

Asst. Prof. HAKAN ÇALIŞKAN

Personal Information

Office Phone: [+90 0312 210 5238](tel:+9003122105238)

Fax Phone: [+90 0312 210 2536](tel:+9003122102536)

Email: chakan@metu.edu.tr

Web: <https://avesis.metu.edu.tr/chakan>

Education Information

Doctorate, Middle East Technical University, Faculty Of Engineering, Makine Mühendisliği Bölümü, Turkey 2009 - 2015

Post Graduate, Middle East Technical University, Faculty Of Engineering, Department Of Mechanical Engineering, Turkey 2006 - 2009

Under Graduate, Middle East Technical University, Faculty Of Engineering, Department Of Mechanical Engineering, Turkey 2001 - 2006

Dissertations

Doctorate, Development and Control of a Single Rod Electro Hydrostatic Actuator, Middle East Technical University, Faculty Of Engineering, Department Of Mechanical Engineering, 2015

Post Graduate, Modeling and experimental evaluation of variable speed pump and valve controlled hydraulic servo drives, Middle East Technical University, Faculty Of Engineering, Department Of Mechanical Engineering, 2009

Research Areas

System Dynamics and Control, Mechatronics, Modeling and Simulation of Dynamic Systems

Academic Titles / Tasks

Assistant Professor, Middle East Technical University, Faculty Of Engineering, Department Of Mechanical Engineering, 2019 - Continues

Researcher, The University of British Columbia, Engineering, Mechanical, 2017 - 2018

Lecturer, Middle East Technical University, Faculty Of Engineering, Makine Mühendisliği Bölümü, 2013 - 2017

Research Assistant, Middle East Technical University, Faculty Of Engineering, Department Of Mechanical Engineering, 2006 - 2013

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

I. **Sensorless control of a three-degree-of-freedom ultrasonic vibration tool holder**

Gao J., Caliskan H., Altintas Y.

Precision Engineering, vol.58, pp.47-56, 2019 (Journal Indexed in SCI)

II. **On-Line Energy-Based Milling Chatter Detection**

ÇALIŞKAN H., Kilic Z. M. , Altintas Y.

JOURNAL OF MANUFACTURING SCIENCE AND ENGINEERING-TRANSACTIONS OF THE ASME, vol.140, 2018

(Journal Indexed in SCI)

- III. **A Complete Analysis and a Novel Solution for Instability in Pump Controlled Asymmetric Actuators**
ÇALIŞKAN H., BALKAN R. T. , PLATİN B. E.
JOURNAL OF DYNAMIC SYSTEMS MEASUREMENT AND CONTROL-TRANSACTIONS OF THE ASME, vol.137, 2015
(Journal Indexed in SCI)
- IV. **Pressure prediction on a variable-speed pump controlled hydraulic system using structured recurrent neural networks**
KILIÇ E., DÖLEN M., ÇALIŞKAN H., KOKU A. B. , Balkan T.
CONTROL ENGINEERING PRACTICE, vol.26, pp.51-71, 2014 (Journal Indexed in SCI)
- V. **Accurate pressure prediction of a servo-valve controlled hydraulic system**
KILIÇ E., DÖLEN M., KOKU A. B. , ÇALIŞKAN H., Balkan T.
MECHATRONICS, vol.22, pp.997-1014, 2012 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **A Model - Based Jamming Detection Method for Electro-Hydrostatic Actuators**
Poyraz E. M. , TURGUT A. E. , ÇALIŞKAN H.
Hittite Journal of Science Engineering, vol.7, pp.189-198, 2020 (Refereed Journals of Other Institutions)
- II. **A control system for hydraulic single axis durability test rig**
ÇALIŞKAN H., Balkan T., Platin B. E. , Konukseven I. E.
ASME 2012 5th Annual Dynamic Systems and Control Conference Joint with the JSME 2012 11th Motion and Vibration Conference, DSCC 2012-MOVIC 2012, vol.1, pp.723-732, 2012 (Refereed Journals of Other Institutions)
- III. **Yapay Sinir Ağ Modellerinin Valf Denetimli Hidrolik Bir Sistemin Uzun Süreli Basınç Tahmininde Kullanılması**
KILIÇ E., ÇALIŞKAN H., DÖLEN M., KOKU A. B. , BALKAN R. T.
Mühendis ve Makina, vol.53, pp.50-61, 2012 (Other Refereed National Journals)

Refereed Congress / Symposium Publications in Proceedings

- I. **Real-time Energy-based Detection of Milling Chatter**
ÇALIŞKAN H., KILIÇ Z. M. , altintas y.
The 7th International Conference on Virtual Machining Process Technology (VMPT 2018), 7 - 10 May 2018
- II. **A Complete Analysis for Pump Controlled Single Rod Actuator**
ÇALIŞKAN H., BALKAN R. T. , Platin B. E.
10th International Fluid Power Conference (10. IFK), 8 - 10 March 2016, vol.2, pp.119-132
- III. **A Complete Analysis for Pump Controlled Single Rod Actuators**
ÇALIŞKAN H., BALKAN R. T. , PLATİN B.
10th International FluidPower Conference, Dresden, Germany, 8 - 10 March 2016
- IV. **A CONTROL SYSTEM FOR HYDRAULIC SINGLE AXIS DURABILITY TEST RIG**
ÇALIŞKAN H., BALKAN R. T. , PLATİN B. E. , KONUKSEVEN E. İ.
5th Annual Dynamic Systems and Control Division Conference / 11th JSME Motion and Vibration Conference, Florida, United States Of America, 17 - 19 October 2012, pp.723-732
- V. **Yapay Sinir Ağ Modellerinin Valf Denetimli Hidrolik Bir Sistemin Uzun Süreli Basınç Tahmininde Kullanılması**
KILIÇ E., ÇALIŞKAN H., DÖLEN M., KOKU A. B. , BALKAN R. T.
VI. Ulusal Hidrolik Pnömatik Kongresi, İzmir, Turkey, 12 - 15 October 2011
- VI. **3 Serbestlik Derecesine Sahip Bir Hareket Taklitçisinin Mafsalsal Uzun Süreli Basınç Tahmininde Kullanılması ve Çözüm Analizi**
DİLAN R. A. , YAMAN U., ÇALIŞKAN H., DEMİRER S., BALKAN R. T.
VI. Ulusal Hidrolik Pnömatik Kongresi, İzmir, Turkey, 12 - 15 October 2011, pp.539-552

VII. HYDRAULIC POSITION CONTROL SYSTEM WITH VARIABLE SPEED PUMP

ÇALIŞKAN H., BALKAN R. T. , PLATİN B. E.

2nd Annual Dynamic Systems and Control Conference (DSCC 2009)/Bath/ASME Symposium on Fluid Power and Motion Control, California, United States Of America, 12 - 14 October 2009, pp.275-282

Supported Projects

Özşahin O., Çalışkan H., TUBITAK Project, Akıllı CNC: Tırlamanın Gerçek Zamanlı Tanımlanması, Algılanması ve Kontrolü, 2019 - 2021

Citations

Total Citations (WOS):72

h-index (WOS):5