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International Researcher IDs

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Publons / Web Of Science ResearcherID: W-9655-2019

ScopusID: 8669253700

Yoksis Researcher ID: 183998



Learning Knowledge

Doctorate	Yıldız Technical University, Faculty Of Electrical & Electronics, Computer Engineering, Turkey
2005 - 2006	

Postgraduate	Yıldız Technical University, Faculty Of Electrical & Electronics, Computer Engineering, Turkey
1992 - 1994	

Undergraduate	Yıldız Technical University, Faculty Of Electrical & Electronics, Electrical Engineering Department, Turkey
1986 - 1990	

Foreign Languages

English, C2 Mastery

Dissertations

Doctorate, Performans artırmaya yönelik paralel mimarilerin yapay sinir ağları yaklaşımı ile değerlendirilmesi, Yıldız Technical University, Faculty of Electrical & Electronics, Computer Engineering, 2006

Postgraduate, Üç serbestlik dereceli bir robot kolu tasarımı, Yıldız Technical University, Faculty of Electrical & Electronics, Computer Engineering, 1995

Academic Titles / Tasks

Professor	Yıldız Technical University, Faculty Of Electrical & Electronics, Computer Engineering
2021 - Continues	

Associate Professor	Yıldız Technical University, Faculty Of Electrical & Electronics, Computer Engineering
2015 - Continues	

Assistant Professor
2006 - 2015

Yildiz Technical University, Faculty Of Electrical & Electronics, Computer
Engineering

Research Assistant
1992 - 2006

Yildiz Technical University, Faculty Of Electrical & Electronics, Computer
Engineering

Supported Projects

1. YAVUZ S., ARABUL A. Y., BEKİROĞLU K. N., KESKİN ARABUL F., OBDAN A. H., Kaya Ö. F., ÖZÇIRA ÖZKILIÇ S., Güzel S., USLU E., Arıtürk M., et al., Project Supported by Higher Education Institutions, Otonom Karşılama ve Güvenlik Robotu, 2022 - Continues
2. USLU E., YAVUZ S., EĞİTMEN A., CEBELOĞLU F. S., Project Supported by Higher Education Institutions, Mobil cihazlar için modern zararlı yazılımları tespit eden yapay zeka tabanlı yeni nesil tespit algoritması, 2022 - 2023
3. YAVUZ S., ÇAKMAK F., Project Supported by Higher Education Institutions, Kara ve Mikro Hava Araçları Üzerinde Bezier Eğrileri ile Yol Planlaması ve Navigasyon Algoritmaları (PATH PLANNING WITH BEZIER CURVES AND NAVIGATION ALGORITHMS ON GROUND AND MULTI MICRO AERIAL VEHICLES), 2017 - 2023
4. Yavuz S., Amasyali M. F., Uslu E., TUBITAK Project, 118E215 - Heterojen Çok Robotlu Otonom Arama Kurtarma Takımı İçin Etkin Görev Dağılımı, 2018 - 2021
5. USLU E., YAVUZ S., AMASYALI M. F., ÇAKMAK F., AKINCI A., MARANGOZ S., ALTUNTAŞ N., Project Supported by Higher Education Institutions, Gerçek Robot Platformu ile Tasarlanmış ve Tasarlanmamış Engebeli Alanda Otonom Gezinim, 2015 - 2018
6. AMASYALI M. F., ÇAKMAK F., ALTUNTAŞ N., YAVUZ S., USLU E., AKINCI A., MARANGOZ S., DİLAYER M. B., KIRLI E., Project Supported by Higher Education Institutions, Kısıtlı İletişime Sahip Robot Takımları İçin Otonom Keşif Algoritmalarının Tasarlanması, 2015 - 2017
7. Yavuz S., Sezgin A., Project Supported by Higher Education Institutions, İnsansız Hava Aracı Tasarım ve Kontrolü, 2015 - 2017
8. Yavuz S., Amasyali M. F., Uslu E., TUBITAK Project, Otonom Arama Kurtarma Robotları İçin Keşif, Haritalama Ve Afetzede Tespit Algoritmalarının Geliştirilmesi, 2013 - 2016
9. YAVUZ S., Project Supported by Higher Education Institutions, Afet Ortamlarında Kullanılacak Otonom Robot Tasarımı, 2013 - 2014
10. YAVUZ S., Project Supported by Higher Education Institutions, Afet Robotları İçin Algoritma Tasarımı, 2013 - 2014
11. YAVUZ S., Project Supported by Higher Education Institutions, Eş zamanlı konum belirleme ve harita oluşturma amaçlı robot takımı projesi, 2008 - 2012
12. YAVUZ S., Project Supported by Higher Education Institutions, Robot Takımı ile Eş Zamanlı Konum Belirleme ve Haritalama, 2010 - 2011
13. Bolat B., Yavuz S., Amasyali M. F., Altun O., Kurt Z., Uslu E., Project Supported by Higher Education Institutions, Eş Zamanlı Konum Belirleme ve Harita Oluşturma Amaçlı Otonom Robot Projesi YTÜ BAPK 27 04 01 01, 2007 - 2008

