

**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
Work Phone: (775)784-6951
Home Phone: (775)747-4832

MARITAL STATUS: Married

RESEARCH INTERESTS: Intelligent control, fuzzy logic, fault detection,
control of renewable energy systems, structural
control, 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, Wy, 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

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

RESEARCH PUBLICATIONS:**Textbook:**

M. S. Fadali and A. Visioli, *Digital Control Engineering*, Academic Press, Oxford, 3rd Ed., 2019.

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 (76)*

1. G. Cetin, M. Sami Fadali and H. Xu, "OPTIMAL RESOURCE ALLOCATION IN NETWORKED CONTROL SYSTEMS," IET Cyber-Physical Systems: Theory & Applications," (Accepted, to appear 2020).
2. H. Khodabandehlou and M. Sami Fadali, "Training Recurrent Neural Networks via Dynamical Trajectory-Based Optimization, ", *Neurocomputing*, *In press*.

3. A. Chitsazan, M. Sami Fadali and A. Trzynadlowski, "State Estimation for Large-Scale Power Systems and FACTS Devices Based on Spanning Tree Maximum Exponential Absolute Value", *IEEE Transactions on Power Systems*, Vol. 35, No. 1, pp. 238-248, 2020. O.A. Gashteroodkhani, M. Majidi, M.S. Fadali, M. Etezadi-Amoli, E. Maali-Amiri, "A protection scheme for microgrids using time-time matrix z-score vector", *Int. J. Electrical Power & Energy Systems*, Vol. 110, pp. 400-410, September 2019.
4. M. Kaheni, M. H. Zarif, A. A. Kalat, M. S. Fadali, "Radial pole paths SVSC for linear time-invariant multinput systems with constrained input," *Asian J. Control*, Vol. 22, No. 1, pp. 1–9, January 2020.
5. Hamid Khodabandehlou, Gökhan Pekcan, M. Sami Fadali, "Vibration-based structural condition assessment using convolution neural networks," *Structural Control and Health Monitoring*, vol. 26, no. 1, January 2019.
6. A. Chitsazan, M. Sami Fadali, A. M. Trzynadlowski, "Wind speed and wind direction forecasting using echo state network with nonlinear functions," *Renewable Energy*, vol. 131, pp. 879-889, 2019.
7. Hamid Khodabandehlou, Gökhan Pekcan, M. Sami Fadali, Mohamed M.A. Salem, "Active Neural Predictive Control of Seismically Isolated Structures," *Structural Control and Health Monitoring*, vol. 25, no. 1, January 2018.
8. M. Majidi, M. Etezadi-Amoli, M. S. Fadali, "A Sparse-Data Driven Approach for Fault Location in Transmission Networks," *IEEE Trans. Smart Grid*, vol. 8, no. 2, pp. 548-556, March 2017.
9. C. Lascu, S. Jafarzadeh, S. Fadali, F. Blaabjerg, "Direct Torque Control with Feedback Linearization for Induction Motor Drives," *IEEE Transactions on Power Electronics*, vol. 323, no. 3, pp. 2072-2080, 2017.
10. S. Jafarzadeh, H. Livani and M. Sami Fadali, "Stability Analysis of Electricity Markets Using TSK Fuzzy Modeling," *IEEE Transactions on Power Systems*, Vol. 31, No. 3, pp. 1161-1169, Mar 2016.
11. A. Arabli, M. Majidi, M. S. Fadali and M. Etezadi-Amoli, "Line outage identification-based state estimation in a power system with multiple line outages," *Electric Power Systems Research*, Vol. 133, April 2016, pp. 79-86.
12. M. Majidi, M. Etezadi-Amoli, H. Livani and M. S. Fadali, "Distribution Systems State Estimation Using Sparsified Voltage Profile," *Electric Power Systems Research*, Vol. 136, July 2016, pp. 69-78.
13. 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.

14. 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.
15. 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.
16. 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.
17. 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.
18. 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.
19. 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.
20. 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.
21. 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.
22. 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.
23. 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.
24. 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.

25. 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.
26. 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.
27. 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.
28. 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.
29. 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.
30. 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.
31. 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.
32. 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.
33. 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.
34. 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.
35. 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.
36. 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.

