

Asst. Prof. Claudia Fernanda YAŞAR

Personal Information

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Biography

Biography:

Claudia Fernanda Yasar is working as an assistant professor at YTU Yildiz Technical University, Istanbul, Turkey. She is an electrical engineer from the Universidad Tecnológica de Pereira (Colombia). In this university, she worked in safety and security systems for intelligent buildings (camera based systems using optic fibre). She worked as a lecturer teaching basic sciences and circuits at the Universidad Tecnológica de Pereira and at the Universidad Católica Popular de Risaralda (Colombia). She also worked in designing, programming and implementing traffic controllers using PLCs, as well as designing and implementing physics laboratories.

She received a "DEA" Diploma of Advanced Studies in 2010, which is equivalent to a Master of Science with a thesis option, from Castilla-La Mancha University (Spain). She finished an International Doctorate in Mechatronics, from Castilla-La Mancha University, and graduated with an honorary mention Cum Laude for the thesis titled: Design, Modelling and Control of Two Degree Of Freedom Flexible Antenna Sensors. She received the price of "The Best Spanish PhD thesis, award 2017" by Robotnik and the Spanish Committee of Automation. She was also awarded as a distinguished student in Castilla-La Mancha University.

She has been an active researcher in flexible robotics and has published technical articles for eight international conferences, seven Turkish conferences, and has written five International Journals included in Science Citation Index Expanded. She has worked as a researcher in five Spanish academic projects at Castilla-La Mancha University. Her research interests include mechatronics, instrumentation, vibrations, non-linear control systems, kinematics, dynamics, control of rigid and flexible robots, servo motion systems, superconductivity, system identification, modelling and simulation, force and torque sensors, active touch sensing for robots, haptics, and vibration control, among others.

She is married and has a daughter.

Education Information

Doctorate, Universidad de Castilla-La Mancha, Department Of Electrical, Electronic, Automation And Communications Engineering, Mechatronics , Spain 2010 - 2016

Undergraduate, Universidad Tecnológica de Pereira, Faculty of Engineering, Electrical Engineering , Colombia 1999 - 2004

Foreign Languages

English, C1 Advanced

Research Areas

Information Systems, Communication and Control Engineering, Control and System Engineering, Control Systems and Instrumentation, Robotics and Mechatronics Systems, Mechatronic Systems, Route and Motion Planning, Mechanical Engineering, Machine Theory and Dynamics, Robotics, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Yildiz Technical University, Faculty Of Electrical & Electronics, Control And Automation Engineering, 2018 - Continues

Academic and Administrative Experience

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Algebraic estimator of Parkinson's tremor frequency from biased and noisy sinusoidal signals**
Yaşar C. F.
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, vol.43, no.3, pp.679-686, 2021 (SCI-Expanded)
- II. **Improved Object Detection Using a Robotic Sensing Antenna with Vibration Damping Control**
Feliu-Battle V., Feliu-Talegon D., Fernanda Castillo-Berrio C.
SENSORS, vol.17, no.4, 2017 (SCI-Expanded)
- III. **A study on the tip tracking control of a single flexible beam**
Castillo-Berrio C. F., ENGİN Ş. N., Feliu-Battle V.
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, vol.38, no.5, pp.602-617, 2016 (SCI-Expanded)
- IV. **Motion Control of a Sensing Antenna with a Nonlinear Input Shaping Technique**
Feliu-Talegon D., Feliu-Battle V., Castillo-Berrio C. F.
REVISTA IBEROAMERICANA DE AUTOMATICA E INFORMATICA INDUSTRIAL, vol.13, no.2, pp.162-173, 2016 (SCI-Expanded)
- V. **Vibration-free position control for a two degrees of freedom flexible-beam sensor**
Castillo-Berrio C. F., Feliu-Battle V.
MECHATRONICS, vol.27, pp.1-12, 2015 (SCI-Expanded)
- VI. **Design, dynamic modelling and experimental validation of a 2DOF flexible antenna sensor**
Castillo C. F., ENGİN Ş. N., Battle V. F.
INTERNATIONAL JOURNAL OF SYSTEMS SCIENCE, vol.45, no.4, pp.714-727, 2014 (SCI-Expanded)

Articles Published in Other Journals

- I. **Bulk MgxB₂ superconductor production by excess Mg and hot press methods and their properties**
Yaşar C. F.
Bor Dergisi, vol.2, no.1, pp.43-48, 2017 (Peer-Reviewed Journal)
- II. **Experimental validation of a 2 degrees of freedom whisker sensor dynamic model**

