FURKAN ÇAKMAK
ASST. PROF.

Email : fcakmak@yildiz.edu.tr
Address : Yıldız Teknik Üniversitesi, Davutpaşa Kampüsü,
Bilgisayar Mühendisliği Bölümü,34220 Esenler, İstanbul.
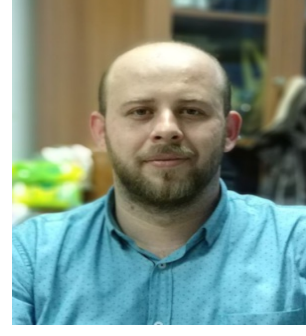**International Researcher IDs**
ScholarID: WUJBBqQAAAAJ
ORCID: 0000-0001-5232-7919
Publons / Web Of Science ResearcherID: AAA-5377-2019
ScopusID: 56982829900
Yoksis Researcher ID: 51040

Learning Knowledge

Doctorate 2014 - 2023	Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Bilgisayar Mühendisliği, Turkey
Postgraduate 2013 - 2014	Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Bilgisayar Mühendisliği, Turkey
Undergraduate 2007 - 2013	Yildiz Technical University, Elektrik Elektronik Fakültesi, Bilgisayar Mühendisliği, Turkey
Undergraduate 2011 - 2011	Linköpings Universitet, Computer Science (Erasmus Programme), Computer Science, Sweden

Foreign Languages

Swedish, B1 Intermediate
English, B2 Upper Intermediate

Dissertations

Postgraduate, Arama Kurtarma Amaçlı Diferansiyal Sürüşlü Tekerlekli Robot Tasarımı ve Gerçeklenmesi, Yıldız Teknik Üniversitesi, Bilgisayar Mühendisliği, Bilgisayar Mühendisliği, 2014

Academic Titles / Tasks

Assistant Professor 2024 - Continues	Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering
Lecturer PhD 2023 - 2024	Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering

Lecturer 2020 - 2023	Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering
Research Assistant 2013 - 2020	Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering

Supported Projects

1. Uslu E., Yavuz S., Amasyalı M. F., TUBITAK Project, Heterojen Çok Robotlu Otonom Arama Kurtarma Takımı İçin Etkin Görev Dağılımı, 2018 - 2021
2. Yavuz S., Amasyalı M. F., Uslu E., TUBITAK Project, Otonom Arama Kurtarma Robotları İçin Keşif, Haritalama Ve Afetzede Tespit Algoritmalarının Geliştirilmesi, 2013 - 2016

Awards

1. Kıvrak 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., Amasyalı M. F., Yavuz S., En İyi Bildiri Ödülü, Akıllı Sistemlerde Yenilikler Ve Uygulamaları Konferansı, October 2017
3. ÇAKMAK F., RoboCup, Nagoya Japonya, Arama Kurtarma Gerçek Robotlar Ligi, En İyi Küçük Keşif Robotu", NIST-ABD, July 2017
4. ÇAKMAK F., RoboCup, Nagoya Japonya, Arama Kurtarma Gerçek Robotlar Ligi, En İyi Dış Ortam Taşıma Robotu", NIST-ABD, July 2017
5. ÇAKMAK F., RoboCup, Nagoya Japonya, Arama Kurtarma Gerçek Robotlar Ligi, En İyi Keşif Robotu", NIST-ABD, July 2017
6. ÇAKMAK F., RoboCup, Nagoya Japonya, Arama Kurtarma Simülasyon Ligi'nde 1.lik", NIST-ABD, July 2017
7. ÇAKMAK F., RoboCup, Nagoya Japonya, Arama Kurtarma Gerçek Robotlar Ligi, En İyi Otonom Robot", NIST-ABD, July 2017
8. ÇAKMAK F., RoboCup Germen Open, Magdeburg Almanya, Arama Kurtarma Gerçek Robotlar Ligi'nde 3.lük", NIST-ABD, May 2017
9. ÇAKMAK F., RoboCup Germen Open, Magdeburg Almanya, Arama Kurtarma Gerçek Robotlar Ligi, En İyi Otonom Robot", NIST-ABD, May 2017
10. ÇAKMAK F., RoboCup İran Open, Tahran İran, Arama Kurtarma Simülasyon Ligi, En İyi Otonom Navigasyon Robotu", NIST-ABD, April 2017
11. ÇAKMAK F., RoboCup, Leipzig Almanya, Arama Kurtarma Gerçek Robotlar Ligi, En İyi Küçük Keşif Robotu", NIST-ABD, July 2016
12. ÇAKMAK F., RoboCup, Leipzig Almanya, Arama Kurtarma Simülasyon Ligi'nde 1.lik", NIST-ABD, July 2016