Awards

1. Kivrak H., Çakmak F., Köse H., Yavuz S., Best Paper Award, International Conference On Innovations İn Intelligent Systems And Applications, August 2020
2. Dilaver M. B., Çakmak F., Uslu E., Altuntaş N., Amasyali M. F., Yavuz S., En İyi Bildiri Ödülü, Akıllı Sistemlerde Yenilikler Ve Uygulamaları Konferansı, October 2017
3. Yavuz S., Uslu E., Amasyali M. F., Çakmak F., Arama Kurtarma Simülasyon Ligi'nde 1.lük, Nist, August 2017
4. Yavuz S., Amasyali M. F., Uslu E., Çakmak F., Altuntaş N., RoboCup World Championship - En iyi otonom robot Ödülü, Nist, August 2017
5. Yavuz S., Amasyali M. F., Uslu E., Çakmak F., Altuntaş N., RoboCup World Championship - En iyi keşif robotu Ödülü,

Nist, August 2017

6. Yavuz S., Çakmak F., Amasyali M. F., Uslu E., RoboCup En İyi Dış Ortam Robotu, Nist, August 2017
7. Yavuz S., Amasyali M. F., Uslu E., Çakmak F., RoboCup German Open, Nist, May 2017

Scholarships

Yurt Dışı Doktora Burs Programı, YOK, 1997 - 2001

Jury Memberships

Post Graduate, Post Graduate, Yıldız Teknik Üniversitesi, July, 2019

Designed Lessons

Yavuz S., Derin Öğrenme ve Yapay Sinir Ağları , Doctorate, 2015 - 2016

Yavuz S., Amasyali M. F., Robot Teknolojisine Giriş, Undergraduate, 2015 - 2016

Yavuz S., Sistem Simülasyonu, Doctorate, 2009 - 2010

Yavuz S., Mühendislik Matematiği, Undergraduate, 2008 - 2009

Yavuz S., Olasılıksal Robotik, Postgraduate, 2007 - 2008

Yavuz S., Ayrık Olay Simülasyonu, Undergraduate, 2006 - 2007

Research Infrastructure Information

Yavuz S., Olasılıksal Robotik Grubu Laboratuvarı, September 2006

Published journal articles indexed by SCI, SSCI, and AHCI

1. **A 3D navigation algorithm switching between waypoint and Bezier curves based local plans for micro air vehicles**
ÇAKMAK F., YAVUZ S.
Engineering Science and Technology, an International Journal, vol.48, 2023 (SCI-Expanded)
2. **Waypoint based path planner for socially aware robot navigation**
Kivrak H., Çakmak F., Köse H., Yavuz S.
CLUSTER COMPUTING-THE JOURNAL OF NETWORKS SOFTWARE TOOLS AND APPLICATIONS, vol.25, no.3, pp.1665-1675, 2022 (SCI-Expanded)
3. **Social navigation framework for assistive robots in human inhabited unknown environments**
Kivrak H., Çakmak F., Köse H., Yavuz S.
Engineering Science and Technology, an International Journal, vol.24, pp.284-298, 2021 (SCI-Expanded)
4. **Image Visual Sensor Used in Health-Care Navigation in Indoor Scenes Using Deep Reinforcement Learning (DRL) and Control Sensor Robot for Patients Data Health Information**
Seaman W. K., YAVUZ S.
JOURNAL OF MEDICAL IMAGING AND HEALTH INFORMATICS, vol.11, no.1, pp.104-113, 2021 (SCI-Expanded)
5. **Indoor mobile robot navigation using deep convolutional neural network**
Sleaman W. K., Yavuz S.
Journal of Intelligent and Fuzzy Systems, vol.39, pp.5475-5486, 2020 (SCI-Expanded)
6. **More scalable solution for multi-robot-multi-target assignment problem**
Marangoz S., Amasyali M. F., Uslu E., Çakmak F., Altuntaş N., Yavuz S.

