

Dr. Öğr. Üyesi SELÇUK HİMMETOĞLU

Kişisel Bilgiler

İş Telefonu: [+90 312 297 6208](tel:+903122976208) Dahili: 126

Fax Telefonu: [+90 312 297 6206](tel:+903122976206)

Diğer E-posta: s.himmetoglu@hacettepe.edu.tr

Web: <http://www.me.hacettepe.edu.tr/faculty.html>

Posta Adresi: Hacettepe Üniversitesi Makina Mühendisliği Bölümü Beytepe 06800, Ankara

Uluslararası Araştırmacı ID'leri

ORCID: 0000-0002-8635-703X

Publons / Web Of Science ResearcherID: N-9273-2018

Yoksis Araştırmacı ID: 182844

Eğitim Bilgileri

Doktora, Loughborough University, Mühendislik Fakültesi, Makina Ve İmalat Mühendisliği, Birleşik Krallık 2003 - 2008

Yüksek Lisans, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Makina Mühendisliği, Türkiye 1996 - 2000

Lisans, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Makina Mühendisliği, Türkiye 1992 - 1996

Yabancı Diller

İngilizce, C1 İleri

Araştırma Alanları

Makina Mühendisliği, Makina Teorisi ve Dinamiği, Dinamik Sistemlerin Modellenmesi ve Benzetimi, Mühendislik ve Teknoloji

Akademik Unvanlar / Görevler

Dr. Öğr. Üyesi, Hacettepe Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2009 - Devam Ediyor

Yönetilen Tezler

Himmetoğlu S., Seat Design for Neck Protection in Autonomous Car Crashes, Bütünleşik Doktora, S.Yavuz(Öğrenci), 2024

Himmetoğlu S., Occupant Protection by Seats at High Speed Impacts, Yüksek Lisans, B.Toprak(Öğrenci), 2024

Himmetoğlu S., Dynamic characterisation of human neck for impact applications, Yüksek Lisans, B.EMRE(Öğrenci), 2023

Himmetoğlu S., A DUMMY HEAD AND NECK MODEL FOR BOTH FRONTAL AND REAR IMPACTS, Yüksek Lisans, Y.DEMİRER(Öğrenci), 2022

Himmetoğlu S., AN INVESTIGATION OF COMPATIBILITY FOR THE PASSENGER CAR FLEET IN HEAD-ON FRONTAL COLLISIONS, Yüksek Lisans, G.ŞAHİN(Öğrenci), 2022

Himmetoğlu S., ADAPTIVE CAR SEAT CONTROL FOR WHIPLASH MITIGATION, Doktora, A.GÜNEŞ(Öğrenci), 2022

Himmetoğlu S., Development of a metric system to evaluate the performance of passenger cars in frontal crash tests,

Yüksek Lisans, E.KAMIŞLI(Öğrenci), 2021

Himmetoğlu S., Smart car seat design for safety and comfort, Yüksek Lisans, C.KARABEYOĞLU(Öğrenci), 2019

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. **Semiactive Car-Seat System for Rear-End Collisions**
Kaya A. G., Himmetoğlu S.
Machines, cilt.12, sa.8, ss.1-29, 2024 (SCI-Expanded)
- II. **Development of a Restraint System for Rear-Facing Car Seats**
Yavuz S., Himmetoğlu S.
Machines, cilt.11, sa.12, ss.1-30, 2023 (SCI-Expanded)
- III. **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, cilt.225, ss.441-459, 2011 (SCI-Expanded)
- IV. **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, cilt.223, ss.623-638, 2009 (SCI-Expanded)
- V. **Energy-Absorbing Car Seat Designs for Reducing Whiplash**
HİMMETOĞLU S., Acar M., Bouazza-Marouf K., Taylor A. J.
TRAFFIC INJURY PREVENTION, cilt.9, sa.6, ss.583-591, 2008 (SCI-Expanded)
- VI. **A multi-body head-and-neck model for simulation of rear impact in cars**
HİMMETOĞLU S., Acar M., Taylor A. J., Bouazza-Marouf K.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART D-JOURNAL OF AUTOMOBILE ENGINEERING, cilt.221, ss.527-541, 2007 (SCI-Expanded)

Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. **Correlation of Upper Neck Loading with Crash Pulse Characteristics in Rear Impacts**
Himmetoğlu S., Acik O. N.
Transport Means, Kaunas, Litvanya, 2 - 04 Ekim 2024, ss.270-275
- II. **Extraction of Loading and Unloading Stiffnesses in 100% Overlap Frontal Crashes**
Himmetoğlu S., Sakarya A. Y.
Transport Means, Kaunas, Litvanya, 2 - 04 Ekim 2024, ss.41-46
- III. **A crash-energy distribution technique for seats to improve neck protection in rear-end impacts**
Himmetoğlu S.
CONAT 2024 International Congress of Automotive and Transport Engineering, Brasov, Romanya, 6 - 08 Kasım 2024, ss.178-188
- IV. **İki serbestlik dereceli küresel paralel bir manipülatörün ters kinematik analizi**
Himmetoğlu S.
21. Ulusal Makina Teorisi Sempozyumu (UMTS 2023), Edirne, Türkiye, 13 - 15 Eylül 2023, ss.225-231
- V. **The Effect of Seatback Angle on Whiplash Risk in Rear-end Collisions**
HİMMETOĞLU S.
27th International Scientific Conference on Transport Means 2023, Hybrid, Palanga, Litvanya, 4 - 06 Ekim 2023, cilt.1, ss.266-270
- VI. **Introduction of a Car Seat with Robust Performance against Whiplash in Rear Impacts**
HİMMETOĞLU S.
27th International Scientific Conference on Transport Means 2023, Hybrid, Palanga, Litvanya, 4 - 06 Ekim 2023,

cilt.1, ss.110-115

- VII. **Estimation of Occupant Compartment Intrusion in Full-Width Rigid Barrier Impacts**
HİMMETOĞLU S.
27th International Scientific Conference on Transport Means 2023, Hybrid, Palanga, Litvanya, 4 - 06 Ekim 2023,
cilt.1, ss.13-18
- VIII. **An Evaluation of Front and Rear Seat Safety: Improvements and Critical Points**
HİMMETOĞLU S.
27th International Scientific Conference on Transport Means 2023, Hybrid, Palanga, Litvanya, 4 - 06 Ekim 2023,
cilt.1, ss.62-67
- IX. **A Survey Study of Autonomous Vehicle Moral Dilemma: A Turkish Perspective**
HİMMETOĞLU S., ZENGİN E., Orkmez F., Tekeli A.
27th International Scientific Conference on Transport Means 2023, Hybrid, Palanga, Litvanya, 4 - 06 Ekim 2023,
cilt.1, ss.214-219
- X. **Development of a mathematical tool to measure crash severity in frontal impacts**
Himmetoğlu S., Dugan G.
26th International Scientific Conference Transport Means 2022, Kaunas, Litvanya, 5 - 07 Ekim 2022, ss.254-259
- XI. **Introduction of a protection system for rear-facing seats in autonomous car crashes**
Himmetoğlu S.
26th International Scientific Conference Transport Means 2022, Kaunas, Litvanya, 5 - 07 Ekim 2022, ss.104-109
- XII. **Acceptance of autonomous vehicles in Turkey**
Himmetoğlu S., Zengin E. N., Özkök O., Kara B. S.
26th International Scientific Conference Transport Means 2022, 05 Ekim 2022, ss.134-139
- XIII. **Integration of muscle tone into a multi-body head-and-neck model for crash applications**
Himmetoğlu S.
26th International Scientific Conference Transport Means 2022, Kaunas, Litvanya, 5 - 07 Ekim 2022, ss.27-32
- XIV. **Occupant protection in seats with fixed recliners in rear-end collisions**
Himmetoğlu S.
19th International Conference on Machine Design and Production (UMTIK 2022), Nevşehir, Türkiye, 31 Ağustos -
03 Eylül 2022, ss.97-109
- XV. **A dynamic characterisation of full-overlap low-speed rear impacts**
Himmetoğlu S., Beyhan C., Zengin E. N.
19th International Conference on Machine Design and Production (UMTIK 2022), Nevşehir, Türkiye, 31 Ağustos -
03 Eylül 2022, ss.41-52
- XVI. **Female Modelling and Protection in Road-Traffic Accidents**
Himmetoğlu S., Şen F., Özer F. T.
26th International Scientific Conference Transport Means 2022, Kaunas, Virtual, Litvanya, 5 - 07 Ekim 2022,
cilt.2022-October, ss.308-313
- XVII. **An Analysis of Head-on Frontal Collisions by Modelling Crash Tests**
HİMMETOĞLU S.
25th International Scientific Conference Transport Means 2021, Kaunas, Virtual, Litvanya, 6 - 08 Ekim 2021,
cilt.2021-October, ss.86-91
- XVIII. **Validation of a Multi-Body Human Model for Efficient Rear Impact Simulations**
HİMMETOĞLU S.
25th International Scientific Conference Transport Means 2021, Kaunas, Virtual, Litvanya, 6 - 08 Ekim 2021,
cilt.2021-October, ss.35-40
- XIX. **Validation of a simple multi-body head-and-neck model for efficient rear impact simulations**
HİMMETOĞLU S., Balci T., Aydoğan M.
24th International Scientific Conference on Transport Means 2020, Kaunas, Litvanya, 30 Eylül - 02 Ekim 2020,
ss.273-277
- XX. **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, Litvanya, 30 Eylül - 02 Ekim 2020, ss.16-21