37. 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.
38. 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.
39. 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.
40. 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.
41. 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.
42. Hyun C. Cho, Sami M. Fadali, Hyunjeong Lee, "Adaptive Neural Queue Management for TCP Networks," *Computers & Electrical Engineering*, Vol. 34, Nov. 2008.
43. 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.
44. 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.
45. 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.
46. 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.
47. 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.
48. M. S. Fadali, "Book Review: New approaches to fuzzy modeling and control: design and analysis", *Automatica*, 3 pages, March, 2005.

49. 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.
50. 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.
51. K. McNichols and M. S. Fadali, "Selecting Operating Points for Discrete-Time Gain Scheduling", *J. Control Applications*, Vol. 29, 1, 2003.
52. M. S. Fadali, H. Emará-Shabaik, "Timely Robust Fault Detection for Multirate Linear System", *Internat. J. Control*, Vol. 75, No.5, 2002.
53. M. S. Fadali, L. LaForge, "Linear Time Computation of Feasible Regions for Robust Compensators", *J. Robust and Nonlinear Control*, 11, 2001.
54. M. S. Fadali, "Fault Detection for Systems with Multirate Sampling: an Observer-based Approach", *J. Control Applications*, 2001.
55. M. S. Fadali, "Computer-Aided Implementation of Graphical Root Locus Design Recipes", *IEEE Trans. Education*, CD-ROM, November, 1999.
56. 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.
57. J. Liu, M.S. Fadali, "Performance Constrained Stabilization of Uncertain Systems: Application to Load-frequency Control", *J. Computer Applications*, March, 1999.
58. B. Zhang, M. S. Fadali, "Nonlinear System Identification Using a Gabor/Hopfield Network", *IEEE Trans. Systems, Man & Cybernetics*, Vol. 26, No. 2, 1996.
59. 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.
60. P. Fanchons, M. S. Fadali, "Elements of Variable Structure Control for Economists", *Economics and Planning*, Vol. 27, pp. 93-116, 1994.
61. 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.
62. A. Bamani, M. Waly, M. S. Fadali, "Model reduction in the presence of small time delay", *Computers & Electrical Eng.*, Vol.19, No. 1, 1993.

63. M. Zohdy, M. S. Fadali, A. Abdel-Wahab, "Robust control system design with state constraints", *Int. J. Systems Science*, Vol.24, No. 1, 1993.
64. M. Zohdy, M. S. Fadali, J. Liu, "Robust design of discrete-time systems via optimization", *Internat. J. System Science*, Vol.24, No. 4, 1993.
65. M. Zohdy, M. S. Fadali, J. Liu, "Variable structure control using system decomposition", *IEEE Trans. Automatic Control*, Oct., 1992.
66. C.Li, M. S. Fadali, "Optimal control of 2-D systems", *IEEE Trans. Automatic Control*, Feb., 1991.
67. 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.
68. S. Bagchi, M.S. Fadali, "Error bounds for computed torque control in a noisy environment", *Control and Computers*, Vol. 18, No. 2, 1990.
69. 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.
70. M. S. Fadali, C. Li, "Optimal control of linear 2-D systems", *Computer Control & Computers*, Vol. 17, No. 3, 1989.
71. M. S. Fadali, "Continuous drug delivery system design using nonlinear decoupling: a tutorial", *IEEE Trans. Biomed. Eng.*, Vol. BME-34, No. 9, Aug., 1987.
72. 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.
73. 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.
74. 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.
75. 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.
76. 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 (160)**2020 (1)*

M. S. Fadali, "Hybrid Boolean Systems Models for Cyberattacks, Faults, and Human Operators," *American Control Conference*, Denver, Co, July 2020.

2019 (2)

H. Khodabandehlou, I. Nizari, H. Livani, M. Sami Fadali, "Event Classification in Distribution Networks Using a Quotient Gradient System ", *NAPPS 2019*

H. Khodabandehlou and M. S. Fadali, "Nonlinear System Identification using Neural Networks and Trajectory-Based Optimization," *ICINCO 2019*, Prague, Czech Republic, July, 2019.

