

**MOHAMMED SAMI FADALI
CURRICULUM VITAE**

PRESENT POSITION: Professor and Chair
Department of Electrical & Biomedical Engineering
College of Engineering
University of Nevada
Reno, NV 89557-0153

PRINCIPAL PAST POSITION: Assistant Professor, King Abdul Aziz University, Jeddah,
1981-83.

PLACE AND DATE OF BIRTH: Cairo, Egypt, May 22, 1952.

NATIONALITY: U.S.

LANGUAGES: English, Arabic, Spanish, French.

PERMANENT ADDRESS: 3959 Regal Dr., Reno, NV 89503
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MARITAL STATUS: Married

RESEARCH INTERESTS: Fuzzy logic control, fault detection, renewable energy systems, random signals, mathematical modeling of biological systems, engineering education.

EDUCATION:

DEGREE	DEPARTMENT	UNIVERSITY	YEAR
B.S.	Electrical Engineering	Cairo Univ., Cairo, Egypt.	1974
M.S.	Control Systems Center	UMIST, Manchester, England	1977
Ph.D.	Electrical Engineering	Univ. of Wyoming, Laramie, Wyoming, USA	1980

POSITIONS HELD:

University of Nevada-Reno, Professor 1995-Present, Associate Professor 1989 to 1995, Assistant Professor, 1985-89, tenured 1991

Duties include teaching, funded research, graduate and undergraduate advising, Assessment Coordinator. Chairman Department Curriculum Committee, Past: Graduate Student Coordinator and Chair of Graduate Admission Committee 1989-98, Member University Conflict of Interest Committee, Past Chair College Personnel Committee.

Colorado State University, Post Doctoral Fellow, 1984-1985

Investigated problems in robotics, satellite maneuvering, biochemical process control and physiological system identification.

King Abdul Aziz University, Jeddah, Assistant Professor, 1981-1983.

Duties included teaching, undergraduate advising and research. Participated in starting a new bioengineering program.

University of Wyoming, Teaching Assistant, 1979-80.

Taught several introductory electrical engineering labs.

Cairo Research Center, Engineer, 1975.

Participated in research on computer control of electrical machines.

Giza Systems, Consultants, Engineer, 1974-75.

Participated in the specification formulation for the communication system of the Egyptian Power Network.

PROFESSIONAL EXPERIENCE:

I. Teaching Experience: Over thirty years.

Undergraduate-

Freshman: FORTRAN Programming, Introduction to Engineering.

Sophomore: Circuits, Computer Matrix Algebra.

Junior: Introduction to Linear Systems, Circuits & Systems, Classical Control.

Senior: Modern Control, Digital Control.

Graduate-

Linear Systems, Optimal Control, Nonlinear Control, Robust Control, Robotics Seminar, Neural Networks Seminar, Neural Networks, Queuing Theory, Random Signals Seminar, Random Signals & Estimation, Estimation Theory, Fault Detection, Signal Detection.

AWARDS

Region VI IEEE Service Award 2003, 2009, 2011, 2014

SESSIONS/SYMPOSIA CHAIRED OR ORGANIZED

Organized and chaired sessions for the *American Control Conference*, the *ISCA International Conference*, *Fuzz IEEE*.

OFFICES HELD IN PROFESSIONAL SOCIETIES:

Associate Editor, IEEE Transactions Fuzzy Systems
Associate Editor, ISCA Journal of Computer Applications
Formerly Secretary of the Internat. Society for Computers and Their Applications (ISCA)
Chair IEEE Northern Nevada Section, 1997-2003, 2007-2011, 2013

MEMBERSHIP OF PROFESSIONAL SOCIETIES

Senior Member IEEE, IEEE Control Systems Society
Engineering in Medicine and Biology Society
Artificial Intelligence Society
Eta Kappa Nu
Senior Member, ISCA

RESEARCH PUBLICATIONS:**Textbook:**

M. S. Fadali and A. Visioli, *Digital Control Engineering*, Academic Press, Oxford, 2nd Ed., 2013

Book Chapter:

Sezai Tokat, M. Sami Fadali, Osman Eray, "A Classification and Overview of Sliding Mode Controller Sliding Surface Design Methods," In: *Recent Advances in Sliding Modes: From Control to Intelligent Mechatronics*, (Xinghuo Yu and Mehmet Önder Efe Eds.), pp. 417-439, Studies in Systems, Decision and Control, Vol. 24, Springer-Verlag, Heidelberg, 2015.

