

Curriculum Vitae

Personal Information

Name Mohammad Jamil Mismar
Date and Place of Birth 31/12/57, Amman, Jordan
Nationality Jordanian
Marital Status Married

Contact Information

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Academic Rank

Professor of Electrical Engineering.

Education

Ph. D. in Biomedical Engineering, Iowa State University, Ames, Iowa, U.S.A., 1982.

M. Sc. in Biomedical Engineering, Iowa State University, Ames, Iowa, U.S.A., 1981.

B. Sc. in Electrical Engineering, Iowa State University, Ames, Iowa, U.S.A., 1979.

Employment

9/2013 – to present Faculty Member
EE Department, Princess Sumaya University for Technology
11/2010 – 8/2013 Vice-President for Scientific Faculties and Centers
Hashemite University
2/2010 – 11/2010 Faculty member
EE Department, Princess Sumaya University for Technology
6/2007 – 1/2010 Member of Higher Education Accreditation Commission
9/2003 – 6/2007 Vice-President of Princess Sumaya University for Technology
9/2001 – 8/2003 Vice-Dean of Faculty of Graduate Studies
University of Jordan
9/2000 – 8/2001 Dean of Faculty of Engineering
Amman Ahliyyah University
9/1999 – 8/2000 Chairman of EE Department
University of Jordan
9/1997 - 8/1998 Faculty Member
EE Department, Princess Sumaya University for Technology
2/1983 – 8/1997 Faculty Member
EE Department, University of Jordan

Affiliation

Jordan Engineering Association (JEA)
(Electrical Engineering, Biomedical Engineering).

Boards and Committees Served

- Member of the Board of Trustees, Tafilah Technical University (TTU), 2011-2014.
- Member of the Engineering Technical Committee, Scientific Research Fund (SRF), 2011-2013.
- Member of the Accreditation Board, Ministry of Higher Education (MoHE), 2005-2007.
- Member of the Board of Trustees, Princess Sumaya University for Technology (PSUT), 2003-2006.
- Member of the Board of Trustees Bylaws Committee, PSUT.
- Chairman of the Accreditation Standards Committee for Engineering Fields, MoHE.
- Member of Biomedical Engineering Accreditation Standards Committee, MoHE.
- Member of Electronics Engineering Accreditation Standards Committee, MoHE.
- Member of Electronics and Communications Engineering Accreditation Standards Committee, MoHE.
- Member of the Committees for the Development of Undergraduate Program Curricula in EE and BME for Jerusalem Open University, The Hashemite University, Imran University, and PSUT.
- Member of numerous committees at the level of Department, Faculty, and University (University of Jordan , Hashemite University, and PSUT).
- Member of several committees at JEA.

Awards

1998 The Scientific Foundation of Hisham Hijjawi
'Best Applied Research Paper'

Research Interests

- Digital Filter Design
- Signal Processing
- Medical Instrumentation
- Quality Assurance Management

Publications:

Refereed Book Series

- (1) T.H. Ismail, M.J. Mismar, and M.M. Dawoud, "Linear array pattern synthesis for wide-band sector nulling", PIER 21, pp. 91- 101, 1999.
- (2) M. J. Mismar and T. H. Ismail, "Pattern nulling by iterative phase perturbation", PIER 22, pp. 181 - 195, 1999.
- (3) D. I. Abu-Al-Nadi, M. J. Mismar, and T. H. Ismail, "Genetically evolved phase-aggregation technique for linear arrays control", PIER 43, pp. 287 – 304, 2003.

Refereed Journals

- (1) I. H. Zabalawi, and M. Mismar, "Chebyshev approximation for linear phase nonrecursive digital filters, IJE, Vol. 65, No. 5, pp. 989-997, 1988.
- (2) M. J. Mismar, and I. H. Zabalawi, "Complex coefficient FIR digital filters", Circuits, Systems, and Signal Process., Vol. 13, No. 5, pp. 591-600, 1994.
- (3) M. J. Mismar, and T. H. Ismail, "Null steering using minimax approximation by controlling only the current amplitudes", IJE, Vol. 78, No. 2, pp. 409-415, 1995.
- (4) M. J. Mismar, and I. H. Zabalawi, "Design of circularly symmetric two dimensional FIR digital filters", Dirasat, Vol. 22 B, No. 2, pp. 559-577, 1995.
- (5) I. M. El-Naqa, M. J. Mismar, and I. H. Zabalawi, "Estimation of coronary artery dimensions by median filtering approach", IEICE Trans., Vol. E79-A, No. 7, pp. 1-10, 1996.
- (6) A. M. Mustafa, and M. J. Mismar, "Towards an automated nonparametric computerized clinical electrocardiograph", Dirasat, Vol.23, No.3, pp.94-104, 1996.
- (7) M. J. Mismar, and T. H. Ismail, "Linear arrays pattern synthesis with multiple broad nulls using partial amplitude control", JKSU, Vol. 9, No. 2, pp. 239-250, 1997.
- (8) M. J. Mismar, and T. H. Ismail, "Eigen-approach for wide band interference suppression", IJE, Vol. 82, No. 6, pp. 655-662, 1997.
- (9) T. H. Ismail, A. M. Mustafa, and M. J. Mismar, "Spectral estimation and resolution of closely spaced radar target scatterers", IJE, Vol. 83, No. 3, pp. 417-427, 1997.

