

## Prof. YAVUZ SAMİM ÜNLÜSOY

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Publons / Web Of Science ResearcherID: I-6036-2019

ScopusID: 6506406610

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### Advising Theses

- ÜNLÜSOY Y. S., Modeling and application of artificial muscle actuators, Doctorate, F.Buğra(Student), 2019
- ÜNLÜSOY Y. S., Optimization of ride comfort for vehicles equipped with passive and active hydro-pneumatic suspensions, Doctorate, F.SAĞLAM(Student), 2016
- ÜNLÜSOY Y. S., Steering dynamics of tracked vehicles, Postgraduate, M.NURİ(Student), 2016
- ÜNLÜSOY Y. S., Design and analysis of helical coil spring forms for independent suspensions of automobiles, Postgraduate, G.YAZAR(Student), 2015
- ÜNLÜSOY Y. S., Modeling, simulation, and active control of tractor-semitrailer combinations, Postgraduate, S.ALAMDARİ(Student), 2015
- ÜNLÜSOY Y. S., Modeling and active steering control of articulated vehicles with multi-axle semi-trailers, Postgraduate, M.UĞUR(Student), 2015
- ÜNLÜSOY Y. S., Modeling and optimization of hybrid electric vehicles, Postgraduate, B.Şamil(Student), 2013
- ÜNLÜSOY Y. S., Identification of low order vehicle handling models from multibody vehicle dynamics models, Postgraduate, F.SAĞLAM(Student), 2010
- ÜNLÜSOY Y. S., Modeling and simulation of high speed railway vehicle dynamics, Postgraduate, T.YÜKSEL(Student), 2010
- ÜNLÜSOY Y. S., Impact of damper failure on vehicle handling during critical driving situations, Postgraduate, M.Durukan(Student), 2009
- ÜNLÜSOY Y. S., Development of a control strategy for road vehicles with semi-active suspensions using a full vehicle ride model, Postgraduate, Z.ERDOĞAN(Student), 2009
- ÜNLÜSOY Y. S., MATHEMATICAL MODELING AND SIMULATION OF TRACKED VEHICLE DYNAMICS, Doctorate, K.ÇALIŞKAN(Student), 2009
- ÜNLÜSOY Y. S., OPTIMIZATION OF SUSPENSION PARAMETERS TO IMPROVE IMPACT HARSHNESS OF ROAD VEHICLES, Postgraduate, M.AYDIN(Student), 2009
- ÜNLÜSOY Y. S., Identification of handling models for road vehicles, Doctorate, K.Bilge(Student), 2008
- ÜNLÜSOY Y. S., Design and simulation of an integrated active yaw control system for road vehicles, Postgraduate, G.TEKİN(Student), 2008
- ÜNLÜSOY Y. S., Design and simulation of a traction control system for an integrated active safety system for road vehicles, Postgraduate, G.Oktay(Student), 2008
- ÜNLÜSOY Y. S., Identification of inertia tensor of vehicles, Postgraduate, E.KUTLUAY(Student), 2007
- ÜNLÜSOY Y. S., Design and simulation of an ABS for an integrated active safety system for road vehicles, Postgraduate, M.Şahin(Student), 2007
- ÜNLÜSOY Y. S., Modeling of the dynamics of multi-axle steered vehicles, Postgraduate, K.Bayar(Student), 2006
- ÜNLÜSOY Y. S., Mechanical fatigue and life estimation analysis of printed circuit board components, Postgraduate, C.Genç(Student), 2006

ÜNLÜSOY Y. S., Analysis of high frequency behavior of plate and beam structures by statistical energy analysis method, Doctorate, C.Yilmazel(Student), 2004  
ÜNLÜSOY Y. S., Experimental determination of transfer functions for a car body-in-white, Postgraduate, S.Şentürk(Student), 2004  
ÜNLÜSOY Y. S., Finite element analysis of cornering characteristics of rotating tires, Doctorate, M.AKİF(Student), 2003  
ÜNLÜSOY Y. S., Fuzzy logic control of four-wheel steering system, Postgraduate, E.Özatay(Student), 2003  
ÜNLÜSOY Y. S., Dynamic simulation and performance optimization of a car with continuously variable transmission, Postgraduate, S.Güvey(Student), 2003  
ÜNLÜSOY Y. S., Computer simulation of dynamic behavior of pneumatic tires, Doctorate, E.TÖNÜK(Student), 1998  
ÜNLÜSOY Y. S., ÇALIŞKAN M., An integrated FEM/BEM approach to the prediction of interior noise levels of vehicle body structures, Doctorate, Ş.Kopuz(Student), 1995

