

**AKADEMİK ÖZGEÇMİŞ**

**1. Adı Soyadı:** RAHİB ABİYEV

**2. Unvanı:** Prof.Dr.

**3. Öğrenim Durumu:**

Derece	Bölüm/Program	Üniversite	Yıl
Lisans - Y. Lisans	Elektrik ve Elektronik Mühendisliği	Azerbaycan Devlet Petrol akademisi	1989
Sertifika	İşletme Fakültesi	Georgia Devlet Üniversitesi, ABD	1998
Doktora	Azerbaycan Devlet Petrol akademisi	Azerbaycan Devlet Petrol akademisi (şimdi, Azerbaycan Devlet Petrol ve Endüstri Üniversitesi)	1997

**4. Yüksek Lisans / Doktora Tezi**

**4.1.Yüksek Lisans Tez Başlığı ve Tez Danışman(lar)ı:** Petrol rafinerisi tesisinde koks ünitesi için optimizasyon modelinin geliştirilmesi

**4.2. Doktora Tezi/Tıpta Uzmanlık Tezi Başlığı ve Danışman(lar)ı:** Endüstriyel prosesler için yapay sinir ağı kontrolörleri

**5. Akademik Unvanlar:**

Yardımcı doçentlik tarihi: 1997-1999, Azerbaycan Devlet Petrol Akademisi, Otomatik kontrol sistemleri bölümü,

Doçentlik tarihi: 2002-2009, Bilgisayar Mühendisliği Bölümü, Yakın Doğu Üniversitesi

Profesörlük tarihi: 2009, Bilgisayar Mühendisliği Bölümü, Yakın Doğu Üniversitesi

**6. Yönetilen Yüksek Lisans ve Doktora Tezleri:**

**6.1. Yüksek lisans tezleri**

1. Muhammad Khairi. Development of fuzzy controllers. (2001)
2. Metin Bilin. Quality control using fuzzy logic in flexible manufacturing system. (2002)
3. Marwan Al-Akhras. Neuro-fuzzy System for Modeling of Nonlinear Processes. (2003)
4. Hussam E.Hamrawi. Identification of Fuzzy Systems. (2003)
5. Omar Saeed. Development of Voice Interactive System for Bank Transaction (2003)

6. Nidal Meshal. Cryptography and Security Over Network Using Data Encryption Standard (2003)
7. Ekatrina Gerasimova. Analysis of Forecasting Models and Time-Series Modeling of Network Traffic (2004)
8. Qais Albeni. Arabic Character Recognition Using Neural Network (2005)
9. Filiz Al-Shanableh. Optimal Control of Plant Parameters Using Neural System (2005)
10. Kadime Altungul. Expert System for Medical Diagnosis of Abdominal Diseases (2005)
11. Mehmet Gogebakan. Development of Neural Control System. (2005)
12. Shadi Jundy. Network Traffic Optimization. (2005)
13. Raed M,Khidar. Signature Recognition Using Neural Network.(2006).
14. Esraa Alqaralleh. Path Tracking and Navigation by Mobile Robot.(2007).
15. Ayman Afaneh. Fuzzy Navigation of Mobile Robot .(2007).
16. Saed Yakoub. Neural System for Equalization of Channel Distortions (2007)
17. Koray Altunkaya. Iris Recognition Using Neural Network (2007)
18. Bugra Demircioglu. Text Recognition Using Neural Network (2007)
19. Ramiz Salama. Neural Network for Fingerprint recognition (2008)
20. Anis Oztekin. Wavelet Neural Network for Prediction Water Consumption and Airline Passengers (2010)
21. Rifat Dover. Mobile Robot Navigation in Uncertain 3-D Environments (2010)
22. Dana Dogramaci. Image Compression using Neural and Wavelet Technologies. (2012)
23. Hafzullah İş. Social Signal Rank System Search Engine Based Business Networking Portal (2012)
24. Huseyin Guney. Early Detection of Breast Cancer using Support Vector Machine. (2013)
25. Selin Uzelaltinbulat. Biometric Retina Identification Using Neural Networks. (2013)
26. Huseyin Mahammad. Design of Isolated Words Speech Recognition System. (2013)
27. Wameedh Raad Fathel. Fingerprint Recognition Using Principal Component Analysis. (2014)
28. Rami Mustafa. Facial Feature Extraction Techniques for Face Recognition. (2014)
29. Sipan Mohammmd Hameed. Intelligent System for Cardiac Arrhythmia Classification (2014)
30. Awad J.A.Ahmed. Handwritten Text Recognition Using Neural Networks (2014)
31. Abdulkader Helwan. Intelligent Brest Cancer Identification System. (2015)
32. Murat Aslan. Obstacle Detection and Path Finding for Mobile Robot (2016)
33. John Bush Idoko. Machine learning techniques for breast tissue classification. (2016)
34. Mohammed Azad Omar. Parameter-induced Simulation of Climate Crashes Using Neuro-fuzzy Model (2017)
35. Zanyar Rzgar Ahmed. Rainfall Prediction Using Machine Learning Techniques (2017)
36. Mohamad Ghazal. Stacked Autoencoder-based Deep Learning for Fruit Classification (2018)
37. Mohammed Kamal Majeed. SURF and SIFT Descriptors Using Wavelet Transforms for Iris Recognition. (2018)
38. Aram Ismael Hamid. Detection of Epileptic Seizure Using EEG Signals. (2018)
39. Karzan Rashad. Feature Extraction Algorithms for Face Recognition. (2018)
40. Fares Kanjo. Intelligent system for prediction of air-pollution. (2019)
41. Suzan Sulaiman Magdid. Intelligent system for identification heart diseases. (2019)
42. Adedoyin Hussain Ahmed. Design of Navigation System for Blind and Visually Impaired People (2019)
43. Nura Alfagih. Diagnosis of Erythemato-squamous Diseases Using Fuzzy Neural Networks. (2019)
44. Hawzhin Esa Jaafar. Exchange Rate Prediction using Neuro-Fuzzy Networks. (2019)
45. Danial William. Intelligent Fuzzy System for Diagnosis of Liver Disorders (2020)

46. Abdullahi Ismail. COVID-19 and pneumonia detection in x-ray images using convolutional neural networks (2020)
48. Ara Ahmed Sharif. Monophonic music generation via artificial intelligence deep learning technique (2021)
49. Nurullah Akkaya. Bheviour-tree based decision making for navigation of holonomic robots (2021)
50. Rebar Dara. Intelligent System for Identification Kidney Diseases(2021)
51. Josep Adepoji. Food image classification using deep learning (2023)
52. Okute Peter. Eearly detection of multiple sclerosis using CNN (2023)
53. Okah Onyekachi Michael. Convolutional Neural Networks for Intrusion Detection System (2024)
54. Cagkan Erguden. Deep Learning for prediction airpolution(ongoing).
55. Burcu Akin. Palmprint identification using deep learning (ongoing)
56. Diligence Vagere. Cryptographic algorithm for data ecription (ongoing)

## 6.2. Doktora tezleri

1. Mustafa Menekay. Fuzzy Portfolio Selection Using Genetic Algorithm. (2006)
2. Tayser Al-Shanableh. Neuro-Fuzzy System for Equalization of Channel Distortion. (2007)
3. Besime Erin. Fuzzy Navigation of Mobile Robot in Uncertain Environment (2011)
4. Mustafa Tunay. Evolutionary Search Algorithm Based on Hypercube Optimization (2015)
5. Kemal Kılıc. Image Texture Classification using Fractal Geometry
6. Abdulkader Helwan. Fuzzy neural networks for identification of breast cancer using images' shape and texture features (2018)
7. Mohammad Khaleel Sallam Ma'aitah. Deep Structure Based on Convolutional Neural Networks for Identification Chest Diseases(2018)
8. John Bush Idoko. Deep Learning for Sign Language Translation. (2020)
9. Murat Arslan. CNN based head-mouse control for people with disabilities (2021)
10. Ahmet Ilhan. Brain tumor segmentation using non-parametric localization and enhancement methods with U-NET (2022)
11. Hamit Altıparmak. Type-2 Fuzzy Neural Networks for Diagnosis of Diabetes(2022)
12. Abdullahi Ismail. Deep Learning for COVID-19 and Pneumonia Detection (ongoing)
13. Mohammed Ziad Altobel. Deep Learning for Human Activity Detection (ongoing)
14. Manal Dervish. Vision Transformer for Diagnosis Cervical Cancer (ongoing)
15. Masur Mohammad. Ensemble learning of Rainfall prediction. (ongoing)
16. Kadime Altungul. Prediction of Drug Doses and Drug-Drug Interactions Prediction Method for Patients having both Type-2 Diabetes Mellitus and Chronic Kidney Disease (ongoing)

## 7. Yayınlar

### 7.1. Uluslararası hakemli dergilerde yayınlanan makaleler (SCI,SSCI, AHCI, ESCI, Scopus)

1. Abiyev, Rahib H., Aliev, Rafik, and Kaynak, Okyay. 'Z-number Based Fuzzy Neural Network for System Identification'. *Journal of Intelligent & Fuzzy Systems*. Vol.45, 2023 , 11203-11216. <https://doi.org/10.3233/jifs-232741>
2. Darwish, M.; Altabel, M.Z.; Abiyev, R.H. Enhancing Cervical Pre-Cancerous Classification Using Advanced Vision Transformer. *Diagnostics* 13, 2884, **2023**. <https://doi.org/10.3390/diagnostics13182884>
3. Abiyev, R.H., Idoko, J.B., Altıparmak, H., & Tüzünkan, M. (2023). Fetal Health State Detection Using Interval Type-2 Fuzzy Neural Networks. *Diagnostics* 13(10), 1690, 2023. <https://doi.org/10.3390/diagnostics13101690>
4. Rahib H.Abiyev, Gunay Sadikoglu, Adnan Alsalihi, Rufat Abizada. Sensory evaluation of customer satisfaction using type-2 fuzzy logic. *Journal of Intelligent & Fuzzy Systems*, vol.43, no.4, pp. 4541-4554, 2022. DOI: 10.3233/JIFS-213218
5. Mustafa Tunay, Rahib Abiyev, Improved Hypercube Optimisation Search Algorithm for Optimisation of High Dimensional Functions, *Mathematical Problems in Engineering*, 2022, Article ID 6872162, 13 pages, <https://doi.org/10.1155/2022/6872162>
6. Ahmet Ilhan, Boran Sekeroglu, Rahib Abiyev. Brain tumor segmentation in MRI images using nonparametric localization and enhancement methods with U-net . *International Journal of Computer Assisted Radiology and Surgery*, 2022. <https://doi.org/10.1007/s11548-022-02566-7>
7. Rahib H. Abiyev, Hamit Altıparmak, "Type-2 Fuzzy Neural System for Diagnosis of Diabetes", *Mathematical Problems in Engineering*, vol. 2021, Article ID 5854966, 9 pages, 2021. <https://doi.org/10.1155/2021/5854966>
8. Abiyev, R., Abizada, S. Type-2 fuzzy wavelet neural network for estimation energy performance of residential buildings. *Soft Computing*, 25(16), 2021, 11175-11190. <https://doi.org/10.1007/s00500-021-05873-4>;
9. Sekeroglu B, Abiyev R, Ilhan A, Arslan M, Idoko JB. Systematic Literature Review on Machine Learning and Student Performance Prediction: Critical Gaps and Possible Remedies. *Applied Sciences*. 2021; 11(22):10907. <https://doi.org/10.3390/app112210907>
10. Rahib H. Abiyev, Abdullahi Ismail, "COVID-19 and Pneumonia Diagnosis in X-Ray Images Using Convolutional Neural Networks", *Mathematical Problems in Engineering*, vol. 2021, Article ID 3281135, 14 pages, 2021. <https://doi.org/10.1155/2021/3281135>
11. Abdulkader Helwan, Mohammad Khaleel Sallam Ma'aitah, Rahib H. Abiyev, Selin Uzelaltinbulat, Bengi Sonyel, "Deep Learning Based on Residual Networks for Automatic Sorting of Bananas", *Journal of Food Quality*, vol. 2021, Article ID 5516368, 11 pages, 2021. <https://doi.org/10.1155/2021/5516368>
12. Rahib Abiyev ,Murat Arslan ,John Bush Idoko ,Boran Sekeroglu and Ahmet Ilhan. Identification of Epileptic EEG Signals Using Convolutional Neural Networks. *Appl. Sci.* 10(12), 2020, 4089; <https://doi.org/10.3390/app10124089>
13. Rahib H. Abiyev. Murat Arslan. Head mouse control system for people with disabilities. *Expert Systems*, 37, 2020, <https://doi.org/10.1111/exsy.12398>
14. Rahib H. Abiyev, John Bush Idoko, Murat Arslan. Sign Language Translation Using Deep Convolutional Neural Networks. *KSII Transactions on Internet and Information Systems*, Vol.14, No.2, pp.631-653, 2020. <https://doi.org/10.3837/tiis.2020.02.009>.
15. Mohammed Kamal Majeed, Rahib Abiyev. Surf and Sift Descriptors Using Wavelet Transforms for Iris Recognition. *International Journal of Future Generation Communication and Networking*. Vol.13, No.4,(2020),pp.2361-2373
16. John Bush Idoko, Rahib H. Abiyev, Murat Arslan. Impact of Machine Learning Techniques on Hand Gesture Recognition. *Journal of Intelligent & Fuzzy Systems*, Volume: 37 Issue: 3 Pages: 4241-4252 Published: 2019, <https://doi.org/10.3233/JIFS-190353>