Refereed Congress / Symposium Publications in Proceedings

- I. **Dağıtılmış Model Öngörülü Kontrol ile Savaş Uçağı Sürü Koordinasyonu Otopilot, Yörünge Planlaması ve Engelden Kaçınma / Fighter Aircraft Swarm Coordination by Autopilot, Trajectory Planning and Obstacle Avoidance via Distributed Model Predictive Control**
Yaşar C. F.
LIFT_UP_2020_2021_bildiri_kitap, Ankara, Turkey, 01 July 2021, pp.738-742
- II. **A Motion Control Strategy With Disturbance Observation For A Climbing Robot.**
Yaşar C. F.
TOK 2019, Muğla, Turkey, 11 September 2019, pp.284-289
- III. **Studies on a Robotic Device that Minimizes End-Point Vibrations for Parkinson Tremor**
Ayana E., Yaşar C. F., Engin Ş. N.
3rd World Conference on Technology, Innovation and Entrepreneurship, WOCTINE 2019, İstanbul, Turkey, 21 - 23 June 2019, vol.158, pp.338-345
- IV. **Autonomous Climbing Robot for Tank Inspection**
Acar Ö., Yaşar C. F.
3rd World Conference on Technology, Innovation and Entrepreneurship, WOCTINE 2019, İstanbul, Turkey, 21 - 23 June 2019, vol.158, pp.376-381
- V. **Active touch studies of a flexible-beam antenna sensor with controlled movements**
Yaşar C. F., Battle V. F.
6th International Conference on Control Engineering and Information Technology, CEIT 2018, İstanbul, Turkey, 25 - 27 October 2018
- VI. **Şiddetli Yer Hareketi Yükleri Altında Viskoz Amortisör Sönümleyici ile Yapısal Sistemler Yanıt Kontrolü**
YAŞAR C. F.
TOK konferans, 2017, İstanbul, Turkey, 21 September 2017, pp.137-141
- VII. **Bir FBF-6 Robot Sisteminin Tasarımı, Simulasyonu ve Hareket.**
YAŞAR C. F.
TOK 2017 : Otomatik kontrol ulusal toplantısı, İstanbul, Turkey, 21 September 2017, pp.331-335
- VIII. **İki Serbestlik Dereceli Esnek Robot için Temas Belirlemesi**
YAŞAR C. F.
TOK 2017 : Otomatik kontrol ulusal toplantısı, İstanbul, Turkey, 21 September 2017, pp.51-58
- IX. **İki Serbestlik Dereceli Bir Esnek çubugun Titresim Bastırma Kontrolü Deneysel Testleri**
YAŞAR C. F.
TOK konferans, 2015, Denizli, Turkey, 11 September 2015, pp.310-316
- X. **Bir Esnek Çubugun Uç İzleme Kontrolü. Tip Tracking Control of a flexible beam**
YAŞAR C. F.
TOK konferans, 2014., Kocaeli, Turkey, 11 September 2014, pp.904-909
- XI. **A Nonlinear Input Shaping Technique for Motion Control of a Sensing Antenna**
Yaşar C. F.
World Congress The International Federation of Automatic Control, Cape-Town, South Africa, 24 August 2014, pp.4733-4738
- XII. **Inverse dynamics feed forward based control of two degrees of freedom whisker sensor**
Castillo-Berrio C. F., Castillo-Garcia F. J., Feliu Batlle V.
2011 IEEE International Conference on Mechatronics, ICM 2011, İstanbul, Turkey, 13 - 15 April 2011, pp.684-689
- XIII. **Experimental validation of a 2 degrees of freedom whisker sensor dynamic model**
Yaşar C. F.

World Congress The International Federation of Automatic Control, Milan, Italy, 28 August - 02 September 2011, pp.3148-3152

XIV. FEEDBACK LINEARIZATION BASED CONTROL FOR TRAJECTORY TRACKING OF A 2 DEGREE OF FREEDOM WHISKER. AUG 31-SEP 03, 2010

Yaşar C. F., Feliu-Badle V.

13th International Conference on Climbing and Walking Robots and the Support Technologies for Mobile Machines, Nagoya, Japan, 31 August - 03 September 2010, pp.324-331

Supported Projects

Yaşar C. F., Uçun L., TUBITAK Project, Dış Etkiler Altındaki Tırmanma Robotlarının Tasarımı, Modellenmesi, Kontrolü Ve Metal Yüzeyli Duvarlarda Dikey Konumlandırılması, 2021 - 2024

YAŞAR C. F., Other Supported Projects, Design and Control of Highly Flexible Robot Constructed of light weight composite material, 2010 - 2012

YAŞAR C. F., Other Supported Projects, Monitoring and Control of Vibrations in Flexible Mobile Structures. Extension to Impact Situations, 2007 - 2009

YAŞAR C. F., Other Supported Projects, MMI Robot System Development, 2007 - 2007

Scientific Research / Working Group Memberships

Instrumentation and Control, Universidad de Castilla-La Mancha, İspanya, <http://inei.uclm.es/proyectos.php?gid=13>, 2018 - Continues

Metrics

Publication: 22

Citation (WoS): 44

Citation (Scopus): 82

H-Index (WoS): 5

H-Index (Scopus): 7

Invited Talks

Turkey Academic Forum 2021 , Workshop, Mathworks , Turkey, October 2021

5th International Conference on Automation, Control, Engineering and Computer Science, Conference, Laboratory of Advanced systems- Polytechnic School of Tunisia, Tunisia, December 2018

Awards

Yaşar C. F., Outstanding student award, Castilla-La Mancha University Spain, June 2018

Yaşar C. F., Award for the Best Doctoral Thesis on Robotics (Spain 2016), Award "Spanish Committee Of Automatics" Cea And Robotnik, September 2017