I. Papers Published*Journal Publications (66)*

1. C. Lascu, S. Jafarzadeh, S. Fadali, F. Blaabjerg, "Direct Torque Control with Feedback Linearization for Induction Motor Drives," in *IEEE Transactions on Power Electronics*, vol. PP, no. 99, pp. 1-1, doi: 10.1109/TPEL.2016.2564943
2. M. Majidi, M. Etezadi-Amoli, M. S. Fadali, "A Novel Method for Single and Simultaneous Faults Location in Distribution Networks," *IEEE Trans. Power Systems*, Vol. 30. No. 6, pp. 3368-3376, 2015.

3. M. Majidi, M. Etezadi-Amoli, M. S. Fadali, "A Sparse-Data Driven Approach for Fault Location in Transmission Networks," *IEEE Trans. Smart Grid*, <http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=7328743>
4. X. Wang, B. S. Rawat, M. S. Fadali and M. Tayahi, "Performance Analysis of Multiple Input Multiple Output Free Space Optical Systems," *Internat. J. Microwave and Optical Technology*, Vol. 10, No. 4, July, 2015.
5. M. Majidi, M. S. Fadali, M. Etezadi-Amoli, and M. Oskuoee, "Partial Discharge Pattern Recognition via Sparse Representation and ANN," *IEEE Transactions on Dielectrics and Electrical Insulation*, Vol. 22, No. 2, pp. 1061-1070, 2015.
6. A. Arabli, M. Ghofrani, M. Etezadi-Amoli, M. S. Fadali and M. Moeini-Aghtaei, "A Multi-Objective Transmission Expansion Planning Framework in Deregulated Power Systems With Wind Generation," *IEEE Trans. Power Systems*, Vol. 29, No. 9, pp. 3003-3011, November 2014.
7. A. Arabli, M. Ghofrani, M. Etezadi-Amoli and M. S. Fadali, "Stochastic performance assessment and sizing for a hybrid power system of solar/wind energy storage," *IEEE Trans. Sustainable Energy*, Vol. 5, No. 2, pp. 363-371, April 2014.
8. M. Farasat, A. M. Trzyanadlowski and M. Sami Fadali, "An Efficiency Improved Sensorless Control Scheme for Electric Vehicle Induction Motors," *IET Electrical Systems in Transportation*, Vol. 4, No. 4, pp. 122-131, December 2014.
9. H. Livani, S. Jafarzadeh, C. Y. Evrenosoglu and M. Sami Fadali, "A Unified Approach for Power System Predictive Operations using Viterbi Algorithm," *IEEE Transactions on Sustainable Energy*, Vol. 5, No. 3, pp. 757-766, July 2014.
10. M. S. Fadali and S. Jafarzadeh, "TSK Observers for Type-1 and Type-2 Fuzzy Systems," *IEEE Trans. Fuzzy Systems*, Vol. 22, No. 2, pp. 451-458, April 2014.
11. M. S. Fadali and S. Jafarzadeh, "Stability Analysis of Positive Interval Type-2 TSK Systems with Application to Energy Markets," *IEEE Trans. Fuzzy Systems*, Vol. 22, No. 4, pp. 1031-1038, Aug 2014.
12. M. Ghofrani, S. Arabli, M. Etezadi-Amoli, M. S. Fadali, "Energy Storage Application for Performance Enhancement of Wind Integration," *IEEE Trans. Power Systems*, Vol. 28, No. 4, pp. 4803-4811, Nov 2013.
13. S. Jafarzadeh, M. S. Fadali, C. Y. Evrenosoglu, "Solar power prediction using interval type-2 TSK modeling," *IEEE Trans. Sustainable Energy*, Vol. 4, No. 2, pp. 333-339, April 2013.