2018 (1)

M. S. Fadali and E. Yaz, "Resilient Dissipative Observer," *American Control Conference*, Milwaukee, WI, June 2018.

2017 (4)

H. Khodabandehlou and M. S. Fadali, "Echo State versus Wavelet Neural Networks: Comparison and Application to Nonlinear System Identification," *Proc. IFAC World Congress*, Toulouse, France, July, 2017.

H. Khodabandehlou and M. S. Fadali, "A Quotient Gradient Method to Train Artificial Neural Networks," *Proc. IJCNN 2017*, Anchorage, Ak, May 2017.

A. Chitsazan, M. S. Fadali, Amanda K. Nelson, and Andrzej M. Trzynadlowski, "Wind Speed Forecasting Using an Echo State Network with Nonlinear Output Functions," *Proc. 2017 American Control Conf.*, Seattle, Wa, May, 2017.

A. Chitsazan, M. S. Fadali, and Andrzej M. Trzynadlowski, "State Estimation of IEEE 14bus with Unified Interphase Power Controller (UIPC) Using WLS Method," *ECCE 2017*, Cincinnati, OH, October, 2017.

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, pp. 1240-1247.

S. Jafarzadeh and M. S. Fadali, "Instability Conditions for Type-1 and Type-2 TSK Fuzzy Systems," *Fuzz-IEEE 2016*, Vancouver, British Columbia, July 2016, pp. 240-247.

H. Khodabandehlou and M. S. Fadali, "Networked Control of Unmanned Vehicle Using Wavelet-Based Generalized Predictive Controller," *IJCNN 2016*, Vancouver, British Columbia, July 2016, pp. 5226-5233.

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. Khodabandehlou, 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," *Proc. 2012 American Control Conference*, Montreal, Canada, June 2012.

M. S. Fadali, S. Jafarzadeh, "Observer Design for Discrete Type-1 and Type-2 TSK Fuzzy Systems," *Proc. 2012 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.

M. Jensen, R. 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, and F. Harris,"Open Cyber-Architecture for Electrical Energy Markets," *Proc. IEEE Workshop on Smart Grid Networking Infrastructure (SGNI)*, pages 1051-1058, Denver, CO, October 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.

M. Sami Fadali, Norma Velasquez-Bryant, M. Robinson “Is Attitude Toward Mathematics a Major Obstacle to Engineering Education? ”, *Proc. FIE 04 Conference*, Savannah, GA, Oct. 2004.

2003 (9)

A. Sonbol and M. Sami Fadali, “Fuzzy Stability Analysis of Type II TSK Systems”, *Proc. 2003 Conf on Decision & Control*, Maui HI, December, 2003.

G. F. K. Lee, M. Sami Fadali and H. Cho, "Investigation of a Generalized Adaptive Neural Network Fuzzy Inference Structure for Nonlinear Systems with Sensor and Actuator Noise", *ISCA CAINE*, San Francisco, CA, 2003.

M. Sami Fadali, P. Colaneri and M. Nel, “H2 Robust Fault Detection for Periodic Systems”, *Proc. 2003 American Control Conf.*, Denver, CO, June, 2003.

A. Sonbol and M. Sami Fadali, “Improved Fuzzy Approximation Accuracy Using Linear TSK”, *Proc. 2003 American Control Conf.*, Denver, CO, June, 2003.

M. Sami Fadali and L. E. LaForge, “Compensator Plane Design for Engineering Models”, *Proc. 2003 American Control Conf.*, Denver, CO, June, 2003.

M. Karam, M.S. Fadali, & K. White, “A Fourier/Hopfield Neural Network for Identification of Nonlinear Periodic Systems,” *Proceedings of the 35th IEEE Southeastern Symposium on System Theory*, Morgantown, WV, March, 2003.

M. Robinson, M. S. Fadali, W. Johnson, T. Batchman, “AP Mathematics and Science Courses as a Gateway to Careers in Engineering”, *FIE 2003*, Boulder, CO, Nov. 2003.

B. T. Westphal, F. Harris, M. S. Fadali, "Graphical Programming: a Vehicle for Teaching Computer Problem Solving", *FIE 2003*, Boulder, CO, Nov. 2003.

Alina Solovyova-Vincent, Frederick C. Harris, Jr., and M. Sami Fadali, "Parallel Inversion of Polynomial Matrices" *Proceedings of PDCS 2003*, Reno, NV, August 2003.