17. Rahib H. Abiyev, Nurullah Akkaya, and Irfan Gunsel. Control of Omnidirectional Robot Using Z-Number-Based Fuzzy System, *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, Vol. 49, Issue 1, 2019, pp.238-252, <https://doi.org/10.1109/TSMC.2018.2834728>
18. Rahib Abiyev, Mohammad Khaleel Sallam Ma'aitah. Deep Convolutional Neural Networks for Chest Diseases Detection. *Journal of Healthcare Engineering*, Volume 2018, 2018. <https://doi.org/10.1155/2018/4168538>
19. Rahib H. Abiyev, Kaan Uyar, Umit Ilhan, Elbrus Imanov, Esmira Abiyeva. Estimation of Food Security Risk Level Using Z-number Based Fuzzy System. *Journal of Food Quality*. Volume 2018, 2018, <https://doi.org/10.1155/2018/2760907>
20. Rahib H. Abiyev, Abdulkader Helwan. Fuzzy neural networks for identification of breast cancer using images' shape and texture features. *Journal of Medical Imaging and Health Informatics*, Vol.8(4), 817-825,2018, <https://doi.org/10.1166/jmihi.2018.2308>
21. Rahib H. Abiyev, Mohammed Azad Omar, Boran Sekeroglu, [Detection of Climate Crashes using Fuzzy Neural Networks](#). *International Journal of Advanced Computer Science and Applications*. Volume: 9 Issue: 2, 2018, Pages: 48-53, DOI: : [10.14569/IJACSA.2018.090208](https://doi.org/10.14569/IJACSA.2018.090208)
22. JB Idoko, M Arslan, R Abiyev. [Fuzzy Neural System Application to Differential Diagnosis of Erythematous-Squamous Diseases](#). *Cyprus Journal of Medical Sciences* 3 (2), 2018, 90-97, DOI: [10.5152/cjms.2018.576](https://doi.org/10.5152/cjms.2018.576)
23. Mohammad Khaleel Sallam Ma'aitah, Rahib Abiyev and Idoko John Bus. Intelligent Classification of Liver Disorder Using Fuzzy Neural System. *International Journal of Advanced Computer Science and Applications*, Volume: 8 Issue: 12 Pages: 25-31 2017.
24. Abdulkader Helwan, Dilber Uzun Ozsahin, Rahib Abiyev, John Bush. One-Year Survival Prediction of Myocardial Infarction. *International Journal of Advanced Computer Science and Applications*, Vol. 8, No. 6, 2017 173-178
25. Rahib H. Abiyev. Z Number Based Fuzzy Inference System for Dynamic Plant Control. *Advances in Fuzzy Systems*, Volume 2016, 2016.
26. Rahib H. Abiyev, Nurullah Akkaya, Ersin Aytac, Irfan Günsel, and Ahmet Çağman. Brain-Computer Interface for Control of Wheelchair Using Fuzzy Neural Networks. *Biomed Research International*, Volume 2016, 2016. <https://doi.org/10.1155/2016/9359868>
27. Rahib H. Abiyev, [Sanan Abizade](#). 2016. Diagnosing Parkinson's Diseases Using Fuzzy Neural System. *Computational and Mathematical Methods in Medicine*. 2016(3): 1-9, <http://dx.doi.org/10.1155/2016/1267919>
28. Rahib H. Abiyev, Mustafa Tunay. Optimization of High Dimensional Functions through Hypercube Evaluation. *Computational Intelligence and Neuroscience*, Volume 2015, 2015. <https://doi.org/10.1155/2015/967320>
29. Rahib H. Abiyev, Rafik Aliyev, Okyay Kaynak, I. Burhan Turksen, Karl Walter Bonfig. Fusion of Computational Intelligence Techniques and Their Practical Applications. *Computational Intelligence and Neuroscience*, Volume 2015, 2015. <https://doi.org/10.1155/2015/463147>
30. Rahib H. Abiyev. Credit Rating using Type-2 Fuzzy Neural Networks. *Mathematical Problems in Engineering*. Volume 2014, 2014. <https://doi.org/10.1155/2014/460916>
31. Rahib H. Abiyev, Nurullah Akkaya, Ersin Aytac, Dogan Ibrahim. Behaviour Tree Based Control For Efficient Navigation of Holonomic Robots. *International Journal of Robotics and Automation*, Volume: 29 Issue: 1, 2014, pp: 44-57. DOI: [10.2316/Journal.206.2014.1.206-3788](https://doi.org/10.2316/Journal.206.2014.1.206-3788)
32. Rahib H. Abiyev, Okyay Kaynak, Erdal Kayacan, A type-2 fuzzy wavelet neural network for system identification and control, *Journal of the Franklin Institute- Engineering and Applied Mathematics*, Volume: 350 Issue:7 2013, Pages: 1658-1685 DOI: [10.1016/j.jfranklin.2013.04.020](https://doi.org/10.1016/j.jfranklin.2013.04.020)
33. Rahib H. Abiyev. Fuzzy Wavelet Neural Network Based on Fuzzy Clustering and Gradient Techniques for Time Series Prediction. *Neural Computing & Applications*, Vol. 20, No. 2, pp. 249-259, 2011. <https://doi.org/10.1007/s00521-010-0414-4>
34. Rahib H. Abiyev, Okyay Kaynak, Tayseer Alshangleh, Fakhreddin Mamedov. A Type-2 Neuro-fuzzy System Based on Clustering and Gradient Techniques Applied to System Identification and

- Channel Equalization. *Applied Soft Computing*, Vol.11, Issues 1, 2011, pp. 1396–1406. <https://doi.org/10.1016/j.asoc.2010.04.011>
35. Rahib H.Abiyev, Kemal Ihsan Kilic. Exploiting the Synergy Between Fractal Dimension and Lacunarity for Improved Texture Recognition. *Signal Processing*, Vol.91, Issues 10, pp:2332-2344, 2011, <https://doi.org/10.1016/j.sigpro.2011.04.018>
  36. Rahib H. Abiyev, Okyay Kaynak. Type-2 Fuzzy Neural Structure for Identification and Control of Time-Varying Plants. *IEEE Transactions on Industrial Electronics*. Vol. 57, No. 12, pp. 4147 – 4159, December 2010. <https://doi.org/10.1109/TIE.2010.2043036>
  37. Erdal Kayacan, Yesim Oniz, Ayse Cisel Aras, Okyay Kaynak, Rahib Abiyev. A Servo System Control with time-varying and Nonlinear Load Conditions Using Type-2 TSK Fuzzy Neural System. *Applied Soft Computing*, Vol. 11, No. 8, pp. 5735 – 5744, 2011. <https://doi.org/10.1016/j.asoc.2011.03.008>
  38. R.Abiyev, D. Ibrahim, and B. Erin. Navigation of mobile robots in the presence of obstacles. *Advances in Software Engineering*, Vol.41, Issues 10-11, 2010, pp.1179-1186.
  39. R. Abiyev, D. Ibrahim, and B. Erin. EDURobot: An Educational Computer Simulation Programm for Navigation of Mobile Robots in the Presence of Obstacles. *International Journal of Engineering Education*. Vol.26. No.1, pp.18-29, 2010.
  40. Rahib H. Abiyev, Okyay Kaynak. Fuzzy Wavelet Neural Networks for Identification and Control of Dynamic Plants, a Novel Structure and a Comparative Study. *IEEE Transactions on Industrial Electronics*. Vol.55, No.8, 2008,pp.3133-3140. <https://doi.org/10.1109/TIE.2008.924018>
  41. Rahib H. Abiyev, Fuzzy Wavelet Neural Network for Prediction of Electricity Consumption. *AIEDAM: Artificial Intelligence for Engineering Design, Analysis and Manufacturing*. Vol. 23, Issue: 2, pp:109-118, May 2009. <https://doi.org/10.1017/S0890060409000018>
  42. Rahib H. Abiyev, Koray Altunkaya. Neural Network Based Biometric Personal Identification with fast iris segmentation. *International Journal of Control, Automation and Systems*. Vol.7, Issue 1, 17–23 2009.
  43. R.Aliev, Rahib Abiyev, Mustafa Menekay. Fuzzy Approach to Portfolio Selection Using Genetic Algorithms. *Intelligent Automation and Softcomputing*, Vol.14, No.4, 2008, pp.525-540.
  44. Rahib Abiyev, Mustafa Menekay. Fuzzy Portfolio Selection Using Genetic Algorithm. *Soft Computing- A Fusion of Foundations, Methodologies and Applications*, Springer, Berlin/Heidelberg, Volume 11 Issue 12, 2007. pp.1157-1163. <https://doi.org/10.1007/s00500-007-0157-z>
  45. Rahib H. Abiyev, Time Series Prediction Using Fuzzy Wavelet Neural Network Model. *ICANN-2006. Lecture Notes in Computer Sciences*, Springer-Verlag, Berlin Heidelberg, 2006. pp.191-200.
  46. Abiyev R.H., Menekay M. (2006) Fuzzy Genetic System for Modelling Investment Portfolio. In: Yang Q., Webb G. (eds) *PRICAI 2006: Trends in Artificial Intelligence*. *PRICAI 2006. Lecture Notes in Computer Science*, vol 4099. Springer, Berlin, Heidelberg

#### International Journals

47. Idoko, J.B., Abiyev, R. (2023). Introduction to Machine Learning and IoT. In: Idoko, J.B., Abiyev, R. (eds) *Machine Learning and the Internet of Things in Education. Studies in Computational Intelligence*, vol 1115. Springer, Cham. [https://doi.org/10.1007/978-3-031-42924-8\\_1](https://doi.org/10.1007/978-3-031-42924-8_1)
48. Abiyev, R., Adepoju, J. (2023). Deep Convolutional Network for Food Image Identification. In: Idoko, J.B., Abiyev, R. (eds) *Machine Learning and the Internet of Things in Education. Studies in Computational Intelligence*, vol 1115. Springer, Cham. [https://doi.org/10.1007/978-3-031-42924-8\\_2](https://doi.org/10.1007/978-3-031-42924-8_2)
49. Bush, I.J., Abiyev, R. (2023). Skin Detection System Based Fuzzy Neural Networks for Skin Identification. In: Idoko, J.B., Abiyev, R. (eds) *Machine Learning and the*

