

Curriculum Vitae

Ahmad Taha Abdulsadda
Professor
Associate dean
Nationality: Iraq
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Al-Furat Al Awast University
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Academic Qualification

- B.Sc (1998) Electrical Engineering Department, University of Tikrit, Iraq. Rank 1st out of 70 students with average= 83.7 out of 100.
- M.Sc. (2000) Electrical Engineering Department, Computer and Control, University of Baghdad, Iraq. Rank 1st out of 54 students with average=80.7 out of 100.
- PhD student Applied Science, Systems Engineering (August 2008 to January 2010). University of Arkansas at Little Rock, Little Rock, USA.
- PhD (2012) Electrical and Computer Engineering(ECE), Michigan State University MSU, East Lansing, USA.

M.Sc. Thesis Title

Estimation of the Maximum Range for Target Recognition Using Neural Genetic Algorithms.

PHd. Thesis Title

Artificial Lateral Line Systems For Feedback Control of Underwater Robotic Fish

Professional Qualification

- Member, Iraqi Engineering Union, since 1997.
- Member, Baghdad Engineering Consultation Office, during 2003-2007.
- Member, Iraqi Computer Society, since 2000.
- Student Member, IEEE, since 2008.
- Member, IEEE, since 2012.
- Manger, Al Najaf CISCO academy branch, since 2013.
- Manger, Al Najaf Engineering Consulate Office , since 2018.

Academic Experience

- Supervisor (MSc.) thesis of (Brush less DC using Fuzzy Neural Networks Controller),2014.

- Supervisor (MSc.) thesis of (PARP Reduction of OFDM Using SLM Techniques), 2015.
- Supervisor (MSc.) of (Image Steganography Using Neural Network), 2016.
- Supervisor (MSc.) thesis of (New Method for steganography techniques), 2018.
- Supervisor (MSc.) thesis of (Environmental robotic design and implementation), 2018.
- Supervisor (MSc.) of (Energy harvesting RF signals using PSO algorithm), 2018.
- Supervisor (MSc.) thesis of (Networking gain scheduling using nonlinear control system), 2019.
- Supervisor (MSc.) of (Robotic path planning with advance expert systems), 2019.
- Supervisor (MSc.) thesis of (EEG signal seizure detection and classification with deep learning technique), 2020.

Academic Jobs

- Associate dean of Al Najaf Technical Engineering College, Iraq, 2018-have been.
- Associate dean of Al Najaf Technical institute, Iraq, 2014 -2018.
- Head of communication Department in Al Najaf Technical College,Iraq, 2013 -2014
- Professor in Technical College, Najaf, Iraq, 2018 - till now teaching the following subjects (post graduate and under graduate): Advance Control, and Advance Mathematical analysis, digital signal processing .
- Lecturer in Technical College, Najaf, Iraq, 2012 -2013 teaching the following subjects: Control, and Advance Mathematical analysis .
- Lecturer in Electrical Engineering Department, University of Baghdad, 2000 - 2006. I was teaching the following subjects: Analysis and Design of Linear Circuit, Control, Electronics, and Computer Graphics.
- Lecturer in Electronics Department, University of Baghdad, 2000 - 2006. I was teaching the following subjects: Circuit Analysis and Design, Micro Processors.
- Lecturer in Technical College, Najaf, Iraq, 2006 - 2008. I was teaching the following subjects: Analysis and Design of Linear Circuit, Control Design, and Power System.
- Lecturer in Electrical and Computer Department, Engineering college, Michigan state University, USA, 2010 - 2012. I was teaching the following subject:Control.
- Manager of the CISCO Academic Branch in Technical College, Al Najaf Technical College, Iraq, 2012-

Awards

Golden Key International Society Award, 2010.

Travel conference award from graduate school, Michigan State University, 2011.

Engineering first graduate student award, Michigan State University, 2012.

Best Presentation in the World Congress and Expo Material Science and Polymer Engineering Conference, Dubai, UAE, 2015.