- XXI. **Neck protection in autonomous car crashes**
Yavuz S., HİMMETOĞLU S.
24th International Scientific Conference on Transport Means 2020, Kaunas, Litvanya, 30 Eylül - 02 Ekim 2020, ss.147-152
- XXII. **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, Litvanya, 2 - 04 Ekim 2019, ss.1496-1503
- XXIII. **Safety issues in fully autonomous cars: A Turkish perspective**
Himmetoğlu S., Kılıç L. O.
23rd International Scientific Conference on Transport Means 2019, Palanga, Litvanya, 2 - 04 Ekim 2019, ss.131-134
- XXIV. **Derivation of stiffnesses for comparison of vehicle performance in frontal impacts**
HİMMETOĞLU S.
18th International Conference on Machine Design and Production - UMTIK 2018, Eskişehir, Türkiye, 3 - 06 Temmuz 2018, ss.61-79
- XXV. **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, Litvanya, 3 - 05 Ekim 2018, ss.49-56
- XXVI. **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, Litvanya, 3 - 05 Ekim 2018, ss.84-91
- XXVII. **Verification of Poisson hypothesis in vehicle crashes using a semi-analytical method (Taşıt çarpışmalarında Poisson hipotezinin yarı-analitik yöntemle doğrulanması)**
Himmetoğlu S.
18. Ulusal Makina Teorisi Sempozyumu (UMTS 2017), Trabzon, Türkiye, 5 - 07 Temmuz 2017
- XXVIII. **Passive-seat design to reduce whiplash in rear impacts**
HİMMETOĞLU S.
3rd International Conference on Engineering and Natural Science (ICENS 2017), Budapest, Macaristan, 3 - 07 Mayıs 2017
- XXIX. **An adaptive car-seat to mitigate whiplash in rear impacts**
HİMMETOĞLU S.
21st International Scientific on Conference Transport Means 2017, Juodkrante, Litvanya, 20 - 22 Eylül 2017, ss.32-38
- XXX. **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, Türkiye, 12 - 15 Temmuz 2016
- XXXI. **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, Almanya, 9 - 10 Haziran 2016
- XXXII. **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, Bosna-Hersek, 24 - 28 Mayıs 2016
- XXXIII. **Crash-adaptive seat-and-head-restraint systems for rear-impact whiplash mitigation**

Himmetođlu S., Acar M.

International Crashworthiness Conference (ICRASH 2010), Washington, Amerika Birleşik Devletleri, 22 - 24 Eylül 2010

XXXIV. The influence of crash pulse shape on seat-occupant response in rear impacts

HİMMETOĐLU S.

4th International Expert Symposium on Accident Research (ESAR), Hannover, Almanya, 16 - 18 Eylül 2010

XXXV. Design and manufacturing of a whiplash-mitigating car-seat demonstrator

HİMMETOĐLU S., Acar M.

14th International Conference on Machine Design and Production (UMTIK 2010, Güzelyurt, Kıbrıs (Kktc), 29 Haziran - 02 Temmuz 2010

XXXVI. WHIPLASH PROTECTION BY ENERGY ABSORBING CAR-SEAT CONCEPTS

HİMMETOĐLU S., Acar M., Bouazza-Marouf K., Taylor A. J.

10th ASME Biennial Conference on Engineering Systems Design and Analysis, İstanbul, Türkiye, 12 - 24 Temmuz 2010, ss.311-320

XXXVII. Reactive seat design for optimum whiplash mitigation at different crash severities

Himmetođlu S., Acar M., Bouazza Marouf K., Taylor A. J.

International IRCOBI Conference 2009, York, Birleşik Krallık, 9 - 11 Eylül 2009

XXXVIII. Car seat design methodology for rear impact protection

HİMMETOĐLU S., Acar M., Bouazza Marouf K., Taylor A. J.

13th International Conference on Machine Design and Production (UMTIK 2008), İstanbul, Türkiye, 3 - 05 Eylül 2008

XXXIX. Investigation of different strategies for car seat design to reduce whiplash injuries

HİMMETOĐLU S., Acar M., Taylor A. J., Bouazza Marouf K.