- ROBOTICS AND AUTONOMOUS SYSTEMS, vol.113, pp.174-185, 2019 (SCI-Expanded)
7. An architecture for multi-robot localization and mapping in the Gazebo/Robot Operating System simulation environment
Uslu E., Çakmak F., Altuntaş N., Marangoz S., Amasyali M. F., Yavuz S.
SIMULATION-TRANSACTIONS OF THE SOCIETY FOR MODELING AND SIMULATION INTERNATIONAL, vol.93, pp.771-780, 2017 (SCI-Expanded)
 8. An Architecture for Multi-Robot Localization and Mapping on Gazebo/ROS Simulation Environment
USLU E., ÇAKMAK F., ALTUNTAŞ N., Marangoz S., AMASYALI M. F., YAVUZ S.
SIMULATION:SIMULATION-TRANSACTIONS OF THE SOCIETY FOR MODELING AND SIMULATION INTERNATIONAL, pp.1-12, 2017 (SCI-Expanded)
 9. R-SLAM: Resilient localization and mapping in challenging environments
Balçılard M., Yavuz S., Amasyali M. F., Uslu E., Çakmak F.
ROBOTICS AND AUTONOMOUS SYSTEMS, vol.87, pp.66-80, 2017 (SCI-Expanded)
 10. SIMULTANEOUS LOCALIZATION AND MAPPING WITH LIMITED SENSING USING EXTENDED KALMAN FILTER AND HOUGH TRANSFORM
Özışık O., Yavuz S.
TEHNICKI VJESNIK-TECHNICAL GAZETTE, vol.23, pp.1731-1738, 2016 (SCI-Expanded)
 11. Analysis and improvement of a novel image fusion encryption algorithm based on DNA sequence operation and hyper-chaotic system
Ozkaynak F., Yavuz S.
NONLINEAR DYNAMICS, vol.78, pp.1311-1320, 2014 (SCI-Expanded)
 12. Designing chaotic S-boxes based on time-delay chaotic system
Ozkaynak F., Yavuz S.
NONLINEAR DYNAMICS, vol.74, pp.551-557, 2013 (SCI-Expanded)
 13. Security problems for a pseudorandom sequence generator based on the Chen chaotic system
Ozkaynak F., Yavuz S.
COMPUTER PHYSICS COMMUNICATIONS, vol.184, pp.2178-2181, 2013 (SCI-Expanded)
 14. Cryptanalysis of a novel image encryption scheme based on improved hyperchaotic sequences
Ozkaynak F., Ozer A. B., Yavuz S.
OPTICS COMMUNICATIONS, vol.285, pp.4946-4948, 2012 (SCI-Expanded)
 15. A neural network based methodology for performance evaluation of parallel systems
Yavuz S.
AI 2005: ADVANCES IN ARTIFICIAL INTELLIGENCE, vol.3809, pp.297-307, 2005 (SCI-Expanded)

Articles Published in Other Journals

1. Survey on learning-based scene extrapolation in robotics
Güzel S., YAVUZ S.
International Journal of Intelligent Robotics and Applications, vol.8, no.1, pp.251-268, 2024 (ESCI)
2. Autonomous Navigation Algorithm for RoboCup RRL Maneuvering 2 Field
Dilaver M. B., Çakmak F., Uslu E., Altuntaş N., Amasyali M. F., Yavuz S.
Journal of Intelligent Systems with Applications, vol.1, no.2, pp.213-216, 2018 (Peer-Reviewed Journal)
3. Autonomous Mobile Robot Navigation in Structured Rough Terrain
Yaşar A., Uslu E., Çakmak F., Altuntaş N., Amasyali M. F., Yavuz S.
Akıllı Sistemler ve Uygulamaları Dergisi, vol.1, no.1, pp.67-74, 2018 (Peer-Reviewed Journal)
4. Color Based Object Tracking For Unmanned Aerial Vehicles
Sezgin A., Yavuz S.
International Journal of Electronics, Mechanical and Mechatronics Engineering, vol.5, no.1, pp.881-890, 2015 (Peer-Reviewed Journal)
5. Pre-Mapping System with Single Laser Sensor Based on Gmapping Algorithm

- İlhan H. O., Yavuz S., Esenkanova J.
 International Journal of Electrical Energy, vol.1, pp.97-101, 2013 (Peer-Reviewed Journal)
6. **Cryptanalysis of Bigdeli algorithm using Çokal and Solak attack**
 Özkaraynak F., Özer A. B., Yavuz S.
 International Journal of Information Security Science, vol.1, no.3, pp.79-81, 2012 (Peer-Reviewed Journal)
 7. **Robot mapping and map optimization using genetic algorithms and artificial neural networks**
 Cabar I., YAVUZ S., Erol O.
 WSEAS Transactions on Computers, vol.7, no.7, pp.1061-1070, 2008 (Scopus)
 8. **Performance prediction of a parallel Monte Carlo application: A neural network approach**
 YAVUZ S.
 WSEAS Transactions on Circuits and Systems, vol.4, no.5, pp.486-489, 2005 (Scopus)

Books & Book Chapters

1. Yavuz S., Allahviranloo T., Arıtürk M.
 in: , Snehashish Chakraverty, Editor, John Wiley & Sons, West Sussex, UK , New-Jersey, pp.391-412, 2020

