

Assoc. Prof. ERGİN TÖNÜK

Personal Information

Office Phone: [+90 312 210 5293](tel:+903122105293)

Fax Phone: [+90 312 210 2536](tel:+903122102536)

Email: tonuk@metu.edu.tr

Web: <http://tonuk.me.metu.edu.tr>

Address: Orta Doğu Teknik Üniversitesi Makina Mühendisliği Bölümü B-319 Üniversiteler Mahallesi, Dumlupınar Bulvarı 06800 Ankara

International Researcher IDs

ScholarID: [BMDjRKsAAAAJ&hl=tr&oi=ao](https://scholar.google.com/citations?hl=tr&oi=ao)

ORCID: [0000-0003-2805-7087](https://orcid.org/0000-0003-2805-7087)

Publons / Web Of Science ResearcherID: [A-8462-2008](https://publons.com/researcher/A-8462-2008)

ScopusID: [6603456518](https://scopus.com/authid/detail.uri?https://orcid.org/0000-0003-2805-7087)

Yoksis Researcher ID: [56981](https://yoksis.metu.edu.tr/yoksis/56981)

Education Information

Doctorate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Turkey 1992 - 1998

Postgraduate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Makine Mühendisliği (YI) (Tezli), Turkey 1990 - 1992

Undergraduate, Middle East Technical University, Faculty of Engineering, Department of Mechanical Engineering, Turkey 1986 - 1990

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Otomobil Lastiklerinin Dinamik Davranışlarının Bilgisayarda Modellenmesi, Middle East Technical University, Graduate School of Natural and Applied Sciences, Makine Mühendisliği (Dr), 1998

Postgraduate, Biyel Eğrilerinin Görüntü Algılama Yöntemleri Kullanılarak Tasarlanması, Middle East Technical University, Graduate School of Natural and Applied Sciences, Graduate School of Natural and Applied Sciences, 1992

Research Areas

Biomedical Engineering, Biomechanics, Motion Analysis, Artificial Organs and Biomaterials, Mechanical Engineering, Machine Theory and Dynamics, Machine Dynamics, Mechanisms, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Middle East Technical University, Graduate School of Natural and Applied Sciences, Biomedical

Engineering, 2016 - Continues

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Mechanical Engineering, 2016 - Continues

Assistant Professor, Middle East Technical University, Graduate School of Natural and Applied Sciences, Biomedical Engineering, 2006 - 2016

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Mechanical Engineering, 2001 - 2016

Lecturer PhD, Middle East Technical University, Faculty of Engineering, Department of Mechanical Engineering, 2000 - 2001

Research Assistant, Middle East Technical University, Faculty of Engineering, Department of Mechanical Engineering, 1990 - 1998

Academic and Administrative Experience

Uygulama ve Araştırma Merkezi Yönetim Kurulu Üyesi, Middle East Technical University, 2011 - Continues

Head of Department, Middle East Technical University, Graduate School of Natural and Applied Sciences, Biyomedikal Mühendisliği (YL) (Tezli), 2017 - 2019

Courses

Kinematic Synthesis of Mechanisms, Undergraduate, 2021 - 2022

Theory of Machines I, Undergraduate, 2020 - 2021

Reserach Methods and Ethics in Engineering, Postgraduate, 2019 - 2020, 2018 - 2019

Kinematic Analysis of Mechanisms, Postgraduate, 2020 - 2021

DYNAMICS, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018

EXPERIMENTAL STRESS ANALYSIS I, Postgraduate, 2018 - 2019

INTRODUCTION TO CONTINUUM MECHANICS, Postgraduate, 2018 - 2019

INTRODUCTION TO BIOMEDICAL ENGINEERING, Postgraduate, 2017 - 2018

Advising Theses

Tönük E., Gait analysis using inertial measurement units as sensors, Postgraduate, S.KİRDİŞ(Student), 2022

Tönük E., BIOMECHANICAL MODELLING OF THE INTERPHALANGEAL JOINTS OF THE HUMAN HAND, Postgraduate, K.MELİH(Student), 2021

Tönük E., Design of a computerized dynamic posturography machine, Postgraduate, A.UFUK(Student), 2019

Tönük E., Yavuzer M. G., Generalization of mediolateral and anteroposterior postural control responses for different stance positions in quiet stance, Postgraduate, E.SÜMBÜL(Student), 2019

Tönük E., Implementation of fractional order viscoelastic models to finite element method, Postgraduate, P.HESAMMOKRI(Student), 2019

Tönük E., Tümer S. T., On the implementation of opensim: Applications of marker-based and inertial measurement unit based systems, Postgraduate, M.BİÇER(Student), 2019

Tönük E., Söylemez E., Comparison of constructional aspects of different railway point machines, Postgraduate, O.OVALI(Student), 2019

TÖNÜK E., Design and Mechanical Analysis of a New Bone Fixator Suitable for both Internal and External Applications, Postgraduate, Ç.YENİGÜN(Student), 2016

TÖNÜK E., Mechanical design and analysis of a novel fixation device for human bone fractures, Postgraduate, Ç.YENİGÜN(Student), 2016

TÖNÜK E., Mechanical Design of Modular Orthopaedic Implant, Postgraduate, O.Mert(Student), 2015

TÖNÜK E., Material Identification of Soft Tissues by Indenter Experiments and Inverse Finite Element Modelling of Viscoelastic Behavior by Fractional Calculus Including in-plane Anisotropy, Postgraduate, P.ASHRAFI(Student), 2015

TÖNÜK E., In-vivo testing of biological bulk soft tissues by a non-axisymmetric tip indenter using displacement and force control, Postgraduate, P.ASHRAFI(Student), 2015

