CURRICULUM VITAE

Dr. Abdollah (Ebbie) Homaifar

Department of Electrical Engineering
North Carolina Agricultural & Technical State University
1601 East Market St.
Greensboro, North Carolina 27411
(336) 336-285-3709 (Office)
(336) 336-285-3271 (Lab)
(336) 334-7716 (Fax)
Email: Homaifar@ncat.edu

I. Education

- Ph.D., 1986 - Electrical Engineering, The University of Alabama
- M.S., 1980 - Electrical Engineering, State University of New York at Stony Brook
- B.S., 1979 - Electrical Engineering, State University of New York at Stony Brook

II. Primary Areas of Research Expertise

- Machine Learning, Approximate Reasoning
- Soft Computing, Evolutionary Computations
- Stochastic Control and Estimation, Control
- Signal Processing, Microprocessor Applications
- Robotics

III. Professional Experience

- 05/2015-present, Director, Autonomous Control and Information Technology (ACIT) Institute
- 04/2015-present, Director, Testing, Evaluation, and Control of Heterogeneous Large-Scale Systems of Autonomous Vehicles (TECHLAV) Center
- 10/2003-present, Duke Energy Eminent Professor, North Carolina A&T, Greensboro, North Carolina
- 06/1999-present, Professor, Department of Electrical and Computer Engineering, North Carolina A&T, Greensboro, North Carolina
- 06/1995-06/1999, Associate Professor, Department of Electrical Engineering, North Carolina A&T, Greensboro, North Carolina
- 01/1989-05/1995, Assistant Professor, Department of Electrical Engineering, North Carolina A&T, Greensboro, North Carolina
- 06/1989-08/1989, Summer Research Engineer, AT&T Bell Laboratories, Holmdel, New Jersey, Member of the Machine Intelligence Department
- 07/1987-12/1988, Visiting Assistant Professor, Department of Electrical Engineering, The University of Alabama

IV. Teaching Experience

A. Undergraduate Courses Taught

- Genetic Algorithms in Optimization and Machine Learning
- Special Projects: Power Electronics
- Introduction to Microprocessors
- Fundamentals of Logic Design
- Linear Systems and Control
- Electric Circuit Analysis
- Electric Circuit Analysis and Synthesis Circuit Laboratory Digital Systems Laboratory
- Digital Signal Analysis and Processing

B. Graduate Courses Taught

- Data Streaming and application in Autonomous vehicles
- Practical Application in Optimization
- Design of Computer Control Systems
- Adaptive Control Theory and Fuzzy Logic Application
- Genetic Algorithms in Optimization and Machine Learning
- Automatic Control Theory
- Theory of Linear Systems
- Switching and Finite Automata Theory
- Special Topics,
- Masters Special Topics
- Industrial Automation I
- Doctoral Special Topics

C. Courses Developed

- ELEN-885 – 02, Practical Application in Optimization
- ELEN-885, Design of Computer Control Systems
- ELEN-885-01, Doctoral Special Topics
- ELEN-885-02, Doctoral Special Topics
- ELEN-870, Adaptive Control Theory and Fuzzy Logic Application
- ELEN-674, Genetic Algorithms in Optimization and Machine Learning
- ELEN-668, Automatic Control Theory
- ELEN-760, Theory of Linear Systems
- GEEN-601, Industrial Automation I

D. North Carolina Tele-Classes Taught or Sponsored

- ELEN-660, Genetic Algorithms in Optimization and Machine Learning (taught with Dr. M. Mostafavi, UNC-Charlotte), Fall 1990
- CSC-6050, UNC-Charlotte, Introduction to Neural Computation, fall 1990 (sponsored)
- CSC-6111, UNC-Charlotte, Evolution Programming, fall 1992 (sponsored)
- ECE-659, BGSM, Computer vision, fall 1993 (sponsored)
- ECE 676, BGSM, Statistical Pattern Recognition, Spring 1993 (sponsored)
- ECE676, NCSU, Performance Evaluation of Computers, Spring 1993 (sponsored)

V. Consulting, and Professional Workshops Conducted:

1. Reviewer: NSF-Integrative Graduate Education in Research Traineeship (IGERT), September 2000
2. Conducted workshop on Intelligent Control: Fuzzy Logic, and Evolutionary Algorithms, with M. Jamshidi, and T. Ross at the International Symposium on Soft Computing for Industry ISI, and WAC ’98, May 10, Anchorage, Alaska
3. Conducted workshop on Intelligent Control: Fuzzy Logic, and Evolutionary Algorithms, with M. Jamshidi, at the International Symposium on Soft Computing for Industry ISI 96, and WAC ’96, Montpellier, France, May 1996
4. Conducted tutorial on Fuzzy Logic, Genetic Algorithms and Their Applications with M. Jamshidi, University of New Mexico, at the Fifth International Symposium on Robotics and Manufacturing, Maui, Hawaii, August 1994
5. Research Institute for Advanced Computer Science (RIACS) Council from 01/01/1998-12/12/2000
6. Engineering Optimization Technology Design Methods (Genetic Algorithms) and its Applications, General Motor Corporation, Saginaw Division, August 5-9, 1991, Saginaw, Michigan
7. Graduate Fellowship Evaluator for the National Defense Science and Engineering
8. International Editorial Review Board (IERB) of the International Journal of Information Security and Privacy (IJISP), 09-12
9. Organizing Committee member for Alabamaife13, Michigan State University, July 2012, 11-12
10. Paper reviewer for Alabamaife13, Michigan State University, July 2012, 11-12
11. Associate Editor for the International Journal of Information Security and Privacy (IJISP), 11-12
12. Journal of Intelligent & Fuzzy Systems, 09-12
13. Reviewer, IEEE Transaction on Fuzzy Sets and Systems, 09-11
14. Reviewer, IEEE Transaction on Systems and Control, 09-11
15. Associate Editor for the International Journal of Information Security and Privacy (IJISP), 10-11
16. Associate Editor for the Journal of Intelligent Automation and Soft Computing, 09-11
17. Reviewer of 4 papers of the Genetic and Evolutionary Computation Conference (GECCO-2009), 10-11
18. Organizing Committee member for Workshop on Understanding Climate Change from Data, University of Minnesota, 11-12, 2011
19. Organizer of The Future of Energy in a Carbon-Restrained World Current Issues in the Utility Industry for student at North Carolina A&T for five weeks. Started on September 28, 2009 and ended on October 12, 2009 with student presentations. Three presentations were made by Progress Energy and Duke Energy experts. Seven groups of student presented their work in the last meeting which was judged by the industry representatives, 09-10
20. Associate Editor for the International Journal of Information Security and Privacy (IJISP), 09-11

21. Reviewer of 4 papers of the Genetic and Evolutionary Computation Conference (GECCO-2009), 09-10
22. Organizer of The Future of Energy in a Carbon-Restrained World Current Issues in the Utility Industry for student at North Carolina A&T for five weeks. Started on September 10, 2008 and ended on October 15, 2008 with student presentations. Three presentations were made by Progress Energy and Duke Energy experts and one Dr. Singh. Four groups of student presented their work in the last meeting which was judged by the industry representatives, 08-09
23. International Editorial Review Board (IERB) of the International Journal of Information Security and Privacy (IJISP), 08-09
24. Organizing member of the Symposium on: Composite Materials, Design & Production Nanotechnology, Design & Engineering Alternate Energy & Fuel Cell Technology, Düsseldorf, Germany, 3-6 July, 2007, 08-09
25. Reviewer, IEEE Transaction on Fuzzy Sets and Systems, 08-09
26. Reviewer of 15 papers of the of the sixth International Symposium on Soft Computing for Industry, World Automation Congress 2008, Hawaii, July 2008, 08-09
27. Organizing Committee Member for ISI2008, and World Automation Congress 2008, Hawaii, July 2008, 08-09

VI. Summary of Funding Awards

A. *Sample of Current Research Funding Exceeding 1M/yr.*

1. Homaifar, A., Karimoddini, A., "Data-Driven Intelligent Prediction Tool" (DIPT), 09/2016-08/2020, $5,300,000, Department of the Army- Project description: This contract investigates engineering, technical, analytical tools for testing and evaluation for modeling complex non-linear systems (systems of systems) with uncertainties by using data-driven techniques. One of the prerequisite for this funding was to have a demonstrated technology readiness level of 3 (TRL-3).
2. Homaifar, A., Karimoddini, A., Jamshidi, Mo, Kelly, J., Seong, Y. and Vadee, N., "Testing, Evaluation and Control of Heterogeneous Large-scale Autonomous Vehicles (TECHLAV)," 04/2015-03/2020, $5,000,000 DOD DAF Air Force Research Laboratory (AFRL)- The aim of this project is to conduct a collaborative and integrated research on two fundamental grand challenges: (1) Teaming and Cooperative Control of Large Scale Autonomous Systems of Vehicles (LSASVs) integrated with human operators. (2) Testing, Evaluation, Validation, and Verification of LSASV.

B. *Research Funding Over the Past Five Years*

3. Karimoddini A., Homaifar, A., "Reliable and Flexible Teaming of Heterogeneous Autonomous Vehicles," $499,353 Army Research Office
4. Ozguner, U., Homaifar, A., et al., "Crash Imminent Safety (CIS) UTC," 10/2013-09/2018. The NCAT funding was $586,000, USDOT RITA University Transportation Center (UTC) Program-A multi-institutional project led by Dr. Ozguner from Ohio State, which included University of Wisconsin Madison, The University of Massachusetts at Amherst and IUPU at Indianapolis The goal of the CrIS UTC is to improve ground transportation safety through interdisciplinary research and development in the interplay of autonomous and intelligent vehicle systems, human factors, and injury biomechanics. The main challenge of this project is achieving driving autonomy in urban environment with road constraints and interactions

between vehicles and humans while maintaining road safety.

5. Kumar, V., Homaifar, A., et al., “Center for Collaborative Research: Understanding Climate Change: A Data Driven Approach,” 08/2010-07/2016, NSF/CCF. The NCAT funding was $900,000. A multi-institutional project led by Dr. Kumar from University of Minnesota, which included University of North Carolina, Northwestern University, and the Northeastern University at Boston. The goal of this project is to take advantage of various data sources to develop computational method to improve understanding of the Earth system and the mechanisms contributing to the adverse consequences of climate change. The key challenges are that 1) the Earth system is very complex and 2) the amount of observations are very large
6. Homaifar, A., Karimoddini, A., “Data Driven Techniques for Testing and Evaluation of Unmanned and Autonomous Systems,” 06/2015-03/2016, $180,000, General Informatics, Inc.
7. Homaifar, A., Karimoddini, A., “A Type-2 Fuzzy Inference System Development Toolbox,” 12/2013-04/2014, $214,950, Scientific Research Corporation.
8. Homaifar, A., Karimoddini, A., “Inference Engine Using Type-2 Fuzzy Sets, Focus on type-reduction,” 12/2013-04/2014, $36,000, Scientific Research Corporation.
9. Homaifar, A., Karimoddini, A., “Inference Engine Using Type-2 Fuzzy Sets, Feasibility Study and Concept Building,” 12/2013-03/2014, $75,000, Scientific Research Corporation.
10. Homaifar, A., “Design and Implementation of Assistive Robotic Residence Home (DIARRH),” 02/2011-01/2013, $155,982, Center for the Study of Evolution in Action.
11. Homaifar, A., Karimoddini, A., “Biologically Inspired Solutions to Computation,” 01/2013-3/2014, $118,800, Center for the Study of Evolution in Action.
12. Dozier, G., Homaifar, A., et al. “The Center for the Study of Evolution in Action (BEACON),” 04/2009-03/2013, NSF. The NCAT funding was $2,500,000.