Refereed Congress / Symposium Publications in Proceedings

1. **Infrared Image Generation From RGB Images Using CycleGAN**
 Guzel S., YAVUZ S.
 16th International Conference on INnovations in Intelligent SysTems and Applications, INISTA 2022, Biarritz, France, 8 - 12 August 2022
2. **Üç Boyutlu Doğal Seyrüsefer**
 Kaya Ö. F., Yılmaz K., Uslu E., Çakmak F., Amasyali M. F., Yavuz S.
 28th Signal Processing and Communications Applications Conference (SİU), Gaziantep, Turkey, 5 - 07 October 2020
3. **Gps Yasak Alanlarda İnsansız Hava Aracı Lokalizasyonuna Dair Yaklaşımlar**
 YAVUZ S.
 2020 28th Signal Processing and Communications Applications Conference (SIU), İstanbul, Turkey, 05 October 2020
4. **3D Mapping and Simultaneous Navigation for Multi Micro Aerial Vehicles in Indoor Environments Coklu Mikro Hava Aracları icin İc Ortamda 3B Haritalama ve Es Zamanlı Navigasyon**
 DİLAYER M. B., ÇAKMAK F., USLU E., AMASYALI M. F., YAVUZ S.
 28th Signal Processing and Communications Applications Conference, SIU 2020, Gaziantep, Turkey, 5 - 07 October 2020
5. **A multilevel mapping based pedestrian model for social robot navigation tasks in unknown human environments**
 KIVRAK H., ÇAKMAK F., KÖSE H., YAVUZ S.
 2020 International Conference on INnovations in Intelligent SysTems and Applications (INISTA), İstanbul, Turkey, 24 - 26 August 2020
6. **Physiological Data-Based Evaluation of a Social Robot Navigation System**
 KIVRAK H., ULUER P., KÖSE H., Gümüşlü E., EROL BARKANA D., ÇAKMAK F., YAVUZ S.
 2020 29th IEEE International Conference on Robot and Human Interactive Communication (RO-MAN), Nepal, Italy, 31 August - 04 September 2020, pp.994-999
7. **Otonom Efektif Alan Tarayıcı Robot Tasarımı**
 Köroğlu U., İslamoğlu U., Uslu E., Çakmak F., Altuntaş N., Amasyali M. F., Yavuz S.
 Akıllı Sistemlerde Yenilikler ve Uygulamaları, İzmir, Turkey, 31 October - 02 November 2019, pp.1-4
8. **Design of an Autonomous Effective Area Scanning Robot Otonom Efektif Alan Tarayıcı Robot**

Tasarımı

Koroglu U., Islamoglu U., Uslu E., Çakmak F., Altuntas N., Fatih Amasyali M., Yavuz S.

2019 Innovations in Intelligent Systems and Applications Conference, ASYU 2019, Izmir, Turkey, 31 October - 02 November 2019

9. Holonomik Robot ile Dar Alanlarda Gezinim (Holonomic Robot Navigation in Narrow Spaces)

BAYGÜL F., USLU E., ÇAKMAK F., ALTUNTAŞ N., AMASYALI M. F., YAVUZ S.

5. Türkiye Robotbilim Konferansı (ToRK 2019), İstanbul, Turkey, 26 - 28 June 2019, pp.16-21

10. Holonomic Robot Navigation in Narrow Spaces

Baygül F., Uslu E., Çakmak F., Altuntaş N., Amasyali M. F., Yavuz S.

Türkiye Robotbilim Konferansı 2019, ToRK2019, İstanbul, Turkey, 26 - 28 June 2019, pp.16-21

11. Socially Aware Robot Navigation Using the Collision Prediction Based Pedestrian Model

KIVRAK H., ÇAKMAK F., KÖSE H., YAVUZ S.

Workshop on Robotic Co-workers 4.0: Human Safety and Comfort in Human-Robot Interactive Social Environments 2018 IEEE/RSJ International Conference on Intelligent Robots and Systems, Madrid, Spain, 1 - 05 October 2018

12. RoboCup RRL Manevra 2 Alanı için Otonom Gezinim Algoritması

DİLAVER M. B., ÇAKMAK F., USLU E., ALTUNTAŞ N., AMASYALI M. F., YAVUZ S.

Akıllı Sistemlerde Yenilikler ve Uygulamaları Konferansı, Antalya, Turkey, 5 - 07 October 2017, pp.71

13. Tasarlanmış Engebeli Ortamda Otonom Mobil Robot Gezinimi

YAŞAR A., USLU E., ÇAKMAK F., ALTUNTAŞ N., AMASYALI M. F., YAVUZ S.

Akıllı Sistemlerde Yenilikler ve Uygulamaları Konferansı, Antalya, Turkey, 5 - 07 October 2017, pp.37

14. Comparison of 3-Dimensional SLAM systems: RTAB-Map vs. Kintinuous

Altuntas N., Uslu E., Çakmak F., Amasyali M. F., Yavuz S.

2nd International Conference on Computer Science and Engineering, UBMK 2017, Antalya, Turkey, 5 - 08 October 2017, pp.99-103

15. Android application for simultaneously control of multiple land robots which have different drive strategy

Gökcen B., Baygül F., ÇAKMAK F., USLU E., AMASYALI M. F., YAVUZ S.

2nd International Conference on Computer Science and Engineering, UBMK 2017, Antalya, Turkey, 5 - 08 October 2017, pp.724-728

16. Akıllı Mobil Robotları Hayalde Gerçeğe Dönüşürmek

YAVUZ S.

ASYU 2017, Alanya, 5 - 07 October 2017

17. Thermal based exploration for search and rescue robots

ÇAKMAK F., USLU E., AMASYALI M. F., YAVUZ S.

2017 IEEE International Conference on INnovations in Intelligent SysTems and Applications, INISTA 2017, Gdynia, Poland, 3 - 05 July 2017, pp.113-118

18. Design and implementation of an outdoor line follower robot for RoboCup search and rescue league RoboCup Arama Kurtarma Ligi Diş Ortam Kategorisi Çizgi İzleyen Robot Platformu Tasarımı ve Gerçeklenmesi

Dilaver M. B., USLU E., ÇAKMAK F., ALTUNTAŞ N., AMASYALI M. F., YAVUZ S.

