

Asst. Prof. Abdurrahman Yılmaz

Personal Information

Office Phone: [+90 212 285 3599](tel:+902122853599)

Email: yilmazabdurrah@itu.edu.tr

Web: <https://avesis.itu.edu.tr/yilmazabdurrah>

International Researcher IDs

ORCID: 0000-0001-8946-6664

Publons / Web Of Science ResearcherID: R-1110-2017

ScopusID: 57193652524

Yoksis Researcher ID: 216143

Education Information

Doctorate, Istanbul Technical University, Lisansüstü Eğitim Enstitüsü, Control and Automation Engineering, Turkey 2014 - 2022

Postgraduate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, -, Turkey 2014 - 2017

Undergraduate, Istanbul Technical University, Elektrik-Elektronik, Elektronik Ve Haberleşme Mühendisliği, Turkey 2009 - 2014

Foreign Languages

English, C1 Advanced

Research Areas

Control and System Engineering, Robotics and Mechatronics Systems

Academic Titles / Tasks

Assistant Professor, Istanbul Technical University, Elektrik-Elektronik, Kontrol Ve Otomasyon Mühendisliği, 2022 - Continues

Research Assistant, Istanbul Technical University, Elektrik-Elektronik, Kontrol Ve Otomasyon Mühendisliği, 2018 - 2022

Research Assistant, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Mechatronics Engineering, 2014 - 2018

Courses

Linear Algebra and Applications, Undergraduate, 2023 - 2024

Feedback Control Systems, Undergraduate, 2023 - 2024

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Reference cage architecture for autonomous docking of mobile robots in automotive production systems**
Yılmaz A., Vit A. D., Savci I. H., Ocakli H., Temeltaş H.
International Journal of Advanced Manufacturing Technology, vol.129, no.7-8, pp.3497-3511, 2023 (SCI-Expanded)
- II. **A precise scan matching based localization method for an autonomously guided vehicle in smart factories**
Yılmaz A., Sümer E., Temeltaş H.
ROBOTICS AND COMPUTER-INTEGRATED MANUFACTURING, vol.75, 2022 (SCI-Expanded)
- III. **Improving Navigation Stack of a ROS-Enabled Industrial Autonomous Mobile Robot (AMR) to be Incorporated in a Large-Scale Automotive Production**
Savci I. H., Yılmaz A., Karaman S., Ocakli H., Temeltaş H.
INTERNATIONAL JOURNAL OF ADVANCED MANUFACTURING TECHNOLOGY, vol.120, no.5-6, pp.3647-3668, 2022 (SCI-Expanded)
- IV. **Robust affine registration method using line/surface normals and correntropy criterion**
Yılmaz A., Temeltaş H.
COMPLEX & INTELLIGENT SYSTEMS, vol.8, pp.1-19, 2022 (SCI-Expanded)
- V. **Small Signal Analysis, Simulation and Experimental Validation of Non-Isolated Zeta Converter with Peak Current-Mode Control**
Yılmaz A., Garip M.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.37, no.4, pp.1793-1808, 2022 (SCI-Expanded)
- VI. **Integration of affine ICP into the precise localization problem of smart-AGVs: Procedures, enhancements and challenges**
Yılmaz A., Temeltaş H.
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, vol.43, no.8, pp.1695-1709, 2021 (SCI-Expanded)
- VII. **Water Leakage Reduction in the Water Distribution Network with Real Time Pressure Management**
Koşucu M. M., Sari O., Demirel M. C., Kiran S., Yılmaz A., Aybakan A., Albay E., Kirca V. Ş. Ö.
TEKNIK DERGI, vol.32, no.1, pp.10541-10564, 2021 (SCI-Expanded)
- VIII. **Self-adaptive Monte Carlo method for indoor localization of smart AGVs using LIDAR data**
Yılmaz A., Temeltaş H.
ROBOTICS AND AUTONOMOUS SYSTEMS, vol.122, 2019 (SCI-Expanded)