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

- I. **Steering optimization for multi-axle vehicles with multi-axle steering**  
Yazıcı C. B., KUTLUAY E., ÜNLÜSOY Y. S.  
Journal of Mechanical Science and Technology, vol.35, no.8, pp.3303-3311, 2021 (SCI-Expanded)
- II. **A new contact & slip model for tracked vehicle transient dynamics on hard ground**  
Ozdemir M. N., Kilic V., ÜNLÜSOY Y. S.  
JOURNAL OF TERRAMECHANICS, vol.73, pp.3-23, 2017 (SCI-Expanded)
- III. **Adaptive ride comfort and attitude control of vehicles equipped with active hydro-pneumatic suspension**  
Saglam F., ÜNLÜSOY Y. S.  
INTERNATIONAL JOURNAL OF VEHICLE DESIGN, vol.71, pp.31-51, 2016 (SCI-Expanded)
- IV. **Optimization of suspension parameters to improve impact harshness of road vehicles**  
Aydin M., ÜNLÜSOY Y. S.  
INTERNATIONAL JOURNAL OF ADVANCED MANUFACTURING TECHNOLOGY, vol.60, pp.743-754, 2012 (SCI-Expanded)
- V. **Design and simulation of an integrated active yaw control system for road vehicles**  
Tekin G., ÜNLÜSOY Y. S.  
INTERNATIONAL JOURNAL OF VEHICLE DESIGN, vol.52, pp.5-19, 2010 (SCI-Expanded)
- VI. **Design and simulation of an ABS for an integrated active safety system for road vehicles**  
Sahin M., ÜNLÜSOY Y. S.  
INTERNATIONAL JOURNAL OF VEHICLE DESIGN, vol.52, pp.64-81, 2010 (SCI-Expanded)
- VII. **Optimization of Speed Control Hump Profiles**  
BAŞLAMIŞLI S. Ç., ÜNLÜSOY Y. S.  
JOURNAL OF TRANSPORTATION ENGINEERING, vol.135, no.5, pp.260-269, 2009 (SCI-Expanded)
- VIII. **A fuzzy logic controlled Anti-lock Braking System (ABS) for improved braking performance and directional stability**  
YAZICIOĞLU Y., ÜNLÜSOY Y. S.  
INTERNATIONAL JOURNAL OF VEHICLE DESIGN, vol.48, pp.299-315, 2008 (SCI-Expanded)
- IX. **Identification of linear handling models for road vehicles**  
ARIKAN K. B., ÜNLÜSOY Y. S., Korkmaz I., Celebi A. O.  
VEHICLE SYSTEM DYNAMICS, vol.46, no.7, pp.621-645, 2008 (SCI-Expanded)
- X. **Steering strategies for multi-axle vehicles**  
Bayar K., ÜNLÜSOY Y. S.  
INTERNATIONAL JOURNAL OF HEAVY VEHICLE SYSTEMS, vol.15, pp.208-236, 2008 (SCI-Expanded)
- XI. **Prediction of automobile tire cornering force characteristics by finite element modeling and analysis**  
Tonuk E., Unlusoy Y. S.  
COMPUTERS & STRUCTURES, vol.79, no.13, pp.1219-1232, 2001 (SCI-Expanded)