- Internet of Things in Education. Studies in Computational Intelligence, vol 1115. Springer, Cham. [https://doi.org/10.1007/978-3-031-42924-8\\_5](https://doi.org/10.1007/978-3-031-42924-8_5)
50. Ilhan, A., Alpan, K., Sekeroglu, B., & Abiyev, R. (2023). COVID-19 Lung CT image segmentation using localization and enhancement methods with U-Net. *Procedia Computer Science*, 218, 1660-1667. <https://doi.org/10.1016/j.procs.2023.01.144>
  51. Rahib H. Abiyev. Assessment of Air Quality Using Z- Rule Based System. 16th International Conference on Applications of Fuzzy Systems, Soft Computing and Artificial Intelligence Tools ICAFS 2023. Book Series: Lecture Notes in Networks and Systems, Published: 2023, Location: Antalya, Turkey, Date: Sep 14-15, 2023.
  52. Abiyev, R.H., Idoko, J.B., Altıparmak, H., & Tüzünkan, M. (2023). Determination of Fetal Health Condition Using Type-2 Fuzzy System. 16th International Conference on Applications of Fuzzy Systems, Soft Computing and Artificial Intelligence Tools ICAFS 2023. Book Series: Lecture Notes in Networks and Systems, Published: 2023, Location: Antalya, Turkey, Date: Sep 14-15, 2023
  53. Ilhan, A., Alpan, K., Sekeroglu, B., & Abiyev, R. (2023). COVID-19 Lung CT image segmentation using localization and enhancement methods with U-Net. *Procedia Computer Science*, 218, 1660-1667.
  54. R Abiyev, M Arslan. Vehicle detection systems for intelligent driving using deep convolutional neural networks, Discover Artificial Intelligence 3 (1), 2023
  55. Rahib H. Abiyev, Sanan Abizada. Prediction of Energy Consumption in Residential Buildings Using Type-2 Fuzzy Wavelet Neural Network. 15<sup>th</sup> International Conference on Application of Fuzzy Systems and Soft Computing - ICAFS-2022 Book Series: Lecture Notes in Networks and Systems, Published: 2022, Location: Budva, Montenegro, Date: AUG 26-27, 2022,
  56. Altıparmak, H., Abiyev, R., Tüzünkan, M. (2022). Diagnosis of Diabetes Using Type-2 Fuzzy System. In: Kahraman, C., Tolga, A.C., Cevik Onar, S., Cebi, S., Oztaysi, B., Sari, I.U. (eds) Intelligent and Fuzzy Systems. INFUS 2022. Lecture Notes in Networks and Systems, vol 505. Springer, Cham. [https://doi.org/10.1007/978-3-031-09176-6\\_82](https://doi.org/10.1007/978-3-031-09176-6_82)
  57. Aram Ismael, Rahib Abiyev, Mohammed Kamal Majeed, Aram Hussein Abubaker. Detection of Epileptic Seizure on EEG Signals using EMD and ICEEMDAN. November 2021, Design Engineering 2021(8)
  58. Abiyev R.H., Akkaya N., Aytac E., Abizada S. (2022) Fuzzy Gain Scheduling Controller for Quadrotor. In: Aliev R.A., Kacprzyk J., Pedrycz W., Jamshidi M., Babanli M., Sadikoglu F.M. (eds) 11th International Conference on Theory and Application of Soft Computing, Computing with Words and Perceptions and Artificial Intelligence - ICSCCW-2021. ICSCCW 2021. Lecture Notes in Networks and Systems, vol 362. Springer, Cham. [https://doi.org/10.1007/978-3-030-92127-9\\_52](https://doi.org/10.1007/978-3-030-92127-9_52)
  59. Gorkem Say Nurullah Akkaya, Ersin Aytac, Sanan Abizada, Tolga Yirtici, Kemal Ruso, Irfan Gonsel, Murat Tuzunkan, Rahib H.Abiyev. (2022) Fuzzy Control of Mechanical Ventilation System. In: Aliev R.A., Kacprzyk J., Pedrycz W., Jamshidi M., Babanli M., Sadikoglu F.M. (eds) 11th International Conference on Theory and Application of Soft Computing, Computing with Words and Perceptions and Artificial Intelligence - ICSCCW-2021. ICSCCW 2021. Lecture Notes in Networks and Systems, vol 362. Springer, Cham. [https://doi.org/10.1007/978-3-030-92127-9\\_48](https://doi.org/10.1007/978-3-030-92127-9_48)
  60. Al-Turjman F., Abiyev R.H., Altıparmak H., Yuvalı M., Kaba Ş. (2021) Classification of Solid Wastes Using CNN Method in IoT Het-Net Era. In: Al-Turjman F. (eds) Real-Time Intelligence for Heterogeneous Networks. Springer, Cham. [https://doi.org/10.1007/978-3-030-75614-7\\_8](https://doi.org/10.1007/978-3-030-75614-7_8)
  61. Abiyev R.H., Idoko J.B., Dara R. (2022) Fuzzy Neural Networks for Detection Kidney Diseases. In: Kahraman C., Cebi S., Cevik Onar S., Oztaysi B., Tolga A.C., Sari I.U. (eds) Intelligent and Fuzzy Techniques for Emerging Conditions and Digital Transformation. INFUS 2021. Lecture Notes in Networks and Systems, vol 308. Springer, Cham. [https://doi.org/10.1007/978-3-030-85577-2\\_32](https://doi.org/10.1007/978-3-030-85577-2_32)

62. Nurullah Akkaya, Ersin Aytac, Gorkem Say, Sanan Abizada, Tolga Yirtici, Gokhan Burge, Kemal Ruso, Irfan Gunsel, Rahib H. Abiyev. (2022) Intelligent Fuzzy System for Stray Pet Care Appliances. In: Kahraman C., Cebi S., Cevik Onar S., Oztaysi B., Tolga A.C., Sari I.U. (eds) Intelligent and Fuzzy Techniques for Emerging Conditions and Digital Transformation. INFUS 2021. Lecture Notes in Networks and Systems, vol 307. Springer, Cham. [https://doi.org/10.1007/978-3-030-85626-7\\_99](https://doi.org/10.1007/978-3-030-85626-7_99)
63. Abiyev R.H. (2021) Dynamic System Control Using Z-number Based Fuzzy Neural Network. In: Kahraman C., Cevik Onar S., Oztaysi B., Sari I., Cebi S., Tolga A. (eds) Intelligent and Fuzzy Techniques: Smart and Innovative Solutions. INFUS 2020. Advances in Intelligent Systems and Computing, vol 1197. Springer, Cham. [https://doi.org/10.1007/978-3-030-51156-2\\_112](https://doi.org/10.1007/978-3-030-51156-2_112)
64. Rahib Abiyev and Murat Arslan, Vision-Based Drowsiness Detection System Using Convolutional Neural Networks, ICECCE-2020, June 11-14, 2020, Istanbul. <https://doi.org/10.1109/ICECCE49384.2020.9179207>
65. R. Abiyev, J. B. Idoko and M. Arslan, "Reconstruction of Convolutional Neural Network for Sign Language Recognition," 2020 International Conference on Electrical, Communication, and Computer Engineering (ICECCE), 2020, pp. 1-5, doi: 10.1109/ICECCE49384.2020.9179356.
66. RH Abiyev, M Tunay. Optimization Search Using Hypercubes. 2020 4th International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT) , **IEEE Xplore, Istanbul, Turkey**, 22-24 Oct. 2020, <https://doi.org/10.1109/ISMSIT50672.2020.9255257>
67. M Bilin, R Abiyev. Fuzzy System for the Evaluation Quality of Products. IEEE 4th International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT). IEEE Xplore, Istanbul, Turkey, 22-24 Oct. 2020, <https://doi.org/10.1109/ISMSIT50672.2020.9255319>
68. Rahib H Abiyev. Intelligent Cardiac Arrhythmia Identification System. COJ Reviews & Research, 2(1), Crimson Publishers, 2018. DOI: 10.31031/COJRR.2018.02.000526
69. Abiyev R.H., Günsel I., Akkaya N. (2020) Z-number Based Fuzzy System for Control of Omnidirectional Robot. In: Aliev R., Kacprzyk J., Pedrycz W., Jamshidi M., Babanlı M., Sadikoglu F. (eds) 10th International Conference on Theory and Application of Soft Computing, Computing with Words and Perceptions - ICSCCW-2019. ICSCCW 2019. Advances in Intelligent Systems and Computing, vol 1095. Springer, Cham. [https://doi.org/10.1007/978-3-030-35249-3\\_60](https://doi.org/10.1007/978-3-030-35249-3_60)
70. Rahib H. Abiyev, Irfan Gunsel, Nurullah Akkaya, Ersin Aytac, Sanan Abizada, Gorkem Say, Tolga Yirtici, Berk Yilmaz, Gokhan Burge, Pavel Makarov. Decision Making and Obstacle Avoidance for Soccer Robots. [International Conference on Theory and Application of Soft Computing, Computing with Words and Perceptions, ICSCCW 2019](https://doi.org/10.1007/978-3-030-35249-3_58), pp 455-462. Advances in Intelligent Systems and Computing, vol 1095. Springer, Cham, [https://doi.org/10.1007/978-3-030-35249-3\\_58](https://doi.org/10.1007/978-3-030-35249-3_58)
71. Besime Erin, Rahib H. Abiyev, Diagnosis of Common Diseases Using Type-2 Fuzzy System. In Proceedings of the 3rd international conference on machine learning and soft computing (ICMLSC 2019) pp: 239-243, 2019, <https://doi.org/10.1145/3310986.3311028>
72. Pavel A. Makarov, Tolga Yirtici, Nurullah Akkaya, Ersin Aytac, Gorkem Say, Gokhan Burge, Berk Yilmaz, Rahib H. Abiyev. A Model-Free Algorithm of Moving Ball Interception by Holonomic Robot Using Geometric Approach. [Robot World Cup, RoboCup 2019: Robot World Cup XXIII](https://doi.org/10.1007/978-3-030-35699-6_13) pp 166-175, Springer, Cham. [https://doi.org/10.1007/978-3-030-35699-6\\_13](https://doi.org/10.1007/978-3-030-35699-6_13)
73. John Bush Idoko, Murat Arslan, Rahib H. Abiyev. Intensive Investigation in Differential Diagnosis of Erythematous-Squamous Diseases. 13th International Conference on Application of Fuzzy Systems and Soft Computing - ICAFS-2018 Book Series: Advances in Intelligent Systems and Computing Volume: 896 Pages: 146-153 Published: 2019, Location: Warsaw, POLAND Date: AUG 27-28, 2018, [https://doi.org/10.1007/978-3-030-04164-9\\_21](https://doi.org/10.1007/978-3-030-04164-9_21)
74. Arslan M., Bush I.J., Abiyev R.H. (2019) Head Movement Mouse Control Using Convolutional Neural Network for People with Disabilities. In: Aliev R., Kacprzyk J., Pedrycz W., Jamshidi M., Sadikoglu F. (eds) 13th International Conference on Theory and Application of Fuzzy Systems and Soft Computing — ICAFS-2018. ICAFS 2018. Advances in Intelligent