14. S. Jafarzadeh and M. S. Fadali, "On the Stability and Control of Continuous-Time TSK Fuzzy Systems," *IEEE Trans. Cybernetics*, Vol. 43, No. 3, pp.1073-1087, March 2013.
15. M. Ghofrani, A. Arabli, M. Etezadi-Amoli, M. S. Fadali, "A Framework for Optimal Placement of Energy Storage Units within a Power System with High Wind Penetration," *IEEE Trans. Sustainable Energy*, Vol. 4, No. 2, pp.434-442, April 2013.
16. A. Arabli, M. Ghofrani, M. Etezadi-Amoli, M. S. Fadali, and Y Baghzouz, "Genetic – Algorithm-Based Optimization Approach for Energy Management," *IEEE Trans. Power Delivery*, Vol. 28, No. 1, pp. 162-170, Jan 2013.
17. S. Jafarzadeh, C. Lascu, M. S. Fadali, "Square Root Unscented Kalman Filters for State Estimation of Induction Motor Drives," *IEEE Trans. on Industry Application*, pp. 92-99, Jan/Feb 2013.
18. A. Sonbol, M. S. Fadali, S. Jafarzadeh, "TSK Fuzzy Function Approximators: Design and Accuracy Analysis," *IEEE Trans. on Systems, Man & Cybernetics–B*, Vol. 42, Issue 3, pp. 702-712, June 2012.
19. S. Jafarzadeh, C. Lascu, M. S. Fadali, "State Estimation of Induction Motor Drives Using the Unscented Kalman Filter," *IEEE Trans. on Industrial Electronics*, Vol. 59, No. 11, 2012.
20. S. Jafarzadeh and M. Sami Fadali, A. Sonbol "Stability Analysis and Control of Discrete Type-1 and Type-2 TSK Fuzzy Systems: Part I Stability Analysis," *IEEE Trans. on Fuzzy systems*, Vol. 19, No.6, 2011, pp. 989-1000.
21. S. Jafarzadeh and M. Sami Fadali, A. Sonbol "Stability Analysis and Control of Discrete Type-1 and Type-2 TSK Fuzzy Systems: Part II Control Design," *IEEE Trans. on Fuzzy systems*, Vol. 19, No.6, 2011, pp. 1001-1013.
22. M. S. Fadali and H. M. Oloomi, "Realization and canonical representation of linear systems through I/O maps," *J. Franklin Inst.*, Vol. 348, No. 2, March 2011.
23. Hyun Cheol Cho and Sami M. Fadali, "Nonlinear Network-induced Time Delay Systems with Stochastic Learning," *IEEE Trans. on Control Systems Technology*, Vol. 19, No. 4, July 2011, pp. 843-851.
24. Hyun Cheol Cho, M. S. Fadali, K. S. Lee and Nam Ho Kim, "Adaptive position and trajectory control of autonomous mobile robot systems with random friction," *IET Control Theory & Appl.*, Vol. 4, No. 12, pp. 2733-2742, 2010.
25. Hyun Cheol Cho, Jeremy Knowles, Sami M. Fadali, and Kwon S. Lee, "Fault detection and isolation of induction motors using recurrent neural networks and dynamic Bayesian modeling," *IEEE Trans. on Control Systems Technology*, Vol. 18, pp. 430-437, March, 2010.