International Conference on Neck injuries in road traffic and prevention strategies, Munich, Almanya, 5 - 06 Kasım 2007

XL. A multi-body head and neck model for low speed rear impact analysis

HİMMETOĐLU S., Acar M., Taylor A. J., Bouazza Marouf K.

IFTOMM 12th World Congress in Mechanism and Machine Science, Besançon, Fransa, 17 - 21 Haziran 2007

XLI. Rear impact human body and car seat models for whiplash injury mitigation

HİMMETOĐLU S., Acar M., Taylor A. J., Bouazza Marouf K.

3rd Annual Injury Biomechanics Symposium - The Ohio State University, Columbus, Amerika Birleşik Devletleri, 21 - 22 Mayıs 2007

XLII. Removing force indeterminacy in a Hooke joint mechanism by increasing and modifying its joints without causing singularities

HİMMETOĐLU S., Özgören M. K.

IFTOMM 11th World Congress in Mechanism and Machine Science, Tianjin, Çin, 1 - 04 Nisan 2004

XLIII. Force analysis of the Hooke joint

HİMMETOĐLU S., Özgören M. K.

6th Biennial ASME Conference on Engineering Systems Design and Analysis (ESDA 2002), İstanbul, Türkiye, 8 - 11 Temmuz 2002

XLIV. Force analysis in manipulators having planar modules

HİMMETOĐLU S., Özgören M. K.

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

Desteklenen Projeler

HİMMETOĐLU S., Yükseköğretim Kurumları Destekli Proje, Boyun travmasını azaltmak için çeşitli sertlik ve enerji kaybı özelliklerine sahip pasif koltuk-başlıklarının değerlendirilmesi, 2016 - 2016

Öğrenci Projeleri

- Diğer, Design, manufacturing and control of a 3-DOF Agile Eye (spherical parallel manipulator), Hacettepe Üniversitesi, Mühendislik Fakültesi, Makina Mühendisliği Bölümü, Türkiye, 2023 - 2024
- Diğer, Design, manufacturing and control of a 3RRR planar parallel robot, Hacettepe Üniversitesi, Mühendislik Fakültesi, Makina Mühendisliği Bölümü, Türkiye, 2023 - 2024
- Diğer, Design, manufacturing and control of the Tripteron robot, Hacettepe Üniversitesi, Mühendislik Fakültesi, Makina Mühendisliği Bölümü, Türkiye, 2023 - 2024
- Ar-Ge Projesi, Design and manufacturing of a foam impact test machine, Hacettepe Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Türkiye, 2022 - 2024
- Diğer, Design, manufacturing and control of a five bar planar parallel robot, Hacettepe Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Türkiye, 2023 - 2023
- Diğer, Design, manufacturing and control of a 3UPS-1S spatial parallel manipulator, Hacettepe Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Türkiye, 2022 - 2023
- Ar-Ge Projesi, Design, manufacturing and control of a pro-active head-restraint system for rear seats, Hacettepe Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Türkiye, 2022 - 2023
- Ar-Ge Projesi, Design, manufacturing and control of a Delta robot, Hacettepe Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Türkiye, 2022 - 2023
- Ar-Ge Projesi, Design, manufacturing and control of a two degree-of-freedom robotic eye, Hacettepe Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Türkiye, 2022 - 2023
- Diğer, Design, manufacturing and control of a Puma type robot, Hacettepe Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Türkiye, 2022 - 2023
- Diğer, Design and application of a rear-impact avoidance sensor system for cars, Hacettepe Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Türkiye, 2022 - 2022
- Ar-Ge Projesi, Design and manufacturing of an integrated child seat, Hacettepe Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Türkiye, 2022 - 2022
- Diğer, Design, manufacturing and control of a Scara robot, Hacettepe Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Türkiye, 2021 - 2022
- Altyapı Projesi, Design and manufacturing of a five degree-of-freedom portable CMM (coordinate measuring machine), Hacettepe Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Türkiye, 2021 - 2022
- Diğer, Design, manufacturing and control of a rotatable seat for autonomous vehicles, Hacettepe Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Türkiye, 2020 - 2021

Metrikler

- Yayın: 50
Atf (WoS): 38
Atf (Scopus): 92
H-İndeks (WoS): 4
H-İndeks (Scopus): 4

Davetli Konuşmalar

- Recent Developments in Vehicle Restraint System Design in the Era of Autonomous Driving, Konferans, Diğer Kurumlar, Litvanya, Eylül 2020