C. *Other Notable Research*

13. Homaifar, A., Esterline, A., “Learning and Adaptation for Tactical Behaviors,” 09/2008-08/2010, $300,000, General Dynamics
14. Homaifar, A., Esterline, A, “Hybrid Techniques for Fusing Data from Multiple Inertial Navigators,” (Phase 2) 03/2008-02/2009, $67,000, U.S. Navy
15. Homaifar, A., “Integration of Wind Energy into the Future Sustainable Home,” April 07, $80,000, NSF
16. Homaifar, A., Esterline, A., “Clarkson Aerospace, Auction Based Coordination of UAVs,” 10/2007-07/2009, $300,000, U.S. Air Force
17. Bililign, S., Schimmel, K., Homaifar, A., et.al. “NOAA Interdisciplinary Scientific Environmental Technology (ISET) Cooperative Research and Education Center,” 07/2006, 12,500,000, NOAA, EPP
18. Homaifar, A., Esterline, A., “Learning, Adaptation, and Coordination in Multi-Agent Systems,” Dec. 2005, $75,000, JHUARL
19. Homaifar, A., Esterline, A., “Fuzzy Integral Techniques for Fusing Data from Multiple Inertial Navigators,” Sept. 2005, $20,000, U.S. Navy
20. Homaifar, A., “Duke Energy-Summer Educational Program,” Sept. 2005, $10,000, Duke Energy

21. Homaifar, A., Esterline, A., “Multi Objective Routing and Control Optimization for Satellite Linked Mobil Ad Hoc Networks,” 11/2004, $90,000, Raytheon Company
22. Homaifar, A., Esterline, A., “Learning and Adaptation for Tactical Behaviors,” 08/2005, $150,000 per year for five years, General Dynamics
23. Song, D., Dogan, N., Goliszek, Homaifar, A., et.al. “Biologically-Inspired Adaptive and Reconfigurable Systems: Modeling, Synthesis, and Simulation,” 2004-2007, $1,000,000, NSF
24. Homaifar, A., Esterline, A., “Bio Inspired Fuzzy Cognitive Map-Based Hierarchical Supervisory Mission Controls for Uninhibited Aero Vehicles,” 01/2003, $50,000, NIA
25. Homaifar, A., Esterline, A, “Bio Inspired Fuzzy Cognitive Map-Based Hierarchical Supervisory Mission Controls for Uninhibited Aero Vehicles,” 04/2004, $45,000, NIA
26. Homaifar, A., Esterline, A, “Real Time Model Predictive Control for Collaborative Control of Large-Scale Multi-Agent Systems,” 04/2003, $100,000, U.S. Air Force
27. Homaifar, A., Kimiaghalam, B., “Real Time Model Predictive Control for Collaborative Control of Large-Scale Multi-Agent Systems,” 05/2004, $100,000, U.S. Air Force
28. Homaifar, A., Kimiaghalam, B., “Optimal Trajectory Planning for Interplanetary Missions using Hybrid Evolutionary Algorithms,” 03/2004, $370,920, NASA-Ames
29. Homaifar, A., Esterline, A., “Multi Objective Routing and Control Optimization for Satellite Linked Mobil Ad Hoc Networks,” 11/2004, $90,000, Raytheon Company
30. Homaifar, A., Esterline, A., “Mathematical Formulation and Distributed Hybrid Mixed Integer Non-Linear Programming Solver for the Application of UAV,” 06/2003, $74,177, RIACS
31. Homaifar, A., Bikdash, M., Ellis, M., Song, D., Lebby, G., Fatehi, F., Singh, H., “Demonstrative program for the Application of Fuzzy-Controlled PEBBS in HVAC Systems,” 08/1998-12/2008, $2,796,778, Funding Agency: in conjunction with Fred Lee at Virginia Tech as part of a pre-proposal for the Center for Power Electronics Systems to the National Science Foundation
32. Homaifar, A., Sherrod, E., Lebby, G., Vainstein, F., Lala, P., Dozier, G. in collaboration with University of New Mexico and Highland University, "The Center for Autonomous Control Engineering," 1995-2001, $2,150,000, NASA-Ames Research Center
33. Homaifar, A., Bikdash, M., in collaboration with Virginia Tech., “Nonlinear Active Control of Dynamical Systems Office of Naval Research through the Multidisciplinary University Research Initiative (MURI),” 1996-2001, $100, 000 per year, U.S. Navy
34. Homaifar, A., Bikdash, M., "The Center of Aerospace Research-NASA-CAR," Area coordinator of Control and Guidance group, 1996-2001, $143,000.00 per year, NASA
35. Homaifar, A., Bikdash, M., Dunn, D., "The Center of Research Excellence in Aerospace," 1992-1996, $310,000 per year, Area coordinator of Control and Guidance group NASA
36. Homaifar, A., Ashokkumar, CR., "On the Previewed Control Actions for Aircraft Flying Qualities," 06/1996-07/1999, $389,683, NASA Dryden Flight Research Center
37. Homaifar, A., Bikdash, M., Fatehi, F., "Artificial Potential Field Based Motion Planning/Navigation in Two and Three Dimensional Dynamic Environments,” 08/1997-12/1999, $355,270, NASA Dryden Flight Research Center
38. Homaifar, A., Bikdash, M., "Fuzzy-Logic Control for Axisymmetric Compression Inlets," 01/1997-08/1997, $43,499 over six months, the Boeing Company

39. Homaifar, A., Bikdash, M., Song, D., Pai, P., Schultz, M., "Auto Furling of Large-Diameter Wind Turbines Using Fuzzy Logic," 08/1997-12/1999, $240,000, National Renewable Energy Laboratories

40. Homaifar, A., Martin, H., Foster, J., Lebby, G., Kim, J., "Laboratory for Communications, Signal Processing Expert Systems, and ASIC VLSI Design," 10/1989-09/1994, $2,500,000, NSF

41. Homaifar, A., "A New Approach in the Design of Fuzzy Controllers," 01/1992-12/1993, $40,000, Honeywell Systems and Research Center

42. Homaifar, A., “AT&T Research Fellowship in Adaptive Learning Applications,” 1992-1993, $15,000, AT&T Bell Laboratory

43. Homaifar, A., "Faculty Program/Incentives for Excellence project for Young Investigators Award," 1992, $60,000, Digital Equipment Corporation Grant

44. Homaifar, A., Rastani, M., "On-Orbit Payload Calibration Study for Externally Attached Payloads on Space Station Freedom (SSF),” 1990-1992, $150,000, NASA Langley Research Center

45. University Faculty Development Grant Award, to attend the Eastern Communications Forum on 05/1989, $1,000

VII. Research Support and Outreach

ACIT Institute is currently supporting 20 graduates and 22 undergraduate students from various departments in the College of Engineering. A weekly seminar series is organized and made available to the public with the purpose to share ideas on the various projects that the Institute is supporting. Throughout the year, we host students from various Guilford County middle and high schools. The goal of these visits is to introduce the students to different academic majors available, and steps they can take to plan for college. We also support FIRST Tech Challenge, a robotic program in Guilford County, to educate rookie coaches on the fundamental information necessary to be successful in their first season.

VIII. Publications

A. Publications in Referenced Journals *(In order of most recent publication date)*

1. Agana, Norbert A., Homaifar A., EMD-Based Predictive Deep Belief Network for Time Series Prediction": An Application to Drought Forecasting, Journal of Hydrology, 2018. (Accepted)

2. Ramyar S, Homaifar A, Kurt A. (2017) Strategic Decision-Making Algorithm with Personalized Features for Highway Driving, the IEEE Transaction on Intelligent vehicles, (submitted).

3. Kordmahalleh MM, Sefidmazgi MG, Harrison, SH., Homaifar, A., “Identifying time-delayed gene regulatory networks via an evolvable hierarchical recurrent neural network,” Journal of BioData Mining, Vol 10 Issue 1, Pages 29, DOI: 10.1186/s13040-017-0146-4, August 2017

4. Amsalu, S.B., Homaifar, A. and Esterline, A.C., A Simplified Matrix Formulation for Sensitivity Analysis of Hidden Markov Models. Algorithms, 10(3), pages 97-118, 2017

5. Razeghi-Jahromi, M., Nazmi, S., Homaifar, A., “Two-step Markov Update Algorithm for Accuracy-based Learning Classifier Systems,” Journal of Complex Systems, Vol. 26, issue 3, 2017 (in print)

6. Larvie, J., Gorji Sefidmazgi, M., Homaifar, A., Harrison, Karimoddini, A., and Guiseppi-Elie, A., “Stable Gene Regulatory Network Modeling from Steady-State Data,” Journal of Bioengineering 3(2), pages 12-27, 2016

7. Alotaibi, K., Moghassem Hamidi, M., Morteza Talebi, Jinsheng Xu, and Homaifar, A., "Using Spy Node to Identify Cyber-Attack in Power Systems as a Novel Approach," in Electric Information Technology proceeding of the IEEE, pages 581 – 586, 2015

8. Gorji Sefidmazgi, M., Moradi Kordmahalleh, M., Homaifar, A., “Identification of Switched Models in Non-Stationary Time Series Based on Coordinate-Descent and Genetic Algorithm,” Conference Companion on Genetic and Evolutionary Computation Companion, ACM, Spain, (Accepted), 2015

9. Lacewell, C.W, and Homaifar A., “Identifying Developing Cloud Clusters using Predictive Features,” Machine Learning and Data Mining Approaches to Climate Science, Springer (Book Chapter), 2015

10. Larvie, J., Gorji Sefidmazgi, M., Homaifar A., "Inferring Stable Gene Regulatory Networks from Steady-State Data," Northeast Bioengineering Conference, NY, IEEE, (Accepted), 2015

11. Gorji Sefidmazgi, M., Homaifar, A., Liess, S., “Change detection in climate time series based on bounded-variation clustering." Machine Learning and Data Mining Approaches to Climate Science, (Book Chapter), Spring 2015

12. Gorji Sefidmazgi, M, Moradi Kordmahalleh, M., Homaifar, A., Karimoddini, A., “Switched Linear System Identification Based on Bounded-Switching Clustering” American Control Conference, IEEE Chicago, (Accepted), 2015