- Systems and Computing, vol 896. Springer, Cham. [https://doi.org/10.1007/978-3-030-04164-9\\_33](https://doi.org/10.1007/978-3-030-04164-9_33)
75. Rahib Abiyev, Murat Arslan, Irfan Günsel, Ahmed Çağman. Robot Pathfinding Using Vision Based Obstacle Detection. 3rd IEEE International Conference on Cybernetics (CYBCONF), Book Series: IEEE International Conference on Cybernetics-CYBCONF, 29-34, Exeter, ENGLAND Date: JUN 21-23, 2017
  76. Rahib H.Abiyev, Besime Erin, Ali Denker. Navigation of Mobile Robot Using Type-2 Fuzzy System. 2017 International Conference on Intelligent Computing August 7-10, Liverpool,UK, Lecture Notes in Artificial Intelligence (LNAI), Springer, 2017, pp.608-616.
  77. Rahib H.Abiyev, Irfan Günsel, Nurullah Akkaya, Ersin Aytac, Ahmet Çağman, Sanan Abizada. Fuzzy Control of Omnidirectional Robot. In Proc. Of 9th International Conference on Theory and Application of Soft Computing, Computing with Words and Perception, ICSCCW 2017, Book Series: Procedia Computer Science, vol.120, pp.608-616, 2017
  78. Abdulkader Helwan, John Bush Idoko, Rahib H.Abiyev. Machine Learning Techniques For Classification Of Breast Tissue. 9th International Conference on Theory and Application of Soft Computing, Computing with Words and Perception, ICSCCW 2017, Book Series: Procedia Computer Science, 2017.
  79. Rahib H.Abiyev, Dogan Ibrahim, Besime Erin. Navigation for Mobile Robots with Fuzzy Obstacle Avoidance. 9th International Conference on Theory and Application of Soft Computing, Computing with Words and Perception, ICSCCW 2017, Book Series: Procedia Computer Science, 2017
  80. R R.H.Abiyev, I.Günsel, N.Akkaya, E.Aytac, A.Çağman and S.Abizada, “Robot Soccer Control Using Behaviour Trees and Fuzzy Logic”, in Proc. 12th Int. Conf. on Application of Fuzzy Systems and Soft Computing, ICAFS 2016, Book Series: Procedia Computer Science, vol.102, pp. 477-484, 2016.
  81. Rahib H. Abiyev, Mustafa Tunay. Experimental study of specific benchmarking functions for modified Monkey algorithm. 12<sup>th</sup> International Conference on Application of Fuzzy Systems and Soft Computing, ICAFS 2016 Book Series: Procedia Computer Science Volume: 102, 2016, Pages: 595-602.
  82. Rahib H.Abiyev, Kaan Uyar, Umit Ilhan, Elbrus Imanov. Assessment of Food Security Risk Level Using Type 2 Fuzzy System. 12<sup>th</sup> International Conference on Application of Fuzzy Systems and Soft Computing, ICAFS 2016 Book Series: Procedia Computer Science Volume: 102, 2016, Pages: 547-554.
  83. Rahib H.Abiyev, Gunay Sadikoglu, Tulen Saner, Serife Eyupoglu. Measurement of Job Satisfaction Using Fuzzy Sets. 12<sup>th</sup> International Conference on Application of Fuzzy Systems and Soft Computing, ICAFS 2016 Book Series: Procedia Computer Science Volume: 102, 2016, Pages: 294-301. DOI:[10.1016/J.PROCS.2016.09.404](https://doi.org/10.1016/J.PROCS.2016.09.404)
  84. Rahib H. Abiyev, Nurullah Akkaya, Ersin Aytac, Irfan Günsel, and Ahmet Çağman. Improved Path-Finding Algorithm for Robot Soccers. Journal of Automation and Control Engineering, Vol.3, No.5, October 2015.
  85. Mustafa Tunay, Rahib H. Abiyev. Hybrid Local Search Based Genetic Algorithm and its Practical Application. International Journal of Soft Computing and Engineering (IJSCE) ISSN: 2231-2307, Volume-5 Issue-2, May 2015
  86. Rahib H. Abiyev. Design of Fractional Order Controllers Using Genetic Algorithms. British Journal of Mathematics & Computer Science, ISSN: 2231-0851, Vol.: 4, Issue.: 18 , 2014.
  87. Rahib H. Abiyev, Facial Feature Extraction Techniques for Face Recognition. Journal of Computer Science 10 (12): 2360-2365, 2014, ISSN: 1549-3636
  88. Rahib H. Abiyev, Vasif Hidayat Abiyev. Differential Evaluation Learning of Fuzzy Wavelet Neural Networks for Stock Price Prediction. ISSN 1746-7659, England, UK, Journal of Information and Computing Science, Vol. 7, No. 2, 2012, pp. 121-130
  89. B. Erin, R. Abiyev, and D. Ibrahim. Teaching robot navigation in the presence of obstacles using a computer simulation program. Procedia – Social and Behavioral Sciences. Elsevier, Volume 2, Issue 2, 2010, pp. 565-571.
  90. Abiyev R.H. (2010) A Type-2 Fuzzy Wavelet Neural Network for Time Series Prediction. In: García-Pedrajas N., Herrera F., Fyfe C., Benítez J.M., Ali M. (eds) Trends in Applied

- Intelligent Systems. IEA/AIE 2010. Lecture Notes in Computer Science, vol 6098. Springer, Berlin, Heidelberg. [https://doi.org/10.1007/978-3-642-13033-5\\_53](https://doi.org/10.1007/978-3-642-13033-5_53)
91. Rahib H. Abiyev, Kemal Kilic. Adaptive Iris segmentation. Lecture Notes in Computer Sciences, Springer-Verlag, Berlin Heidelberg, CS press, 2009.
  92. Rahib Abiyev, Koray Altunkaya. Personal Iris Recognition Using Neural Networks. International Journal of Security and Its Applications. Vol.2, No.2, 2008.
  93. Rahib Abiyev. Recurrent neural network based fuzzy inference system for identification and control of dynamic plants. World Academy of Science, Engineering and Technology, International Journal on Computer, Information Science and Engineering. Vol:1, No:7, 2003. pp.207-216.
  94. Rahib Abiyev, Koray Altunkaya. Neural Network Based Biometric Personal Identification. Lecture Notes in Computer Sciences, Springer-Verlag, Berlin Heidelberg, CS press, 2007.
  95. Rahib Abiyev, Fakhreddin Mamedov, Tayseer Al-shanableh. Nonlinear neuro-fuzzy network for channel equalization. Analysis and Design of Intelligent Systems using Soft Computing Techniques, Book Series: Advances in Soft Computing, V: 41 pp: 327-336 DOI:10.1007/978-3-540-72432-2\_33, 2007.
  96. Rahib Abiyev, Koray Altunkaya. Iris Recognition for Biometric Personal Identification Using Neural Networks. Lecture Notes in Computer Sciences, Springer-Verlag, Berlin Heidelberg, 2007.
  97. Rahib Abiyev, Fakhreddin Mamedov, Tayseer Al-shanableh. Equalization of Channel Distortions by Using Nonlinear Neuro-fuzzy Network. Advances in Neural Networks, Lecture Notes in Computer Sciences, Springer-Verlag, Berlin Heidelberg, 2007.
  98. Rahib H. Abiyev. Electricity Consumption prediction model using neuro-fuzzy System. Transaction on Enformatika, Budapest, vol:8, 2005.
  99. Rahib Abiyev, Vasif H. Abiyev, and Cemal Ardil. Electricity Consumption prediction model using neuro-fuzzy System. World Academy of Science, Engineering and Technology vol:8, 2005.
  100. Rahib Hidayat Abiyev, Fuzzy Wavelet Neural Network for Control of Dynamic Plants. International Journal on Computational Intelligence, Vol. 1, Number 2, 2004, pp.163-167.
  101. Rahib Hidayat Abiyev. Neuro-fuzzy system for Equalization channel distortion. International Journal on Computational Intelligence, 2004, pp.299-302.
  102. Rahib Abiyev. Genetic Algorithm Synthesis of the Industrial Controllers// Journal of Applied Science. Volume 1, N:3, June, 2001, pp.283-286.
  103. Fakhreddin Mamedov, Rahib Abiyev and Tayseer Alshanableh. Signal processing system using neural networks for Inspection of Pipelines Corrosion// Journal of Applied Science. Volume 1, N:2 April, 2001, pp.117-118.
  104. R.H.Abiyev, R.A.Aliev, and R.R.Aliev, "The synthesis of fuzzy control system with neural networks based tuner". News of Academy of Sciences, Tech. Cybernetics N 2: pp.192-197, 1994 (in English and Russian).
  105. Besime Erin, Rahib H.Abiyev. Diagnosis of Common Diseases Using Type-2 Fuzzy System, authors: In proc. of the 3rd International Conference on Machine Learning and Soft Computing, ICMLSC 2019, 25-28 January 25-28, 2019. Vietnam
  106. Idoko John Bush, Rahib Abiyev, Mohammad Khaleel Sallam Ma'aitah and Hamit Altıparmak. Integrated artificial intelligence algorithm for skin detection. ITM Web of Conferences 16, 02004 (2018) AMCSE 2017, <https://doi.org/10.1051/itmconf/20181602004>
  107. Rahib H. Abiyev, Murat Arslan, Irfan Günsel, Ahmet Cagman. Robot Pathfinding Using Vision Based Obstacle Detection. 3rd IEEE International Conference on Cybernetics (CYBCONF), 2017
  108. Rahib H. Abiyev, Mohammad Ma'aitah, Bengi Sonyel: Fuzzy Logic Traffic Lights Control (FLTLC). ICETC 2017: 233-238
  109. Rahib H.Abiyev, Nurullah Akkaya, Ersin Aytac, Irfan Günsel, Ahmet Çağman, Sanan Abizade. Brain-actuated Control of Wheelchair Using Fuzzy Neural Networks. The 2016 World Congress in Computer Science, Computer Engineering, and Applied Computing, ICAI'16, July, Las Vegas, Nevada, USA, 2016