- XII. **Integrated FEM/BEM approach to the dynamic and acoustic analysis of plate structures**  
Kopuz S., Unlusoy Y., Caliskan M.  
ENGINEERING ANALYSIS WITH BOUNDARY ELEMENTS, vol.17, no.4, pp.269-277, 1996 (SCI-Expanded)
- XIII. **NONLINEAR DYNAMIC-MODEL AND ITS SOLUTION FOR A HIGH-SPEED CAM MECHANISM WITH COULOMB-FRICTION**  
UNLUSOY Y., TUMER S.  
JOURNAL OF SOUND AND VIBRATION, vol.169, no.3, pp.395-407, 1994 (SCI-Expanded)
- XIV. **ANALYTICAL DYNAMIC-RESPONSE OF ELASTIC CAM-FOLLOWER SYSTEMS WITH DISTRIBUTED-PARAMETER RETURN SPRING**  
UNLUSOY Y., TUMER S.  
JOURNAL OF MECHANICAL DESIGN, vol.115, no.3, pp.612-620, 1993 (SCI-Expanded)
- XV. **NONDIMENSIONAL ANALYSIS OF JUMP PHENOMENON IN FORCE-CLOSED CAM MECHANISMS**  
TUMER S., UNLUSOY Y.  
MECHANISM AND MACHINE THEORY, vol.26, no.4, pp.421-432, 1991 (SCI-Expanded)

### Articles Published in Other Journals

- I. **State Dependent Riccati Equation Control of an Active Hydro Pneumatic Suspension System**  
SAĞLAM F., ÜNLÜSOY Y. S.  
Journal of Automation and Control Research, vol.1, pp.1-10, 2014 (Peer-Reviewed Journal)
- II. **Product Based Material Testing for Hyperelastic Suspension Jounce Bumper Design with FEA**  
ÇALIŞKAN K., KONUKSEVEN E. İ., ÜNLÜSOY Y. S.  
KEY ENGINEERING MATERIALS, vol.450, pp.119-123, 2011 (Scopus)

### Refereed Congress / Symposium Publications in Proceedings

- I. **Development of a Blade Lifting Control Assist System for a Motor Grader**  
Öztürk E. C. Ö., Akpınarlı U., Varol İ., ÜNLÜSOY Y. S., SCHMİDT K. V.  
40th International Symposium on Automation and Robotics in Construction, ISARC 2023, Chennai, India, 5 - 07 July 2023, pp.156-163
- II. **Birbirine Bağlı Hidro Pnömatik Süspansiyon Sistemlerinin Araç Performansına Etkisi**  
SAĞLAM F., ÜNLÜSOY Y. S.  
UMTS 2015 / TrISToMM Uluslararası Katılımlı 17. Makina Teorisi Sempozyumu, İzmir, Turkey, 14 - 17 June 2015
- III. **Analysis and Design of Passive and Active Interconnected Hydro Pneumatic Suspension Systems in Roll Plane**  
SAĞLAM F., ÜNLÜSOY Y. S.  
ICENS 2015 International Conference on Engineering and Natural Sciences, 15 - 19 May 2015
- IV. **Modeling and Simulation of High Speed Railway Vehicle Dynamics**  
TUĞÇE Y., ÜNLÜSOY Y. S.  
International Congress on Advanced Railway Engineering, 2 - 04 March 2015
- V. **Product Based Material Testing for Hyperelastic Suspension Jounce Bumper Design with FEA**  
Caliskan K., KONUKSEVEN E. İ., ÜNLÜSOY Y. S.  
3rd International Conference on Advanced Design and Manufacture, Nottingham, United Kingdom, 8 - 10 September 2010, vol.450, pp.119-120
- VI. **BOUNDARY-ELEMENT METHOD IN THE DEVELOPMENT OF VEHICLE BODY STRUCTURES FOR BETTER INTERIOR ACOUSTICS**  
KOPUZ S., UNLUSOY Y., CALISKAN M.  
8th International Conference on Boundary Element Technology (BETECH 93), VILAMOURA, Portugal, 9 - 11 November 1993, pp.57-66

## **Metrics**

Publication: 26

Citation (WoS): 190

Citation (Scopus): 239

H-Index (WoS): 9

H-Index (Scopus): 9

## **Non Academic Experience**

Orta Dođu Teknik Őniversitesi

King Saud Őniversitesi

Orta Dođu Teknik Őniversitesi

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