

## **Prof. MUAMMER KALYON**

### **Personal Information**

**Email:** mkalyon@ticaret.edu.tr  
**Other Email:** muammerkalyon@gmail.com  
**Web:** <https://avesis.ticaret.edu.tr/mkalyon>

### **International Researcher IDs**

ScholarID: UaavxvEAAAAJ  
ORCID: 0000-0002-8168-2773  
Publons / Web Of Science ResearcherID: AHB-3811-2022  
ScopusID: 56631350000  
Yoksis Researcher ID: 133058

### **Education Information**

Doctorate, The University of Michigan, United States Of America 1989 - 1993  
Undergraduate, İstanbul Technical University, Uçak Ve Uzay Bilimleri Fakültesi, Uçak Mühendisliği Bölümü, Turkey 1981 - 1985

### **Dissertations**

Doctorate, Continuous Proximate Time Optimal Control Of Servomechanisms, The University of Michigan, 1993

### **Academic Titles / Tasks**

Professor, İstanbul Commerce University, Mühendislik Ve Tasarım Fakültesi, Mekatronik Mühendisliği Bölümü, 2012 - Continues  
Professor, Gebze Yüksek Teknoloji Enstitüsü, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2005 - 2012  
Associate Professor, İstanbul Technical University, Uçak Ve Uzay Bilimleri Fakültesi, Uçak Mühendisliği Bölümü, 1995 - 1999  
Assistant Professor, İstanbul Technical University, Uçak Ve Uzay Bilimleri Fakültesi, Uçak Mühendisliği Bölümü, 1993 - 1995

### **Academic and Administrative Experience**

Istanbul Commerce University, 2014 - 2016  
Istanbul Commerce University, 2012 - 2014  
Gebze Yüksek Teknoloji Enstitüsü, 2010 - 2012  
Gebze Yüksek Teknoloji Enstitüsü, 2005 - 2012  
Istanbul Technical University, 1997 - 1999

### **Courses**

Modeling And Simulation, Undergraduate, 2021 - 2022, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015  
Engineering Mathematics II, Undergraduate, 2021 - 2022, 2014 - 2015, 2013 - 2014  
Control Theory II, Undergraduate, 2021 - 2022  
Control Theory I, Undergraduate, 2021 - 2022  
Control System Design, Undergraduate, 2021 - 2022, 2017 - 2018, 2016 - 2017  
Engineering Mathematics I, Undergraduate, 2021 - 2022, 2015 - 2016, 2014 - 2015, 2013 - 2014  
Introduction to Mechatronics Engineering, Undergraduate, 2021 - 2022, 2018 - 2019  
Design Project, Undergraduate, 2018 - 2019, 2017 - 2018  
Advanced Engineering Mathematics, Postgraduate, 2018 - 2019  
Advanced Mathematics, Postgraduate, 2017 - 2018, 2015 - 2016  
Graduation Project, Undergraduate, 2017 - 2018  
Dynamics, Undergraduate, 2017 - 2018, 2016 - 2017, 2014 - 2015, 2013 - 2014  
Non-Linear Control, Postgraduate, 2017 - 2018, 2016 - 2017  
Machine Dynamics And Vibrations, Undergraduate, 2017 - 2018  
Linear Systems, Postgraduate, 2017 - 2018  
Doktora Tezi, Postgraduate, 2016 - 2017, 2015 - 2016  
Mühendislik Matematiği 2, Undergraduate, 2015 - 2016  
Linear Systems, Doctorate, 2015 - 2016  
CONTROL THEORY, Undergraduate, 2015 - 2016  
Mühendislik Matematiği II, Undergraduate, 2014 - 2015  
SİSTEM BENZETİMİ, Undergraduate, 2013 - 2014, 2012 - 2013  
İLERİ MATEMATİK, Doctorate, 2013 - 2014  
SİSTEM DİNAMİĞİ, Undergraduate, 2013 - 2014, 2012 - 2013  
İLERİ MATEMATİK, Postgraduate, 2013 - 2014  
SİSTEM ANALİZİ VE TASARIMI, Undergraduate, 2012 - 2013  
SİSTEM BENZETİMİ, Undergraduate, 2011 - 2012, 2010 - 2011  
SİSTEM ANALİZİ VE TASARIMI, Undergraduate, 2011 - 2012, 2010 - 2011  
SİSTEM DİNAMİĞİ, Undergraduate, 2011 - 2012  
SİSTEM ANALİZİ VE SİMÜLASYON, Undergraduate, 2010 - 2011