25th Signal Processing and Communications Applications Conference, SIU 2017, Antalya, Turkey, 15 - 18 May 2017

19. Hazmat charts detection on search and rescue league of RoboCup competitions RoboCup Yarışmaları Arama Kurtarma Ligi Ortamlarında Hazmat İşaretleri Tespitı

Çakmak F., Uslu E., Amasyali M. F., Yavuz S.

25th Signal Processing and Communications Applications Conference, SIU 2017, Antalya, Turkey, 15 - 18 May 2017

20. A fast 3D exploration algorithm for autonomous aerial robots Otonom Hava Robotları İçin Hızlı Bir 3 Boyutlu Keşif Algoritması

Marangoz S., Ergun E. E., Uslu E., Çakmak F., Altuntas N., Amasyali M. F., Yavuz S.

25th Signal Processing and Communications Applications Conference, SIU 2017, Antalya, Turkey, 15 - 18 May 2017

21. Autonomous mobile robot exploration in negative obstacle environment Çukurlu Ortamda Otonom

- Mobil Robot ile Keşif**
Keskin N., Uslu E., Çakmak F., Altuntaş N., Amasyali M. F., Yavuz S.
25th Signal Processing and Communications Applications Conference, SIU 2017, Antalya, Turkey, 15 - 18 May 2017
22. **A Fast 3D Exploration Algorithm for Autonomous Aerial Robots**
Marangoz S., Ergun E. E., USLU E., ÇAKMAK F., Altuntas N., AMASYALI M. F., YAVUZ S.
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017
23. **Autonomous Mobile Robot Exploration in Negative Obstacle Environment**
Keskin N., USLU E., ÇAKMAK F., Altuntas N., AMASYALI M. F., YAVUZ S.
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017
24. **Design and Implementation of an Outdoor Line Follower Robot for RoboCup Search and Rescue League**
DİLAVER M. B., USLU E., ÇAKMAK F., Altuntas N., AMASYALI M. F., YAVUZ S.
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017
25. **Hazmat Charts Detection on Search and Rescue League of RoboCup Competitions**
ÇAKMAK F., USLU E., AMASYALI M. F., YAVUZ S.
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017
26. **Authentication For Online Voting Using Physical Biometric**
Yavuz S., Abbas S.
INTERNATIONAL CONFERENCE ON ADVANCES IN SCIENCE ICAS 2016, İstanbul, Turkey, 31 August - 02 September 2016
27. **Experiences of Team Yıldız in Virtual and Real Rescue League**
Yavuz S., Amasyali M. F., Uslu E., Çakmak F.
The Future of robot rescue simulation Workshop, Leiden, Netherlands, 29 February - 04 March 2016
28. **Deformable Part Model and Deep Learning Comparison on Victim Detection**
Cakmak F., Uslu E., Altuntas N., Marangoz S., Balcilar M., Amasyali M. F., Yavuz S.
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016, pp.1513-1516
29. **An Architecture for Multi-Robot Hector Mapping**
Balcilar M., USLU E., ÇAKMAK F., ALTUNTAŞ N., Marangoz S., AMASYALI M. F., YAVUZ S.
International Symposium on Innovations in Intelligent Systems and Applications (INISTA), Sinaia, Romania, 2 - 05 August 2016
30. **Impact of Artificial Dataset Enlargement on Performance of Deformable Part Models**
Yilmaz B., AMASYALI M. F., Balcilar M., USLU E., YAVUZ S.
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016, pp.193-196
31. **Efficiency of dynamic local area strategy for frontier-based exploration in indoor environments**
Akagündüz S., Özalp N., Yavuz S.
9th International Conference on Intelligent Robotics and Applications, ICIRA 2016, Tokyo, Japan, 22 - 24 August 2016, pp.351-361
32. **3 Dimensional Thermal Mapping**
ALTUNTAŞ N., ÇAKMAK F., USLU E., Balcilar M., AMASYALI M. F., YAVUZ S.
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016, pp.1201-1204
33. **Implementation of frontier-based exploration algorithm for an autonomous robot**
USLU E., ÇAKMAK F., BALCILAR M., Akıncı A., AMASYALI M. F., YAVUZ S.
International Symposium on Innovations in Intelligent Systems and Applications, INISTA 2015, Madrid, Spain, 2 - 04 August 2015
34. **Hudut Hedefleri Temelli Otonom Keşif Algoritması Uygulaması**
USLU E., ÇAKMAK F., BALCILAR M., AMASYALI M. F., YAVUZ S.
23. IEEE Sinyal İşleme Uygulamaları Kurultayı, Malatya, Turkey, 16 May 2015, vol.1, pp.1313-1316
35. **Human victim detection with Deformable Part Models Degişebilir Parça bazlı Modeller ile Kurban**

