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Education Information

Doctorate, Loughborough University, Mühendislik Fakültesi, Makina Ve İmalat Mühendisliği, United Kingdom 2003 - 2008

Postgraduate, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Makina Mühendisliği, Turkey 1996 - 2000

Undergraduate, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Makina Mühendisliği, Turkey 1992 - 1996

Foreign Languages

English, C1 Advanced

Research Areas

Mechanical Engineering, Machine Theory and Dynamics, Modeling and Simulation of Dynamic Systems, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Hacettepe University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2009 - Continues

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

- I. **Car seat design to improve rear-impact protection**
HİMMETOĞLU S., Acar M., Bouazza-Marouf K., Taylor A. J.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART D-JOURNAL OF AUTOMOBILE ENGINEERING, vol.225, pp.441-459, 2011 (Journal Indexed in SCI)
- II. **A multi-body human model for rear-impact simulation**
HİMMETOĞLU S., Acar M., Bouazza-Marouf K., Taylor A.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART D-JOURNAL OF AUTOMOBILE ENGINEERING, vol.223, pp.623-638, 2009 (Journal Indexed in SCI)
- III. **Energy-Absorbing Car Seat Designs for Reducing Whiplash**
HİMMETOĞLU S., Acar M., Bouazza-Marouf K., Taylor A. J.
TRAFFIC INJURY PREVENTION, vol.9, no.6, pp.583-591, 2008 (Journal Indexed in SCI)
- IV. **A multi-body head-and-neck model for simulation of rear impact in cars**
HİMMETOĞLU S., Acar M., Taylor A. J., Bouazza-Marouf K.

Refereed Congress / Symposium Publications in Proceedings

- I. **Validation of a simple multi-body head-and-neck model for efficient rear impact simulations**
HİMMETOĞLU S., Balci T., Aydogan M.
24th International Scientific Conference on Transport Means 2020, Kaunas, Lithuania, 30 September - 02 October 2020, pp.273-277
- II. **Neck protection in autonomous car crashes**
Yavuz S., HİMMETOĞLU S.
24th International Scientific Conference on Transport Means 2020, Kaunas, Lithuania, 30 September - 02 October 2020, pp.147-152
- III. **Vehicle structure related design criteria and restraint performance for vans in full-width frontal impacts**
HİMMETOĞLU S., Yildirim U., Ozturk T.
24th International Scientific Conference on Transport Means 2020, Kaunas, Lithuania, 30 September - 02 October 2020, pp.16-21
- IV. **Safety issues in fully autonomous cars: A Turkish perspective**
Himmetoğlu S., Kılıç L. O.
23rd International Scientific Conference on Transport Means 2019, Palanga, Lithuania, 2 - 04 October 2019, pp.131-134
- V. **Design criteria for the safety of passenger cars in frontal impacts**
Himmetoğlu S., Ünal H., Sak Y. G.
23rd International Scientific Conference on Transport Means 2019, Palanga, Lithuania, 2 - 04 October 2019, pp.1496-1503
- VI. **Derivation of stiffnesses for comparison of vehicle performance in frontal impacts**
HİMMETOĞLU S.
18th International Conference on Machine Design and Production - UMTIK 2018, Eskişehir, Turkey, 3 - 06 July 2018, pp.61-79
- VII. **Derivation of crush force versus deformation behaviour of vehicles at different impact speeds**
HİMMETOĞLU S., YILMAZ K. B., YILDIRIM B., TEKİN a.
22nd International Scientific on Conference Transport Means 2018, Trakai, Lithuania, 3 - 05 October 2018, pp.49-56
- VIII. **The effects of load cell wall design in the assessment of shape compatibility in vehicle collisions**
HİMMETOĞLU S.
22nd International Scientific on Conference Transport Means 2018, Trakai, Lithuania, 3 - 05 October 2018, pp.84-91
- IX. **Taşıt çarpışmalarında Poisson hipotezinin yarı-analitik yöntemle doğrulanması**
HİMMETOĞLU S.
18. Ulusal Makina Teorisi Sempozyumu (UMTS 2017), Trabzon, Turkey, 5 - 07 July 2017
- X. **Passive-seat design to reduce whiplash in rear impacts**
HİMMETOĞLU S.
3rd International Conference on Engineering and Natural Science (ICENS 2017), Budapest, Hungary, 3 - 07 May 2017
- XI. **An adaptive car-seat to mitigate whiplash in rear impacts**
HİMMETOĞLU S.
21st International Scientific on Conference Transport Means 2017, Juodkrante, Lithuania, 20 - 22 September 2017, pp.32-38
- XII. **An analysis of load incompatibility in central in-line collisions of vehicles using lumped-mass**

modelling

HİMMETOĞLU S.