A. B. Schultz, R. G. Lyon, M. Kochte, D. A. Fraquelli, F. Bruhweiler, I. J. E. Jordan, K. G. Carpenter, M. A. DiSanti, C. Miskey, M. Rodrigue, M. S. Fadali, D. Skelton, H. M. Hart, K.-P. Cheng, "Imaging terrestrial planets with a free-flying occulter and space telescope: an optical simulation", *Proceedings of SPIE*, # 5170-26, San Diego, CA, August, 2003.

2002 (6)

M. Sami Fadali, "Stability Testing for Systems with Polynomial Uncertainty", *Proc. 2002 American Control Conf.*, Anchorage, AK, May, 2002.

A. Sonbol and M. Sami Fadali, "A New Approach for Designing TSK Fuzzy Systems From Input-Output Data", *Proc. 2002 American Control Conf.*, Anchorage, AK, May, 2002.

W. Abdel-Mageed, M. Sami Fadali and G. Bebis, "A Non-intrusive Kalman Filter-Based Tracker for Pursuit Eye Movement", *Proc. 2002 American Control Conf.*, Anchorage, AK, May, 2002.

M. Robinson and M. S. Fadali, "AP Classes and Their Impact on Engineering Education", *ASEE Annual Conference Proceedings*, Montreal, Quebec, CA, June, 2002.

N. Henderson, M. Sami Fadali, J. Johnson, "Peer-Tutoring: An Investigation of First-Year Engineering Students' Perceptions", *Proc. 2002 FIE Conf.*, Boston, MA, Nov., 2002.

M. Robinson, M. Sami Fadali, G. Ochs, "How Do High School Mathematics and Science Teachers Cover Engineering and Technology?", *Proc. 2002 FIE Conf.*, Boston, MA, Nov., 2002.

2001 (10)

M. Sami Fadali and S. Gummuluri, "Robust Observer-based Fault Detection for Periodic Systems", *2001 American Control Conf.*, Arlington, VA, June, 2001.

M. Sami Fadali, L. LaForge and A. Sonbol, "Linear Time Computation of Robust Stability Margins", *2001 American Control Conf.*, Arlington, VA, June, 2001.

M. Robinson and M. S. Fadali, "How Do Secondary Science Texts Cover Mathematics and Engineering Principles and Design?", *ASEE Annual Conference Proceedings*, Albuquerque, NM, June, 2001.

M. Sami Fadali, N. Henderson, J. Johnson, J. Mortensen, J. McGough, "On-line Engineering Mathematics Testing and Assessment", *Proc. 2001 FIE Conf.*, Reno, NV, Oct., 2001.

R. Quinn, M. Sami Fadali, M. Robinson, "How Do High School Mathematics Texts Cover Engineering and Technology?", *Proc. 2001 FIE Conf.*, Reno, NV, Oct., 2001.

J. McGough, J. Mortensen, J. Johnson, M. Sami Fadali, A Web-Based Testing System With Dynamic Question Generation, *Proc. 2001 FIE Conf.*, Reno, NV, Oct., 2001.

M. S. Fadali, L. LaForge, F. Harris, "Frequency Response Bound Determination Using a Kharitonov and Algorithmic Framework", *Proc. 2001 ISCA-CAINE*, Las Vegas, NV, November, 2001.

Marc Karam and M. Sami Fadali, "Fault Detection and Diagnosis Using a Fourier/Hopfield Neural Network", Midwest Circuits & Systems Symposium, Fairborn, OH, August 2001.

J. Kleppe, M. Sami Fadali, M. Lapolla, G. Fralick, "High Temperature Gas Measurements in Combustors Using Acoustic Pyrometry Methods", *47th ISA Internat. Instrumentation Symp.*, Denver, CO, May 2001.

M. Robinson, S. Fadali, C. Maddux, "Promoting engineering literacy for secondary science teachers and students", *School Science and Mathematics Association, National Conference*, Downings Grove, IL, November, 2001.

2000 (6)

M. S. Fadali and K. McNichols, "Controller Design for Slowly Varying Interval Plants Using Gain Scheduling and Interval Mathematics", *2000 American Control Conf.*, Chicago, IL, June, 2000.