13. Seifemichael B. Amsalu, Homaifar, A., Fatemeh Afghah, S. Ramyar, and Arda Kurt, “Driver Behavior Modeling Near Intersections Using Support Vector Machines Based on Statistical Feature Extraction” Intelligent Vehicles Symposium (IV), (Accepted in Press), 2015

14. Agana, N., Gorji Sefidmazgi, M., Homaifar, A., “Analysis of Extreme Precipitation Events,” Fourth International Workshop on Climate Informatics, NCAR, Colorado, 2014

15. Buaba, R., Homaifar, A., Hendrix, W., Son, S.W., Liao, W., Choudhary, A, “Randomized Algorithm for Approximate Nearest Neighbor Search in High Dimensions,” Journal of Pattern Recognition Research, Vol. 1, pages 111-122, 2014

16. Gorji Sefidmazgi, M., Moradi Kordmahalleh, M., Homaifar, A., and Karimoddini, A., “A Finite Element Based Method for Identification of Switched Linear Systems,” in American Control Conference, IEEE, Oregon, 2014

17. Gorji Sefidmazgi, M., Sayemuzzaman, M., Homaifar, A., Jha, M.K., Liess, S., “Trend Analysis Using Non-Stationary Time Series Clustering Based on the Finite Element Method,” Nonlinear Process Geophys. Vol. 21, pages 605-615, 2014

18. Opoku, D., Homaifar, A., and Tunstel, E.W, “RFID-Augmentation for Improving Long-term Pose Accuracy of an Indoor Navigating Robot,” the 2014 IEEE International Conference on Systems, Man, and Cybernetics (SMC2014), pages 796-801, 2014

19. Moradi Kordmahalleh, M., Gorji Sefidmazgi, M., Homaifar, A, KC, Guiseppi Elie,A., “Time-Series Forecasting with Evolvable Partially Connected Artificial Neural Network,” Conference Companion on Genetic and Evolutionary Computation Companion, Canada, ACM 2014

20. Moradi Kordmahalleh, M., Gorji Sefidmazgi, M., Homaifar, A., Karimoddini, A., Guisseppi Eli, A., Graves, “Delayed and Hidden Variables Interactions in Gene Regulatory Networks,” 14th International Conference on BioInformatics and BioEngineering, IEEE, Florida, 2014

21. Gorji Sefidmazgi, M., Moradi Kordmahalleh, M., Homaifar, A., Liess, S., “Change Detection in Linear Trend of Temperature over US 1900-2012,” Fourth International Workshop on Climate Informatics, NCAR Colorado, 2014

22. Gorji Sefidmazgi, M., Sayemuzzaman, M., and Homaifar, A., “Non-stationary Time Series Clustering with Application to Climate Systems,” in Third Annual World Conference on Soft Computing, San Antonio, vol. 312, pages 55–63, (Book Chapter), 2014

23. Gorji Sefidmazgi, M., Sayemuzzaman, M., Homaifar, A., Jha, Liess, S., “Trend Analysis Using Non-Stationary Time Series Clustering Based on the Finite Element Method,” Nonlinear Processes in Geophysics, pages 21(3), 2014

24. Fetanat, G. Homaifar, A., Knapp, K., “Objective Tropical Cyclone Intensity Estimation using Analogs of Spatial Features in Satellite Data,” Weather & Forecasting, Vol. 28 Issue 6, pages 1446-1459, December 2013

25. Buaba, R., Homaifar, A., and Kihn, E., “Optimal Load Factor for Approximate Nearest Neighbor Search under Exact Euclidean Locality Sensitive Hashing,” International Journal of Computer Applications, Published by Foundation of Computer Science, New York, pages 69(21):22-31, May 2013

26. Lacewell, C., Homaifar, A. and Y.L., Lin, “Tracing the origins and propagation of pre-tropical storm Debby (2006) mesoscale convective systems using pattern recognition and image fusion,” Meteorology & Atmospheric Physics, vol. 119, no. 1/2, pages 43–58, January 2013

27. Opoku, D., Homaifar, A., and Tunstel, E., “The A-r-Star (Ar*) Pathfinder,” International Journal of Computer Applications; Vol. 67, pages 0975-8887, 2013

28. Dugda, M.T., Workineh, A. T., Homaifar, A. and Kim, J.H. (2012), “Receiver Function Inversion Using Genetic Algorithms,” Bulletin of the Seismological Society of America, Vol. 102, No. 5, pages 2245–2251, October 2012

29. Buaba, R., Gebril M., Homaifar A., Kihn, E., Zhizhin, M., “Satellite Image Retrieval Using Low Memory Locality Sensitive Hashing in Euclidean Space,” Earth Science Informatics, Vol. 4, pages 17–28, 2011

30. Elmatboly O., and Homaifar A., “Novel Sensing of Capacitive Currents Along Critical Transmission Line Spans,” Journal of Sensors, Hindawi Publishing Corporation, 2011

31. Elmatboly O., and Homaifar A., “Overcoming GMR Saturation for High Current Estimation,” Journal of Electromagnetic Analysis and Applications, 2011

32. Gebril, M., Kihn, E., Haj Said, E. and Homaifar, A., “Detecting Environmental Change Using Self-Organizing Map Techniques Applied to the ERA-40 Database,” (in press), the Data Science Journal, pages, 1-12, 2011

33. Workineh, A., and Homaifar, A., “Robust Bidding in LCS using Loan and Bid History,” Journal of Complex Systems, Vol. 19, No. 3, pages 287-303, 2011

34. Ajorlou, A., Homaifar, A., Esterline, A., Moore, J. G., and Bamberger, R. J., “Market-Based Coordination of UAVs for Time-Constrained Remote Data Collection and Relay,” International Journal of Applied Science, Engineering and Technology (IJASET), Vol. 4, Issue No. 1, pages 19-24, 2007

35. Collins, E.G., and Homaifar, A., “HBCUs in Control: Control Programs at Historically Black Colleges and Universities,” IEEE Control Systems Magazine, Vol. 27, Issue No. 4, pages 106-112, August 2007

36. Homaifar, A., Hawari, H., Esterline, A. C., Iran-Nejad, A., and Tunstel, E., “Application of the Biofunctional Theory of Knowledge to Decision Making Using Evolutionary Algorithms and Fuzzy Reasoning,” Submitted to International Journal of Fuzzy Sets and Control, 2003

37. Hussain, M., Kimiaghalam, B., Ahmadzadeh, A., Homaifar, A. and Sayyarodsari, B., "Multi Robot Scheduling Using Evolutionary Algorithms," (accepted in press) the International Journal of Intelligent & Fuzzy Systems, 2003

38. Kimiaghalam, B., Homaifar, A., Bikdash, M., Hunt, B., "Feedforward Control Law for a Shipboard Crane with Maryland Rigging System," Journal of Vibration and Control, Special Issue on Active Control of Nonlinear Dynamical Systems, Volume 8, No.2, pages 159-188, February 2002

39. Homaifar, A., Bikdash, M., and Clifton, C., “Feedback Implementation of Optimal Control Laws,” in the Special Issue on Formal Methods for Fuzzy Modeling and Control of the Journal of Fuzzy sets and Systems, 121, pages 39-57, 2001

40. Shen, Y., and Homaifar, A., "Vibration Control of Flexible Structures with PZT Sensors and Actuators," The Journal of Vibration and Control, 7: pages 417-451, 2001

41. Bikdash, M., Beck, Curtis, and Homaifar, A., “Fuzzy-Logic Control of Axisymmetric Compression Inlets,” Accepted to the AIAA Journal of Control, Guidance, and Dynamics, September 2000

42. Bikdash, M., Kunchithapadam, V., Ragunathan, K., and Homaifar, A., “Comparison of Quasi Bang-Bang and Sliding-Mode Controls for a DC Shunt Motor with Time Delay," Journal of Nonlinear Dynamics, 23, pages 87-102, 2000

43. Homaifar, A., Iran-Nejad, A., Gopalan, V., and Dismuke, L., "Non-Linear Method for Evaluation of Intelligence based on Bio Functional Theory Using Genetic Algorithm and Fuzzy Logic," Journal of Mind and Behavior, Vol. 21 No. 1 Winter, pages 137-147, 2000

44. Iran-Nejad, A., and Homaifar, A., “The Nature of Distributed Learning and Remembering," Journal of Mind and Behavior, Vol. 21 No. 1 Winter, pages153-183, 2000

45. Bikdash, M., Homaifar, A., and Sartor, K., “Fuzzy Guidance of the Shuttle Orbiter During Atmospheric Reentry,” the IFAC Journal on Control Engineering Practice, (7), pages 295-303, 1999

46. Dozier, G. V., Bowen, J., and Homaifar, A., "Dynamic Constraint Satisfaction and Hybrid Evolutionary Search," IEEE Transactions on Evolutionary Computation,” Vol. 2, No. 1, pages 23-33, April 1998

47. Homaifar, A., Battle, D., Tunstle, E., and Dozier, G., “Genetic Programming Design of Fuzzy Logic Controllers for Mobil Robot Path Tracking,” The International Journal of Knowledge-Based Intelligent Engineering Systems, Vol. 4, No. 1, pages 33-52, January 1999

48. Dozier, G. V., Homaifar, A., Bryson S., and Bikdash, M., (1998) "Artificial Potential Field Based Motion Planning/Navigation, Dynamic Constrained Optimization, and Simple Genetic Hill-Climbing," The International Journal of Simulation, pages 1-15, September 1998

49. Homaifar, A, Bikdash. M., and Gopalan, V.J., “Design Using Genetic Algorithms of Hierarchical Hybrid Fuzzy-PID Controllers of Two-Link Robotic Arms,” Journal of Robotic Systems Vol. 14, No. 6 pages 449-463, June 1997

50. Bryson, S., Homaifar, A., Lebby, G., and Bikdash, M., “Job Scheduling Using Genetic Matrix Crossover Operator with 2-Opt Inversion,” The International Journal of Intelligent Automation and Soft Computing, pages 63-76, April 1997

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302. Hogans, J., Homaifar, A., "Analysis of Brain Scan Images Using Genetic Algorithms," The 25th IEEE Southeastern Symposium on System Theory, Tuscaloosa, Alabama, pages 218-222, 1993

303. Homaifar, A., Guan, S., Liepins, G., "A New Approach on the Traveling Salesman Problem by Genetic Algorithms," in S. Forrest, Genetic Algorithms: Proceedings of the Fifth International Conference (GA93, Morgan Kaufmann), pages 460-466, 1993

304. Ricanek, II, K., Homaifar, A., and Lebby, G., "Genetic Algorithm Composes Music," The 25th IEEE Southeastern Symposium on System Theory, Tuscaloosa, Alabama, pages 223-227, 1993

305. Song, Y. D., Homaifar, A., and H.Y. Lai, "Continuous Output Tracking Control of a Class of Nonlinear Systems," IEEE International Conference on Decision and Control, pages 213-2134, 1993