Scholarships

TÜBİTAK ARDEB 1001 Proje Bursiyeri, TUBITAK, 2019 - Continues
TÜBİTAK ARDEB 1001 Proje Bursiyeri, TUBITAK, 2013 - 2016

Jury Memberships

Award, Mucize Fikirli Genç Beyinler Bilgisayar Teknolojileri Proje Yarışması, Bayrampaşa Belediyesi, June, 2019

Competition, Intel TİM Robot Yarışması, Intel - TİM, November, 2015

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**
   Kıvrak H., Çakmak F., Köse H., Yavuz S.
   Engineering Science and Technology, an International Journal, vol.24, pp.284-298, 2021 (SCI-Expanded)
4. **More scalable solution for multi-robot-multi-target assignment problem**
   Marangoz S., Amasyalı M. F., Uslu E., Çakmak F., Altuntaş N., Yavuz S.
   ROBOTICS AND AUTONOMOUS SYSTEMS, vol.113, pp.174-185, 2019 (SCI-Expanded)
5. **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:SİMULATİON-TRANSACTİONS OF THE SOCİETY FOR MODELİNG AND SİMULATİON INTERNATİONAL, pp.1-12, 2017 (SCI-Expanded)
6. **R-SLAM: Resilient localization and mapping in challenging environments**
   Balcilar M., Yavuz S., Amasyalı M. F., Uslu E., Çakmak F.
   ROBOTICS AND AUTONOMOUS SYSTEMS, vol.87, pp.66-80, 2017 (SCI-Expanded)

Articles Published in Other Journals

1. **Autonomous Mobile Robot Navigation in Structured Rough Terrain**
   Yaşar A., Uslu E., Çakmak F., Altuntaş N., Amasyalı M. F., Yavuz S.
   Akıllı Sistemler ve Uygulamaları Dergisi, vol.1, no.1, pp.67-74, 2018 (Peer-Reviewed Journal)
2. **Autonomous Navigation Algorithm for RoboCup RRL Maneuvering 2 Field**
   Dilaver M. B., Çakmak F., Uslu E., Altuntaş N., Amasyalı M. F., Yavuz S.
   vol.1, no.2, pp.213-216, 2018 (Peer-Reviewed Journal)
3. **Mobile Robot Control with Android Device Sensors by Using ROS**
   Kırlı A. E., Dilaver M. B., ÇAKMAK F.
   Mugla Journal of Science and Technology, vol.3, no.1, pp.31-34, 2017 (Peer-Reviewed Journal)

Books & Book Chapters

1. **80x86 Assembly Dili, Tasarım ve Çevre Birimler**
   İNAN A. T., USLU E., ÇAKMAK F.
   Seçkin Yayıncılık, Ankara, 2021

Refereed Congress / Symposium Publications in Proceedings

1. **3D Mapping and Simultaneous Navigation for Multi Micro Aerial Vehicles in Indoor Environments**
   Coklu Mikro Hava Araclari icin Ic Ortamda 3B Haritalama ve Es Zamanli Navigasyon
   DİLAVER 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

2. **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

3. **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

4. **Otonom Efektif Alan Tarayıcı Robot Tasarımı**
   Köroğlu U., İslamoğlu U., Uslu E., Çakmak F., Altuntaş N., Amasyalı M. F., Yavuz S.
   Akıllı Sistemlerde Yenilikler ve Uygulamaları, İzmir, Turkey, 31 October - 02 November 2019, pp.1-4

5. **Holonomic Robot Navigation in Narrow Spaces**
   Baygül F., Uslu E., Çakmak F., Altuntaş N., Amasyalı M. F., Yavuz S.
   Türkiye Robotbilim Konferansı 2019, ToRK2019, İstanbul, Turkey, 26 - 28 June 2019, pp.16-21