26. Ji Ho Park, Hyun Cheol Cho, M. Sami Fadali, "Double Digital Control for Robust UPS Inverter Systems against Parameter Change," *Int. J. of Innovative Computing, Information and Control*, vol. 5, no. 9, September, 2009.
27. Hyun Cheol Cho, K. S. Lee, M. Sami Fadali, "Real-time Adaptive Speed Control of DC Motors with Bounded Periodic Random Disturbance," *Int. J. of Innovative Computing, Information and Control*, vol. 5, no. 9, September, 2009.
28. Hyun Cheol Cho, Sami M. Fadali, and Kwon S. Lee, "Real-time adaptive speed control of DC motors with bounded periodic random disturbance," *Int. J. of Innovative Computing, Information and Control*, vol. 5, no. 8, August, 2009.
29. Hyun Cheol Cho, Sami M. Fadali, and Kwon S. Lee, "Intelligent control of mechanical systems with random friction," *Int. J. of Innovative Computing, Information and Control*, vol. 5, no. 5, pp. 1407-1417, May, 2009.
30. Hyun Cheol Cho, Sami M. Fadali, and Kwon S. Lee, "Neural control of mechanical systems with random friction," *Int. J. of Innovative Computing, Information and Control*, vol. 5, no. 4, April, 2009.
31. Hyun Cheol Cho, Sami M. Fadali, and Kwon S. Lee, "Adaptive control of motor systems with chaotic nature using Lyapunov stability based feedback linearization," *Int. J. of Innovative Computing, Information and Control*, vol. 5, no. 2, February, 2009.
32. Hyun C. Cho, Sami M. Fadali, Hyunjeong Lee, "Adaptive Neural Queue Management for TCP Networks," *Computers & Electrical Engineering*, Vol. 34, Nov. 2008.
33. Hyun Cheol Cho, Sami M. Fadali, and Kwon Soon Lee, "Probability Density Estimation with Dynamic Bayesian Networks," *Int. J. Control, Automation, & Systems*, Vol. 6, No.1, Feb. 2008.
34. A. Sonbol and M. Sami Fadali, "Stability Analysis of Discrete TSK Types II/III Fuzzy Systems", *IEEE Trans. Fuzzy Systems*, Vol. 14, No. 5, October, 2006.
35. A. Sonbol and M. Sami Fadali, "TSK Fuzzy Systems Types II and III Stability Analysis: Continuous Case", *IEEE Trans. Systems, Man & Cybernetics*, Section B, Vol. 36, No. 1, 2006.
36. Hyun C. Cho, M. Sami Fadali and Kwon S. Lee, "Neural Robust Control for Perturbed Crane Systems", *J. of Mechanical Science & Technology*, Vol. 20, No. 5, 2006.
37. Hyun C. Cho, M. Sami Fadali, M. Saiidi, and Kwon S. Lee, "Neural Network Active Control of Structures with Earthquake Response", *International Journal of Control, Automation, and Systems*, June 2005.

38. M. S. Fadali, "Book Review: New approaches to fuzzy modeling and control: design and analysis", *Automatica*, 3 pages, March, 2005.
39. M. Sami Fadali, "Discussion on "Limit Cycle Analysis of Single-loop Systems with Multiple Nonlinearities and Parameter Uncertainties", *European J. Control*, Vol. 10, No. 2, pp. 129-130, 2004.
40. L. LaForge, K. Korver, M. S. Fadali, "What Designers of Bus and Network Architectures Should Know About Hypercubes", *IEEE Trans. On Computers*, Vol. 52, No. 4. April, 2003. pp. 525 - 544.
41. K. McNichols and M. S. Fadali, "Selecting Operating Points for Discrete-Time Gain Scheduling", *J. Control Applications*, Vol. 29, 1, 2003.
42. M. S. Fadali, H. Emara-Shabaik, "Timely Robust Fault Detection for Multirate Linear System", *Internat. J. Control*, Vol. 75, No.5, 2002.
43. M. S. Fadali, L. LaForge, "Linear Time Computation of Feasible Regions for Robust Compensators, *J. Robust and Nonlinear Control*, 11, 2001.
44. M. S. Fadali, "Fault Detection for Systems with Multirate Sampling: an Observer-based Approach", *J. Control Applications*, 2001.
45. M. S. Fadali, "Computer-Aided Implementation of Graphical Root Locus Design Recipes", *IEEE Trans. Education*, CD-ROM, November, 1999.
46. M. S. Fadali, Y. Zhang, and S. Louis, "Robust Stability Analysis of Discrete-Time Systems Using Genetic Algorithms," *IEEE Trans. Systems, Man, Cybern.*, Part A, No. 5, Sept., 1999.
47. J. Liu, M.S. Fadali, "Performance Constrained Stabilization of Uncertain Systems: Application to Load-frequency Control", *J. Computer Applications*, March, 1999.
48. B. Zhang, M. S. Fadali, "Nonlinear System Identification Using a Gabor/Hopfield Network", *IEEE Trans. Systems, Man & Cybernetics*, Vol. 26, No. 2, 1996.
49. H. Assadi, M. Etezadi-Amoli, D. D. Egbert, M. S. Fadali, A. Tan, "Application of the New Voting ARTMAP Neural Network to Power System Stability Studies", *ISCA J.*, Apr., 1995.
50. P. Fanchons, M. S. Fadali, "Elements of Variable Structure Control for Economists", *Economics and Planning*, Vol. 27, pp. 93-116, 1994.
51. M. S. Fadali, K. El-Zayyat, E. Maragakis, "Disturbance Rejection Control of Bridge Response to Earthquake Excitation", *Earthquake Engineering and Structural Dynamics*, Vol. 25, 291-302, 1996.