306. Subramanian, S., Thiagarajan, B., and Homaifar, A., "A Novel Approach to Synthesis of Threshold Functions," The 25th IEEE Southeastern Symposium on System Theory, Tuscaloosa, Alabama, pages 200-204, 1993

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309. Homaifar, A., Lai, S., and McCormick, V. E., "Design of Fuzzy Controllers Using Genetic Algorithms," The Second International Conference on Automation, Taipei, Taiwan, R.O.C. July 1992

310. Homaifar, A., McCormick, V. E., "Full Design of Fuzzy Controllers Using Genetic Algorithms," Proceedings of the Neural and Stochastic Methods in Image and Signal Processing at the International Society of Optical Applied Science and Engineering, San Diego, California, pages 393-404, July 1992

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312. Homaifar, A., McCormick, V. E., " A New Approach for The Design and Implementation of Fuzzy Controllers," The IEEE Proceedings of the Southeastern Symposium on System Theory, and Third Annual symposium on CSA, Greensboro, North Carolina, pages 313-317, March 1992

313. Homaifar, A., and Joulapour, M., "Comparison of Scheduling Algorithms for Efficient Parallel Processing of Real-Time Linear Control Systems," The IEEE Proceedings of the Southeastern Symposium on System Theory, and Third Annual Symposium on CSA, Greensboro, North Carolina, pages 120-124, March 1992

314. Homaifar, A., Qi, X, and Foster, J., "Analysis and Design of a General GA Deceptive Problem," The Fourth International Conference on Genetic Algorithms, University of California at San Diego, pages 196-203, July 13-16, 1991

315. Best, L., and Homaifar, A., "Learning The Comparator and JK Flip-Flop Using the Messy Classifier System," Proceedings of Second Annual Symposium on CSA, Greensboro, North Carolina, pages 67-70, March 1991

316. Homaifar, A., Qi, X., "An Overview of Genetic Algorithms Deception and Examples," Proceedings of Second Annual Symposium on CSA, Greensboro, North Carolina, March 1991

317. Homaifar, A., and McCormick, V. E., "Maximizing of Lift to Drag Ratio for A Variable Angle Cone in Hypersonic Flow Using Genetic Algorithms," Proceedings of Second Annual Symposium on CSA, Greensboro, North Carolina, pages 9-12, March 1991

318. Jackson, R., and Homaifar, A., "Production Level Cost Minimization by Genetic Algorithms," Proceedings of Second Annual Symposium on CSA, Greensboro, North Carolina, pages 13-16, March 1991

319. Homaifar, A., Qi, X., "Analysis of Genetic Algorithms Deception by Hadamard Transform," IASTED International Symposium Machine Learning and Neural Networks, New York, October 1990

320. Homaifar, A., Guan, S., and Ashtijou, M., "Comparison of GAs, And Messy GAs with Backpropagation Performance for A Neural Network Optimization," Proceedings of the Sixth Annual AAAI Conference in Aerospace Applications of Artificial Intelligence Conference, Dayton Ohio, pages 358-366, October 1990

321. Homaifar, A., and Guan, S., "Training Weights of Neural Networks by Genetic Algorithms (GAs) And Messy GAs," IASTED, International Conference on Expert Systems and Neural Networks, Honolulu, Hawaii, pages 74-77, August 1990

322. Homaifar, A., Abu-Zitar, R., and Homaifar, G., "The Genetic Algorithms as an Alternative Method for Optimizing the Brachistochrone Problem," IASTED, Proceedings of International Conference in Control and Modeling, Tehran, Iran, pages 130-134, July 1990

323. Ashtijou, M., and Homaifar, A., "Quadratic Digital Filter Realization Using Multiple Look-up Table Method," The Proceedings of the Twenty-First Annual Pittsburgh Conference on Modeling and Simulation, Pittsburgh, pages 2141-2145, May 1990

324. McCormick, V. E., Homaifar, A., and Ashtijou, M., "Turbofan Engine Design Using Genetic Algorithms," The Proceedings of the Twenty-Second Annual Pittsburgh Conference on Modeling and Simulation, Pittsburgh, pages 1827-1833, May 1990

325. Best, L., and Homaifar, A., "Genetic Search Based Learning in Computer Vision System," Proceedings of First Annual Symposium on Communications, Signal Processing Expert Systems and ASIC VLSI Design, Greensboro, North Carolina, pages 116-118, March 1990

326. Homaifar, A., "Genetic Algorithms Foundations and Examples," Proceedings of First Annual Symposium on Communications, Signal Processing Expert Systems and ASIC VLSI Design, Greensboro, North Carolina, pages 112-115, March 1990

327. Carroll, C. C., Homaifar, A., and Barua, S., "Efficient Parallel Architecture for Highly Coupled-Real-Time Linear System Applications," Proceedings of the IEEE Southeast Con, Columbia, South Carolina, pages 649-654, April 1989

328. Homaifar, A., Goldberg, D. E., and Carroll, C. C., "Boolean Function Learning with A Classifier System," Proceedings of the Applications of Artificial Intelligence VI at the International Society of Optical Engineering and the Computer Society of the IEEE, Orlando, Florida, pages 264-272, April 1988

329. Homaifar, A., Bailey, J. E., and Lueg, R. E., "Helicopter GPS-Based Automatic Crosswind Feedback," The IEEE Proceedings of the Southeastern Symposium Theory, Clemson, South Carolina, pages 470-476, March 1987

IX. Invited Talks:

1. Homaifar, Duke University talk – Symposium on Photonics Science and Technology ("Data Management from sensing to mining"), March 14-15, 2016
2. Homaifar, Interview with Ms. Jasmine Spencer from Fox 8 news to discuss research projects and record a video of the lab activities, October 9, 2015
3. Homaifar, "Technical discussion with Technical Monitor and group on Testing, Evaluation, and Control of Heterogeneous Large-Scale Systems of Autonomous Vehicles TECHLAV Center," of the Center of Excellence (CoE) Technical Exchange Meeting, Rome, New York, September 22, 2015
4. Columbus, Ohio an overview of Autonomous Control and Information Technology Institute, (ACIT) Activities. CrIS UTC Annual Meeting 2015 in Ohio State University, September 2015
5. Homaifar, Interviewed by the legendary WFMT-TV anchor, Sandra Hughes (Greensboro News & Record, 'Triad Perspectives', North Carolina A&T, September 2015
6. Homaifar, An overview of Testing, Evaluation, and Control of Heterogeneous Large-Scale Systems of Autonomous Vehicles (TECHLAV) center, Centers of Excellence Kickoff Meeting, Arlington Virginia, August 7, 2015
7. Homaifar, An Overview of Testing, Evaluation, and Control of Heterogeneous Large-Scale Systems of Autonomous Vehicles TECHLAV Center Pre-Kickoff, North Carolina A&T, July 7, 2015
8. N.C. A&T State University, Greensboro – Winning a DoD Center of Excellence: Process and Protocol, the DoD Technical Assistance Training venue and 'Award of Appreciation' by the Office of Diversity Management and Equal Opportunity, June 2015

9. Homaifar, Karimoddini, and Jamshidi, organized a technical panel session on TECHLAV: Testing, Evaluation and Control of Heterogeneous Large-scale Autonomous systems of Vehicles at the 10th IEEE International Conference on System of Systems Engineering, San Antonio, TX. From the TECHLAV researchers, Drs. Jamshidi, Homaifar, and Karimoddini, and from the TECHLAV advisory board, Drs. Barry L. Burks, Paul Hershey, Edward Tunstel discussed different aspects of testing, evaluation, control of large-scale autonomous systems of vehicles, May 2015
10. Abdollah Homaifar, Gene Regulatory Networks with Hidden-Delayed Parameters, Departmental Seminar Series, Department of Chemical & Biomolecular Engineering at Clemson, South Carolina, November 2014
11. Abdollah Homaifar, Analysis of non-stationary time series for wind power grids, University of Massachusetts at Amherst, October 2014
12. Abdollah Homaifar, Multiple linear trend analysis for non-stationary climatic time series, Fourth International Workshop on Climate Informatics, NCAR Boulder Colorado, September 2014
13. Homaifar, A., "Research Study, I: Hierarchical Multi-Label Gene Function Classification, II: Chaotic Time Series Forecasting," Presented Poster in BEACON NSF Visit, Michigan State University, September 2013
14. Homaifar, A., "Hierarchical Multi Label Classification Using GA as a Global Training Method," Presented Poster in BEACON Congress, Michigan State University, August 2013
15. Homaifar, A., "Markov Network Brains for Multiplexer Problems," Presentation to SimIS Inc. Group, May 2013
16. Homaifar, A., "Hierarchical Multi-Label Gene Function Prediction Using Adaptive Mutation in Crowding Niching," Presentation to SimIS Inc. Group, May 2013
17. Homaifar, A., "Innovative Approach to the Identification of Cloud Clusters Developing into Tropical Cyclones," poster presented at The Third International Workshop on Climate Informatics, 2013
18. Homaifar, A., "Innovative Approach to the Identification of Cloud Clusters Developing into Tropical Cyclones," poster presented at The 2nd Annual Graduate Research Poster Contest, 2013
19. Homaifar, A., "Identification of Cloud Clusters Developing into Tropical Cyclones," poster presented at the 3rd Workshop on Understanding Climate Change from Data, 2013
20. Homaifar, A., "Hierarchical Multi-Label Gene Function Prediction using Adaptive Mutation in Crowding Niching," Presented Poster in Research poster competition, North Carolina A&T State University, 2013

21. Homaifar, A., “Multi-label classification of the protein functions of the Saccharomyces cerevisiae organism based on K-Nearest Neighbor (KNN),” Presented Poster in Research poster competition, North Carolina A&T State University, 2013
22. Homaifar, A., “Objective Tropical Cyclone Intensity Estimation from Satellite Images Using Data Mining Techniques,” Climate Informatics 2013. Fetanat, G., Homaifar A., and Knapp, K., “Objective Tropical Cyclone Intensity Estimation from Satellite Images using Data Mining,” Third Workshop on Understanding Climate Change from Data, Northwestern University, 2013
23. Homaifar, A., “Tropical Cyclone Intensity Estimation from Satellite Images, “Poster presentation, Second Annual COE Graduate Research Poster Competition, North Carolina A&T, 2013
24. Homaifar, A., “Similarity quantification of climatic images and tropical cyclone tracking and intensity estimation,” in the department of ECE at the University of Texas at San Antonio as part of the ECE Seminar, October 2012
25. Homaifar, A., “Fast Locality Sensitive Hashing Algorithm for Approximate Nearest Neighbor Search-A Practical Data Mining Approach”. Poster presentation at The Second International Workshop on Climate Informatics, National Center for Atmospheric Research, Boulder, Colorado, September 2012
26. Homaifar, A., “Fast Locality Sensitive Hashing Algorithm for Approximate Nearest Neighbor Search-A Practical Data Mining Approach”. Poster presentation at The Second Workshop on Understanding Climate Change from Data, the Annual Meeting of National Science Foundation in Computing, University of Minnesota, August 2012
27. Homaifar, A., “Tropical Cyclone Intensity Estimation Using Temporal Analysis of Satellite Data,” Climate Informatics 2012
28. Homaifar, A., “Tropical Cyclone Intensity Estimation Using Temporal Analysis of Satellite Data,” AGU Fall Meeting 2012
29. Homaifar, A., “Intelligent Navigation of a Robot in a Dynamic Home Environment using Laser Range Finder,” Poster, 13th Annual Science & Engineering Technology Conference / Defense Tech Exposition, Charleston, South Carolina, April 2012
30. Homaifar, A., “Intelligent Navigation of a Robot in a Dynamic Home Environment using Laser Range Finder,” Poster, 1st Annual COE Graduate Student Research Poster Competition, North Carolina A&T, April 2012
31. Homaifar, A., “Fast Locality Sensitive Hashing Algorithm for Approximate Nearest Neighbor Search-A Practical Data Mining Approach”. Poster presentation at 1st Annual COE Graduate Student Research Poster Competition, Greensboro, North Carolina, 2011, April 2012
32. Homaifar, A., “Design and Implementation of Assistive Robotic Residence Home (DIARRH),” Poster, COE Healthcare Day, North Carolina A&T, February 2012
33. Homaifar, A., “Design and Implementation of Assistive Robotic Residence Home (DIARRH),” Poster, COE Healthcare Day, North Carolina A&T, 2012