6. **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

7. **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

8. **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

9. **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

10. **Comparison of 3-Dimensional SLAM systems: RTAB-Map vs. Kintinuous**
    Altuntaş N., Uslu E., Çakmak F., Amasyalı M. F., Yavuz S.
    2nd International Conference on Computer Science and Engineering, UBMK 2017, Antalya, Turkey, 5 - 08 October 2017, pp.99-103

11. **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

12. **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 Tasarimi ve Gerçklenmesi
    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

13. **Hazmat charts detection on search and rescue league of RoboCup competitions RoboCup Yarişmalari Arama Kurtarma Ligi Ortamlarinda Hazmat İşaretleri Tespiti**

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

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

14. **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

15. **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

16. **ROS Üzerinden Android Cihaz Duyargaları Yardımıyla Mobil Robot Kontrolü**

Kırlı A. E., Dilaver M. B., ÇAKMAK F.

Akıllı Sistemlerde Yenilikler ve Uygulamaları (ASYU), Düzce, Turkey, 29 September 2016, pp.1

17. **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

18. **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

19. **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

20. **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

21. **Web-Tabanlı Semantik Bir Yöntemle Türkçe Karakter Düzeltme**

ÇAKMAK F., DİRİ B.

23. IEEE Sinyal İşleme Uygulamaları Kurultayı, Malatya, Turkey, 16 May 2015, pp.1

22. **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

23. **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

24. **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

Academic and Administrative Experience

2013 - 2019	Erasmus Program Institutional Coordinator	Yildiz Technical University, Faculty of Electrical & Electronics, Computer Engineering

Courses

Microprocessor Systems and Assembly Language, Undergraduate, 2023 - 2024

Data Communication and Computer Network, Undergraduate, 2023 - 2024

Object Oriented Programming, Undergraduate, 2023 - 2024, 2022 - 2023

Data Communication, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021

Multidisciplinary Design Project, Undergraduate, 2022 - 2023, 2020 - 2021

Introduction to Robot Technologies, Undergraduate, 2021 - 2022, 2020 - 2021

Low Level Programming, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021

Computer Projects, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021

Graduation Thesis, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021

Seminar, Undergraduate, 2022 - 2023

Database Management, Undergraduate, 2020 - 2021

Patent

Çakmak F., Yavuz S., AMASYALI M. F., 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

Contractual Researches

1. Çakmak F., DeFacto Teknoloji A.Ş., Omnichannel - Yakın Mağazadan Hızlı Teslimat, 2021 - 2022
2. Çakmak F., Amasyalı M. F., POLONOM TEKNOLOJİ SANAYİ VE TİCARET A.Ş., İŞBİRLİKÇİ ROBOTLAR (İHA VE İKA'lar) İLE OTONOM KEŞİF, GÜDÜM VE SEYRÜSEFER (ROBOTİM), 2019 - 2022
3. Çakmak F., ARGE 24 Teknoloji A.Ş., Farklı Kanallardan Alınan Müşteri Verilerinden Kümeleme İle Müşteri Sınıflarının Oluşturulması ve Çoklu Sınıf Sınıflandırıcılar ile Kümülatif Müşteri Segmentasyonunun Gerçeklenmesi, 2021 - 2021
4. Çakmak F., DeFacto Teknoloji A.Ş., Çevik PLM ve Dijital Tedarikçi Yönetim Sistemi, 2019 - 2020
5. Çakmak F., IBASE MRO SOFTWARE SOLUTIONS A.Ş., WINGS Hava Taşıtları Bakım, Onarım ve Yenileme Süreç ve Uygulama Yazılımının IOS/Android Platformlarında Çalışması ve (Paperless) Dijital İmza, E-doc, E-form, E-board Yazılımlarının Geliştirilmesi, 2019 - 2020
6. Çakmak F., IBASE MRO SOFTWARE SOLUTIONS A.Ş., Üniversite-Sanayi İşbirliği Kapsamındaki Faaliyetler İçin Ar-Ge Projesi Ön Hazırlık ve Proje Tasarım-Yazım Danışmanlığı, 2019 - 2019
7. Çakmak F., ID3 LTD. ŞTD., TEYDEB 7180518 NOLU ENGİLLİ YOLCU YÖNETİMİ PROJESİ, 2018 - 2019

Memberships / Tasks in Scientific Organizations

IEEE, Member, 2015 - Continues, United States Of America

Scientific Refereeing

FİRAT ÜNİVERSİTESİ MÜHENDİSLİK BİLİMLERİ DERGİSİ, National Scientific Refreed Journal, September 2020