Publications

Books:

- **Ahmad T. Abdulsadda** “Artificial Lateral Line Systems Of Underwater Robots,” *Scholars’ Press Publishing, AV Akademikerverlag GmbH Co. KG, Germany, 2013.*

Journals papers:

- Hussam N. Mohammed, Nada T. Malik, **Ahmad T. Abdulsadda**, “Artificial Intelligent Models for the double gain linear and non-linear chain mirror fiber laser control,” *Engineering Material* to appear, 2021.
- Baidaa AlKhliidi, **Ahmad T. Abdulsadda**, Dr. Ali A. Al-Bakry, “Optimal Robotic Path Planning Using Intelligent Search Algorithms,” *Journal of robotics and control (JRC)*, March, 2021.
- **Ahmad T. Abdulsadda**, Ruaa S. Abass, Aymen M. Khodayer, “Acoustics recognition with expert intelligent system,” *Journal of Green engineering* Vol.10, No.3, pp.972-985, 2020.
- Rasha Shamit Salman, **Ahmad T. Abdulsadda**, “Network Scheduling By using Expert Nonlinear Controller,” *Test engineering and management*, Vol.83, pp.1708-1716, May-June, 2020.
- Rasha Shamit Salman, **Ahmad T. Abdulsadda**, “Adaptive Gain Scheduling Based controller for Networking Control Systems,” *Al Furat Journal of innovation in electrical and computing engineering*, 2020.
- Mohammed A. T. Al-Rubei, **Ahmad T. Abdulsadda**, “Reduction of FWM Effect in 4x5 GBPS Optical System using Repeater,” *Solid State Technology*, Vol.63, No.3, 2020.
- **Ahmad T. Abdulsadda**, Suhad Al-Shoukry, “Safe Engineering Application for brain tumor classification using deep learning advance methods,” *Journal of Green engineering* Vol.10, No.7, pp.3407-3420, 2020.
- Ruaa S. Abass, **Ahmad T. Abdulsadda**, Aymen M. Khodayer, “COVID19 patient’s detection and localization by using expert intelligent system,” *Green engineering Journal* to appear, 2020.
- **Ahmad T. Abdulsadda**, “Cramer Rao Lower Bound CRB Shape Detection Method,” *SM Analytical and Bio-analytical Techniques*, July, 2020.

- Hussein SafaA Mala,**Ahmad T. Abdulsadda**,Ahmed G. Wadday“Boundary detection Robots,” *International Journal of Engineering and Advance Technology* ,Vol.9,pp.952-955, 2019.
- Huda H.Al.Ghuraify, Dr. Ali A.Al-Bakry,**Ahmad T. Abdulsadda**, “DUAL SECURITY USING IMAGE STEGANOGRAPHY BASED MATRIX PARTITION,” ,International Journal of Network Security Its Applications (IJNSA),Vol.11,No.2,March, 2019.
- Huda H.Al.Ghuraify, Dr. Ali A.Al-Bakry,**Ahmad T. Abdulsadda**, “Quaternion Security Using Modifying Vernam Cipher With Image Steganography,” ,The International Journal of Multimedia Its Applications (IJMA) Vol.11, No.3, June,2019.
- **Ahmad T. Abdulsadda**, and Durgaham AbdulRasulool,“Predication CBR Value from index properties of soils using expert system,” *International Journal of Civil Engineering*, Vol.17, No.1, 2017.
- **Ahmad T. Abdulsadda**, “Cramer Rao Lower Bound CRB Shape Detection Method,” ,SM Analytical and Bioanalytical Techniques ,July, 2017.
- **Ahmad T. Abdulsadda**, “Brushless DC motor controlled by neural network,” ,Journal of Electrical engineering and Electronic Technology ,July, 2016.
- **Ahmad T. Abdulsadda**, “Breast Tumors Ultrasound Images Classification Using Genetic Neural Algorithm,” *Asian Journal of Engineering and Technology Innovation (AJETI)*, Vol. 3,issue 3,pp.49-54,2013.
- **Ahmad T. Abdulsadda**, “Robotic Fish Localization and Tracking Using Simultaneous Perturbation Neural Algorithm,” *Journal of Engineering and Innovative Technology (JEIT)*,Vol. 3,issue 3,pp.49-54,2013.
- **Ahmad T. Abdulsadda**, and X. Tan, “Nonlinear estimation-based dipole source localization for artificial lateral line systems,” *Bioinspiration & Biomimetics*,Vol. 8,pp. 1-15, 2013.
- **Ahmad T. Abdulsadda**, and X. Tan, “Underwater tracking of a moving dipole source using an artificial lateral line: Algorithm and experimental validation with IPMC flow sensors,” *Smart Materials and Structures*, vol. 22, p. 045010, 2013.
- **Ahmad T. Abdulsadda**, “Neural Dynamic Programming for Optimal Control of Large Genetic Regulatory Networks ,” *Journal of Al-Qadisiya for engineering sciences*,to appear, 2013.
- **Ahmad T. Abdulsadda**, and X. Tan, “An Artificial Lateral Line System Using IPMC Sensor Arrays,” (**Invited paper** for special issue on Ionic Polymer Metal Composites), *International Journal of Smart and Nano Materials*, International Journal of Smart and Nano Materials, vol. 3, no. 3, pp. 226-242, 2012.
- **Ahmad T. Abdulsadda**, and X. Tan, “Moving Target Identification Using IPMC Sensor Arrays,” , *submitted IEEE Transaction on Robotics*, 2012.

