ismail and Z. Hamici, "*Reconfigurable Array by Digital Phase Control using Particle Swarm Optimization*", 9th IEEE International Symposium on Signal Processing and Information Technology (**ISSPIT09**), in Ajman, United Arab Emirates (UAE), 14-16 December, 2009. pp.501-506
9. D.I.Abu-Al-Nadi, T.H. Ismail, and M.J. Mismar, "*Synthesis of Linear Array and Null Steering with minimized Side-Lobe Level Using Particle Swarm Optimization*", European Conference on Antenna and Propagation EuCAP2010. Barcelona Spain,12-16 April 2010
10. M. J. Mismar and T. H. Ismail, "*DOA Estimation by Controlling the Nulls of the Antenna Array Factor*", The International Conference on Electrical and Electronic Engineering, Telecommunication Engineering, and Mechatronics (**EEETEM 2015**), Kuala Lumpur, Malaysia, September 8-10, 2015.