110. Abdulkader Helwan and Rahib H. Abiyev. Shape and Texture Features for Identification of Breast Cancer. International Conference on Computational Biology 2016, San Francisco, USA, 19-21 October 2016
111. Rahib H. Abiyev, Günay Sadikoğlu, Esmira Abiyeva. Fuzzy Evaluation of Job Satisfaction of Hotel Employees. The 2015 World Congress in Computer Science, Computer Engineering, and Applied Computing, ICAI'15, 27-30 July, Las Vegas, Nevada, USA, 2015
112. Rahib H. Abiyev, Nurullah Akkaya, Ersin Aytac, Irfan Günsel, Ahmet Çağman. Brain Based Control of Wheelchair. The 2015 World Congress in Computer Science, Computer Engineering, and Applied Computing, ICAI'15, 27-30 July, Las Vegas, Nevada, USA, 2015
113. Abdulkader Helwan and Rahib H. Abiyev. IBCIS: Intelligent System for Identification of Breast Cancer. 3-rd IEEE International Conference Advances in Biomedical Engineering, 2015
114. Rahib H. Abiyev, etc. Improved Path-Finding Algorithm for Robot Soccers. 3rd International Conference on Control, Robotics and Informatics (ICCRI 2014), Hong Kong, December 26-28, 2014.
115. Rahib H. Abiyev, Nurullah Akkaya, Ersin Aytac. Control of Soccer Robots using Behaviour Trees. 9th Asian Control Conference (ASCC), 23-26 June, 2013, Istanbul
116. Oniz, Yesim; Kaynak, Okyay; Abiyev, Rahib, Spiking Neural Networks for the Control of a Servo System. IEEE International Conference on Mechatronics (ICM), Vicenza, ITALY, Feb 27-Mar 01, 2013, **DOI: 10.1109/ICMECH.2013.6518517**
117. Rahib H. Abiyev, Senol Bektas, Nurullah Akkaya, Ersin Aytac. Behaviour Tree Based Control of Holonomic Robots. Recent Advances in Mathematical Methods, Intelligent Systems and Materials 2013; p.54-59. WSEAS conference, Limasol, Cyprus, 2013
118. Rahib H. Abiyev, Okyay Kaynak, Yesim Oniz, Spiking Neural Networks for Identification and Control of Dynamic Plants. 2012 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, July 11-14, 2012, pp: 1030 – 1035. **DOI: 10.1109/AIM.2012.6265983**
119. Rahib H. Abiyev, Nurullah Akkaya, Ersin Aytac. Navigation of Mobile Robot in Dynamic Environments. IEEE International Conference on Computer Science and Automation Engineering CSAE 2012, Zhangjiajie, China, May 25-27, 2012, pp.480-484.
120. Ayse Cisel Aras; Kaynak, Okyay; Abiyev, Rahib. Slip control of a quarter car model based on type-1 fuzzy neural system with parameterized conjunctions. IECON 2012 - 38th Annual Conference on IEEE Industrial Electronics Society. 2012, pp: 2488 – 2493
121. Ayşe Cisel Aras, Yesim Oniz, Okyay Kaynak, Rahib Hidayat Abiyev: Type-1 and Type-2 Fuzzy Control of an Anti-lock Breaking System (ABS) and Evaluation of Its Performances. ICINCO (1) 2011: 503-508
122. Rahib H. Abiyev, Type-2 Fuzzy Wavelet Neural Network Based on Clustering and Gradient Techniques for Stock Price Prediction. ICSCCW-2011, Antalya, Turkey, 1-3 September, 2011
123. Oniz, Y.; Aras, A.C.; Kaynak, O.; Abiyev, R. Experimental evaluation of a type-2 fuzzy control algorithm on an Anti-Lock Braking System. IECON 2011 - 37th Annual Conference on IEEE Industrial Electronics Society. 2011, pp: 564 - 568
- 124.** Rahib H. Abiyev, Type-2 Fuzzy Wavelet Neural Network for Time-Series Prediction. The Twenty Third International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems, IEA-AIE 2010, June 1-4, 2010, Cordoba, Spain. TRENDS IN APPLIED INTELLIGENT SYSTEMS, PT III, PROCEEDINGS Book Series: Lecture Notes in Artificial Intelligence Volume: 6098 pp: 518-527 Published: 2010
125. Erdal Kayacan, Okyay Kaynak, Rahib Abiyev, Jim Torresen and Mats Hovin. Design of an Adaptive Interval Type-2 Fuzzy Logic Controller for the Position Control of a Servo System with an Intelligent Sensor. 2010 IEEE International Conference on Fuzzy Systems. FUZZ-IEEE 2010, July 18-23, Barcelona, Spain.
- 126.** Y. Oniz, E. Kayacan, A.C. Aras, O. Kaynak and R. Abiyev. A Servo System Control with Time-varying Load using Type-2 Fuzzy Neural System. IECON 2010: 36th Annual Conference of the IEEE Industrial-Electronics-Society, NOV 07-10, 2010 Glendale, AZ. Book Series: IEEE Industrial Electronics Society
127. A.C. Aras, E. Kayacan, Y. Oniz, O. Kaynak and R. Abiyev, "An Adaptive Neuro-Fuzzy Architecture for Intelligent Control of a Servo System and its Experimental Evaluation," Proc. of

- the IEEE ISIE 2010 International Symposium on Industrial Electronics, Bari, Italy, pp. 68-73, 4-7 July 2010.
128. Rahib H. Abiyev, Kemal Kilic. An efficient Fractal Measure for Image Texture Recognition. International Conference on Soft Computing and Computing with Words in System Analysis, Decision and Control ICSCCW-2009, North Cyprus, Turkey, 2009
  129. Rahib H. Abiyev, Okyay Kaynak. Identification and Control of Time-Varying Plants Using Type-2 Fuzzy Neural System IEEE International Joint Conference on Neural Networks, Vol:1- 6, CE press, June 14-19, 2009, Atlanta, Georgia (USA).
  130. Rahib H. Abiyev, Okyay Kaynak. Identification and Control of Dynamic Plants Using Fuzzy Wavelet Neural Networks. Processing of the 2008 IEEE International Symposium on Intelligent Control, CE press, pp.31-37, September 3-5, 2008, San Antonio, Texas (USA)
  131. Rahib H. Abiyev, Adalet N. Abiyev, Kamil Dimililer. The Walsh Functions Based Method for Reactive Power Measurement. 33rd Annual Conference of the IEEE-Industrial-Electronics-Society, IEEE IECON 2007, CS press, Vols:1-3, pp.2337-2342, 2007.
  132. Rahib H. Abiyev, Tayseer Al-shanableh. Neuro-Fuzzy Network for Adaptive Channel Equalization. 5<sup>th</sup> Mexican International Conference on Artificial Intelligence. IEEE CS press. MICAI 2006. Apizaco, Mexico November 13-17, 2006
  133. Rahib Hidayat Abiyev, Controller based on Fuzzy Wavelet Neural Network for Control of Technological Processes. In proceeding of IEEE International Conference on Computational Intelligence for Measurement Systems and Applications, IEEE CIMSA 2005, pp.215-219, Giardini Naxos - Taormina, Sicily, ITALY , 20-22 July 2005.
  134. Rahib Abiyev, Fakhreddin Mamedov , Tayseer Al-shanableh. Neuro-fuzzy system for Channel noise Equalization. International MultiConference in Computer Science & Computer Engineering. In proceeding of International Conference on Artificial Intelligence. IC-AI'04, pp.243-248, Las Vegas, Nevada, USA, June 21-24, 2004
  135. Rahib Abiyev. Neuro-Fuzzy system for technological processes control. In proceeding of the 6th World Multi-Conference on Systemics, Cybernetics and Informatics (SCI 2002)/8th International Conference on Information Systems Analysis and Synthesis (ISAS 2002). Vol XII, pp.249-253, Orlando, Florida, USA. July 14-18, 2002.
  136. R.A.Aliev, R.H.Abiyev, R.R.Aliev. Synthesis of industrial neural controllers.// IEEE World Congress on Computational Intelligence, Int.Conf. Neural networks, V.1-7, pp.1644-1649, San Diego, Calif., June 28-July 2, 1994.
  137. R.A.Aliev, R.H.Abiyev, R.R.Aliev. Industrial controllers based on neural expert system. //World Congress on Expert Systems, Estoril/Lissabon, pp.887-892, Portugal, January 10-14, 1994.

## 7.2. Uluslararası diğer hakemli dergilerde yayınlanan makaleler

1. Rahib Abiyev. Fuzzy inference system based on neural network for technological processes control. Mathematical and Computational Applications. Turkey, 2002, pp.245-252.
2. K.M.Kerimov, R.H.Abiyev, T.M.Salehli, T.G.Melikov, F.I.Ibadov. On Multi-dimensional Petrophysical Relations of Oil and Gas Reservoirs// Journal of Geophysics News in Azerbaijan. Baku, N:4, 1999, pp.23-26.
3. K.M.Kerimov, R.H.Abiyev, T.G.Melikov. Mathematical model of petrophysical characteristics of rocks// Journal of Geophysics News in Azerbaijan. Baku, N:3, 1999, pp.35-37.
4. K.M.Kerimov, R.H.Abiyev, T.G.Melikov, E.S.Novruzov. Use of illegible logic to determine oil and gas bearing intervals in beds// Journal of Geophysics News in Azerbaijan. Baku, N:2, 1999, pp.33-35.
5. K.M.Kerimov, R.H.Abiyev, T.G.Melikov. Fuzzy system for determination of oil-gas fields productivity// Journal of Geophysics News in Azerbaijan. Baku, N:1, 1999, pp.13-15.
6. A.A.Abdullayev, R.H.Abiyev, T.G.Melikov, E.S.Novruzov. Improvement of efficiency and productivity of magnetic-telluric sounding// Journal of Geophysics News in Azerbaijan. Baku, N:1, 1999, pp.15-16.
7. R.A.Aliev, R.H.Abiyev. Neural controller for defining quality of products// Neft i Gas, Baku, N3, 1993, 66-70pp. (Russian)

8. R.A.Sadichov, R.H.Abiyev. Intelligent system for estimation of the collector property of rock by solving petrophysical equations// Scientific and pedagogic news of "Odlar Yurdu" university. N:2,1999,pp.34-39. (Russian)
9. I.H.Muratov, R.H.Abiyev, R.R.Aliev. Learning systems based on neural networks for control technological processes //“Intelligent control and decision making systems”.Thematic collected articles, N:1, Azerb.SOA,Baku-1997,pp.43-49(Russian)
10. B.A.Abbasov,R.H.Abiyev. Adaptive fuzzy controller for technological process control// High Military Sea School,“Materials of scientific research works”, N1, Baku, 1998, (Russian)
11. R.H.Abiyev. Fuzzy neural network for solution of problems of oil and gas geology// Oil and future of Azerbaijan. The research works of younger scientists. Baku. AIOC,1998. (Russian)
12. R.A.Sadichov, R.H.Abiyev. Fuzzy neural network modelling of oil and gas geology systems// “Intelligent control and decision making systems”. Thematic collected articles, N:2, Azerb.SOA,Baku-1998,pp.83-92.(Russian)
13. R.H.Abiyev, G.Mustafaeva. Neural controller with genetic algorithm// High Military Sea School,“Materials of scientific research works”, N1, Baku, 1997, pp.65-68(Russian)
14. R.H.Abiyev. Controllers based on neural networks// Uchenie zapiski, AzGNA, 1995, 147-152pp.(Russian)
15. R.H.Abiyev, R.R.Aliev. Neural controller for control of technological processes// Uchenie zapiski, AzGNA,N2, Baku-1994,88-97pp.(Russian).
16. R.H.Abiyev. Synthesis of neural network structure for neural controller, defining quality of productions// Uchenie zapiski, AzGNA,N3, Baku-1993,103-106pp. (Russian)
17. R.A.Aliev, R.H.Abiyev. Development model of neural controller for control of the quality of products// Uchenie zapiski, AzGNA,N1, Baku-1993,73-78pp.(Russian)

### **7.3. Uluslararası bilimsel toplantılarda sunulan ve bildiri kitabında basılan bildiriler**

1. Idoko John Bush, Rahib Abiyev, Murat Arslan. Fuzzy neural system application to differential diagnosis of erythemato-squamous diseases. In Proc. of International Biomedical Engineering Congress, IBMEC 2018, 24-27 May, Lefkosa, North Cyprus
2. Murat Arslan, Rahib H.Abiyev. Design of mouse control with head movement and eye blink for the severely disabled people. In Proc. of International Biomedical Engineering Congress, IBMEC 2018, 24-27 May, Lefkosa, North Cyprus
3. I. J. Bush, R. H. Abiyev, and M. K. Ma’aitah, Intelligent machine learning algorithms for colour segmentation, WSEAS Transactions on Signal Processing, Volume 13, Art. #27, pp. 241-247, 2017.
4. Rahib H.Abiyev, Nurullah Akkaya, Ersin Aytac, Irfan Günsel, Ahmet Çağman. Development of Brain Computer Interface for Wheelchair. The International Biomedical Engineering Congress 2015 (IBMEC-2015), 12-14 March 2015, Girne, North Cyprus
5. Mustafa Tunay, Rahib H. Abiyev. Hypercube Optimization Search Algorithm. Eighth International Conference on Soft Computing, Computing with Words and Perceptions in System Analysis, Decision and Control. ICSCCW-2015, September 3-4, 2015 Antalya, Turkey
6. Rahib H.Abiyev, Abdulkader Helwan. Intelligent Breast Cancer Identification System. The International Biomedical Engineering Congress 2015 (IBMEC-2015), 12-14 March 2015, Girne, North Cyprus
7. Rahib H. Abiyev. Wavelet Neural Networks for Image Compression, 1<sup>st</sup> International Symposium on Digital Forensics and Security, ISDFS 2013, 20-21 May, 2013, Elazig.Turkey.
8. Rahib H.Abiyev, Hussein Mohammed. Isolated Word Recognition, ISEAIA 2013, Girne, TRNC, 6-8 November,2013.
9. Rahib H.Abiyev, Kaan Uyar, Elbrus Imanov, Rifat Dover. Bhaviour Based Mobile Robot Navigation in 3D Workspace. ICAFS-2012, Lissabon, 2012.
10. Rahib H.Abiyev, Nurullah Akkaya, Ersin Aytac. Navigation of Mobile Robot in Dynamic Environments. IEEE International Conference on Computer Science and Automation Engineering CSAE 2012, Zhangjiajie, China, May 25-27, 2012,