- **Ahmad T. Abdulsadda**, and K. Iqbal, “An Improved SPSA Algorithm for System Identification Using Fuzzy Rules for Training Neural Networks,” *International Journal of Automation and Computing*, vol. 8, no. 3, pp. 333-339, 2010.

Conference papers:

- **Ahmad T. Abdulsadda**, “Ionic Polymer Material Composite IPMC Sensor,” *World Congress and Expo Material Science and Polymer Engineering*, UAE, Dubai, to appear, 2015.
- **Ahmad T. Abdulsadda**, “Smart autonomons robotic fish: Challenges and potential solutions,” *third international conference and exhibition on Biometrics and Biostatistics*, USA, to appear, 2014.
- **Ahmad T. Abdulsadda**, “Nonlinear Dynamics Robotic Fish Identification by Using RBF Neural Networks,” *The Third International Proceeding of Communication in Technical College*, Iraq, Al-Najaf, to appear, 2013.
- **Ahmad T. Abdulsadda**, and X. Tan, “Underwater Tracking and Size-Estimation of a Moving Object Using an IPMC Artificial Lateral Line,” *Proceeding of the ASME 2012 Conference on Smart Materials, Adaptive Structures and Intelligent Systems*, Stone Mountain, GA, 2012.
- **Ahmad T. Abdulsadda**, and X. Tan, “Localization of a Moving Target Using an IPMC-based Artificial Lateral Line,” A. Lakhtakia & J. Martin-Palma, editors, *Proceedings of the 2012 SPIE International Symposium on Smart Structures/NDE, Bioinspiration, Biomimetics, and Bioreplication II*, vol. 8339, pp. 833909: 1-09, 2012.
- **Ahmad T. Abdulsadda**, and X. Tan, “Artificial Lateral Line-based Localization of a Dipole Source with Unknown Vibration Amplitude and Direction,” *Proceedings of the 15th International Conference on Advanced Robotics*, Tallinn, Estonia, pp. 447-452, 2011.
- **Ahmad T. Abdulsadda**, and X. Tan, “Localization of Source with Unknown Amplitude Using IPMC Sensor Arrays,” Y. Bar-Cohen & F. Carpi, editors, *Electroactive Polymer Actuators and Devices (EAPAD) XIII, Proc. of SPIE*, vol. 7976, pp. 797627: 1-11, 2011.
- **Ahmad T. Abdulsadda**, and X. Tan, “Underwater Source Localization Using an IPMC-based Artificial- Lateral Line,” *Proceedings of the 2011 IEEE International Conference on Robotics and Automation*, Shanghai, China, pp. 2719-2724, 2011.
- **Ahmad T. Abdulsadda**, N. Bouaynaya, and K. Iqbal, “Noninvasive Breast Tumor Localization Based on Ultrawideband Microwave Backscatter,” *Proceedings of 2010 International Conference on Signal Processing and Communications*, Indian Institute of Science, India, 2010.
- **Ahmad T. Abdulsadda**, N. Bouaynaya, and K. Iqbal, “Stability Analysis and Breast Tumor Classification from 2D ARMA Models of Ultrasound Image,” *Proceedings of 31st Annual International Conference of the IEEE EMBS*, Minneapolis, MN, pp.3763-3766, 2009.