52. A. Bamani, M. Waly, M. S. Fadali, "Model reduction in the presence of small time delay", *Computers & Electrical Eng.*, Vol.19, No. 1, 1993.
53. M. Zohdy, M. S. Fadali, A. Abdel-Wahab, "Robust control system design with state constraints", *Int. J. Systems Science*, Vol.24, No. 1, 1993.
54. M. Zohdy, M. S. Fadali, J. Liu, "Robust design of discrete-time systems via optimization", *Internat. J. System Science*, Vol.24, No. 4, 1993.
55. M. Zohdy, M. S. Fadali, J. Liu, "Variable structure control using system decomposition", *IEEE Trans. Automatic Control*, Oct., 1992.
56. C.Li, M. S. Fadali, "Optimal control of 2-D systems", *IEEE Trans. Automatic Control*, Feb., 1991.
57. M. Zohdy, K., Gu, H. S. Tantawy, H.S., M. S. Fadali, "Robust eigenstructure assignment for multi-input systems", *Internat. J. Control*, Vol. 54, No. 5, May, 1991.
58. S. Bagchi, M.S. Fadali, "Error bounds for computed torque control in a noisy environment", *Control and Computers*, Vol. 18, No. 2, 1990.
59. M. S. Fadali, R. Gnanasekaran, "Normal matrices and their stability properties: application to 2-d system stabilization", *IEEE Trans. Cts. & Systems*, Vol. CAS-36, No. 6, June, 1989.
60. M. S. Fadali, C. Li, "Optimal control of linear 2-D systems", *Computer Control & Computers*, Vol. 17, No. 3, 1989.
61. M. S. Fadali, "Continuous drug delivery system design using nonlinear decoupling: a tutorial", *IEEE Trans. Biomed. Eng.*, Vol. BME-34, No. 9, Aug., 1987.
62. M. S. Fadali, N. Chen, N., T. A. W. Dwyer, III, "Comments on: Suboptimal control of industrial manipulators with a weighted minimum time-fuel criterion", *IEEE Trans. Automatic Control*, Vol. AC-32, No. 3, Mar., 1987.
63. T. A. W. Dwyer, III, M. S. Fadali, N. Chen, N., G. K. F.Lee, "Manipulator maneuvering by feedback linearization with saturating inputs", *Internat. J. Robotics & Automation*, Vol.2, No. 3, 1987.
64. M. S. Fadali, T. A. W. Dwyer, III, "Compact storage and reconstruction of periodic signals by means of a reproducing kernel", *J. Microcomputer Applications*, vol.5, no. 3, 1986, pp.79-83.