34. Homaifar, A., “Tropical Cyclone Intensity Estimation sing Temporal Analysis and Spatial Features in Satellite Data,” Poster presentation, First Annual COE Graduate Research Poster Competition, North Carolina A&T, 2012
35. Homaifar, A., “Tropical Cyclone Intensity Estimation Using Temporal Analysis of Satellite Data,” Second Workshop on Understanding Climate Change from Data, University of Minnesota, 2012
36. Homaifar, A., “A New Bidding Strategy in LCS Using Loan and Bid History,” presentation at the research update of BEACON CONGRESS, August 2011
37. Homaifar, A., “Evolutionary Learning, Navigation and Target Identification for Assistive Robotic Application,” Poster, 3rd BEACON Annual Congress, MSU, MI, August 2011
38. Homaifar, A., “Fast Locality Sensitive Hashing Algorithm for Approximate Nearest Neighbor Search-A Practical Data Mining Approach”. Poster presentation at The First Workshop on Understanding Climate Change from Data, the Annual Meeting of National Science Foundation in Computing, University of Minnesota, August 2011
39. Homaifar, A., “Climate Data Preprocessing,” Workshop on Understanding Climate Change from Data, University of Minnesota, 2011
40. Homaifar, A., “Meteorological Satellite Image Retrieval & Indexing,” Workshop on Understanding Climate Change from Data, University of Minnesota, 2011
41. Homaifar, A., Participated and presented an overview of the current research focus at North Carolina A&T, Workshop on Understanding Climate Change from Data, University of Minnesota, 2011
42. Homaifar, A., Satellite Data,” Workshop on Understanding Climate Change from Data, University of Minnesota, 2011
43. Homaifar, A., “Similarity Estimation of Satellite Images,” Workshop on Understanding Climate Change from Data, University of Minnesota, 2011
44. Homaifar, A., “Stationarity Testing of Tropical Cyclone Intensity,” Workshop on Understanding Climate Change from Data, University of Minnesota, 2011
45. Homaifar, A., “Tracing the Origins of Pre-Tropical Storm Debby Using Satellite Imagery,” Workshop on Understanding Climate Change from Data, University of Minnesota, 2011
46. Fetanat, G., Njoku, P., Altaher, M., Lamberth, M., Obeidat, S., Homaifar, A., and Knapp, K., “Tropical Cyclone Intensity Estimation from Satellite Data,” First Workshop on Understanding Climate Change from Data, University of Minnesota, 2011
47. Homaifar, A., gave a talk “Sensor Fusion,” at the USAF Minority Leaders Program annual meeting in Dayton, Ohio, April 2010
48. Homaifar, A., "Using Wavelet for image retrieving of satellite images," NOAA EPP Education and Science Forum, Howard University, Washington DC, 2009
49. Homaifar, A., “Learning and Adaptation for Tactical Behaviors,” RCTA Internal Program Review, Fort Indiantown Gap, Pennsylvania April 2009

50. Homaifar, A., Participated and presented the thrust III overview in the NOAA-ISET South Carolina evaluation meeting, April 2009
51. Homaifar, A., “Creating Virtual Sensors using Learning Based Super Resolution and Data Fusion,” attended and presented at the IEEE Aerospace Conference, Montana, March 2009
52. Homaifar, A., Discussed “Virtual Sensors and Climate Change,” as an invited speaker at the North Carolina Sensor workshop, Chapel Hill North Carolina. In this meeting researcher from government, industry and academia from across the state and nation presented sensor inventories, sensor platforms, and analytic techniques relating to meteorology and hydrology, February 2, 2009
53. Homaifar, A., Presented a talk “Sensor Fusion,” at the USAF Minority Leaders Program annual meeting in Atlanta, Georgia, February 2009
54. Homaifar, A., along with others from ISET visited the National Climatic Data Center (North Carolina DC) for student summer internship. Khristopher Blue will work as an intern at North Carolina DC with NOAA scientist Russel S. Vose on image reduction and analysis, Jan. 23, 2009
55. Homaifar, A., “Auction Based Coordination of UAVs” the USAF Minority Leaders Program Annual Meeting, New Orleans, Louisiana, February 2008
56. Homaifar, A., “Learning and Adaptation for Tactical Behaviors,” RCTA Internal Program Review, Fort Indiantown Gap, Pennsylvania, April 2007
57. Homaifar, A. “Auction Based Coordination of UAVs,” the Minority Leaders Review Conference, Panama City, Panama, March 2007
58. Esterline, A., and Homaifar, A., “Learning and Adaptation for Tactical Behaviors,” Collaborative Technology Alliance Symposium, Adelphi, Maryland, April 2006
59. Esterline, A., and Homaifar, A., “Learning and Adaptation for Tactical Behaviors,” RCTA Internal Program Review, Fort Indiantown Gap, Pennsylvania, April 2005
60. Elmatboly, O., Homaifar, A., Zolghadri, M., “High Current Measurements Using a Discrete Giant Magneto Resistive Sensor,” 9th. Annual Undergraduate Research Conference of North Carolina-LSAMP, March 2005
61. Olayiwola, A., Prince, C., Brown, T., Homaifar, A., Zolghadri, M., “Computer Based Power Electronics Lab,” 9th. Annual Undergraduate Research Conference of North Carolina-LSAMP, March 2005
62. Homaifar, A., "Panel Discussion on Intelligent Control,” The Second Annual Joint Conference on Information Sciences, September 1995
63. Homaifar, A., "Robot Arm Trajectory Control via Fuzzy Controller,” E&A'94 Symposium, Prairie View, Texas, March 1994
64. Homaifar, A., "Fuzzy Inference for Variable Structure Control," The North American Fuzzy Information Processing Society Conference, 1993
65. Homaifar, A., "An Overview of Genetic Algorithms and its Applications,” Eastman Kodak, Rochester, New York, 1992
66. Homaifar, A., "Evolution Strategy Algorithms Applications in Aerospace,” NASA Langley Research Center, Hampton Virginia, March 1992

67. Homaifar, A., "Analysis and Design of a General GA for Deceptive Problem," US Army Research Office, Mathematical and Computer Science Division, Research Triangle Park 1991

68. Homaifar, A., "Genetic Algorithm and PGA Application in Solving a Special Class of NP-complete Problem," Bowman Gray School of Medicine, Winston-Salem, North Carolina, 1991

X. Submitted for Publication, Presentation and Posters:

1. Amsalu, S.B., & Homaifar, A., "Sensitivity Analysis of Hidden Markov Models using Simplified Matrix Formulation." Presented in North Carolina A&T 5th Annual COE Graduate Student Research Poster Competition, April 2016
2. Khaled Alotaibi, Jinsheng Xu, and Abdollah Homaifar, "A Novel Approach for Identification of Cyber Physical Data Attack in Power System using Spy Node," North Carolina A&T State University, Collage of Engineering annual competition, 2016
3. Mina Moradi Kordmahalleh, Abdollah Homaifar, A sparse recurrent neural network for trajectory prediction of Atlantic hurricanes. Presented in North Carolina A&T 5th Annual COE Graduate Student Research Poster Competition (First Place Winner)
4. Allan Anzagira/ Abdollah Homaifar, Effects of General Alerts (Auditory or Visual) on Latent Hazard Anticipation will performing a cognitive secondary task. Presented in North Carolina A&T 5th Annual COE Graduate Student Research Poster Competition
5. Saina Ramyar, Abdollah Homaifar, "Fuzzy Modeling of Drivers' Actions at Intersections." Presented in North Carolina A&T 5th Annual COE Graduate Student Research Poster Competition (Honorable Mention)
6. Norbert A. Ayine, Abdollah Homaifar. "Modeling of Nonstationary Extreme Events Using Generalized Additive Model: A Data Driven Approach" Fifth Annual COE Poster Competition, North Carolina A&T State University, Greensboro, North Carolina, 2016
7. Norbert A. Ayine, Mohammad Gorji-Sefidmazji, Abdollah Homaifar. "Generalized Additive Modeling of Extreme Events Using Smoothing Splines". Fifth Annual Workshop on Understanding Climate Change from Data. Poster Presentation., University of Minnesota, August 2015
8. Mohammad Gorji Sefidmazgi, Abdollah Homaifar, Liess "Change detection in climate time series based on bounded-variation clustering." Machine Learning and Data Mining Approaches to Climate Science, (book chapter), Spring 2015
9. C.W Lacewell, A. Homaifar, Y.L, Lin, and K. Knapp, "Data Driven Approach to Identifying Cloud Clusters Developing into Tropical Cyclones," poster presented at The 4th Annual Graduate Research Poster Contest, North Carolina, 2015
10. C. W. Lacewell and A. Homaifar, "*Identifying Developing Cloud Clusters using Predictive Features,*" Machine Learning and Data Mining Approaches to Climate Science, Springer, (book chapter), 2015
11. Seifemichael B. Amsalu, Abdollah Homaifar, Fatemeh Afghah, S. Ramyar, and Arda Kurt, "*Driver Behavior Modeling near Intersections Using Support Vector Machines based on*

Statistical Feature Extraction" Intelligent Vehicles Symposium (IV), (Accepted in press), 2015

12. C. W. Lacewell and A. Homaifar, "*SCOT: Selective Clustering based Oversampling Technique,*" Data Mining and Knowledge Discovery, submitted

13. Gorji Sefidmazgi, Mina Moradi Kordmahalleh, Abdollah Homaifar, "Identification of switched models in non-stationary time series based on coordinate-descent and Genetic Algorithm" Conference Companion on Genetic and Evolutionary Computation Companion, ACM, Spain, (Accepted), 2015