11. Rahib H.Abiyev. Type-2 Fuzzy Neural Network for System Identification and Control. EEECS 2012, International Symposium "Creating the Future". Lefke, TRNC, Turkey, November, 2012
12. Rahib Abiyev, Dogan Ibrahim, and Besime Erin.. Fuzzy obstacle avoidance in the navigation of mobile robots. 6<sup>st</sup> FAE International Symposium "Creating the Future". Lefke, TRNC, Turkey, November 26-30, 2010
13. Rahib H.Abiyev. Biometric Identification using Fast localization and Recognition of Iris Images. International Symposium on Network and Information Security. Girne, TRNC, Turkey, May 16-18, 2008
14. Rahib H. Abiyev, Mustafa Menekay. Fuzzy Portfolio Selection Using Genetic Algorithm. International Conference on Hybrid Information Technology. ICHIT 2006, Cheju Island, Korea, November 9-11, 2006.
15. Rahib H. Abiyev. Neural Network Based Type-2 Fuzzy System For Identification and Control of Dynamic Plant. . 4<sup>th</sup> FAE International Symposium "Creating the Future". Lefke, TRNC, Turkey, November 30-December 1, 2006.
16. Rahib Hidayat Abiyev, Mustafa Menekay: Fuzzy Genetic System for Modelling Investment Portfolio. PRICAI 2006: 701-710
17. Rahib H. Abiyev. Fuzzy Wavelet Neural Network for Time Series Prediction. 3<sup>rd</sup> International Symposium on Electrical, Electronic and Computer Engineering. ISEECE2006. Nicaosia, TRNC, Turkey, November 24-25, 2006, pp.269-274.
18. Rahib Abiyev, Qais Albeni, "Arabic Character Recognition Using Neural Network", ICGST International Conference on Artificial Intelligence and Machine Learning (AIML-05), 19-21 December 2005, Cairo, Egypt.
19. Rahib Abiyev, Mustafa Menekay. Fuzzy systems for risk return optimization in investment Portfolio. International Conference on Soft Computing and Computing with Words in System Analysis, Decision and Control (Dedicated to Professor Lotfi Zadeh), ICSCCW-2005, Antalya, Turkey, September 1-2,2005.
20. Rahib H. Abiyev, Mustafa Menekay, Fuzzy Genetic Algorithm for Portfolio modeling in investment, 2nd International Conference On Intelligent Knowledge Systems IKS-2005 06-08 July 2005 Istanbul, Turkey
21. Rahib Hidayat Abiyev, Fuzzy Wavelet Neural Network for Control of Dynamic Plants. International Conference on Computational Intelligence. ICCI-2004, Istanbul, Turkey, Desember 17-19, 2004.
22. Rahib Abiyev, Rafik Aliev, Mustafa Menekay. Fuzzy portfolio optimization using Genetic Algorithms. 6-th International Conference on Application of Fuzzy Systems and Soft Computing. ICAFS-2004. Barcelona, Spain, September 28-30, 2004.
23. Rahib Abiyev, Mehmet Ali Salahli, Controller Based on Wavelet Neural network. 4-th International Symposium on Intelligent Manufacturing Systems. IMS'2004, Sakarya, September 6-8, 2004.
24. Rahib Abiyev, Mustafa Menekay. Fuzzy Genetic system for Portfolio optimization. 3<sup>rd</sup> FAE International Symposium "Creating the Future".Lefke,TRNC,Turkey,November 25-26, 2004.
25. Rahib Abiyev, Mustafa Menekay. Fuzzy Expert System for Bank Credit Authorization. International Conference on Information Technologies and Engineering, ICITE-2004, September 01-04, 2004, Çesme, Izmir, Turkey
26. Rahib Abiyev, Shahin Ahmedov. Fuzzy Expert System In Medical Diagnosis of the Chest Pain. International Conference on Application of Information-Communication Technologies in Science and Education, Baku, Azerbaijan, September 15-16, 2004
27. Rahib Abiyev, Mehmet Ali Salahli, Development of Wavelet Neural Network based Controller . 3<sup>rd</sup> FAE International Symposium "Creating the Future". Lefke, TRNC, Turkey, November 25-26, 2004.
28. Rahib Abiyev, Mustafa Menekay, Vasif Abiyev, Ali Denker. Quadratic programming and its application to fuzzy Portfolio Optimization. ICCI2004. Nicaosia, TRNC, Turkey, May 27-29, 2004, pp.148-153.
29. Rahib Abiyev, Fakhreddin Mamedov , Tayseer Al-shanableh. Adaptive Equalization of Channel Distortion Using Recurrent Neuro-fuzzy Network. International Journal of Computational Intelligence. ICCI2004. Nicaosia, TRNC,Turkey, May 27-29, 2004, pp.154-157

30. Fakhreddin Mamedov, Rahib Abiyev, Tayser Alshanableh. Recurrent Neural Network for Equalization of Channel Distortion. Electrical, Electronics and Computer Engineering Symposium NEU-CEE2004. Nicaosia, TRNC, Turkey, March 11-13, 2004, pp.256-260.
31. Rahib Hidayat Abiyev. Neuro-fuzzy system for Equalization channel distortion. International Conference on Signal Processing, ICSI2004, Chanakkale, Turkey, 2004, February.
32. Rahib Abiyev, Mustafa Menekay. Linear programming models for portfolio selection. Second International Conference on Soft Computing and Computing with Words in System Analysis, Decision and Control (Dedicated to Professor Lotfi Zadeh), ICSCCW-2003, Antalya, Turkey, September 6-8, 2003.
33. Rahib Abiyev. Recurrent Neural Network Systems for Control of Dynamic Plants. 2<sup>nd</sup> FAE International Symposium "Creating the Future". Lefke, TRNC, Turkey, 6-7 November, 2002.
34. Fakhreddin Mamedov, Rahib Abiyev. Neural equalizer for channel distortion// Fifth International Conference on Application of Fuzzy Systems and Soft Computing, ICAFS-2002, Milan, Italy, September 17-19, 2002.
35. Rahib Abiyev. Controller based on recurrent neural network for technological processes control. XXII International Congress on Operation Research and Industrial Engineering. OR/IE'01, Ankara Turkey, July 4-6, 2001, pp.65.
36. Fakhreddin Mamedov, Rahib Abiyev. Channel equalization using recurrent neural network// First International Conference on Soft Computing and Computing with Words in System Analysis, Decision and Control (Dedicated to Professor Lotfi Zadeh), ICSCCW-2001, Antalya, Turkey, June 6-8, 2001, pp.327-330.
37. Fakhreddin Mamedov, Rahib Abiyev and Tayseer Alshanableh. Petrol ve Gas boru hatlarinde sinir agi kullanarak yenim denetimi yapan sinyal isletme sistemi// IEEE Sinyal Isleme ve Uygulamaları Kurultayı, SIU'2001, Dogu Akdeniz Universitesi, Gazimagusa, KKTC, Mersin, Turkiye, 2001, 25-27 nisan, pp.468-471.
38. Rahib Abiyev. Controllers based on Softcomputing elements// Electrical, Electronics and Computer Engineering Symposium NEU-CEE2001 & Exhibition. Nicaosia, TRNC, Turkey, May 23-25, 2001, pp.182-188.
39. Fakhreddin Mamedov, Rahib Abiyev. Fuzzy Neural modeling of the nonlinear processes in condition of uncertainty // World Conference on Intelligent Systems for Industrial Automation, WCIS-2000, Tashkent, Uzbekistan, September 14-16, 2000, pp.310-315.
40. Fakhreddin Mamedov, Rahib Abiyev. Interpolation of the discrete-time signals using radial-basis neural network.// International Conference on Application of Fuzzy Systems and Softcomputing, Siegen, Germany, ICAFS-2000, June 27-29, pp.360-364.
41. Rahib Abiyev. Controllers based on Softcomputing elements// Electrical, Electronics and Computer Engineering Symposium NEU-CEE2001 & Exhibition. Nicaosia, TRNC, Turkey, May 23-25, 2001, pp.182-188.
42. Fakhreddin Mamedov, Rahib Abiyev. Signal processing system using radial-basis neural network// IEEE NORDIG Signal Processing Symposium, June 13-15, 2000, Kolmarden, Sweden, NORSIG 2000, pp.263-265.
43. Fakhreddin Mamedov, Rahib Abiyev. Fuzzy Neural modeling of the nonlinear processes in condition of uncertainty // World Conference on Intelligent Systems for Industrial Automation, WCIS-2000, Tashkent, Uzbekistan, September 14-16, 2000, pp.310-315.
44. Fakhreddin Mamedov, Rahib Abiyev. Interpolation of the discrete-time signals using radial-basis neural network.// International Conference on Application of Fuzzy Systems and Softcomputing, Siegen, Germany, ICAFS-2000, June 27-29, pp.360-364.
45. Fakhreddin Mamedov, Rahib Abiyev. Signal processing system using radial-basis neural network// IEEE NORDIG Signal Processing Symposium, June 13-15, 2000, Kolmarden, Sweden, NORSIG 2000, pp.263-265.
46. **K.M.Kerimov, R.H.Abiyev, T.G.Melikov. Determination of oil and gas field productivity in the condition of insufficiency and fuzziness of information// Second International Symposium on Mathematical and Computational Applications, Baku, september 1-3, 1999.**
47. F.T.Aliev, R.R.Aliev, W.Steinmann, I.H.Muratov, R.H.Abiyev. Neural learning systems for technological processes control./ International Conference on Application of Fuzzy Systems and Softcomputing, ICAFS-98, Wiesbaden, Germany, October 5-7, 1998, pp.94-98.

48. M.T.Abasov,R.A..Sadykov,R.Y.Aliyarov,J.M.Kondryushkin,R.H.Abiyev.Fuzzy neural networks in the systems of oil and gas geology and geophysics./ International Conferences on Application of Fuzzy Systems and Softcomputing, ICAFS-98, Wiesbaden, Germany, October 5-7, 1998, pp.108-117.
49. R.H.Abiyev. Evaluation of rocs collector properties by solving petrophysical equations on the base of learning systems.// State-of-art understanding of the geophysics methods to control exploitation of Oil and Gas deposits and improvement those works, Materials of scientific seminar. Baku, 1998,august 24-25.(Azerb.)
50. R.H.Abiyev. Evaluation of rocs collector properties by solving petrophysical equations on the base of learning systems.// State-of-art understanding of the geophysics methods to control exploitation of Oil and Gas deposits and improvement those works, Materials of scientific seminar. Baku, 1998,august 24-25.(Azerb.)
51. R.H.Abiyev. Fuzzy neural systems with trapezoid parameters for control technological processes// Republic conferences of younger scientists, Baku-1997.(Russian)
52. R.H.Abiyev, K.W.Bonfig, F.T.Aliev. Controller based on fuzzy neural network for control of technological process.// International conferences on Application of Fuzzy Systems and Softcomputing, ICAFS-96, Siegen, Germany, June 25-27, 1996,pp.295-298.
53. R.A.Aliev, R.H.Abiyev, R.R.Aliev. Industrial controllers based on neural expert system. //World Congress on Expert Systems,Estoril/Lissabon, pp.887-892,Portugal, January 10-14,1994.
54. R.A.Aliev,F.T.Aliev,R.H.Abiyev,R.R.Aliev. Industrial neural controllers.// EUFIT'94, Elita foundation, Promenade 9, 52076 Aachen, Germany, September 20-23, 1994, pp.1321-1325.
55. R.H.Abiyev, R.R.Aliev. Fuzzy neural system for control of technological processes. Application of Fuzzy Systems, Ed. R.A.Aliev, R. Kenarangui. ICAFS-94,Tabriz, Iran, October 17-19, 1994, pp.63-66.