65. S. Al-Kafafy, M. S. Fadali, A. Wasfy, "The influence of smoking habits, body weight, height and age on pulmonary ventilation", *Bulletin Alexandria Faculty of Medicine*, vol. XX, No. 4, Dec. 1984.
66. M. S. Fadali, M. N. Karim, T. A. W., Dwyer, III, "Control of zymomonas mobilis using nonlinear decoupling", *J. Microcomputer Applications*, vol.5, no.1, 1986, pp.11-20.

Conference Publications (153)

2016 (3)

R. Jallili, H. Khodabandehlou, H. Livani, M. S. Fadali, "Hybrid State Estimation Using Distributed Compressive Sensing," *2016 IEEE PES General Meeting*, July 17 - 21, 2016 in Boston, MA, USA.

S. Jafarzadeh and M. S. Fadali, "Instability Conditions for Type-1 and Type-2 TSK Fuzzy Systems," *Fuzz-IEEE 2016*, Vancouver, British Colombia, July 2016.

H. Khodabandehlou and M. S. Fadali, "Networked Control Of Unmanned Vehicle Using Wavelet-Based Generalized Predictive Controller," *IJCNN 2016*, Vancouver, British Colombia, July 2016.

2015 (4)

C. Qiao, H. Livani, M. S. Fadali, "Probabilistic Optimal Power Flow with Integrated Wind Energy Using Unscented Transformation," *47th North American Power Symposium*, Charlotte, NC, Oct 4-6, 2015.

R. Jallili, H. Khodabandeloh, H. Livani, M. S. Fadali, "Probabilistic Optimal Power Flow with Integrated Wind Energy Using Unscented Transformation," *47th North American Power Symposium*, Charlotte, NC, Oct 4-6, 2015.

H. Livani, S. Jafarzadeh, M. S. Fadali, "DC Power Flow using Fuzzy Linear Equations," *Proc. IEEE Power and Energy Society (PES) General Meeting*, Denver, July 2015.

C. Lascu, S. Jafarzadeh, M. S. Fadali, F. Blaabjerg, "Direct Torque Control with Feedback Linearization for Induction Motor Drives," *17th European Conf. Power Electronics & Applications Exposition*, Geneva, Sept. 8-10 2015.

2014 (3)

M. S. Fadali, "On the stability of Han's ADRC," *American Control Conference*, Portland, OR, June 2014.

S. Jafarzadeh, M. S. Fadali, "Fuzzified Viterbi Algorithm for Hour-Ahead Wind Power Prediction," *American Control Conference*, Portland, OR, June 2014.

H. Livani, S. Jafarzadeh, M. S. Fadali, C. Y. Evrenosoglu, "Power system state forecasting using Viterbi algorithm," *PES General Meeting Conf. & Exposition*, National Harbor, MD, July 2014.

2013 (1)

A. Arabali, E. Chalko, M. Etezadi-Amoli, and M. S. Fadali, "Short-term Electricity Price Forecasting," *Proc. IEEE PES General Meeting*, Vancouver, CA, July 2013.

2012 (7)

S. Jafarzadeh, C. Lascu, M. S. Fadali, "An Emotional Learning Intelligent Direct Torque and Flux Controller Design for Induction Motor Drives," *IEEE Energy Conversion Congress & Exposition*, 2012.

S. Jafarzadeh, S. Fadali, M. Etezadi, "Fuzzy Type-1 and Type-2 TSK Modeling with Application to Solar Power Prediction," *Power and Energy Society General Meeting* 2012.

S. Jafarzadeh, M. S. Fadali, "Stability and Control of Continuous TSK Fuzzy Systems," *American Control Conference*, Montreal, Canada, June 2012.

M. S. Fadali, S. Jafarzadeh, "Observer Design for Discrete Type-1 and Type-2 TSK Fuzzy Systems," *American Control Conference*, Montreal, Canada, June 2012.

M. Farasat, E. Karaman, A. M. Trzynadlowski, M. Sami Fadali, "Hybrid field orientation and direct torque control for electric vehicle motor drive with an extended Kalman filter", *IEEE Energytech 2012*, Cleveland, OH, May 2012.