## Advising Theses

MUAMMER K., System identification and estimation of dominant parameters of aircraft linear dynamical model via recursive least square method, Postgraduate, M.ŞAHİN(Student), 2021  
MUAMMER K., Altitude-hold flight controller design of supersonic aircraft for longitudinal motion, Postgraduate, A.HULUSİ(Student), 2021  
MUAMMER K., Nonlinear control of power coefficient in wind turbines, Postgraduate, A.KHAMA(Student), 2019  
MUAMMER K., Bir rüzgar turbininin modellenmesi,simülasyonu ve kontrolü, Postgraduate, İ.İRFAKAN(Student), 2006  
MUAMMER K., Elektrikle tahrik edilen tek serbestlik dereceli dinamik bir sistemin kontrol sistem tasarımı ve simülasyonu, Postgraduate, H.ŞAHİN(Student), 1999  
MUAMMER K., Bilgisayar destekli tasarım ve veri tabanı yönetim sistemi entegrasyonu ile bilgi sistemlerinin oluşturulması, analizi ve işletilmesi, Postgraduate, M.MERT(Student), 1998  
MUAMMER K., İki kişilik hafif askeri eğitim uçağı flap dizaynı, Postgraduate, M.KORKMAZ(Student), 1996

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. Stability analysis of rotating blade vibration due to torsional excitation  
Al-Nassar Y., KALYON M., Pakdemirli M., Al-Bedoor B.

- JVC/Journal of Vibration and Control, vol.13, no.9-10, pp.1379-1391, 2007 (SCI-Expanded)
- II. Analytical solution for multilayer assembly including heating and cooling cycles with laser pulse parameter variation**  
Yilbas B., KALYON M.  
Optics and Lasers in Engineering, vol.44, no.11, pp.1219-1234, 2006 (SCI-Expanded)
- III. An approach for analytical solution pertinent to lattice temperature variation due to laser short-pulse heating**  
KALYON M., Yilbas B.  
Heat and Mass Transfer/Waerme- und Stoffuebertragung, vol.42, no.12, pp.1111-1117, 2006 (SCI-Expanded)
- IV. Repetitive laser pulse heating analysis: Pulse parameter variation effects on closed form solution**  
KALYON M., Yilbas B.  
Applied Surface Science, vol.252, no.6, pp.2242-2250, 2006 (SCI-Expanded)
- V. Maintaining uniform surface temperature along pipes by insulation**  
Şahin A. Z., KALYON M.  
Energy, vol.30, no.5, pp.637-647, 2005 (SCI-Expanded)
- VI. Formulation of laser pulse heating: A closed form solution including heating and cooling cycles with pulse parameter variation**  
Yilbas B., KALYON M.  
Lasers in Engineering, vol.14, no.3-4, pp.213-228, 2004 (SCI-Expanded)
- VII. Laser induced thermal stresses in solids: Exponentially time decaying pulse case**  
Yilbas B., Al-Aqeeli N., KALYON M.  
Lasers in Engineering, vol.14, no.1, pp.81-101, 2004 (SCI-Expanded)
- VIII. The critical radius of insulation in thermal radiation environment**  
Şahin A. Z., KALYON M.  
Heat and Mass Transfer/Waerme- und Stoffuebertragung, vol.40, no.5, pp.377-382, 2004 (SCI-Expanded)
- IX. Thermoeconomic optimization of vapor-compression refrigeration systems**  
Al-Otaibi D., Dincer I., KALYON M.  
International Communications in Heat and Mass Transfer, vol.31, no.1, pp.95-107, 2004 (SCI-Expanded)
- X. Parametric variation of the maximum surface temperature during laser heating with convective boundary conditions**  
Yilbas B., KALYON M.  
Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, vol.216, no.6, pp.691-699, 2002 (SCI-Expanded)
- XI. Application of optimal control theory in pipe insulation**  
KALYON M., Şahin A. Z.  
Numerical Heat Transfer; Part A: Applications, vol.41, no.4, pp.391-402, 2002 (SCI-Expanded)
- XII. Parametric variation analysis on time corresponding to initiation and ending of evaporation during laser heating**  
Yilbas B., KALYON M., Shuja S.  
International Communications in Heat and Mass Transfer, vol.29, no.2, pp.243-254, 2002 (SCI-Expanded)
- XIII. Closed form solution for exponentially decaying laser pulse heating: Evaporation at the surface**  
KALYON M., Yilbas B.  
Japanese Journal of Applied Physics, Part 1: Regular Papers and Short Notes and Review Papers, vol.41, no.6 A, pp.3737-3746, 2002 (SCI-Expanded)
- XIV. Formulation of surface temperature for laser evaporative pulse heating: The time exponentially decaying pulse case**  
Yilbas B., KALYON M.  
Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, vol.216, no.3, pp.289-299, 2002 (SCI-Expanded)
- XV. Analytical solution for thermal stresses during the laser pulse heating process**  
KALYON M., Yilbas B.

- Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, vol.215, no.12, pp.1429-1445, 2001 (SCI-Expanded)
- XVI. **Analytical solution for laser evaporative heating process: Time exponentially decaying pulse case**  
KALYON M., Yilbas B.  
Journal of Physics D: Applied Physics, vol.34, no.22, pp.3303-3311, 2001 (SCI-Expanded)
- XVII. **Laser shortpulse heating: Determination of lagging time due to difference pulse parameters**  
Yilbas B., Hyder S., KALYON M.  
International Communications in Heat and Mass Transfer, vol.28, no.6, pp.815-822, 2001 (SCI-Expanded)
- XVIII. **Continuous proximate time-optimal control of an aerodynamically unstable rocket**  
KALYON M.  
Journal of Guidance, Control, and Dynamics, vol.20, no.5, pp.1049-1052, 1997 (SCI-Expanded)

### Articles Published in Other Journals

- I. **ESTIMATING DOMINANT PARAMETERS OF AIRCRAFT LINEAR DYNAMICAL MODEL VIA LEAST SQUARE METHOD**  
ŞAHİN M., KALYON M.  
İstanbul Ticaret Üniversitesi Fen Bilimleri Dergisi, vol.20, no.39, pp.35-56, 2021 (Peer-Reviewed Journal)
- II. **ALTITUDE-HOLD FLIGHT CONTROL SYSTEM DESIGN FOR LONGITUDINAL MOTION**  
ÖZ A. H., KALYON M.  
İstanbul Ticaret Üniversitesi Fen Bilimleri Dergisi, vol.20, no.39, pp.19-34, 2021 (Peer-Reviewed Journal)
- III. **NONLINEAR CONTROL OF POWER COEFFICIENTS IN WIND TURBINES**  
KALYON M., Khama BADJIE A.  
İstanbul Ticaret Üniversitesi Teknoloji ve Uygulamalı Bilimler Dergisi, vol.1, no.2, pp.1-15, 2019 (Peer-Reviewed Journal)

### Refereed Congress / Symposium Publications in Proceedings

- I. **Design of relay and variable structure observers for multi-input multi-output systems with time-lag**  
Jafarov E. M., KALYON M.  
Proceedings of the 1997 IEEE International Symposium on Intelligent Control, İstanbul, Turkey, 16 - 18 July 1997, pp.355-360