Tanıma

- Yilmaz B., Balciar M., AMASYALI M. F., YAVUZ S.
2015 23rd Signal Processing and Communications Applications Conference, SIU 2015, Malatya, Turkey, 16 - 19 May 2015, pp.947-950
36. **nImplementation of Frontier-Based Exploration Algorithm for an Autonomous Robot**
USLU E., ÇAKMAK F., Balciar M., Akinci A., AMASYALI M. F., YAVUZ S.
International Symposium on Innovations in Intelligent SysTems and Applications (INISTA 2015), Madrid, Spain, 2 - 04 September 2015, pp.34-40
37. **Frontier-Based Autonomous Exploration Algorithm Implementation**
Uslu E., Çakmak F., Balciar M., Amasyalı M. F., Yavuz S.
23nd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015, pp.1313-1316
38. **ROS Uyumlu Robot Platformu Gerçeklenmesi**
ÇAKMAK F., USLU E., BALCILAR M., YAVUZ S., AMASYALI M. F.
Türkiye Otonom Robotlar Konferansı (TORK), Ankara, Turkey, 06 November 2014, pp.1
39. **ROS Compatible Robot Platform Implementation**
ÇAKMAK F., USLU E., BALCILAR M., YAVUZ S., AMASYALI M. F.
Türkiye Otonom Robotlar Konferansı, Ankara, Turkey, 06 November 2014, vol.1, pp.1-4
40. **Using Range and Inertia Sensors for Trajectory and Pose Estimation**
ÇAKMAK F., USLU E., YAVUZ S., AMASYALI M. F., BALCILAR M., ALTUNTAŞ N.
Signal Processing and Communication Applications Conference, Trabzon, Turkey, 23 April 2014, vol.1, pp.506-509
41. **Routing with Dijkstra in Mobile Ad-Hoc Networks**
Mahmoodi K., Balciar M., Amasyalı M. F., Yavuz S., Uzun Y., Davletov F.
17th International Symposium on Robot World Cup (RoboCup), Eindhoven, Netherlands, 24 June - 01 July 2013, vol.8371, pp.316-325
42. **Using range and inertia sensors for trajectory and pose estimation Gezinge ve konum kestirim yöntemlerinde mesafe ve atalet duyargalarinin kullanımı**
ÇAKMAK F., USLU E., YAVUZ S., AMASYALI M. F., Balciar M., Altuntaş N.
2014 22nd Signal Processing and Communications Applications Conference, SIU 2014, Trabzon, Turkey, 23 - 25 April 2014, pp.506-509
43. **Obstacle Avoidance with Vector Field Histogram Algorithm for Search and Rescue Robots**
Sahin G., Balciar M., Uslu E., Yavuz S., Amasyalı M. F.
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April 2014, pp.766-769
44. **Security Analysis of an Encryption Algorithm Based on Cellular Automata and Chaos**
Özer A. B., Yavuz S., Özkaynak F.
6th International Conference on Information Security and Cryptology, Ankara, Turkey, 20 - 21 September 2013, pp.1
45. **Evaluation Criteria for Chaos Based Cryptographic Systems**
Yavuz S., Özer A. B., Özkaynak F.
Tübitak - A Special Conference: Open Problems in Mathematical and Computational Sciences, İstanbul, Turkey, 01 September 2009
46. **Security analysis of an image encryption algorithm based on chaos and DNA encoding Kaos ve DNA kodlama tabanlı bir görüntü sifreleme algoritmasının güvenlik analizi**
Özkaynak F., Özer A. B., Yavuz S.
2013 21st Signal Processing and Communications Applications Conference, SIU 2013, Haspolat, Turkey, 24 - 26 April 2013
47. **Usage of HoG (histograms of oriented gradients) features for victim detection at disaster areas**
Uzun Y., Balciar M., Mahmoodi K., Davletov F., AMASYALI M. F., YAVUZ S.
8th International Conference on Electrical and Electronics Engineering, ELECO 2013, Bursa, Turkey, 28 - 30 November 2013, pp.535-538