M. S. Fadali and H. E. Shabaik, "Robust Fault Detection for a Class of Multirate Linear Systems", *2000 American Control Conf.*, Chicago, IL, June, 2000.

M. Sami Fadali, Mike Robinson, K. McNichols, "Teaching Engineering to K-12 Students Using Role Playing Games", *ASEE Conf.*, Saint Louis, MO, June, 2000.

M. Sami Fadali, Mike Robinson, "How do the National Science Education Standards Support the Teaching of Engineering Principles and Design?", *Frontiers in Education*, Kansas City, MI, Nov. 2000.

M. Sami Fadali, J. Johnson, J. Mortensen, J. McGough, "A New On-line Testing and Remediation Strategy for Engineering Mathematics", *Frontiers in Education*, Kansas City, MI, Nov. 2000.

M. Robinson, M. Fadali, R. Quinn, "Engineering principles for secondary science and mathematics teachers", *School Science and Mathematics Association, National Conf.*, Albuquerque, NM, October, 2000.

1999 (5)

M. S Fadali, W. Liu, "Observer-based Robust Fault Detection for a Class of Multirate Sampled-Data Linear Systems", *1999 American Control Conf.*, San Diego, CA, June, 1999.

M. Holzman, M.S. Fadali, B. Johnson, L. Lautzenhiser, "Robust Stability Analysis of a Phased-locked Loop Voltage-Controlled Oscillator Circuit", *1999 American Control Conf.*, San Diego, CA, June, 1999.

Kenneth H. McNichols, M. Sami Fadali, "The Classroom Computer: A Role-Playing Educational Activity" *Frontiers in Education*, San Juan Puerto Rico, Nov. 1999.

Mike Robinson, M. Sami Fadali, J. Carr, C. Maddux, "Engineering Principles for High School Students", *Frontiers in Education*, San Juan Puerto Rico, Nov. 1999.

A. B. Schultz, D. J. Schroeder, I. Jordan, F. Bruhweiler, M. DiSanti, H. Hart, F. Hamilton, J. L. Hershey, M. Kochte, C. Miskey, K. Chen, M. Rodriguez, B. Johnson, M. S. Fadali, "Imaging Planets About Other Stars with UMBRAS", *Infrared Spaceborne Remote Sensing VIII Proc. SPIE*, Vol. 3759, Denver, CO, July, 1999.

1998 (7)

M. S. Fadali, W. Liu, "Fault Detection for Systems With Multirate Sampling", *American Control Conf.*, Philadelphia, PA, June, 1998.

J. Liu, M. S. Fadali, "Stability and Performance Measures of Stochastic System with Uncertainties", *American Control Conf.*, Philadelphia, PA, June, 1998.

M. S. Fadali, G. Bebis, "Robust controller Design Using Interval Arithmetic", *ISCA Conf. on Computer Applications*, Honolulu, HI, Mar, 1998.

M. Robinson, M. S. Fadali, "A Model to Promote the Study of Engineering through a Capstone Course for Pre Service Secondary Science and Mathematics Teachers, *Frontiers in Education*, Tempe, AZ, Nov., 1998.

M. S. Fadali, E. Wang, D. McPherson, "A Mobile Computer System for high school engineering experiments", *ISCA Caine 98*, Las Vegas, NV, Nov., 1998.

M. Holzman, B. Johnson, M.S. Fadali, L. Lautzenhiser, "Parameter Space Analysis of a Phased-locked Loop Voltage-Controlled Oscillator Circuit", *ISCA Caine 98*, Las Vegas, NV, Nov., 1998.

G. Bebis, S. Louis, M. S. Fadali, "Using Genetic Algorithms for 3D Object Recognition", *ISCA Caine 98*, Las Vegas, NV, Nov., 1998.

1997 (3)

M. S. Fadali, M. Zohdy, "Properties and interpretation of two robustness measures", *Proc. 1997 ACC*, Albuquerque, NM, June, 1997.

M. S. Fadali, "A Design Exercise for Electives in Control Systems", *Frontiers in Education*, Pittsburgh, PA, Nov., 1997.

M. S. Fadali, C. Evrensel, "A Compartmental Model of Pulmonary Gas Exchange", *ISCA International Conf. On Computer Applications*, Phoenix, AZ, Mar., 1997.