Articles Published in Other Journals

- I. **Investigation of The Effects of Eccentricity on Induction Motor via Multi-Resolution Wavelet Analysis**
Polat A., Yılmaz A., Ergene L.
ELECTRICA, vol.18, no.2, pp.187-197, 2018 (ESCI)
- II. **Tepe akım modu kontrollü Zeta dönüştürücünün küçük işaret analizi (Small signal analysis of peak current mode controlled Zeta converter)**
YILMAZ A., GARİP M.
Sakarya Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.21, pp.270-277, 2017 (Peer-Reviewed Journal)
- III. **A Fully Automatic Novel Method to Determine QT Interval Based on Continuous Wavelet Transform**
YILMAZ C., İŞCAN M., YILMAZ A.
IU-Journal of Electrical Electronics Engineering, vol.17, pp.3093-3099, 2017 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **An Autonomous Robotic System for Ground Surface and Subsurface Imaging**
Yılmaz A., Ervan O., Temeltaş H., Akduman İ.
8th International Conference on Engineering and Emerging Technologies, ICEET 2022, Kuala-Lumpur, Malaysia, 27 - 28 October 2022
- II. **Feasibility Analysis of Path Planning Algorithms**
Allozi E., Yılmaz A., Ervan O., Temeltaş H.
16th International Conference on INnovations in Intelligent SysTems and Applications, INISTA 2022, Biarritz, France, 8 - 12 August 2022
- III. **Fuzzy Controlled Adaptive Follow the Gap Obstacle Avoidance Algorithm**
Yücel B., YILMAZ A., ERVAN O., TEMELTAŞ H.
7th International Conference on Robotics and Artificial Intelligence (ICRAI 2021), Guangzhou, China, 19 - 22 November 2021
- IV. **Robust Affine Iterative Closest Point Variant Using Point-to-line Metric and Correntropy Criterion**
YILMAZ A., TEMELTAŞ H.
2019 11th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 28 - 30 November 2019, pp.537-541
- V. **ROS Architecture for Indoor Localization of Smart-AGVs Based on SA-MCL Algorithm**
YILMAZ A., TEMELTAŞ H.
2019 11th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 28 - 30 November 2019, pp.885-889
- VI. **AFFINE ICP FOR FINE LOCALIZATION OF SMART-AGVS IN SMART FACTORIES**
Yılmaz A., Temeltaş H.
ASME International Design Engineering Technical Conferences / Computers and Information in Engineering Conference, California, United States Of America, 18 - 21 August 2019
- VII. **An Improvement on SA-MCL Algorithm: Ellipse Based Energy Grids**
YILMAZ A., TEMELTAŞ H.
2018 6th International Conference on Control Engineering Information Technology (CEIT), Istanbul, Turkey, Turkey, 25 - 27 October 2018
- VIII. **Kendinden Uyarlamalı Monte Carlo Konumlama Algoritması için Elips Tabanlı Yeni Bir Enerji Hesap Yöntemi ve Akıllı AGV'lere Uygulaması**
YILMAZ A., TEMELTAŞ H.
Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı (TOK), Kayseri, Turkey, 12 - 14 September 2018

Supported Projects

Temeltaş H., TUBITAK Project, Smart-Agv : Akıllı Fabrikalar İçin Ölçeklenebilir Agv Sistemi, 2018 - 2020

Metrics

Publication: 26

Citation (WoS): 17

Citation (Scopus): 42

H-Index (WoS): 2

H-Index (Scopus): 3

Scholarships

National PhD Scholarship Program, TUBITAK, 2015 - 2019

Awards

Demirel M. C., Koşucu M. M., Yılmaz A., Albay E., Kırca V. Ş. Ö., SU YÖNETİMİ ÖDÜLÜ, Tarım Ve Orman Bakanlığı, October 2019

Non Academic Experience

Company, ASELSAN, SST
ASELSAN AŞ