- **Ahmad T. Abdulsadda**, and K. Iqbal, “A Wavelet-Based Recurrent Fuzzy Neural Network Trained With Stochastic Optimization Algorithm,” *Proceedings of IEEE International Conference on Systems, Man and Cybernetics (SMC 2009)*, San Antonio, TX, pp.4089-4093,2009.
- **Ahmad T. Abdulsadda**, and K. Iqbal, “Reduced Order Modeling Using Genetic-Fuzzy Algorithm,” *Proceedings of IEEE International Conference on Systems, Man and Cybernetics (SMC 2009)*, San Antonio, TX, pp.4796-4800, 2009.
- **Ahmad T. Abdulsadda**, “Color image recognition hybrid genetic neural algorithm,” *5th International Conference in Engineering- University of Baghdad*, Baghdad, 2003.
- **Ahmad T. Abdulsadda**, “Fuzzy Neural classifier of X-Ray medical images with fuzzy learning technique,” *Proceedings of IEEE International Conference in Engineering*, Jordan, 2002.

Presentations and Posters:

- **Ahmad T. Abdulsadda**, and X. Tan, “IPMC Artificial Lateral Line,” Fourth Academic Graduate Conference, Michigan State University (MSU), EastLansing, 2012
- **Ahmad T. Abdulsadda**, and X. Tan, “Nonlinear estimation algorithms based IPMC Artificial Lateral Line,” First Engineering Symposium, Engineering College, Michigan State University (MSU), 2012
- **Ahmad T. Abdulsadda**, and X. Tan, “Neural network based IPMC Artificial Lateral Line,” First BEACON Congress, Michigan State University (MSU), 2010

Reviewer For

- IEEE International Conference on Systems, Man, and Cybernetics (SMC 2009),2009
- IEEE International Conference on Systems, Man, and Cybernetics (SMC 2010), 2010
- 5th Annual Dynamic Systems and Control Conference and 11th Motion and Vibration Conference, 2012
- 3rd International Conference in Technical college, 2013
- Journal of Mathematical Research and Applications (JMRA), 2013
- Global Conference on Polymer and Composite Materials (PCM2014), 2014
- Journal Control Engineering Practice (Elsevier), 2014-
- Journal of Algorithms and Optimization(JAO),2014-
- member in the editorial board of Advances in Signal Processing,2014-2017
- IEEE Transaction on systems, Man and Cybernetics:system,2015-
- Technical Program Committee in the International Conference on Wireless Communication and Network Technology,2016

- Technical Program Committee in the International Conference on Intelligent Cloud Computing, China,2016
- Technical Program Committee in the International Conference on IEEE robotics and control, Seoul,2020

Teaching Academic courses(For Last Three years):

- Advance digital signal processing, First semester MSc. course, Al Najaf Technical Engineering college, Al Furat Al Awast Technical University.
- Advance Control, Fourth grade, Al Najaf Technical Engineering college, Al Furat Al Awast Technical University.
- Dc Machine, Second Year(day and night), Communication Department, Al Najaf Technical Engineering College, Al Furat Al Awast Technical University.
- Computer structure, Computer department, Female and Mixing College, Kufa University.
- Electrical and Electronics equipments, second year,, Aerodynamic department, Al Najaf Technical Institute, Al Furat Al Awast Technical University.