1996 (2)

M. S. Fadali, "Control Systems Laboratory at the University of Nevada", *Frontiers in Education*, Salt Lake City, UT, Nov., 1996.

M. S. Fadali, L. E. LaForge, "Algorithmic Analysis of Geometrically Computed QFT Bound", *Proc. IFAC World Congress*, San Francisco, CA, 1996.

1995 (6)

M. S. Fadali, N. Publicover, "Mathematical Model of Current Activation in Cloned Delayed-Rectifier Channels Expressed in *Xenopus* Oocytes", *Proc. ISCA Conf. Comp. Applic. Eng. & Med.*, Indianapolis, IN, Mar, 1995.

M. Zohdy, M. S. Fadali, J. Liu, "Variable Structure Dynamic Output Feedback", *Proc. 1995 American Control Conference*, Seattle, WA, 1995.

M. S. Fadali, N. Chachavalvoong, "Describing Function Analysis of Uncertain Nonlinear Systems Using the Kharitonov Approach", *Proc. 1995 American Control Conference*, Seattle, WA, 1995.

M. S. Fadali, E. Yaz, "Multivariable PID Controller Design", *Proc. 1995 American Control Conference*, Seattle, WA, 1995.

M. S. Fadali, E. Yaz, "Stability Robustness and Robustification of the Exact Linearization Method of Robotic Manipulator Control", *1995 Conf. on Decision and Control*, New Orleans, LA, Dec. 1995.

M. S. Fadali, S. Wongbuddha, "Maximum Absolute Values of Dynamic Variables in Piecewise Linear Control Systems", *CAINE '95*, Honolulu, HI, Dec. 1995.

1994 (1)

M. S. Fadali, G. Cai, Y. Ghoneim, "Air/fuel controller design using the describing function approach", *Proc. 1994 American Control Conf.*, Baltimore, MD, 1994.

1993 (4)

C. Zhang, M.S. Fadali, "Nonlinear System Identification Using a Gabor/Hopfield Network", *ISCA Internat. Conf. Computer Applications*, George Washington Univ., Washington DC, Mar., 1993.

M. S. Fadali, Y. Ghoneim, "2-D modeling control and simulation of vehicle platoons", *Proc. 1993 American Control Conf.*, San Francisco, CA, June, 1993.

L. Bandt, M.S. Fadali, "Analytical gain scheduled control for a nonlinear DC motor system", *ISCA CAINE'93*, Honolulu, HI, Dec., 1993.

H. Assadi, A. Tan, M. Etezadi, D. D. Egbert, M. S. Fadali, "Power system stability studies using the voting fuzzy ARTMAP neural network", *ISCA CAINE'93*, Honolulu, HI, Dec., 1993.

1992 (5)

M. S. Fadali, K. El-Zayyat, M. Zohdy, "Robust optimal control of binary distillation column", *Proc. ISMM Conf. Control Applic.*, Orlando, FA, 1992.

B. Adamczyk, M. S. Fadali, M. Zohdy, "Path optimization using dynamic programming", *Summer Simulation Conf.*, Reno, NV, 1992.

M. Pinsky, M. S. Fadali, "Path tracking using WKB approximation", *1992 American Control Conf.*, Chicago, Il, 1992.

S. Gardner, M. S. Fadali, "Vehicular longitudinal control using quantitative feedback theory", *Proc. Symp. QFT*, Wright-Patterson AFB, Dayton, Ohio, Aug., 1992.

H. Assadi, A. Tan, M. Etezadi, D. Egbert, M. S. Fadali, "Application of the ARTMAP neural network to power system stability studies", *1992 IEEE Conf. Systems, Man & Cybern.*, Chicago, Il, 1992.

1991 (2)

M. S. Fadali, M. Etezadi, M. Zohdy, "Variable structure control of power networks", *1991 American Control Conf.*, Boston, MA, June, 1991.

H. Assadi, A. Tan, M. Etezadi-Amoli, D. D. Egbert, M.S. Fadali, "Steady state stability studies using artificial neural networks", *1991 North American Power Symp.*, Carbondale, IL, Oct., 1991.

1990 (8)

M. S. Fadali, E. C. Tacker, "Hierarchical process modeling of submarine command and control system", *IEEE Internat. Conf. on Systems, Man & Cybern.*, Los Angeles, CA, Nov., 1990.