IEEE Access, SCI Journal, February 2019

TBV Journal of Computer Science and Engineering, Other Indexed Journal, January 2019

IEEE Access, SCI Journal, October 2018

Sigma Journal of Engineering and Natural Sciences, Other Indexed Journal, December 2017

Scientific Consultations

POLONOM TEKNOLOJİ SANAYİ VE TİCARET A.Ş, Scientific Consultancy, Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering, Turkey, 2019 - Continues

Verisoft A.Ş., Scientific Consultancy, Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering, Turkey, 2019 - 2020

DeFacto Teknoloji A. Ş., Scientific Consultancy, Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering, Turkey, 2019 - 2020

IBASE MRO SOFTWARE SOLUTIONS, Scientific Consultancy, Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering, Turkey, 2019 - 2020

Gün + Partners, Scientific Consultancy, Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering, Turkey, 2019 - 2019

ID3 Yazılım, Scientific Consultancy, Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering, Turkey, 2018 - 2019

ARKHE YAZILIM TEKNOLOJİLERİ, Scientific Consultancy, Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering, Turkey, 2018 - 2019

HRGLOB DANIŞMANLIK LİMİTED ŞİRKETİ, Scientific Consultancy, Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering, Turkey, 2018 - 2019

TalentSys Danışmanlık Enformasyon Teknoloji San. A.Ş., Scientific Consultancy, Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering, Turkey, 2018 - 2018

PAS YAZILIM BİLİŞİM TEKN. SAN. DIŞ TİC. LTD ŞTİ., Scientific Consultancy, Yildiz Technical University, Faculty Of Electrical & Electronics, Computer Engineering, Turkey, 2018 - 2018

Scientific Research / Working Group Memberships

Olasılıksal Robotik Grubu, YILDIZ TEKNİK ÜNİVERSİTESİ, Türkiye, www.robotics.yildiz.edu.tr, 2013 - Continues

Metrics

Publication: 35
Citation (WoS): 34
Citation (Scopus): 92
H-Index (WoS): 3
H-Index (Scopus): 5

Congress and Symposium Activities

Robotic Co-workers 4.0: Human Safety and Comfort in Human-Robot Interactive Social Environments, Attendee, Madrid, Spain, 2018

2018 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Attendee, Madrid, Spain, 2018

Roboter und Intelligente Technologie, Invited Speaker, Munich, Germany, 2018

International Symposium on INnovations in Intelligent SysTems and Applications, Attendee, Gdynia, Poland, 2017

IEEE 25th Signal Processing and Communications Applications Conference, Attendee, Antalya, Turkey, 2017

Akıllı Sistemlerde Yenilikler ve Uygulamaları Konferansı, Attendee, Düzce, Turkey, 2016

International Symposium on INnovations in Intelligent SysTems and Applications, Attendee, Prahova, Romania, 2016

IEEE 24th Signal Processing and Communication Applications Conference, Attendee, Zonguldak, Turkey, 2016

International Symposium on INnovations in Intelligent SysTems and Applications, Attendee, Madrid, Spain, 2015

23. IEEE Sinyal İşleme Uygulamaları Kurultayı, Attendee, Malatya, Turkey, 2015

ODTÜ Robot Günleri, Invited Speaker, Ankara, Turkey, 2015
Türkiye Otonom Robotlar Konferansı, Attendee, Ankara, Turkey, 2014
12. Sanayi Kongresi, Attendee, İstanbul, Turkey, 2014
22. IEEE Sinyal İşleme Uygulamaları Kurultayı, Attendee, Trabzon, Turkey, 2014

Invited Talks

Roboter und Intelligente Technologie, Seminar, Genç MÜSİAD (Munich), Germany, July 2018
ROS Uyumlu Robot Platformlarında Haritalama, Navigasyon ve Keşif Algoritmaları, Conference, Orta Doğu Teknik Üniversitesi, Turkey, March 2014

Research Areas

Computer Sciences, Database and Data Structures, Data Structures, Database Systems, Artificial Intelligence, Computer Learning and Pattern Recognition, Computer Learning, Engineering and Technology

Non Academic Experience

Business Establishment Private, Sıemens Türkiye
Business Establishment Private, Ayedaş
Business Establishment Private, Netaş