M. Farasat, E. Karaman, A. M. Trzynadlowski, M. Sami Fadali, "Speed sensorless instantaneous power control of induction motor drives", *IECON 2012*, Montreal, QC, Canada, Oct 2012,

Z. Z. Tian, N. Wu, M. Sami Fadali, "Analysis of Capacity Enhancement and Disruption Probability for Freeway Ramp Controls Based on Gap-Acceptance and Queuing Models", *Proc. 2012 TRB Annual Meeting*, Washington, DC, January 2012.

2011 (3)

M. Sami Fadali and Saeed Jafarzadeh, "Fuzzy TSK Positive Systems: Stability and Control," *Proc. 2011 American Control Conf.*, San Francisco, CA, June 28-July 1, 2011.

Saeed Jafarzadeh, Sami Fadali and Cristian Lascu, "Square Root Unscented Kalman Filters for State Estimation of Induction Motor Drives," *2011 IEEE Energy Conversion Congress & Exposition*, Phoenix, AZ, Sept. 17-22, 2011.

H. Livani, S. Jafarzadeh, C. Y. Evrenosoglu, and S. Fadali, "State Forecasting of Power System with Intermittent Renewable Sources Using Viterbi Algorithm," *Proceedings of IEEE Power and Energy Society (PES) General Meeting*, Detroit, July 2011.

2010 (8)

M. Hassanzadeh, M. Etezadi-Amoli, and M.S.Fadali, "Practical Approach for Sub-Hourly and Hourly Prediction of PV Power Output," *NAPS 2010*, Arlington, TX, Sept. 2010.

S. Jafarzadeh, M.S.Fadali, M. Etezadi-Amoli, and A. Nafeh, "Type 1 and Type 2 Fuzzy TSK Modeling of Solar Radiation for PV Power Generation," *NAPS 2010*, Arlington, TX, Sept. 2010.

S. Jafarzadeh and M. Sami Fadali, "Stability Analysis of Discrete Type-2 TSK Fuzzy Systems with Interval Uncertainty," *2010 Fuzz.-IEEE*, Barcelona, Spain, July 19-23, 2010.

M. Sami Fadali, Saeed Jafarzadeh and A. Nafeh, "Fuzzy TSK Approximation Using Type-2 Fuzzy Logic Systems and Its Application to Modeling a Photovoltaic Array," *Proc. 2010 American Control Conf.*, Baltimore, MD, June 28-July 2, 2010.

S. Jafarzadeh, M. S. Fadali, C. Y. Evrenosoglu, H. Livani, "Hour-ahead Wind Power Prediction for Power Systems Using Hidden Markov Models and Viterbi Algorithm," *IEEE Power and Energy Society General Meeting*, 2010.

Michael Jensen, Russell Louie, Mehdi Etezadi-Amoli, and M. Sami Fadali, "Model and Simulation of a 75kW PV Solar Array," *Proc. IEEE Power Engineering Society Transmission and Distribution Conference*, New Orleans, LA, April 19-22, 2010.

M. Saadeh, M. Trabia, Y. Shen M. Sami Fadali, "Design of a Wearable Fingertip Haptic Braille Device," *2010 Design of Medical Devices Conference*, Minneapolis (ASME), MN, April, 2010.

M. Yuksel, K. Bekris, C. Y. Evrenosoglu, M. H. Gunes, S.; Fadali, M. Etezadi-Amoli, F. Harris, "Open Cyber-Architectue for Electrical Energy Markets," *IEEE 30th Conf. Local Computer Networks*, Clearwater, FA, Oct 2010.

2009 (3)

M. S. Fadali and M. Savageau, "Gene Regulation Models and Evolution," *Proc. 2009 American Control Conference*, St. Louis, MI, June 11-13, 2009.

Hyun Cheol Cho, M. Sami Fadali, D. Y. Yeo, H. T. Han, K. S. Lee, "Nonlinear network-induced time delay systems with online dynamic Bayesian learning," *ICCAS-SICE 2009*, 18-21 Aug., pp. 4200-4204, 2009.