14. Joy Larvie, Mohammad Gorji Sefidmazgi, Abdollah Homaifar, "Inferring stable gene regulatory networks from steady-state data," Northeast Bioengineering Conference, NY, IEEE 2015 (Accepted)

15. Mohammad Gorji Sefidmazgi, Moradi Kordmahalleh, Abdollah Homaifar, Karimoddini "*Switched linear system identification based on bounded-switching clustering*" American Control Conference, IEEE Chicago, (Accepted), 2015

16. Moradi, K. M., Gorji, S. M., Homaifar A., "Application of a novel partially connected artificial neural network with evolvable topology in time series prediction," Applied Soft Computing Journal, revision submitted, 2015

17. Norbert A. Agana, Mohammad Gorji-Sefidmazji, Abdollah Homaifar. "Analysis of Extreme Precipitation Events". Fourth International Workshop on Climate Informatics, Colorado, September 2014

18. Agana, N., Agana, Mohammad Gorji-Sefidmazji, Abdollah Homaifar. "Analysis of Extremes of Precipitation Events". Fourth Workshop on Understanding Climate Change from Data. Poster Presentation, Colorado, July 2014

19. Moradi, K. M., Gorji, S. M., Homaifar. A., D. KC, "A Novel Evolvable Artificial Neural Network with the Application to Chaotic Time-Series Forecasting," GECCO 2014, Vancouver, BC, Canada, July 2014

20. Moradi, K. M., Homaifar, A., D. KC, "CAM-HMC: Crowding Niching-Adaptive Mutation for Hierarchical Multi-Label Gene Function Classification," IEEE Journal of Biomedical and Health Informatics, Special Issue Bioinformatics in Clinical Environments, Submitted, July 2014

21. Opoku D., Homaifar, A., Tunstel E. W., RFID-Augmentation for Improving Long-term Pose Accuracy of an Indoor Navigating Robot, Conference paper, Submitted to 2014 IEEE Intelligent Vehicles Symposium, January 2014

22. D. Opoku, A. Homaifar and E. W. Tunstel, "RFID-Augmentation for Improving Long-term Pose Accuracy of an Indoor Navigating Robot," the 2014 IEEE International Conference on Systems, Man, and Cybernetics (SMC2014), pages 796-801, 2014

23. C. Lacewell, A. Homaifar, Y.-L. Lin, and K. Knapp "Identifying Predictive Features of Developing Cloud Clusters," poster presented at The Board of Visitors Meeting, North Carolina, 2014

24. C. Lacewell, and A. Homaifar, “SCOT: Selective Clustering based Oversampling Technique,” poster presented at the Fourth Workshop on Understanding Climate Change from Data, Colorado, 2014

25. Mina Moradi Kordmahalleh, Gorji Sefidmazgi, Abdollah Homaifar, KC, Guiseppi-Elie, A. “Time-series forecasting with evolvable partially connected artificial neural network” Conference Companion on Genetic and Evolutionary Computation Companion, Canada, ACM 2014

26. Mohammad Gorji Sefidmazgi, Mina Moradi Kordmahalleh, Abdollah Homaifar, and Ali Karimoddini, “A Finite Element Based Method for Identification of Switched Linear Systems,” in American Control Conference, IEEE, Oregon, 2014

27. Mohammad Gorji Sefidmazgi, Mina Moradi Kordmahalleh, Abdollah Homaifar, S. Liess “Change Detection in Linear Trend of Temperature over US 1900-2012” Fourth International Workshop on Climate Informatics, North Carolina, 2014

28. Mohammad Gorji Sefidmazgi, Mina Moradi Kordmahalleh, Abdollah Homaifar, S. Liess “Change Detection in Linear Trend of Temperature over US 1900-2012,” Fourth International Workshop on Climate Informatics, NCAR Colorado, 2014

29. Mohammad Gorji Sefidmazgi, Mohammad Sayemuzzaman, and Abdollah Homaifar, “Non-stationary Time Series Clustering with Application to Climate Systems,” in Third Annual World Conference on Soft Computing, San Antonio, Vol. 312, pages 55–63 (Book chapter), 2014

30. Mohammad Gorji Sefidmazgi, Sayemuzzaman, Abdollah Homaifar, Jha, Liess “Trend Analysis using Non-Stationary Time Series Clustering based on the Fnite Element Method,” Nonlinear Processes in Geophysics, 21(3), 2014

31. Moradi, K. M., Gorji, S. M., Homaifar, A., Karimoddini, Guisseppi-Elie, A., Graves “Delayed and hidden variables interactions in gene regulatory networks” 14th International Conference on BioInformatics and BioEngineering, IEEE, pp. 23-29, Florida, 2014

32. Lacewell, C. W., Homaifar, A., “South Carolina: Selective Clustering based Oversampling Technique,” Data Mining and Knowledge Discovery, submitted

33. M. Moradi, M. Gorji, A. Homaifar, A. Guiseppi-Elie, J.L. Graves Jr. “Gene Regulatory Networks with Hidden-Delayed Parameters,” N.C. Tissue Engineering and Regenerative Medicine Society Conference, Durham, North Carolina, 2014

34. M. Moradi, A. Homaifar, “Gene Regulatory Network Based on Evolvable Partially Connected Artificial Neural Network,” SIAM conference, Charlotte, North Carolina, 2014

35. M. Moradi, A. Homaifar, “Evolutionary Artificial Neural Network with the Application to Chaotic Time-Series Forecasting,” Presented Poster in Research poster competition, North Carolina A&T 2014

36. M. Moradi, m. Gorji, A. Homaifar, A. Guiseppi-Elie, J.L. Graves Jr. “Gene Regulatory Networks with Hidden-Delayed Parameters” N.C. Tissue Engineering and Regenerative Medicine Society conference, Durham, North Carolina, 2014

37. Norbert Agana, Mohammad Gorji Sefidmazgi, Abdollah Homaifar “Analysis of Extreme Precipitation Events” Fourth International Workshop on Climate Informatics, North Carolina, 2014

38. Buaba, R., Homaifar, A., Kihn, E., “Approximate Nearest Neighbor Search-A New Perspective to Locality Sensitive Hashing,” ACM Transaction on Journal of Experimental Algorithmics, 2012

XI. Workshops/Seminars Conducted or Attended:

1. Organizing Committee member for Workshop on Understanding Climate Change from Data, University of Minnesota, 2011, 11-12
2. Organizing Committee member for Alabamaife13, Michigan State University, July 2012, 11-12
3. Organizing Committee member for Alabamaife13, Michigan State University, July 2012
4. Chair of Research Efficiency Committee (Spring 2012) to improve overall research productivity among faculty
5. I organized The Future of Energy in a Carbon-Restrained World Current Issues in the Utility Industry for students at N.C. A&T for five weeks. Started on September 10, 2008 and ended on October 15, 2008 with student presentations. Three presentations were made by Progress Energy and Duke Energy experts and one Dr. Singh. Four groups of students presented their work in the last meeting, judged by industry representatives, 2009-2010
6. I organized The Future of Energy in a Carbon-Restrained World Current Issues in the Utility Industry for student at N.C. A&T for five weeks. Started on September 28, 2009 and ended on October 12, 2009 with student presentations. Three presentations were made by Progress Energy and Duke Energy experts. Seven groups of students presented their work in the last meeting, judged by the industry representatives, 2008-2009
7. Organizing member of the Symposium on: Composite Materials, Design & Production Nanotechnology, Design & Engineering Alternate Energy & Fuel Cell Technology, Düsseldorf, Germany, July, 2008-2009
8. Organizing Committee Member for South Carolina '2008, and World Automation Congress ’2008, Hawaii, July 2008-2009
9. Section chair for Third Workshop on Understanding Climate Change from Data, 2011 & 2012
10. Chair of Faculty recruitment. I was in charge of responding to external responses; arranging time for faculty interview; collecting feedback; and in part negotiation, 2010
11. Committee member of GCDC, to come up with initial policies and approval of courses, 2008-2010
12. Organized Area Coordination for Control and Power Systems, 2010
13. Attended a workshop on Modeling and Control Design of DC/DC Converters, Virginia Polytechnic Institute and State University, May 2002, Blacksburg, Virginia

14. Conducted workshop on Intelligent Control: Fuzzy Logic, and Evolutionary Algorithms, the sixth IEEE Annual Computer System Information (South Carolina) Conference, Isfahan Technology University, February 2001 Isfahan, Iran
15. Conducted workshop on Intelligent Control: Fuzzy Logic, and Evolutionary Algorithms, with M. Jamshidi, and T. Ross at the International Symposium on Soft Computing for Industry IS South Carolina, 2000, and WAC '2000, June, Maui, Hawaii
16. Attended a workshop on the Role of Soft-Computing Techniques in Earth Sciences at the International Symposium on Soft Computing for Industry 98, and WAC '98, May, Anchorage, Alaska
17. Participated in Lifespring Workshop for leadership, Raleigh, North Carolina, March 1997
18. Participated in Lifespring Workshop for leadership, Raleigh, North Carolina, January 1997
19. Participated in Lifespring Workshop for leadership, Washington DC, April 1997
20. Attended the workshop on "Remote Sensing and GIS: Principles and Applications," at the NASA University Research Centers, Technical Conference on Education, Aeronautics, Space, Autonomy, Earth and Environment, Albuquerque, New Mexico, February 1997
21. Homaifar, A. and Bikdash, M., Presented an invited paper entitled "Tutorial on Fuzzy Systems and Control," Virginia Tech, Blacksburg, Virginia, December 1996
22. Attended the workshop on Total Quality Management at the E&A'94 Symposium, Prairie View, Texas, March 1994
23. Attended the SUCCEED Teaching Effectiveness Workshop, North Carolina A&T, Greensboro, North Carolina, January 1993
24. Attended the workshop on Robust Control at the International Conference on Decision and Control, Tucson, Arizona, December 1992
25. Organized a workshop on Variable Structure Control (Professor Wei-Bing Gao, North Carolina A&T, December 1992
26. Attended the Network Training workshop, November 1992, North Carolina A&T
27. Attended the workshop on Distributed Parameter Modeling and control of Flexible Aerospace Systems, Williamsburg, Virginia, June 1992
28. Attended the short course on Distributed Parameter Modeling, Parameters Estimation and Control, Williamsburg, Virginia, June 1992
29. Attended the OSSA Attached Payloads Investigations Workshop, Columbia, Maryland, April 1990
30. Attended the workshop on "Effective Teaching," conducted by Dr. Edwin Fenton, from Carnage Melon University, North Carolina A&T, Greensboro, North Carolina, January 1990
31. Attended workshop on Robot Sensing and Intelligence, Huntsville, Alabama, September 1989

XII. Technical Reports:

1. Homaifar A., Karimoddini A., Jamshidi M., Kelly, J., Seong Y., and Seyedin S, Testing, Evaluation, and Control of Heterogeneous Large-Scale Systems of Autonomous Vehicles,