M. S. Fadali, D. D. Egbert, F. Aguirre, E. C. Tacker, "Minimum-time control of robotic manipulators using a hierarchical neural network", *1990 American Control Conf.*, San Diego, CA, May, 1990.

E. Yaz, M. S. Fadali, M. Zohdy, "Control of robotic manipulators with payload uncertainty", *1990 American Control Conf.*, San Diego, CA, May, 1990.

A. M. El-Ramsisi, M., Zohdy, M. S. Fadali, "An integrated estimation and control scheme for piece-wise linear systems using neural networks", *1990 American Control Conf.*, San Diego, CA, May, 1990.

M. S. Fadali, B. Adamczyk, "Optimal path planning using dynamic programming", *Proc. 1990 ISMM Internat. Conf. Design Applications*, New Orleans, LA, March, 1990.

D. D. Egbert, M. S. Fadali, "Laser beam microferometric system for rapid pavement profiling", *69th Annual Meeting Transport. Res. Board*, Washington, D.C., Jan, 1990.

M. Pinsky, M. S. Fadali, "WKB asymptotic approach to robot control", *ISRAM 90*, Vancouver, B.C., Canada, July, 1990.

M. Zohdy, J. Liu, M. S. Fadali, "Robust design of discrete-time systems via optimization", *21st Running of Modeling & Simulation Conf.*, University of Pittsburgh, Pittsburgh, PA, May, 1990.

1989 (8)

M. S. Fadali, M. Zohdy, B. Adamczyk, "Robust pole assignment for computed torque control of robotic manipulators", *1989 American Control Conf.*, Pittsburgh, PA, June, 1989.

M. Zohdy, M. S. Fadali, N. Loh, "Robust control of robotic manipulators", *1989 American Control Conf.*, Pittsburgh, PA, June, 1989.

L. Marran, M. S. Fadali, E. C. Tacker, "A new modeling methodology for large scale systems", *IEEE Conf. on Systems, Man & Cybern.*, Cambridge, MA, Nov., 1989.

E. C. Tacker, C. Looney, M. S. Fadali, D. D. Egbert, "A fuzzy logic/neural network approach to signal processing in large scale decision systems", *IEEE Conf. on Systems, Man & Cybern.*, Cambridge, MA, Nov., 1989.

M. Zohdy, J., Liu, M. S. Fadali, "Some results in system robustness", *20th Running of Modeling & Simulation Conf.*, University of Pittsburgh, Pittsburgh, PA, May, 1989.

M. S. Fadali, C. Li, "Optimal control of linear 2-D systems", *ISMM Internat. Conf. Computer Applic.*, Reno, NV, Feb., 1989 .

S. Bagchi, M. S. Fadali, S. Gardner, "Error bounds for computed torque control of robotic manipulators in a noisy environment", *ISMM Internat. Conf. Computer Applic.*, Reno, NV, Feb., 1989.

A. Bamani, G. Al Saddiki, M. S. Fadali, "Robust Model Reduction of Discrete Stochastic systems", *ISMM Internat. Conf. Computer Applic.*, Reno, NV, Feb., 1989 .

1988 (5)

M. S. Fadali, M. Wei, "Step size selection for straight line suboptimal control of robotic manipulators", *Second Internat. Conf. Robotics & Manufacturing*, Nov. 16-18, Albuquerque, NM, 1988.

D. D. Egbert, M. S. Fadali, "Time-optimal control with neural networks", *IASTED Internat. Conf. Robotics & Automation*, May 25- 27, Santa Barbara, Ca, 1988.

M. S. Fadali, M. Wei, "Straight line single-step control of robotic manipulators", *ISMM Internat. Conf. Comp. Applic.*, Honolulu, Hawaii, Feb., 1988.

M. S. Fadali, M. Wei, "Straight line single-step optimization of manipulators with a variable cost-weighting matrix", *ACC.*, Atlanta, Ga, June, 1988.

M. S. Fadali, "On the controllability of single-step control of robotic manipulators", *ACC.*, Atlanta, Ga, June, 1988.

1987 (1)

M. S. Fadali, R. Gnanasekaren, "Normal matrices and their stability properties: application to 2-D system stabilization", *Midwest Symp. Cts. & Systems*, Syracuse, Ny, Aug. 17-18, 1987.