- (10) T. H. Ismail, and M. J. Mismar, "Wide band interference suppression using linear programming", *Dirasat*, Vol. 24, No. 3, pp. 453-460, 1997.
- (11) M. J. Mismar, and T. H. Ismail, "Partial control for wide band interference suppression using eigen-approach", *IEEE Trans. on Antennas and Propagation*, Vol. 46, pp. 600-602, 1998.
- (12) T. H. Ismail, M. J. Mismar, "Null steering with arbitrary phase perturbations using dual phase shifters", *JEMWA*, Vol. 13, No. 8, pp. 1021 - 1029, 1999.
- (13) 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, 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", *International Journal of Electronics and Communications*, Vol. 60, No. 2, 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", *International Journal of Electronics and Communications*, Vol. 61, pp. 485 – 492, 2007.
- (17) D. I. Abu-Al-Nadi, T. H. Ismail., H. Al-Tous, and M. J. Mismar, "Design of linear phased array for interference suppression using array polynomial method and particle swarm optimization", *Wireless Personal Communications*, Vol.63, No. 2, pp. 501-513, 2012.

Refereed Workshop

- (1) I. El-Naqa, and M. Mismar, "Image enhancement of coronary angiograms by nonlinear filtering", *Digital image processing in medicine (Digitale Bildverarbeitung in der Medizin)*, 5th Freiburg Workshop, pp. 69 - 74, 1997.

Refereed Conferences

- (1) I. H. Zabalawi, and M. J. Mismar, "Design of FIR arbitrary phase filters with prescribed Amplitude specifications", *Proceedings of the 8th European Conference on Electrotechnics*, pp. 134-137, 1988.
- (2) I. H. Zabalawi, and M. J. Mismar, "Amplitude equalization of recursive digital filters", *Proceedings of the 31st Midwest Symposium on Circuits and Systems*, pp. 429-432, 1988.
- (3) M. J. Mismar, and A. M. Mustafa, "Computerized clinical electrocardiograph", *First Engineering Conference, Mansoura*, vol. 1, pp. 339-351, 1995.

- (4) A. M. Mustafa, and M. J. Mismar, "Spectral estimation for ECG classification and data compression ", ICECS'95, Amman, pp. 192-194, 1995.
- (5) T. H. Ismail, and M. J. Mismar, "Multiple wide band interference suppression using only the current amplitudes", ICECS'95, Amman, pp. 468-470, 1995.
- (6) M. J. Mismar, "Interference rejection using partial complex weights", First Communication Conference, Muscat, pp. 50-52, 1996.
- (7) K. Shqair, I. Zabalawi, and M. Mismar, "Adaptive FIR filtering for frequency estimation of sinusoids in uncorrelated noise", First Communication Conference, Muscat, pp. 178-184, 1996.
- (8) M. J. Mismar, "Partial control for interference suppression by small phase perturbations using minimax approximation", ICCCP'98, Muacat, pp. 224-227, 1998.
- (9) D. M. Al-Faris, I. H. Zabalawi, and M. J. Mismar, "Estimation of coronary artery dimensions using stack filtering approach", ICECS '99, Pafos, 1999.
- (10) M. J. Mismar, T. H. Ismail, and D. I. Abu-Al-Nadi, "Interference suppression using phase-only controlled linear arrays with element failures", INES'2003, Assiut, pp.713-715,2003.
- (11) W. G. Shadeed, D. I. Abu-Al-Nadi, and M. J. Mismar, "Road traffic sign detection in color images", ICECS'2003, Sharjah, pp. 890 – 893, 2003.
- (12) 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), Dubai, pp. 444 – 447, 2007.
- (13) 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, 2010.
- (14) M. J. Mismar, and T. H. Ismail, “DOA estimation by controlling the nulls of the antenna array factor”, Proceedings of the International Conference on Electrical and Electronic Engineering, Telecommunication Engineering, and Mechatronics, Kuala Lumpur, Malaysia, 2015.

Supervised Student Projects:

M. Sc. Theses

- (1) Electrocardiogram Signatures Using Walsh Analysis.
- (2) Electrocardiogram Signatures Using Fourier Analysis.
- (3) Computerized EEG Analysis.
- (4) Adaptive Digital Notch Filter.
- (5) Estimation of Coronary Artery Dimensions.
- (6) Design of Recursive Complex Digital Filters.
- (7) 2-D Recursive Digital Filters for Image Processing.
- (8) Design of Complex Digital All-Pass Networks.
- (9) Direction of Arrival Estimation by Wide-Band Null Steering.
- (10) Array Pattern Synthesis by Controlling the Elements Positions.

- (11) Null Steering Using Phase Shifters.
- (12) Estimation of Coronary Artery Dimensions by Stack Filtering Approach.
- (13) Error Detection and Correction Using Residue Number System.
- (14) Traffic Sign Detection and Recognition in Color Images.
- (15) Adaptive FIR Filter for Frequency Estimation of Sinusoids Using Random Search Algorithms.

B.Sc. Graduation Projects

Supervised more than 60 projects in Digital Filter Design, Signal Processing and Medical Instrumentation.