Corey M., Technical Monitor, Information Directorate, AFRL, Rome NY, Q2, 2016 report – July 2016

2. Homaifar A., Karimoddini A., Jamshidi M., Kelly, J., Seong Y., and Seyedin S, Testing, Evaluation, and Control of Heterogeneous Large-Scale Systems of Autonomous Vehicles, Corey M., Technical Monitor, Information Directorate, AFRL, Rome NY, Q1, 2016 report – April 2016
3. Homaifar A, Human Factors for Crash Imminent Safety in Intelligent Vehicles, Dr. Umit Ozguner/Theresa Gordon, Ohio State, the US Department of Transportation (USDOT), Research and Innovative Technology Administration (RITA) under University Transportation Center (UTC) Program, Report October-March, 2016
4. Homaifar A., Karimoddini A., Jamshidi M., Kelly, J., Seong Y., and Seyedin S, Testing, Evaluation, and Control of Heterogeneous Large-Scale Systems of Autonomous Vehicles, Corey M., Technical Monitor, Information Directorate, AFRL, Rome NY, Q4, 2015 report– January 2016
5. Homaifar A, Human Factors for Crash Imminent Safety in Intelligent Vehicles, Dr. Umit Ozguner/Theresa Gordon, Ohio State, the US Department of Transportation (USDOT), Research and Innovative Technology Administration (RITA) under University Transportation Center (UTC) Program, Report March-October 2015
6. Homaifar A., Karimoddini A., Jamshidi M., Kelly, J., Seong Y., and Seyedin S, Testing, Evaluation, and Control of Heterogeneous Large-Scale Systems of Autonomous Vehicles, Corey M., Technical Monitor, Information Directorate, AFRL, Rome NY, Q3, 2015 report – October 2015
7. Homaifar, A., Karimoddini, A., Kelly, J., Seong, Y., and Seyedin S., "Testing, Evaluation and Control of Heterogeneous Large-scale Autonomous Vehicles (TECHLAV)," DOD DAF Air Force Research Laboratory (AFRL) quarter 3 report, October 2015
8. Homaifar, A., "Crash Imminent Safety UTC," The Ohio State University, Department of Transportation (DOT), annual report, September 2015
9. Homaifar A., Karimoddini A., Jamshidi M., Kelly, J., Seong Y., and Seyedin S, Testing, Evaluation, and Control of Heterogeneous Large-Scale Systems of Autonomous Vehicles, Corey M., Technical Monitor, Information Directorate, AFRL, Rome NY, Q2, 2015 report– July 2015
10. Homaifar, A., and Bikdash, M., "NASA CAR Annual Report," June 2002
11. Homaifar, A., and Esterline, A., C., "NASA ACE Annual Report," April 2002
12. Homaifar, A., Bikdash, M., Fatehi, F., and Patel, N., "NSF/CPES Annual Report, "Volumes I and II, March 2002
13. Homaifar, A., and Bikdash, M., sixth Semi-Annual MURI Report, September 2001
14. Homaifar, A., Bikdash, M., Fatehi, F., and Patel, N., "NSF/CPES Annual Report, "Volumes I and II, March 2001
15. Homaifar, A., and Fatehi, F. "Artificial Potential Field Based Motion Planning/Navigation in Two and Three Dimensional Environment," NASA-Dryden. April 2001
16. Homaifar A., and Ashokkumar C.R., "Supplemental Control for Flight Cruise with turbulence in discrete Time Windows," NASA-Dryden, April 2001

17. Homaifar, A., and Bikdash, M., “NASA CAR Annual Report,” June 2000

18. Homaifar, A., Bikdash, M., Fatehi, F., and Patel, N., “NSF/CPES Annual Report, “Volumes I and II, March 2000

19. Homaifar, A., Bikdash, M., Fatehi, F., and Patel, N., “NSF/CPES Annual Report, “Volumes I and II, March 1999

20. Bikdash, M., and Homaifar, A., “Fuzzy-Linguistic Control of Axisymmetric Compression Inlets,” Final Report Submitted to the Boeing Corporation, September 30, 1998

21. Homaifar, A., And Fatehi, F. “Artificial Potential Field Based Motion Planning/Navigation in Two and Three Dimensional Environment,” NASA-Dryden, April 1998

22. Homaifar, A., and Bikdash, M., "MURI Annual Report," April 1998

23. Homaifar, A., Bikdash, M., and Esterline, A., C., "NASA ACE Annual Report,” April 1998

24. Homaifar A., and Ashokkumar C.R., "Supplemental Control for Flight Cruise with Turbulence in Discrete Time Windows,” NASA-Dryden, February 1998

25. Homaifar, A., and Bikdash, M., “NASA CAR Annual Report.” June 1997

26. Bikdash, M., and Homaifar, A., Fuzzy-Linguistic Control of Axisymmetric Compression Inlets: First Quarterly Report Submitted to the Boeing Corporation, April 1997

27. Homaifar, A., and Bikdash, M., and Dozier, G. V., "Autonomous Control Engineering: Annual Report/Renewal Proposal," NASA ACE Center at North Carolina A&T, March 1997

28. Homaifar A., Bikdash, M., and Ashokkumar CR., "Control and Guidance of Hypersonic Vehicles," Final 5-year Report for the Guidance and Control Group in the NASA Center of Research Excellence (CORE), 1997

29. Homaifar A., and Ashokkumar C.R., "Supplemental Control for Flight Cruise with Turbulence in Discrete Time Windows,” NASA-Dryden, 1997

30. Homaifar A., Bikdash, Sherrod, E., Vainstein, F., Lala, P., Dozier, G., and Lebby, G., "Autonomous Control Engineering,” Annual Report, University of New Mexico, Albuquerque, February 1996

31. Homaifar A., Dunn, D. O., and Ashokkumar, CR., "Control and Guidance of Hypersonic Vehicle,” NASA Center of Research Excellence, North Carolina A&T Annual Report, November 1995

32. Homaifar A., Dunn, D. O., and CR. Ashokkumar, "Control and Guidance of Hypersonic Vehicle,” NASA Center of Research Excellence, North Carolina A&T Annual Report, December 1994

33. Homaifar A., "A New Approach in The Design of Fuzzy Controllers" by Honeywell Systems and Research Center, $40,000, December 1993

34. Homaifar, A., Lai, H.Y., Dunn, D. O., and Song, Y. D., "Control and Guidance of Hypersonic Vehicle,” NASA Center of Research Excellence, North Carolina A&T Annual Report, October 1993

35. Homaifar A., "AT&T Research Fellowship in Adaptive Learning Applications," A T&T Bell Laboratory, 1993

36. Martin, H. L, Kelly, J., Lebby, G. L., Homaifar A., and J. H. Kim, "Laboratory for Communications, Signal Processing Expert Systems, And ASIC VLSI Design," Technical Report, NSF-8913432, 1993

37. Homaifar A., Lai, H.Y., Dunn, D. O., and Song, Y. D., "Control and Guidance of Hypersonic Vehicle," NASA Center of Research Excellence, North Carolina A&T, Annual Report, October 1992

38. Homaifar A., and Rastani, M., "Space Station Freedom Attached Payload Subsystems Analysis for The Payload Pointing Systems, and Contamination Monitoring Unit," NASA-Goddard Space Flight Center-442013, April 1991

39. Homaifar A., "Learning and Identifying Concept Description from Noisy Examples". Digital Equipment Corporation 111 Powdermill Road Maynard, Massachusetts, December 1990

40. Carroll, C. C., Homaifar A., and, Ananthram, K., "An Intelligent Allocation Algorithm for Parallel Processing," The University of Alabama BER Report, Tuscaloosa, Alabama 1988

41. Homaifar A., Carroll, C. C., and Barua, S., "Effective Parallel Architecture for Highly Coupled Real-Time Linear System," The University of Alabama BER Report, Tuscaloosa, Alabama 1988

42. Homaifar A., Bailey, J.E., and Krishnakumar, K., "Global Positioning Satellite-Based Automatic Landing System and Wind Estimated Feedback for The AH-64 Helicopter," The University of Alabama BER Report, December 1986

43. Homaifar A., Bailey, J.E., and Krishnakumar, K., "GPS-Based Automatic Landing System for The AH-64 Helicopter," The University of Alabama BER Report, September 1985

XIII. Professional Activities:

A. Paper Reviewer and Editorship:

1. Associate Editor for the Journal of Intelligent Automation and Soft Computing
2. International Editorial Review Board (IERB) of the **International Journal of Information Security and Privacy (IJISP)**.

B. Reviewer for:

1. Paper reviewer for Alabamaife13, Michigan State University, July 2012
2. Reviewer, IEEE Transaction on Fuzzy Sets and Systems, 2010-2011
3. Reviewer, IEEE Transaction on Systems and Control, 2010-2011
4. Reviewer of 4 papers of the Genetic and Evolutionary Computation Conference (GECCO, 2008-2010)
5. Reviewer of 15 papers of the of the sixth International Symposium on Soft Computing for Industry, World Automation Congress, Hawaii, 2008-2010
6. Reviewer, IEEE Transaction on Fuzzy Sets and Systems, 2009-2010
7. Reviewer, IEEE Transaction on Systems and Control, 2009-2010
8. Reviewer, IEEE Transaction on Fuzzy Sets and Systems, 2008-2009

9. IEEE Transactions on Fuzzy Systems
10. Reviewer for IEEE TRANSACTIONS ON Evolutionary Algorithms
11. Reviewer of 9 papers of the IEEE Fuzzy 2000, San Antonio, Texas, May 2000
12. Reviewer of 25 papers of the of the Third International Symposium on Soft Computing for Industry, - South Carolina '98, and World Automation Congress ’2000, Maui, Hawaii, June 2000
13. Reviewer of 32 papers of the of the Third International Symposium on Soft Computing for Industry, - South Carolina '98, and World Automation Congress ’98, Anchorage, Alaska, May 1998
14. IEEE Transactions on Man, Machines, & Cybernetics
15. Journal of Intelligent & Fuzzy Systems
16. IEEE Transactions on Neural Networks
17. Reviewer of IEEE Fuzzy 1996
18. Reviewer of the Program 25 papers of the “5 Fuzzy Days, Fuzzy Logic, Neural Networks, Evolutionary Algorithms,” Conference, University of Dortmund, Germany, April 28-30, 1997
19. Reviewer of the NASA University Research Centers’ Technical Conference on Education, Aeronautics, Space, Autonomy, Earth and Environment, Albuquerque, New Mexico, February 1997
20. Reviewer of 50 papers of the International Conference on Computational Intelligence, “5 Fuzzy Days, Fuzzy Logic, Neural Networks, Evolutionary Algorithms,” University of Dortmund, Germany, April 1997
21. Reviewer of two papers for Journal of Robotic Systems, Special Issue on Neuro-Fuzzy Intelligent Robotic Systems
22. Reviewer of 50 papers of the International Conference on Computational Intelligence, “5 Fuzzy Days, Fuzzy Logic, Neural Networks, Evolutionary Algorithms,” April 1997, University of Dortmund, Germany
23. Reviewer of 10 papers of the of the Second International Symposium on Soft Computing for Industry, - ISI'96, and World Automation Congress ’96, Montpellier, France, May 1996
24. Papers for ICEE, 1993
25. Papers for the 24th Southeastern Symposium on System Theory, and The Third Annual Symposium on Communications, Signal Processing Expert Systems, and ASIC VLSI Design
26. Papers for the First and Second Annual Symposium on Communications, Signal Processing Expert Systems, and ASIC VLSI Design (CSA), 1991, 1990