17th International Conference on Machine Design and Production (UMTIK 2016), Bursa, Turkey, 12 - 15 July 2016

- XIII. **An evaluation of passive head-restraints with different stiffness and energy dissipation properties for whiplash mitigation**
HİMMETOĞLU S.
7th International Expert Symposium on Accident Research (ESAR 2016), Hannover, Germany, 9 - 10 June 2016
- XIV. **Rear impact whiplash test design by using a Maxwell-element based energy-absorber**
HİMMETOĞLU S.
2nd International Conference on Engineering and Natural Science (ICENS 2016), Sarajevo, Bosnia And Herzegovina, 24 - 28 May 2016
- XV. **Crash-adaptive seat-and-head-restraint systems for rear-impact whiplash mitigation**
Himmetoğlu S., Acar M.
International Crashworthiness Conference (ICRASH 2010), Washington, United States Of America, 22 - 24 September 2010
- XVI. **The influence of crash pulse shape on seat-occupant response in rear impacts**
HİMMETOĞLU S.
4th International Expert Symposium on Accident Research (ESAR), Hannover, Germany, 16 - 18 September 2010
- XVII. **Design and manufacturing of a whiplash-mitigating car-seat demonstrator**
HİMMETOĞLU S., Acar M.
14th International Conference on Machine Design and Production (UMTIK 2010, Güzelyurt, Cyprus (Kkct), 29 June - 02 July 2010
- XVIII. **WHIPLASH PROTECTION BY ENERGY ABSORBING CAR-SEAT CONCEPTS**
HİMMETOĞLU S., Acar M., Bouazza-Marouf K., Taylor A. J.
10th ASME Biennial Conference on Engineering Systems Design and Analysis, İstanbul, Turkey, 12 - 24 July 2010, pp.311-320
- XIX. **Reactive seat design for optimum whiplash mitigation at different crash severities**
Himmetoğlu S., Acar M., Bouazza Marouf K., Taylor A. J.
International IRCOBI Conference 2009, York, England, 9 - 11 September 2009
- XX. **Car seat design methodology for rear impact protection**
HİMMETOĞLU S., Acar M., Bouazza Marouf K., Taylor A. J.
13th International Conference on Machine Design and Production (UMTIK 2008), İstanbul, Turkey, 3 - 05 September 2008
- XXI. **Investigation of different strategies for car seat design to reduce whiplash injuries**
HİMMETOĞLU S., Acar M., Taylor A. J. , Bouazza Marouf K.
International Conference on Neck injuries in road traffic and prevention strategies, Munich, Germany, 5 - 06 November 2007
- XXII. **A multi-body head and neck model for low speed rear impact analysis**
HİMMETOĞLU S., Acar M., Taylor A. J. , Bouazza Marouf K.
IFTToMM 12th World Congress in Mechanism and Machine Science, Besançon, France, 17 - 21 June 2007
- XXIII. **Rear impact human body and car seat models for whiplash injury mitigation**
HİMMETOĞLU S., Acar M., Taylor A. J. , Bouazza Marouf K.
3rd Annual Injury Biomechanics Symposium - The Ohio State University, Columbus, United States Of America, 21 - 22 May 2007
- XXIV. **Removing force indeterminacy in a Hooke joint mechanism by increasing and modifying its joints without causing singularities**
HİMMETOĞLU S., Özgören M. K.
IFTToMM 11th World Congress in Mechanism and Machine Science, Tianjin, China, 1 - 04 April 2004
- XXV. **Force analysis of the Hooke joint**
HİMMETOĞLU S., Özgören M. K.
6th Biennial ASME Conference on Engineering Systems Design and Analysis (ESDA 2002), İstanbul, Turkey, 8 - 11

July 2002

XXVI. Force analysis in manipulators having planar modules

HİMMETOĞLU S., Özgören M. K.

9th International Conference on Machine Design and Production (UMTIK 2000, Ankara, Turkey, 13 - 15 September 2000

Supported Projects

HİMMETOĞLU S., Project Supported by Higher Education Institutions, Boyun travmasını azaltmak için çeşitli sertlik ve enerji kaybı özelliklerine sahip pasif koltuk-başlıklarının değerlendirilmesi, 2016 - 2016

Citations

Total Citations (WOS):39

h-index (WOS):4

Invited Talks

Recent Developments in Vehicle Restraint System Design in the Era of Autonomous Driving, Conference, Diğer Kurumlar, Lithuania, September 2020