## Barış Can Yalçın, Ph.D. Candidate

The researcher was born in Izmir/Turkey in 1988, completed his high school education in Izmir Bornova Anatolian High School, took his BSc degree from Department of Mechanical Engineering at Eskisehir Osmangazi University and MSc degree from Mechatronics Engineering at Istanbul Technical University, in 2011, 2014 respectively.



During his MSc education, he was interested in control theory and its various fields, such as adaptive control, predictive control and estimator and filter design. Through his MSc thesis, he was supervised by Prof. Dr. Haluk Erol, studied on semi-active vibration control by force and acceleration feed-back. His MSc thesis was done in collaboration with <u>VESTEL CO</u>. He continues studying on control theory during PhD as well under supervision of Assist. Prof. Dr. Kadir Erkan and works to design a novel control method to suppress micro-vibrations by using magnetic levitation technology. He has been interested in programming 'Hardware-in-the-loop systems' for real-time plant simulations, such as <u>DSpace</u>, <u>National Insturments</u> and <u>QUANSER</u>.

# **SCI/SCI-E** indexed journal papers;

- **7- Yalçın B.C.**, Demir C., Gökçe M., Koyun A. "Water Leakage Detection for Complex Pipe Systems using Hybrid Learning Algorithm based on ANFIS Method", AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME): JOURNAL OF COMPUTING AND INFORMATION SCIENCE IN ENGINEERING, published online, waiting for an issue, 2018. DOI: 10.1115/1.4040130.
- **6- Yalçın B.C.**, Koyun A. "<u>Linear matrix inequality-based model matching H2 output feedback control of a new leak tightness machine working based on hydrostatic pressure aging method", TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, vol.40(5), pp.1711-1725, 2018. DOI: 10.1177/0142331217690224.</u>
- **5- Yalçın B.C.**, Balcılar M., Koyun A. "<u>Design and Implementation of Kalman Filter for Fuel Pipe Damping Test Machine Working Based on Variable Frequency Vibration Principle</u>", MEASUREMENT AND CONTROL, vol.50, pp.199-205, 2017. DOI: 10.1177/0020294017738196.
- **4-** Erkan K., **Yalçın B.C.**, Garip M. "<u>Three-axis gap clearance I-PD controller design</u> based on coefficient diagram method for 4-pole hybrid electromagnet", AUTOMATIKA, vol.58, pp.147-167, 2017. DOI: 10.1080/00051144.2017.1382649.
- **3-** Atlıhan M., **Yalçın B.C.**, Erkan K. "Force and torque parameter estimation for 4-pole hybrid electromagnet using ANFIS hybrid learning algorithm", TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, 25:3684-3698, 2017. DOI: 10.3906/elk-1605-364.
- **2- Yalçın B.C.**, Torun Z., Balcilar M., Koyun A. "<u>Design and servo control of a leak tightness machine working based on hydrostatic pressure aging method</u>", PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART I-

JOURNAL OF SYSTEMS AND CONTROL ENGINEERING, vol.230, pp.932-942, 2016. DOI: 10.1177/0959651816658813.

**1- Yalçın B.C.**, Erol H. "Semiactive Vibration Control for Horizontal Axis Washing Machine", Vol 2015, Article ID: 692570, SHOCK AND VIBRATION, 2015. DOI: 10.1155/2015/692570.

#### **Msc Thesis**

Yatay eksenli çamaşır makinalarında titreşim ve gürültünün azaltılması amacıyla aktif ve yarı aktif kontrol uygulamalarının incelenmesi / Investigation of active and semi-active control applications for reducing vibration and noise on horizontal axis washing machines, Istanbul Technical University, Advisor: Prof. Dr. Haluk Erol.

## **Reviewer Duties**

26th IEEE Signal Processing and Communication Applications, 2018

Measurement and Control (SCI-E), 2018

Measurement and Control (SCI-E), 2017

Journal of the Chinese Institute of Engineers (SCI-E), 2017

#### **Attended Graduate Schools**

- The European Embedded Control Institute (EECI), <u>Decentralized and Distributed Control</u>, Prof. Dr. Giancarlo Ferrari-Trecate from EPFL, Switzerland and Prof. Dr. Marcello Farina from Politecnico di Milano, Italy. @ <u>University of Paris Saclay</u>, PARIS, FRANCE, JAN 2017.
- The European Embedded Control Institute (EECI), <u>Nonlinear Model Predictive</u> <u>Control</u>, Prof. Dr. Frank Allgöwer and Prof. Dr. Matthias A. Müller from University of Stuttgart, Germany. @ <u>University of Paris Saclay</u>, PARIS, FRANCE, JAN 2018.

## **Contact Information**

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