C. Member of Conference Program Committee:

1. Organizing Committee Member for ISI06, ISI'2008, and World Automation Congress 2008, Hawaii, July 2008
2. Organizing member of the Symposium on: Composite Materials, Design & Production Nanotechnology, Design & Engineering Alternate Energy & Fuel Cell Technology, Düsseldorf, Germany, July 2007
3. General Chair of the 4th International Symposium on Soft Computing for Industry with applications of financial engineering, Orlando, Florida, June 2002

4. IEEE, SMC, 2000, Nashville, Tennessee
5. Co-Chair of the Third International Symposium on Soft Computing for Industry, - ISI 2000, Maui, Hawaii
6. Co-Chair of the Second International Symposium on Soft Computing for Industry, - ISI 1998, Anchorage, Alaska
7. Co-Chair of the NASA University Research Centers' Technical Conference on Education, Aeronautics, Space, Autonomy, Earth and Environment, February 1997, Albuquerque, New Mexico
8. Organizing Committee member, and Treasurer, First International Forum on Discontinuous Deformation Analysis (DDA), Berkeley, California, June 1996
9. Organizing Committee Chairman, First Industry/University Symposium on High Speed Civil Transport Vehicle, 1994

D. Program Committee Member:

1. Program Committee member for the International conference on Computational Intelligence, Dortmund Germany, 5 Fuzzy Days, in Dortmund, 1999
2. Program Committee member for the International conference on Computational Intelligence, Dortmund Germany, 5 Fuzzy Days, in Dortmund, 1996
3. Program Committee member for the International Symposium on Soft Computing for Industry, ISI 1996
4. The 24th Southeastern Symposium on System Theory and The Third Annual Symposium on Communications, Signal Processing Expert Systems, And ASIC VLSI Design (CSA), 1992
5. The Second Annual Symposium on Communications, Signal Processing Expert Systems, and ASIC VLSI Design (CSA), 1991
6. The First Annual Symposium on Communications, Signal Processing Expert Systems, and ASIC VLSI Design (CSA), 1990

E. Chairman of Conference Sessions:

1. IEEE International Conference on Systems, Man, and Cybernetics (SMC 2016) Chair, Budapest, Hungary, October 2016
2. Co-Chair of the session on "Adaptive Identification and Estimation," IEEE ACC, May 2002
3. Session Chair on "Electronic and Robotic Systems," the 10th IEEE International Conference on Fuzzy Systems. The University of Melbourne, Australia, December 2001
4. Chairman of the session on Evolutionary Programming, of the World Automation Conference, (WAC'98), Anchorage, Alaska, May 1998
5. Chairman of the plenary session of the Second International Symposium on Soft Computing for Industry (ISI'98), on Rule Extraction with Clustering Algorithms, Anchorage, Alaska, May 1998
6. Chairman of the session on Intelligent Systems and Agents of the NASA University Research Centers' Technical Conference on Education, Aeronautics, Space, Autonomy, Earth and Environment, Albuquerque, New Mexico, February 1997

7. Chairman of the session on Evolutionary Fuzzy Logic Applications at the International Symposium on Soft Computing for Industry ISI 1996, Montpellier, France
8. Chairman of the session on Fuzzy Control IX, IEEE Fuzzy 96, New Orleans, September 1996
9. Chairman of the International Symposium on Soft Computing for Industry ISI, 1996
10. Chairman of the ACM Symposium on Applied Computing, Fuzzy Application, 1995
11. Chairman of the IEEE World Conference on Computational Intelligence, 1994
12. The North American Fuzzy Information Processing Society Conference, 1993
13. The 24th Southeastern Symposium on System Theory and The Third Annual Symposium on Communications, Signal Processing Expert Systems, and ASIC VLSI Design (CSA), 1992
14. The Second Annual Symposium on Communications, Signal Processing Expert Systems, and ASIC VLSI Design (CSA), 1991
15. The First Annual Symposium on Communications, Signal Processing Expert Systems, and ASIC VLSI Design (CSA), 1990

F. Scientific and Professional Societies Member:

1. Member of Institute of Electrical and Electronics Engineering (IEEE)
2. Member of the IEEE Control Society
3. Member of the IEEE Fuzzy Logic Society
4. Member of the IEEE Neural Network Society
5. Member of the IEEE Circuits and Systems Society
6. Member of the Sigma Xi Scientific Honor Society
7. Member of the Tau Beta Pi Engineering Honor Society
8. Member of the Eta Kapa Nu Electrical Engineering Honor Society

XIV. Honors and Awards:

1. Hagler II, A. E., Sensor Technology within Homeland Security, selected for one of the three best papers, Raytheon Paper Competition, 2007-2008
2. Researcher of the year award in the College of Engineering for 2002-2003
3. BouSaba, C., Esterline, A., Homaifar, A., “A Framework for Learning Coordinated Tactical Behavior,” 2nd out of 40 posters under the Graduate Category
4. Ayele, E., Homaifar, A., and Esterline, A., “Learning Tactical Behaviors - Terrain Reasoner Weight Adapter (TRWA),” 3rd out of 40 posters under the Graduate Category
5. Johnson, S., Murphy, D., First Place Engineering Oral Presentation, March 2006
6. Johnson, S., Murphy, D., First Place Engineering Oral Presentation- HBCU-UP National Research Conference February 2006
7. Alighanbari, M., Homaifar, A., and Sayarrodsari, B., selected as the top five student paper at IEEE SMC 05 (Int. Conf. on Systems, Man and Cybernetics), Hawaii, October 2005
8. Adams, J., and Woolridge, E., Placed Second in the oral presentation category at the L-SAMP Conference in Fayetteville, North Carolina, 2005
9. **Selected as the Best Paper:**

- Hussain, M., Kimiaghalam, B., Ahmadzadeh, A., Homaifar, A. and Sayyarrodsari, B., "Multi Robot Scheduling Using Evolutionary Algorithms," Proceeding of the World **Automation Congress, Orlando, Florida, June 2002**

10. **Selected as Best Session Presentation:**
    - Kimiaghalam, B., Homaifar, A., and Bikdash, M., "Pendulation Suppression of a Shipboard Crane Using Fuzzy Controllers," The IEEE American Control Conference, San Diego, pages 586-590, June 1999
    - Shen, Y., and Homaifar, A., "Active Control of Flexible Structure Using Genetic Algorithms and LQG/LTR Approaches," The American Control Conference, San Diego, California, pages 4398-4402, June 1999

11. **Finalists for Best Paper Awards:**
    - Kimiaghalam, B., Homaifar, A., and Bikdash, M., "Hybrid Fuzzy-PD Control for A Dock Mounted Pantry Crane," Proceedings of the NASA URC Technical Conference (URC-TC'98), Editors: Tommy L. Coleman, Bettie White, and Steven Goodman, TSI Press, Huntsville, Alabama, Vol. II, pages 247-251, February 1998
    - Shen, Y., Homaifar, A., Bikdash, M., Naser, A., "Real-Time Active Vibration Control Using Peizoelectric Actuators in Plate Structures," Proceedings of the NASA URC Technical Conference (URC-TC'98), Editors: Tommy L. Coleman, Bettie White, and Steven Goodman, TSI Press, Huntsville, Alabama, Vol. II, pages 342-347, February 1998

12. Selected as the Department of Electrical Engineering Outstanding Researcher of the Year, 1995-1996
13. Selected as the Outstanding Researcher of the Year in the College of Engineering, 1995-1996
14. Best Paper Award, "Aircraft Pitch Control with Fixed-Order LQ Compensators," by Green, J., Ashokkumar, CR., and Homaifar, A., NASA University Research Centers, Technical Conference on Advances in Education, Aeronautics, Space, Autonomy, Earth and Environment, Albuquerque, New Mexico, February 1997
15. Best Paper Award, "Feedback Implementation of Zermelo's Optimal Control by Sugeno Approximation," by Clifton, C., Homaifar, A., and Bikdash, M., NASA University Research Centers, Technical Conference on Advances in Education, Aeronautics, Space, Autonomy, Earth and Environment, Albuquerque, New Mexico, February 1997
16. Very Important Parent Award (VIP) for participation in the Multicultural Day at Summerfield School, 1994-1996
17. Selected as the Department of Electrical Engineering Outstanding Researcher of the Year, 1994-1995
18. One of the two nominees for outstanding Researcher in the Department of Electrical Engineering, 1993-1994
19. Outstanding Freshman Advisor in the School of Engineering, North Carolina A&T State University, 1993-1994
20. ASCE Carolina Conference Appreciation Award, North Carolina A&T State University, 1993
21. Nominated for C. Holmes MacDonald OUTSTANDING TEACHING AWARD for young

Electrical Engineering Professor, 1991

22. Nominated for the Presidential Young Investigator Awards, 1990
23. Outstanding Dissertation Award-College of Engineering, The University of Alabama, Tuscaloosa, Alabama, 1987

XV. COMMUNITY SERVICE:

1. Member of the Grimsley's Advisory Committee
2. Member of the Grimsley's Science Olympiad Committee
3. Volunteer for Math Superstar at Kernodle Middle School
4. Member of the Kernodle Middle School Parent Student Association
5. Member of the Persian Community Council
6. Volunteer for Math Superstar at Jesse Wharton Elementary School
7. Helped raised over $12,000 for Tsunami Victims
8. Helped raised over $23,000 for Katrina Victims
9. Active member of the Grimsley High School Science Olympiad Fund Raising Committee, helped to collect $35,000
10. Member of the Youth for Aids Relief in South Africa helped collect $22,000
11. Treasurer and Organizing Committee member, Iranian-American Relief Committee of North Carolina 1997
12. Helped raise $25,000 in the relief effort for the devastating May 10, 1997 earthquake in Iran that killed thousands of people
13. Vice President of the Persian Community Center in Greensboro, 1994
14. Science Fair Judge at Summerfield School, 1993
15. Volunteered for 1992 Annual Alumni Phonathon
16. Science Fair Judge at Laughlin School, 1992
17. Vice President of the Persian Club 1993
18. Member of the North Carolina Center for Advancement of Classical Persian Music 1992
19. Member of the Guilford Green Community for protecting environment 1990
20. Member of the PTA committee at Grimsley Senior High School, 1998
21. Member of the PTA at Laughlin School, 1990-1994
22. Member of the PTA at Summerfield School, 1995
23. Member of the Leadership committee at Northwest Middle School, 1997 -1998