#### **7.4. Yazılan ulusal/uluslararası kitaplar veya kitaplarda bölümler**

1. John Bush Idoko, Rahib Abiyev. Machine Learning and the Internet of Things in Education. Models and Applications. Studies in Computational Intelligence (SCI, volume 1115). Springer Nature, p.280, 2023. <https://doi.org/10.1007/978-3-031-42924-8>
2. Abdulkader Helwan, Rahib Abiyev. Intelligent Breast Cancer Identification System. LAP Lambert Academic Publishing (March 31, 2015), ISBN-10: 3659689769, ISBN-13: 978-3659689765, pp.96.
3. Rahib H.Abiyev, Kemal I.Kilic. Robust Feature Extraction and Iris Recognition for Biometric Personal Identification. Biometrics. Edited by: Zahid Riaz ISBN 978-953-307-542-6, INTECH Open Access Pub., 2011
4. Rahib Abiyev, Fakhreddin Mamedov , Tayseer Al-shanableh. Nonlinear Neuro-fuzzy Network for Channel Equalization. Advances in Soft Computing, Springer, Berlin Heidelberg, 2007.
5. Rahib Abiyev, Dogan Ibrahim. Programming in C. NEU-press, Nicosia, 2011, 200p.
6. Rahib Abiyev. “Algorithms”, NEU-Press, Nicosia, 2006. 209p.
7. Rahib Abiyev, Dogan Ibrahim. C Programming, for Students. Bileşim Matbaacilik A.Ş., Istanbul, Turkey, 2004, 254p.
8. Rahib Abiyev, Doğan İbrahim. Öğrenciler için C Programlama. Bileşim Matbaacilik A.Ş., Istanbul, Turkey, 2004, 200p.
9. Rahib Abiyev. C Programming Laboratory. NEU-press, Nicosia, 2002
10. Adnan Khasman, Rahib Abiyev. Gradution Project: A complete guide. (first edition). Near East University. Nicosia, 2001,34p.
11. R.H.Abiyev. Intelligent systems based of neural networks. Methodical works, Azerb.SOA, Baku, 1997,32p.(Russian).



## 7.5. Ulusal hakemli dergilerde yayınlanan makaleler

1. Rahib H.ABIYEV, Irfan GUNSEL , Nurullah AKKAYA, Mustafa ARICI , Ahmet CAGMAN , Seyhan HUSEYIN , Fatih EMREM , Berk YILMAZ , Huseyin I. ERCEN , Gorkem SAY , Ersin AYTAC. NEUIslanders 2018 Team Description, Leipzig, RoboCup 2018
2. Rahib H.ABIYEV, Irfan GUNSEL , Nurullah AKKAYA , Mustafa ARICI , Ahmet CAGMAN , Seyhan HUSEYIN , Fatih EMREM , Berk YILMAZ , Huseyin I. ERCEN , Gorkem SAY , Ersin AYTAC. NEUIslanders 2017 Team Description, Leipzig, RoboCup 2017
3. Rahib H.ABIYEV, Irfan GUNSEL , Nurullah AKKAYA , Murat ARSLAN , Mustafa ARICI , Ahmet CAGMAN , Seyhan HUSEYIN , Fatih EMREM , Berk YILMAZ , Huseyin I. ERCEN , Gorkem SAY , Ersin AYTAC. NEUIslanders 2016 Team Description, Leipzig, RoboCup 2016
4. Rahib H.Abiyev, Assist Prof Dr Irfan GUNSEL, Nurullah AKKAYA, Murat ARSLAN, Mustafa ARICI, Ahmet CAGMAN, Seyhan HUSEYIN, Fatih EMREM, SAY Gorkem, Ersin AYTAC. NEUIslanders 2016 Team Description paper. Heifei, China, RoboCup 2015
5. Rahib H.Abiyev, Irfan GUNSEL, Nurullah AKKAYA, Ersin AYTAC, Murat ARSLAN, Fatih EMREM, Gorkem SAY, Ahmet CAGMAN, Senol KORKMAZ, Ilker DAGLI, Mustafa ARICI. NEUIslanders 2014 Team Description Department. Brazil, RoboCup 2014.
6. Rahib H.Abiyev, Irfan GUNSEL, Nurullah AKKAYA, Ersin AYTAC, Murat ARSLAN, Fatih EMREM, Gorkem SAY, Ahmet CAGMAN, Senol KORKMAZ, Ilker DAGLI, Mustafa ARICI. NEUIslanders 2013 Team Description. Eindhoven, Nederland, RoboCup 2013.
7. Rahib Abiyev, Nurullah Akkaya, Ersin Aytac, Mustafa Arici, Muhlis Bayezit. NEUIslanders 2012 Team Description Paper. [http://small-size.informatik.uni-bremen.de/media/neuislanders\\_2012\\_tdp.pdf](http://small-size.informatik.uni-bremen.de/media/neuislanders_2012_tdp.pdf)

...

## 8. Projeler

### - TUBITAK Araştırma Projesi

- Type-2 Fuzzy Neural System for DC motor control with time varying load (With Bogazici University), 2009-2010.

### - TURKEY/TRNC Araştırma Projeleri

1. Iris recognition system Using Neural Networks(YDÜ/5-07-2) – *Project Supervisor*:Prof.D.Rahib H.Abiyev.
2. Fuzzy Wavlet Neural System for prediction electricity consumption, 2006. Prof.D.Rahib H.Abiyev.
3. Development of intellectual mobile robots, (Designing of futbol team for Near East University) (YDÜ/2010-1-04) - *Project Supervisor*: Prof.D.Rahib H.Abiyev.
4. Emerging Trends in Fuzzy Systems: Z Number Based Fuzzy Systems, Theory and Practical Applications (2017-18). NEU BAP project. – *Project Supervisor*: Prof.D.Rahib H.Abiyev.
5. Yapay Zeka Programı Kullanarak Yakın Doğu Üniversitesi Hastahanesi Radyoloji ve Patoloji Bölümünde Var Olan Görüntüleri Kullanarak Kanserli Bölge Teşhisi ve Cern’de Alınan Atom Altı Parçacıkların Analizi. 2017 NEU BAP project. Prof.D.Rahib H.Abiyev.
6. Convolutional Neural Network based Deep Learning Systems and Their applications. 2020, Project Supervisor: Prof.D.Rahib H.Abiyev.
7. Theory and Applications of Type-3 fuzzy Systems. 2023. Project Supervisor: Prof.D.Rahib H.Abiyev.

**- NEU Projeleri:**

- In 2001 Prof.D.Rahib H.Abiyev has founded the Applied Artificial Intelligence Research Center. In this centre PhD. And MSc. Have accomplished many research projects..
- In 2008 under supervision of Prof.D.Rahib H.Abiyev the Robotics research group was created. The robotic team has taken part in many International and national robotic competitions and has got very good results.
- In 2010 under supervision of Prof.D.Rahib H.Abiyev the “NEUslenders” robotic football team of Near East University was created. Since 2012 each year the team takes part in World RoboCup competitions. In 2013 the team took 14-th place among 24 teams.

**10. İdari Görevler**

- Lead Guest Editor, Deep Learning in Medical Image Segmentation and Diagnosis, 2023, Diagnostics journal (SCIE)
- Lead Guest Editor, Special Issue on Fuzzy Medical Diagnosis, 2023, Diagnostics journal (SCIE)
- Lead Guest Editor, Special Issue on Fuzzy Reasoning under uncertainty: Theory and Applications, Advances in Fuzzy Systems, 2016
- Guest Editor, Special Issue on Approximate Logical Reasoning and Uncertain Computation, The Scientific World Journal, 2016
- Lead Guest Editor, Special Issue on Fusion of Computational Intelligence Techniques and Their Practical Applications, Computational Intelligence and Neuroscience Journal, 2015
- Director of “Applied Artificial Intelligence Research Centre
- Senator, Engineering Faculty, NEU.
- Chairman of Computer Engineering Department (2009-2014,2015-)
- Founder and Director of “Applied Artificial Intelligence Research Centre”
- University Senator
- Member of Steering Committee of Graduate School of Applied Sciences, NEU
- Supervision of PhD. Thesis
- Supervision of MSc. Thesis
- Member of PhD. Examination Jury
- Member of MSc. Examination Jury

**12. Bilimsel ve Mesleki Kuruluşlara Üyelikler**

- Member of IEEE

**Program ve Organize Komitesine Üyelikler  
Conference Co-Chairman**

1. International Conference on Computer Science, ICCS2006, Vienna, March 29-31, 2006

**Member of the Programming Committee**

1. Computing Conference 2024, 11-12 July, London, UK, The Science and Information (SAI) Organization, <https://saiconference.com/Computing>
2. Future of Information and Communication Conference (FICC) 2024, 4-5 April 2024 | Berlin, Germany, <https://saiconference.com/FICC>
3. 13<sup>th</sup> International Conference on Pattern Recognition Applications and Methods, ICPRAM 2024, 24-26 February, Rome, Italy, <https://icpram.scitevents.org>

4. Computing Conference 2023, 22-23 June, London, UK, The Science and Information (SAI) Organization, <https://saiconference.com/Conferences/Computing2023>
5. ICAFS-2023. 16th International Conference on Application of Fuzzy Systems, Soft computing and Artificial Intelligence Tools, September 14-15, 2023, Antalya, Turkey.
6. The Future Technologies Conference 2023, FTC 2023, 2-3 November, San Francisco, USA, <https://saiconference.com/FTC>
7. IntelliSys 2023, 7-8 September, Amsterdam, The Netherlands.  
<https://saiconference.com/IntelliSys>
8. Future of Information and Communication Conference (FICC) 2023, 2-3 March 2023, Virtual. <https://saiconference.com/Conferences/FICC2023>
9. 12<sup>th</sup> International Conference on Pattern Recognition Applications and Methods, ICPRAM 2023, 22-24 February, Lisbon, Portugal.  
<https://icpram.scitevents.org/?y=2023>
10. ICAFS-2022. 15th International Conference on Application of Fuzzy Systems and Soft computing, August 26-27, 2022 Budva, Montenegro.
11. FTC 2022 - Future Technologies Conference 2022, 20-21 October 2022 | Hybrid Event | Vancouver, Canada
12. FoNeS-IoT 2022 Forthcoming Networks and Sustainability in the IoT Era Conference
13. 2022 International Conference on Innovations in Computing Research (ICR'22)
14. 11<sup>th</sup> International Conference on Pattern Recognition Applications and Methods, ICPRAM 2022, 3-5 February, <https://icpram.scitevents.org/>
15. 8<sup>th</sup> IEEE International Conference on **Control, Decision and Information Technologies**, IEEE CoDIT'22 Istanbul, Turkey, May 17-20, 2022.  
<https://codit2022.com/index.php/committees>
16. Computing Conference 2022, 14-15 July 2022. The Science and Information (SAI) Organization, Virtual event. <https://saiconference.com/Conferences/Computing2022>
17. The Future Technologies Conference 2022, FTC 2022, 20-21 October, Canada.  
<https://saiconference.com/Conferences/FTC2022>
18. IntelliSys 2022, 1-2 September, Amsterdam, The Netherlands,  
<https://saiconference.com/Conferences/IntelliSys2022>
19. Future of Information and Communication Conference (FICC) 2022, 3-4 March 2022. Virtual event. <https://saiconference.com/Conferences/FICC2022>
20. FoNeS-IoT 2021 Forthcoming Networks and Sustainability in the IoT Era Conference, 27-28 December, 2021
21. 10<sup>th</sup> International Conference on Pattern Recognition Applications and Methods, ICPRAM 2021, 4-6 February, <http://www.icpram.org/CallForPapers.aspx>
22. Computer Engineering and Information Technology organizes an “International Conference on Innovations and Trends in Computing-2021 (ICITC-2021)” on February 26-27, 2021, Maharashtra, India
23. ICSCCW-2021. The 11th International Conference on Theory and Application of Soft Computing, Computing with Words and Perception (ICSCCW-2021) , August 24-25, 2021 Antalya, Turkey
24. The International Conference on Applied Management Advances in the 21st Century, (AMA21- 2021), 15-17 December, 2021
25. 9<sup>th</sup> International Conference on Pattern Recognition Applications and Methods, ICPRAM 2020, 22-24 February, Valletta-Malta. <http://www.icpram.org/?y=2020>
26. 7<sup>th</sup> IEEE International Conference on **Control, Decision and Information Technologies**, IEEE CoDIT'20 Prague, Czech Republic, June 29-July 2, 2020.  
<https://codit2020.com/index.php>
27. The International Conference on Applied Management Advances in the 21st Century (AMA21 2020)
28. 14<sup>th</sup> International Symposium Advances in Artificial Intelligence and Applications (AAIA'19), Leipzig, Germany, 1 - 4 September, 2019, <https://www.fedcsis.org/2019/aaia>