48. **A comparison of EKF, UKF, FastSLAM2.0, and UKF-based FastSLAM algorithms**
Kurt-Yavuz Z., YAVUZ S.
IEEE 16th International Conference on Intelligent Engineering Systems, INES 2012, Lisbon, Portugal, 13 - 15 June 2012, pp.37-43
49. **Improvement of the measurement update step of EKF-SLAM**
Kurt Yavuz Z., YAVUZ S.
IEEE 16th International Conference on Intelligent Engineering Systems, INES 2012, Lisbon, Portugal, 13 - 15 June 2012, pp.61-65
50. **Analysis of chaotic methods for compression and encryption processes in data communication Veri iletimimde sıkıştırma ve şifreleme süreçleri için kaotik yöntemlerin analizi**
Özkaynak F., Özer A. B., YAVUZ S.
2012 20th Signal Processing and Communications Applications Conference, SIU 2012, Fethiye, Mugla, Turkey, 18 - 20 April 2012
51. **Doğanın Hesapsal Güzelliklerinden Öğrendiğimiz Görüntü Şifreleme Algoritmaları**
Yavuz S., Özkaraynak F., Özer A. B.
Akıllı Sistemlerde Yenilikler ve Uygulamaları Sempozyumu (ASYU 2012), Trabzon, Turkey, 3 - 04 July 2012, pp.187-190
52. **Kaos Tabanlı Yeni Bir Blok Şifreleme Algoritması**
Yavuz S., Özkaraynak F., Özer A. B.
IV. Ağ ve Bilgi Güvenliği Sempozyumu, İstanbul, Turkey, 25 - 26 November 2011, pp.108-112
53. **An automated domain specific stop word generation method for natural language text classification**
Ayral H., Yavuz S.
2011 International Symposium on INnovations in Intelligent SysTems and Applications, INISTA 2011, Istanbul-Kadikoy, Turkey, 15 - 18 June 2011, pp.500-503
54. **Simultaneous localization and mapping using extended Kalman filter Genişletilmiş Kalman滤resi yöntemine dayalı eş zamanlı konum belirleme ve haritalama algoritması**
Yavuz S., Kurt Z., Biçer M. S.
2009 IEEE 17th Signal Processing and Communications Applications Conference, SIU 2009, Antalya, Turkey, 9 - 11 April 2009, pp.700-703
55. **Fuzzy-Neural Robot Controller for Unknown Environment Exploration**
Yavuz S., Özışık O.
1st International Fuzzy Systems Symposium (FUZZYSS09), Ankara, Turkey, 1 - 02 October 2009, pp.460-463
56. **Autonomous Parallel Parking Robot**
Yavuz S., Şahin O.
Int. Symp. On Innovations in Intelligent Systems and Applications, Trabzon, Turkey, 29 June - 01 July 2009, pp.421-424
57. **A Simulation of Preventive Method to Reduce the Number of Stop&Go Situations in Urban Traffic**
Yavuz S., Balcılar M., Sönmez A. C.
Int. Symp. On Innovations in Intelligent Systems and Applications, Trabzon, Turkey, 29 June - 01 July 2009, pp.125-129
58. **Genişletilmiş Kalman Filtresi Yöntemine Dayalı Eş Zamanlı Konum Belirleme ve Haritalama**
Yavuz S., Kurt Z., Biçer M. S.
SIU 2009, Kocaeli, Turkey, 9 - 11 April 2009, pp.700-703
59. **Simultaneous Localization and Mapping Using Extended Kalman Filter**
YAVUZ S., Kurt Z., Bicer M. S.
IEEE 17th Signal Processing and Communications Applications Conference, Antalya, Turkey, 9 - 11 April 2009, pp.914-917
60. **A simultaneous localization and map building algorithm based on Sequential Monte Carlo method**
Sıralı Monte Carlo yöntemine dayalı eş zamanlı konum belirleme ve haritalama aigoritması
Kurt Z., Yavuz S.
2008 IEEE 16th Signal Processing, Communication and Applications Conference, SIU, Aydın, Turkey, 20 - 22 April

2008

61. **An Autonomous Robot Map Creation and Map Optimization Using Genetic Algorithms and Artificial Neural Networks**
Cabar I., Erol O. K., YAVUZ S.
8th WSEAS International Conference on Applied Informatics and Communications, Rhodes, Greece, 20 - 22 August 2008, pp.443-445
62. **A Simultaneous Localization and Map Building Algorithm Based on Sequential Monte Carlo Method**
Kurt Z., YAVUZ S.
IEEE 16th Signal Processing and Communications Applications Conference, Aydin, Turkey, 20 - 22 April 2008, pp.709-712
63. **An occupancy grid based SLAM method**
Özışık O., Yavuz S.
IEEE International Conference on Computational Intelligence for Measurement Systems and Applications, İstanbul, Turkey, 14 - 16 July 2008, pp.117-119
64. **Optical Music Recognition**
Yavuz S., Özışık O.
Int. Symp. On Innovations in Intelligent Systems and Applications, İstanbul, Turkey, 20 - 23 June 2007, pp.257-261
65. **YEEM : Yazılım Projeleri Maliyet Tahminleme Ölçev Seti ve Modeli**
Yavuz S., Kalıpsız O., Ayyıldız M.
ELECO 2006, Bursa, Turkey, 6 - 10 December 2006, pp.1-4
66. **Eş Zamanlı Konum Belirleme ve Harita Oluşturma Amaçlı Otonom Bir Robot**
Yavuz S., Amasyalı M. F., Balcılar M., Bilgin G., Dinç T., Kurt Yavuz Z.
Elektrik Elektronik Bilgisayar Mühendisliği Sempozyumu (ELECO 2006), Bursa, Turkey, 6 - 10 December 2006, pp.225-229
67. **A Metric-Set and Model Suggestion for Better Software Project Cost Estimation**
Ayyıldız M., KALİPSİZ O., YAVUZ S.
Conference of the World-Academy-of-Science-Engineering-and-Technology, Venice, Italy, 24 - 26 November 2006, vol.16, pp.274-279
68. **A neural network based methodology for performance evaluation of parallel systems**
YAVUZ S.
18th Australian Joint Conference on Artificial Intelligence, AI 2005: Advances in Artificial Intelligence, Sydney, Australia, 5 - 09 December 2005, pp.297-307
69. **Paralel Sistemlerin Performansının Yapay Sinir Ağları ile Değerlendirilmesi**
Yavuz S.
BMYS2005 Bilimde Modern Yöntemler Sempozyumu, Kocaeli, Turkey, 16 - 18 November 2005, pp.44-51
70. **Performance Prediction of a 2-Dimensional FFT on Different Platforms Using Neural Networks**
Yavuz S.
Int. Symp. On Innovations in Intelligent Systems and Applications, İstanbul, Turkey, 15 - 18 June 2005, pp.136-139