M. Sami Fadali, Y. Shen, S. Jafarzadeh, J. Yi, "Electro-Tactile Preference Identification Using Fuzzy Logic," *31st Annual International IEEE EMBS Conference*, Minneapolis, MN, Sept. 2009.

2008 (1)

M. S. Fadali, "Feedback Residual Generator with Decoupled Faults and Disturbances," *Proc. 2008 American Control Conference*, Seattle, Washington, June 11-13, 2008.

2007 (1)

M. S. Fadali, "Stability testing for fuzzy polynomials," 2007 ISCA CAINE, SF, CA, November, 2007.

2006 (6)

M. S. Fadali and H. Oloomi, "Realization for Discrete-Time Linear Systems through Input or Output Maps", *Proc. 2006 American Control Conference*, Minneapolis, MN, June 2006

Hyun Cheol Cho, M. Sami Fadali, "Online Parameter Learning of Dynamic Bayesian Networks", *World Congress on AI*, Vancouver, BC, July, 2006.

Hyun C. Cho, M. Sami Fadali and Kwon S. Lee, "Modeling of Nonstationary Stochastic Process for Load Traffic Estimation", *SICE-ICASE International Joint Conference*, Busan, Korea, Oct. 2006.

X. Wang, Sami Fadali, and M. Tayahi, "Model of PPM Receiver Used in Deep Space Communication Systems", *Asian Optical Fiber Communication Conf.*, Shanghai, China, Oct. 2006.

L. E. LaForge, J. R. Moreland, M. Sami Fadali, "Spaceflight Multi-Processors with Fault Tolerance and Connectivity Tuned from Sparse to Dense," *Proceedings, 2006 IEEE Aerospace Conference*, Big Sky, Montana, March, 2006.

L. E. LaForge, J. R. Moreland, R. G. Bryan, M. Sami Fadali, "Vertical Cavity Surface Emitting Lasers for Spaceflight Multi-Processors," *Proceedings, 2006 IEEE Aerospace Conference*, Big Sky, Montana, March, 2006.

2005 (5)

M. Sami Fadali, "Fuzzy Functional Observers for Dynamic TSK Systems", *Proc. Fuzz-IEEE 05 Conference*, Reno, NV, May 2005.

H. C. Cho, S. M. Fadali, and K. S. Lee, "Estimation of non-Gaussian probability density by dynamic Bayesian networks," *Proc. Int. Conf. on Control, Automation, and Systems*, pp. 408-413, Seoul, South Korea, July 2005.

Hyun C. Cho, M. Sami Fadali, Hyunjeong Lee, "Dynamic Queue Scheduling Using Fuzzy Systems For Internet Routers", *Proc. Fuzz-IEEE 05 Conference*, Reno, NV, May 2005.

M. Sami Fadali, "Fuzzy Stability of Discrete Fuzzy Systems with Nontriangular Membership Functions", *2005 American Control Conference*, Portland, OR, June 2005.

Hyun C. Cho, M. Sami Fadali, Hyunjeong Lee, "Neural Network Control for TCP Network Congestion", *Proc. 2005 American Control Conference*, Portland, OR, June 2005.

2004 (5)

K. White , M. Karam, M. S. Fadali, "Performance Enhancement of a Fourier/Hopfield Neural Network for Nonlinear Periodic System Representation", *Proceedings of the 36th IEEE Southeastern Symposium on System Theory*, Morgantown, WV, March, 2004.

M. Sami Fadali and H. Oloomi, "Realization and canonical representation of linear systems through I/O maps", *2004 Internat. Conf. Control, Automation, Systems*, Bangkok, Thailand, Aug, 2004.

A. Sonbol and M. Sami Fadali, "Generalized Fuzzy Lyapunov Stability Analysis of Discrete Type II/III TSK Systems", *Proc. 2004 American Control Conf.*, Boston, MA, June, 2004.

M. Robinson, M. Sami Fadali, E. Wang, Ann-Marie Vollstedt "Middle School Science Using Robotics For ESL Students", *Proc. ASEE Conference*, Salt Lake City, Utah, June 2004.

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