29. International Conference on **Control, Decision and Information Technologies CoDIT'19**, April 23-26, 2019, Paris, France. <https://codit19.com/index.php/committees/pc-members>
30. ICAFS-2019. Thirteen International Conference on Application of Fuzzy Systems and Soft computing, August 27-28, 2019 Prague, Check republic
31. 8<sup>th</sup> International Conference on Pattern Recognition Applications and Methods, ICPRAM 2019, 19-21 February, Prague, Czech Republic.  
<http://www.icpram.org/?y=2019>
32. Turkish National Meeting on Automatic Control (TOK2019 - Otomotik Kontrol Ulusal Toplantisi ve Sergisi)., Mugla, Turkiye, 11-14 September, 2019,  
<http://tok2019.mu.edu.tr/>
33. ICAFS-2018. Twelfth International Conference on Application of Fuzzy Systems and Soft computing, August 27-28, 2018 Warsaw, Polynya
34. 7<sup>th</sup> International Conference on Pattern Recognition Applications and Methods, ICPRAM 2018, 16-18 January, Funchal, Madeira, Portugal.  
<http://www.icpram.org/?y=2018>
35. Turkish National Meeting on Automatic Control (TOK2018 - Otomotik Kontrol Ulusal Toplantisi ve Sergisi)., Kayseri, Turkiye, 12-14 September, 2018,  
<http://tok2018.agu.edu.tr/>
36. Second International Biomedical Engineering Congress 2018 (IBMEC-2018), 24-27 May 2018 , NEU, Lefkosa, North Cyprus, <http://ibmec2018.con.neu.edu.tr>
37. ICSCCW-2017. The 9th International Conference on Theory and Application of Soft Computing, Computing with Words and Perception (ICSCCW-2017) , August 24-25, 2017 Budapest, Hungary
38. International Conference on Pattern Recognition Applications and Methods, ICPRAM 2017, 24-26 February, Porto, Portugal. <http://www.icpram.org/?y=2017>
39. Turkish National Meeting on Automatic Control (TOK2017 - Otomotik Kontrol Ulusal Toplantisi ve Sergisi)., Eskiseher, Turkiye, 21-23 September, 2017,  
[www.tok2017.yildiz.edu.tr](http://www.tok2017.yildiz.edu.tr)
40. ICAFS-2016. Twelfth International Conference on Application of Fuzzy Systems and Soft computing, August 29-30, 2016 Vienna, Austria
41. International Conference on Pattern Recognition Applications and Methods, ICPRAM 2016, 24-26 February, Roma, Italy. <http://www.icpram.org/?y=2016>
42. Turkish National Meeting on Automatic Control (TOK2016 - Otomotik Kontrol Ulusal Toplantisi ve Sergisi)., Eskiseher, Turkiye, 29 September- 1 October, 2016,  
[www.tok2016.ogu.edu.tr](http://www.tok2016.ogu.edu.tr)
43. International Conference on Pattern Recognition Applications and Methods, ICPRAM 2015, 10-12 January, Lisbon, Portugal. <http://www.icpram.org/?y=2015>
44. Turkish National Meeting on Automatic Control (TOK2015 - Otomotik Kontrol Ulusal Toplantisi ve Sergisi)., Pamukkale, Turkiye, 10-12 September, 2015,  
[www.tok2015.pau.edu.tr](http://www.tok2015.pau.edu.tr)
45. Turkish National Meeting on Automatic Control (TOK2014 - Otomotik Kontrol Ulusal Toplantisi ve Sergisi)., Eskiseher, Turkiye, 29 Eylül -01 Ekim, 2016,  
[http://tok2016.ogu.edu.tr/tr\\_kurul.html](http://tok2016.ogu.edu.tr/tr_kurul.html)
46. GS International Multi-Conference on Science and Technology 2014 (GS-MICST 14), November 07-09, 2014, Dubai, UAE,  
<http://www.gspublishers.com/conferences/gsmicst14/tcp.html>
47. International Biomedical Engineering Congress 2014 (IBMEC-2014), 19-23 November, Girne, North Cyprus, <http://con.neu.edu.tr/ibmec/>
48. Turkish National Meeting on Automatic Control (TOK2014 - Otomotik Kontrol Ulusal Toplantisi ve Sergisi)., Kocaeli, Turkey, 11-13 September, 2014,  
<http://tok2014.kocaeli.edu.tr/kurullar.html>
49. 2nd International Conference on E-Health and TeleMedicine., Istanbul, Turkey, 22-24 May, 2014, <http://www.icehtm.net/>

50. The second International Symposium On Engineering, Artificial Intelligence And Applications, ISEAIA-2014, 5-7 November 2013, Girne American University, Cyprus. <http://iseaia2014.gau.edu.tr/>
51. The First International Symposium on Digital Forensics and Security (ISDFS), Advisory Board, Elazig, Turkey, 20-21 May 2013
52. Turkish National Meeting on Automatic Control (Otomotik Kontrol Ulusal Toplantisi ve Sergisi). TOK2013, Malatya, Turkey, 26-28 September, 2013, <http://tok2013.inonu.edu.tr/index.php/page/index/mainpage>
53. The first International Symposium On Engineering, Artificial Intelligence And Applications, ISEAIA-2013, 6-8 November 2013, Girne American University, Cyprus. <http://iseaia2013.gau.edu.tr/>
54. 7<sup>th</sup> FAE International Symposium "Creating the Future". Lefke, TRNC, Turkey, October, 2012
55. 6<sup>th</sup> FAE International Symposium "Creating the Future". Lefke, TRNC, Turkey, October, 2010.
56. 5<sup>th</sup> FAE International Symposium "Creating the Future". Lefke, TRNC, Turkey, October, 2008.
57. Ağ ve Bilgi Güvenliği Ulusal Sempozyumu. TMMOB Elektrik Muhendisleri Odası, Girne, May 16-18, 2008
58. International Conference on Business and Economics, 2007
59. International Conference on Computer Science, ICCS2006, Budapest, May 26-28, 2006
60. Fifteenth Turkish Symposium on Artificial Intelligence and neural Networks. TAIN 2006, June 21-23, 2006, Mugla, Turkey
61. 4<sup>th</sup> FAE International Symposium "Creating the Future". Lefke, TRNC, Turkey, November 30-December 1, 2006.
62. 3<sup>rd</sup> International Symposium on Electrical, Electronic and Computer Engineering. ISEECE2006. Nicaosia, TRNC, Turkey, November 24-25, 2006, pp.269-274.
63. International Conference on Machine Intelligence. ICMI-2005, Budapest, Hungary, October 8-9, 2005.
64. International Conference on Computational Intelligence. ICCI-2004, Istanbul, Turkey, Desember 17-19, 2004.
65. 3<sup>rd</sup> FAE International Symposium "Creating the Future". Lefke, TRNC, Turkey, November 25-26, 2004.
66. International Conference on Computational Intelligence. ICCI-2004, Istanbul, Turkey, Desember 17-19, 2004
67. International Conference on Signal Processing, ICSI2004, Chanakkale, Turkey, 2004, February.

#### **Member of the Organizing Committee**

1. Eighth International Conference on Soft Computing, Computing with Words and Perceptions in System Analysis, Decision and Control (ICSCCW 2015)
2. The 2nd International Conference on Computational and Network Technologies 2014 (ICCNT), 2-4 December, 2014, Bali, Indonesia, <http://scholarsconvention.com/iccnt/organizing>
3. Sixth International Conference on Soft Computing, and Computing with Words and Perceptions in System Analysis, Decision and Control. September 1-2, ICSCCW-2011, Antalya, 2011
4. Fourth International Conference on Soft Computing, and Computing with Words and Perceptions in System Analysis, Decision and Control. August 27-28, ICSCCW-2007, Antalya, 2007
5. 3<sup>rd</sup> International Symposium on Electrical, Electronic and Computer Engineering. ISEECE2006. Nicaosia, TRNC, Turkey, November 24-25, 2006, pp.269-274.
6. International Conference on Computational Intelligence. ICCI2004. Nicaosia, TRNC, Turkey, May 27-29, 2004, pp.148-153.

7. International Conference on Application of Fuzzy Systems and Soft Computing, ICAFS-2006, Germany, September 11-12,2006.
8. International Conference on Soft Computing, and Computing with Words and Perceptions in System Analysis, Decision and Control. ICSCCW-2007, Antalya, August 27-28,2007.
9. International Conference on Soft Computing, and Computing with Words and Perceptions in System Analysis, Decision and Control. ICSCCW-2011, Antalya, September 01-02,2011.

## 12. Ödüller

- High achievement award for research, Near East University, March 2023
- High achievement award for research, Near East University, March 2022
- High achievement award for research, Near East University, March 2021
- High achievement award for research, Near East University, March 2020
- High achievement award for research, Near East University, March ,2019
- High achievement award for research, Near East University, March 2018
- High achievement award for research, Near East University, March 2012.
- High achievement award for research, Near East University, March, 2011.
- High achievement award for research, Near East University, March 2010.
- High achievement award for research, Near East University, March 2009.
- High achievement award for research, Near East University, March 2008.
- The diploma in the competition among young scientists in the field of “OIL AND FUTURE OF AZERBAIJAN” which is held by the Azerbaijan International Operation Company and Baku State University by name M.A.Resultzade ( Fuzzy neural network for solution of the problems of oil and gas geology/ Oil and future of Azerbaijan. The research works of younger scientists. Baku. AIOC,1998. (Russian) )

## 13. Son İki Yılda Verilen Lisans ve Lisansüstü Dersler

Academik Yıl	Dönem	Dersin Adı	Haftalık Saati		Öğrenci Sayısı
			Ders	Uygulama	
2021-2022	Fall	Signals and Systems	4h	2h	32
		Fuzzy Systems	4h	2h	17(MSc/PhD students)
		Engineering Design	2h	2h	15
	Spring	Design and Analysis of Algorithms	4h	2h	15(MSc/PhD students)
		Operations Research	4h	2h	27
		Engineering Design	2h	2h	28
2022-2023	Fall	Signals and Systems	4h	2h	24
		Programming Language Concepts	4h	2h	21
		Engineering Design	2h	2h	15
	Spring	Computational Intelligence	4h	2h	28(MSc/PhD students)
		Operational Research	4h	2h	28
		Engineering Design	2h	2h	15