1986 (2)

N. Chen, T. A. W. Dwyer, III, M. S. Fadali, "Single-step optimization of feedback-decoupled collision-avoidance maneuvers", *American Control Conference*, Seattle, Washington, June, 1986.

M. S. Fadali, S. Gardner, T. A. W. Dwyer, III, "Nonlinear decoupling and control of manipulators with sensor and actuator noise", *Second IASTED Internat. Conf. on Applied Control & Identification*, Los Angeles, Ca, Dec., 1986.

1985 (5)

M. S. Fadali, W. Henle, A. Tucker, T. A. W. Dwyer, III, "Spline modeling of phenolephrine pharmacodynamics", *Proc. XXII RMBS-ISA*, Fort Collins, Co, Apr. , 1985.

M. S. Fadali, F. Erturk, "A discrete-time model of pulmonary gas exchange", *Proc. XXII RMBS-ISA*, Fort Collins, Co, Apr., 1985.

T. A. W. Dwyer, III, M. S. Fadali, N. Chen, G. F. K. Lee, "Manipulator maneuvering by feedback linearization with saturating inputs" , *Proc. 1985 International Conference on Robotics and Automation*, St. Louis, Mo, March 25-28, 1985.

T. A. W. Dwyer, III, M. S. Fadali, "Single step optimization strategies for constrained spacecraft maneuvers", *Fifth VPI & SU Symposium on Dynamics & Control of Large Space Structures*, Blacksburg, Va, June, 1985.

T. A. W. Dwyer, III, M. S. Fadali, N. Chen, "Single-step optimization of feedback-decoupled spacecraft attitude maneuvers", *Twenty Fourth IEEE Conf. on Decision and Control*, Ft. Lauderdale, Fl., Dec. 11-13, 1985.

1984 (5)

M. S. Fadali, T. A. W. Dwyer, III, "Identification of nonlinear physiological processes", *Proc. XXI RMBS-ISA*, Boulder, Co., 123- 127, Apr.,1984.

M. S. Fadali, T. A. W. Dwyer, III, "Spline modeling in respiratory physiology", *Thirty- Seventh ACEMB*, Los Angeles, Ca., Sept., 1984.

T. A. W. Dwyer, III, M. S. Fadali, "Modeling and identification of nonlinear processes with uncertain measurements", *Third Southern Biomed. Eng. Conf.*, Birmingham, Al., Oct., 1984.

M. S. Fadali, T. A. W. Dwyer, III, "Compact storage and reconstruction of periodic signals using a reproducing kernel Hilbert space", *Mini and Microcomp. in Control, Filtering & Signal Processing*, Las Vegas, Na, Dec.10-12, 1984.

M. S. Fadali, N. Karim, T. A. W. Dwyer, III, "Computer control of zymomonas mobilis fermentation using nonlinear decoupling techniques", *Mini and Microcomp. in Control, Filtering & Signal Processing*, Las Vegas, Na, Dec.10-12, 1984.

1983 (1)

Y. K. Gulut, .M. S. Fadali, "The Biomedical Engineering Program at K. A. U.", *First Nat. Saudi Eng. Conf.*, Jeddah, 1983.

1982 (2)

M. S. Fadali, Y. K. Gulut, "Medical Engineering", *Al-Mohandiss*, No.1, vol.1, 19-24, 1982.

M. S. Fadali, "The human thermoregulatory control system", *Al- Mohandiss*, No.2, vol.1, 35-40, 1982.

1981 (1)

M. S. Fadali, R. Radwan, "Optimum organization for guarding and surveillance", *Saudi Nat. Guard Magazine*, 124-126, 1981.

1980 (1)

M. S. Fadali, J. W. Steadman, R. G., Jacquot, "A model of water absorption in the human intestine", *Proc. XVII RMBS-ISA*, Colorado Springs, Co., 49-53, Apr., 1980.

1979 (1)

M. S. Fadali, J. W. Steadman, R. G., Jacquot, "Control of blood volume and extracellular fluid osmolarity in humans", *Proc. XVI RMBS-ISA*, Denver, Co., 67-71, Apr., 1979.