Academic and Administrative Experience

2023 - Continues	Head of Department	Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering
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2020 - 2023	Vice Dean	Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering
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2020 - 2023	Uygulama ve Araştırma Merkezi Yönetim Kurulu Üyesi	Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering
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2011 - 2019	Geçiş Komisyonu	Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering
2009 - 2018	Farabi Program Institutional Coordinator	Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering
2009 - 2011	Member of ADEK Commission	Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering
2009 - 2011	Deputy Head of Department	Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering

Courses

Bilgisayar Güvenliği ve Kriptografi, Doctorate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018

Robot Teknolojisine Giriş, Undergraduate, 2020 - 2021, 2018 - 2019

Derin Öğrenme ve Yapay Sinir Ağları , Doctorate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018

Yapay Sinir Ağları, Postgraduate, 2019 - 2020

Bitirme Çalışması BLM9000, Undergraduate, 2018 - 2019

Yapay Sinir Ağlarına Giriş, Undergraduate, 2017 - 2018

Çok Disiplinli Tasarım Projesi , Undergraduate, 2018 - 2019

Mühendislik Matematiği, Undergraduate, 2016 - 2017

Advising Theses

Yavuz S., A new image cipher using color space transform and Lorenz map, Postgraduate, F.YEŞİM(Student), 2019

Yavuz S., İnsansız hava aracı tasarıımı ve kontrolüDesign and control of unmanned aerial vehicle, Postgraduate, ASEZGİN(Student), 2017

Yavuz S., SMS spam filtering on mobile communication, Postgraduate, I.HUSSAIN(Student), 2017

YAVUZ S., Authentication for online voting using physical biometric Biyometrik veriler kullanarak çevrimiçi oylama doğrulama, Postgraduate, S.ADNAN(Student), 2016

Yavuz S., Pasif radar uygulamaları, Postgraduate, A.EĞİTMEN(Student), 2015

Yavuz S., MOBİL ROBOT SÜRÜLERİ İÇİN DİNAMİK YÖNLENDİRME ALGORİTMALARI, Postgraduate, K.MAHMOODI(Student), 2014

Yavuz S., ARAMA KURTARMA AMAÇLI DİFERANSİYEL SÜRÜŞLÜ TEKERLEKLİ ROBOT TASARIMI VE GERÇEKLENMESİ, Postgraduate, F.Çakmak(Student), 2014

Yavuz S., Kaos Tabanlı Simetrik Şifreleme Sistemlerinin Tasarım ve Analizi, Doctorate, F.Özkaynak(Student), 2013

Yavuz S., Gezgin robotlarla eş zamanlı konum belirleme ve haritalama, Postgraduate, A.HABİBOV(Student), 2011

Yavuz S., Robot takımı ile eş zamanlı konum belirleme ve haritalama, Postgraduate, O.Özışık(Student), 2010

Yavuz S., Çoklu robot simülasyonu ve kumanda ortamı, Postgraduate, E.Deniz(Student), 2009

Yavuz S., Eş zamanlı konum belirleme ve haritalamaya yönelik akıllı algoritmaların geliştirilmesi, Postgraduate, Z.Kurt(Student), 2007

Patent

Yavuz S., KONUM BELİRLEYEN BİR CİHAZ VE OTONOM BİR HARİTALAMA VE KONUM BELİRLEME YÖNTEMİ, Patent, CHAPTER G Physics, The Invention Registration Number: 2016 20438 , Standard Registration, 2020

Memberships / Tasks in Scientific Organizations

ACM, Member, 2008 - Continues

IEEE Computer Society, Member, 2008 - Continues

EMO, Member, 1991 - Continues

Scientific Refereeing

Nonlinear Dynamics, SCI Journal, January 2016

Nonlinear Dynamics, SCI Journal, September 2013

IEEE/RSJ Int. Conference on Intelligent Robots and Systems, SCI Journal, October 2012

TURKISH JOURNAL OF ELECTRICAL ENGINEERING & COMPUTER SCIENCES, SCI Journal, May 2011

Inista 2010, SCI Journal, June 2010

Inista 2009, SCI Journal, June 2009

Inista 2008, SCI Journal, June 2008

Inista 2007, SCI Journal, June 2007

Scientific Research / Working Group Memberships

OLASILIKSAL ROBOTİK, YILDIZ TEKNİK ÜNİVERSİTESİ, Türkiye, robotics.yildiz.edu.tr, 2006 - Continues

Metrics

Publication: 95

Citation (WoS): 306

Citation (Scopus): 550

H-Index (WoS): 6

H-Index (Scopus): 11

Congress and Symposium Activities

ITURO 2018, Invited Speaker, İstanbul, Turkey, 2018

Akıllı Sistemlerde Yenilikler ve Uygulamalar (ASYU) Konferansı, Invited Speaker, Antalya, Turkey, 2017

Research Areas

Computer Sciences, Artificial Intelligence, Computer Learning and Pattern Recognition, Neural Networks, Mechanical Engineering, Machine Theory and Dynamics, Robotics, Engineering and Technology

Entrepreneurship Activities

Anonymous, Polonom teknoloji sanayi ve ticaret A.Ş, 20 December 2017, Co-Founder

Non Academic Experience

Polonom Teknoloji Sanayi ve Ticaret A.S.