Asst. Prof. BAYRAM MELİH YILMAZ

Personal Information

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International Researcher IDs
ScholarID: ZGBvDWQAAAAJ
ORCID: 0000-0002-6974-8012
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Education

Doctorate, Ege University, Turkey 2016 - 2021

Foreign Languages

English

Dissertations

Postgraduate, Zaman gecikmeli sistemlerde Luenberger tabanli gözlemleyici tasarimi, 2016

Research Areas

WoS Research Areas: Engineering Electrical & Electronic, Automation & Control Systems, Robotics
Scopus Research Areas: Signal Processing, Control and Systems Engineering

Academic Positions

Assistant Professor, Manisa Celal Bayar University, Hasan Ferdi Turgutlu Teknoloji Fakültesi, Elektrik Mühendisliği, 2024 - Present
University of Waterloo, 2024 - 2025
Sivas Science And Technology University, 2023 - 2024
Research Assistant, Ege University, 2017 - 2022
Research Assistant, Nigde Omer Halisdemir University, 2015 - 2017

Academic and Administrative Experience

Sivas Science And Technology University, 2023 - 2026

Courses

Undergraduate
Lineer Cebir, Undergraduate, 2025 - 2026
Sensörler ve Algılayıcılar, Undergraduate, 2025 - 2026
Elektrik Makineleri, Undergraduate, 2024 - 2025

Supervised Theses

YILMAZ B. M., Robot Manipülatörlerinin Yapay Zeka Hesaplamaları Tabanlı Çıkış Geri Beslemeli Kontrolü, Postgraduate, V.BAYIRBAĞ(Student), 2023

Articles

I. **Barrier Lyapunov function-based robust adaptive neural network control with dynamically adjusted activation functions for Euler–Lagrange systems under position constraints**
YILMAZ B. M.
Scientific Reports, vol.16, no.1, 2026 (SCI-Expanded, Scopus)

II. **An Asymptotically Stable Self-Adjusting Adaptive Fuzzy Logic-Based Robust Controller Formulation for Robot Manipulators**
YILMAZ B. M., TATLICIOĞLU E., SELİM E., Zergeroglu E.
International Journal of Robust and Nonlinear Control, vol.36, no.5, pp.2377-2387, 2026 (SCI-Expanded, Scopus)

III. **Self Learning Fuzzy Logic-Based Robust Control of Robotic Manipulators Driven With BLDC Motors: A Task Space Control Approach**
Yilmaz B. M., Unver S., SELİM E., TATLICIOĞLU E., Saka I., Zergeroglu E.
IEEE Transactions on Cybernetics, vol.56, no.2, pp.609-618, 2026 (SCI-Expanded, Scopus)

IV. **Fuzzy Logic based adaptive control of robot manipulators driven by BLDC Motors**
Yilmaz B. M., Unver S., SELİM E., Saka I., TATLICIOĞLU E.
JOURNAL OF THE FRANKLIN INSTITUTE, vol.362, no.4, 2025 (SCI-Expanded, Scopus)

V. **Adaptive Neural Network-Based Backstepping Control of BLDC-Driven Robot Manipulators: An Operational Space Approach with Experimental Validation**
Unver S., YILMAZ B. M., TATLICIOĞLU E., Saka I., SELİM E., Zergeroglu E.
IET Control Theory and Applications, vol.19, no.1, 2025 (SCI-Expanded, Scopus)

VI. **An adaptive self-adjusting fuzzy logic-based robust controller formulation for a class of uncertain MIMO nonlinear systems**
YILMAZ B. M., TATLICIOĞLU E., Zergeroglu E.
International Journal of Systems Science, vol.56, no.14, pp.3481-3497, 2025 (SCI-Expanded, Scopus)

VII. **Velocity observer design for a class of uncertain nonlinear mechanical systems: a self-adaptive fuzzy logic-based approach**
YILMAZ B. M., TATLICIOĞLU E., SELİM E.
International Journal of Systems Science, vol.56, no.3, pp.423-433, 2025 (SCI-Expanded, Scopus)

VIII. **Limitation of Position Signal in Output Feedback Control based on Adaptive Neural Networks of Euler Lagrange Systems**
YILMAZ B. M.
PRUEBAS, vol.13, pp.116-122, 2024 (TRDizin)

IX. **Chattering Phenomena Based Analysis and Real-Time Application of Nonlinear Sliding Mode Control for Robot Manipulators**
YILMAZ B. M., ÜNVER Ş., TATLICIOĞLU E., ALCI M.
PRUEBAS, 2024 (Peer-Reviewed Journal)

