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Education

University of Wisconsin-Milwaukee, Ph.D., 1986-1990
University of Wisconsin-Milwaukee, M.S., 1983-1985
University of Wisconsin-Milwaukee, B.S., 1980-1983
All in Electrical Engineering

Honors and Awards

- Who's Who in America, 2007, 2008 edition
- Alumnus of the year, College of Engineering & Applied Science, 2005
- ASEE-NASA Fellowship Award, NASA Ames Research Center, Summer 2002 and 2003
- Associate Editor of the IEEE Transactions on Fuzzy Systems, 2003-present
- Fluor Daniel Outstanding faculty for Research Award, College of Technology, 2001, 2004
- Outstanding College of Technology Faculty Award for Research, 1995 and 1999
- Recipient of TAU ALPHA PI National Honor Society, 2000
- Senior Member of IEEE, 1999
- Best Paper Award, Computers in Education Division of ASEE, 1998
- Chair, ASEE/GSW Conference, March 1997, Houston
- Co-chair, IEEE International Conference on Neural Networks, June 1997, Houston
- Scientific American, Invited Paper on Fuzzy Logic, June 1996
- Distinguished Panelist on the topic of "The impact of integration of neural networks and expert systems on machine learning," Indianapolis, Indiana, February 16-18, 1993

Appointments

University of Houston, Associate Dean for Research and Graduate Studies, College of Technology, 2004-Present
University of Houston, Joint Appointment, Electrical and Computer Engineering Department, 2005-present
University of Houston, Professor, College of Technology, 2004-Present
University of Houston, Associate Professor, College of Technology, 1997-2004
University of Houston, Director of Graduate Studies, 1998-2000
University of Houston, Assistant Professor, College of Technology, 1991-1997
Texas Southern University, School of Technology, 1990-1991

Industrial Experience (Consulting)

Mind & Vision Computer Systems: Worked on several projects on the application of neural networks and fuzzy logic in oil/gas industry, 1991-2001.

Dow Chemical: Developed a fuzzy PID controller for temperature control, 1995-1997.

Research

A. Books

- Co-author of one chapter of a book on “New and Innovative Application of Artificial Intelligence in the oil/gas Industry, Published by Institute Francais Du Petrole, France, 1995.
- Co-author of a chapter to the ACADEMIC Press theme volumes on “Fuzzy Theory Systems: Techniques and Applications”, Vol. 2 1999.
- Co- author of a textbook on Control Systems Technology, July 2001.

B. Recent Refereed Papers

Following are some of the latest publications.

Jimmy Shawn and H. A. Malki, “Network Intrusion Detection System Using Neural Networks, ICNC-FSKD2007, Haikou, China, August 24-27, 2007.

H. A. Malki and Shayan Mirabi, “Wastewater Effluent Flow Control Using Multilayer Neural Networks” The Spring 2006 issue of the TECHNOLOGY INTERFACE.

D. Misir and H. A. Malki, “Liapunov Stability for a fuzzy PID Controlled Flexible-Joint Manipulator”, Int. J. Computer Application in Technology, Vol. 27. No. 2/3, P 97-106, 2006.

R. Escalante and H. A. Malki, “Comparison of Artificial Neural Network Architectures and Training Algorithms for Solving the Knight's Tours” 2006 International Joint Conference on Neural Network.

H. A. Malki, Michael Gibson, Enrique Barbieri, William Fitzgibbon, “Toward an Interdisciplinary Graduate Degree in Technology” 2006 ASEE Conference.

V. Wongvilaivarin, D. Gurkan, H A. Malki, "Wireless Communication Application of J2ME for a Restaurant Carry-Out Ordering Scheme," the 3rd International Conference on Computing, Communications and Control Technologies (CCCT 05), Austin TX, July 2005.

J. Canelon, H. A. Malki, L Shieh, and S. Jacklin, “A neural network-based approach for control of vibration in a black hawk helicopter,” World Automation Conference,

Seville, Spain, June 28-July 1, 2004.

H. A. Malki and A. Matarrita, “Web-based control systems laboratories using LabVIEW,” *Journal of Engineering Technology*, pp. 22-25, Spring 2003.

G. R. Shetty, H. A. Malki, and S. Chellam, “Predicting contaminant removal during municipal drinking water nanofiltration using artificial neural networks,” *Journal of Membrane Science* Vol. 212, pp 99-112, 2003.

H. A. Malki, S. Kottapalli, and R. Langari, “Adaptive neuro-fuzzy modeling of UH-60A pilot vibration,” The AIAA Dynamics Specialists Conference, Norfolk, Virginia, April 7-10, 2003.

R. S. Ranganathan, H. A. Malki and Guanrong Chen, “Fuzzy predictive PI control for large time delay processes,” *International Journal of Expert Knowledge Engineering*, Vol. 19, No. 1, pp. 21-33, 2002.

H. A. Maki and S. Anwar, “Determination of lithofacies from well logs using unsupervised neural network model,” *The Electrical Journal for Engineering Technology* (online), 2002.

H. A. Malki and Yin Ng, “Braille recognition using supervised neural network, *ASEE Computers in Education Journal* VOL. XI NO. 3 July-September 2001.

C. Recent Funded Proposals

The following are the latest grants.

1. Collaborative Research: Phase II development of an innovative multi-functional smart vibration platform, \$315,999, NSF, 2007, Song, Mo, Malki, Hutchins, and Shieh 8/01/07-8/31/10.
2. Integrate Mobile Technology in Controls Laboratories (Co-PI), HP, \$69,000, 6/1/06-8-30/07, Song and Malki.
3. Recruiting & Retention of First Generation College Students in Technology Disciplines, Texas Higher Education Coordination Board, \$75,000, 3/1/05 – 8/1/06, Barbieri and Malki.
4. Texas Workforce Commission, Meeting Industries’ Critical Workforce needs/Aerospace (AWIN), \$257,101, 4/15/07 – 4/14/09, Malki, Yuan, Pascali, Gibson, Conklin (subcontracted from San Jacinto College).
5. Bridges to the future- Initiating a Comprehensive Biotechnology Program at the University Of Houston, \$1,023,336, Texas Workforce Commission, 9/1/06 – 3/31/08, Iyer, Baca, Malki, Ramos.

6. Applying Advanced Data Mining Technology to Ground Level Ozone Forecasting \$13,500, Environmental Institute of Houston, 10/05-7/06, Yuan and Malki
7. Adaptive modeling and control of vibration in Uh-60 helicopters”, NASA Ames Research Center \$25,451, 12/2004- 9/2006, Malki.
8. Large scale integration of different data modalities for computational medical sciences", Microsoft Corporation, \$25,000, 10-2004-10-2006, Garbey, Malki Kakadiaris, Pavlidis, and Zouridakis
9. In car law enforcement technology, National Institute of Justice, \$989,477, 6/2004-11/05, Pei, Bellamy, Zimmerman, Williams, Chung, Massey, Malki, Wang, Le, Ignatiev.