X. **An Adaptive Method Approach in Designing a Linear Filter Based Output Feedback Controller for Robot Manipulators**

YILMAZ B. M., TATLICIOĞLU E.
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, vol.30, 2024 (ESCI, TRDizin)

XI. **Robust State/Output-Feedback Control of Robotic Manipulators: An Adaptive Fuzzy-Logic-Based Approach With Self-Organized Membership Functions**
YILMAZ B. M., TATLICIOĞLU E., Savran A., Alci M.
IEEE TRANSACTIONS ON SYSTEMS MAN CYBERNETICS-SYSTEMS, vol.53, no.5, pp.3219-3229, 2023 (SCI-Expanded, Scopus)

XII. **Adaptive fuzzy logic with self-adjusting membership functions based tracking control of surface vessels**
TATLICIOĞLU E., YILMAZ B. M., Savran A., Alci M.
OCEAN ENGINEERING, vol.253, 2022 (SCI-Expanded, Scopus)

XIII. **Self-Adjusting Fuzzy Logic Based Control of Robot Manipulators in Task Space**
Yilmaz B. M., Tatlicioğlu E., Savran A., Alci M.
IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, vol.69, no.2, pp.1620-1629, 2022 (SCI-Expanded, Scopus)

XIV. **Adaptive fuzzy logic with self-tuned membership functions based repetitive learning control of robotic manipulators**
YILMAZ B. M., TATLICIOĞLU E., Savran A., Alci M.
APPLIED SOFT COMPUTING, vol.104, 2021 (SCI-Expanded, Scopus)

Papers Presented at Peer-Reviewed Scientific Conferences

I. **An Adaptive Fuzzy Logic Based Uncertainty Estimator for the Modeling Uncertainties of Super Coiled Polymer Actuators**
Hindistan C., YILMAZ B. M., SELİM E., TATLICIOĞLU E., Zergeroglu E.
2026 American Control Conference, ACC 2026, Louisiana, United States Of America, 26 - 29 May 2026, pp.3252-3257, (Full Text)

II. **Top-Robot Sisteminin Uyarlamalı Yapay Sinir A˘gları Tabanlı Denge Denetimi**
YILMAZ B. M., TATLICIOĞLU E., İNCİ H.
Otomatik Kontrol Ulusal Konferansı, 18 September 2025, (Full Text)

III. **Adaptive Fuzzy Control for Altitude Regulation of Unmanned Aerial Vehicles**
YILMAZ B. M., TATLICIOĞLU E., ÜNVER Ş., Fidan B.
European Control Conference, 24 September 2025, (Full Text)

IV. **Adaptive Fuzzy Logic Based Control of Electro-Hydraulic Systems**
Taskingollu S., YILMAZ B. M., SELİM E., Bayrak A., TATLICIOĞLU E., Zergeroglu E.
13th IFAC Symposium on Nonlinear Control Systems, NOLCOS 2025, Reykjavik, Iceland, 23 - 25 July 2025, vol.59, pp.126-131, (Full Text)

V. **Adaptive Neural Network with Dynamically Adjusted Activation Function Based Robust Control of Robot Manipulators**
YILMAZ B. M., Hindistan C.
2025 Innovations in Intelligent Systems and Applications Conference, ASYU 2025, Bursa, Turkey, 10 - 12 September 2025, (Full Text)

VI. **Insansız Hava Araçlarının Uyarlamalı Yapay Sinir A˘gları Tabanlı İrtifa Denetimi**
YILMAZ B. M., TATLICIOĞLU E., ÜNVER Ş., Fidan B.
Otomatik Kontrol Konferansı, 12 September 2024, (Full Text)

VII. **Proportional-Derivative Observer Design via BMI Approach using BARON Optimization**
CANEVİ M., YILMAZ B. M., DİLAVER K. F.
ELECO, Bursa, Turkey, 1 - 03 December 2016, (Full Text)

VIII. **Luenberger based observer design in time delay systems**
YILMAZ B. M., CANEVİ M., DİLAVER K. F.

ELECO, Bursa, Turkey, 1 - 03 December 2016, (Full Text)

Funded Projects

YILMAZ B. M., SELİM E., TATLICIOĞLU E., Top-Robot Geliştirilmesi ve İşbirlikçi Uygulama Senaryolarında Kullanılması, 2021 - 2023

Metrics

Publication: 22
Citation (WoS): 116
Citation (Scopus): 148
H-Index (WoS): 4
H-Index (Scopus): 6

Non Academic Experience

University of Waterloo, Araştırmacı