TÖNÜK E., Design of a modular orthopedic implant, Postgraduate, O.MERT(Student), 2015

TÖNÜK E., In-vivo Verification of Different Hip Joint Center Estimation Methods in Gait Analysis for Healthy and Pathologic Subjects, Postgraduate, A.YOUSEFI(Student), 2014

TÖNÜK E., In vivo verification of different hip joint center estimation methods in gait analysis for healthy subjects, Postgraduate, A.YOUSEFI(Student), 2014

TÖNÜK E., Evolutionary Structural Optimization of Multiple Load Case Generic Aircraft Components, Postgraduate, M.Atacan(Student), 2012

TÖNÜK E., Formulation and Implementation of a Fractional Order Viscoelastic Material Model into Finite Element Software and Material Model Parameter Identification Using In-Vivo Indenter Experiments for Soft Biological Tissues, Postgraduate, N.DEMİRCİ(Student), 2012

TÖNÜK E., Design and Mechanical Analysis of a New Dental Implant that would Mimic Natural Tooth with a Periodontal Ligament, Postgraduate, Ö.PEKTAŞ(Student), 2012

TÖNÜK E., EVOLUTIONARY STRUCTURAL OPTIMIZATION OF MULTIPLE LOAD CASE GENERIC AIRCRAFT COMPONENTS, Postgraduate, M.ATACAN(Student), 2012

TÖNÜK E., Electromechanical Modeling of the Heart, Postgraduate, C.BORA(Student), 2010

TÖNÜK E., SERİNAĞAOĞLU DOĞRUSÖZ Y., A cellular automaton based electromechanical model of the heart, Postgraduate, C.BORA(Student), 2010

TÖNÜK E., Identification of Soft Tissue Mechanical Material Model and Corresponding Parameters from In Vivo Experimental Data by Using Inverse Finite Element Method, Postgraduate, K.ÜSÜ(Student), 2008

TÖNÜK E., In Vivo Indenter Experiments on Soft Biological Tissues for Identification of Material Models and Corresponding Parameters, Postgraduate, A.Tolga(Student), 2008

Tönük E., Verification and Matlab implementation of the inverse dynamics model of the METU gait analysis system, Postgraduate, K.SAVAŞ(Student), 2008

TÖNÜK E., TARI Z. S., Verification and Matlab Implementation of the Inverse Dynamic Model of METU Gait Analysis System, Postgraduate, K.Savaş(Student), 2008

TÖNÜK E., Biomechanical Modeling of Human Hand, Postgraduate, O.KILIÇ(Student), 2007

TÖNÜK E., Finite Element Investigation of Mechanical Interaction of Dental Implants with Bone, Postgraduate, A.ESER(Student), 2007

TÖNÜK E., Evaluation of Sensitivity of METU Gait Analysis System, Postgraduate, P.KAFALI(Student), 2007

TÖNÜK E., Comparison of METU KISS Gait Analysis System with Ankara University Vicon Gait Analysis System, Postgraduate, E.CİVEK(Student), 2006

TÖNÜK E., Comparison of kinematic results between METU-KISS & Ankara University-VICON gait analysis systems, Postgraduate, E.Civek(Student), 2006

TÖNÜK E., Experimental Analysis of Tire Rolling Resistance, Postgraduate, U.Ahmet(Student), 2002

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Computational modelling of the proximal interphalangeal joint**
Yatağan K. M., Leblebicioglu G., Tönük E.
JOURNAL OF HAND SURGERY-EUROPEAN VOLUME, 2023 (SCI-Expanded)
- II. **Fabrication of a multi-layered decellularized amniotic membranes as tissue engineering constructs**
Yuksel S., Asik M. D., AYDIN H. M., Tonuk E., Aydin E. Y., Bozkurt M.
TISSUE & CELL, vol.74, 2022 (SCI-Expanded)
- III. **The Relationship Between Arthroplasty Surgeons' Experience Level and Optimal Cable Tensioning in the Fixation of Extended Trochanteric Osteotomy**
BAŞARIR K., KALEM M., ŞAHİN E., ÖZBEK E. A., KARACA M. O., Kucukkarapinar I., TÖNÜK E.

GERIATRIC ORTHOPAEDIC SURGERY & REHABILITATION, vol.12, 2021 (SCI-Expanded)

- IV. **Knotless anchors offer better prevention of meniscal excursion than knotted anchors: An experimental study of the bovine knee**
EREN M. B., Asci M., TÖNÜK E., BALTA O., Kurnaz R.
ACTA ORTHOPAEDICA ET TRAUMATOLOGICA TURCICA, vol.54, no.1, pp.97-103, 2020 (SCI-Expanded)
- V. **Comment on: "The finite element implementation of 3D fractional viscoelastic constitutive models" by Gioacchino Alotta, Olga Barrera, Alan Cocks, Mario Di Paola, Finite elements in analysis and design, 146 (2018) 28-41**
TÖNÜK E.
FINITE ELEMENTS IN ANALYSIS AND DESIGN, vol.152, pp.17, 2018 (SCI-Expanded)
- VI. **3D printed poly(epsilon-caprolactone) scaffolds modified with hydroxyapatite and poly(propylene fumarate) and their effects on the healing of rabbit femur defects**
Büyüksungur S., Tanir T., Büyüksungur A., Bektas E. I., Kose G. T., Yücel D., Beyzadeoglu T., Çetinkaya E., Yenigün C., Tönük E., et al.
BIOMATERIALS SCIENCE, vol.5, no.10, pp.2144-2158, 2017 (SCI-Expanded)
- VII. **Mechanical design, analysis, and laboratory testing of a dental implant with axial flexibility similar to natural tooth with periodontal ligament**
Pektas O., Tönük E.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART H-JOURNAL OF ENGINEERING IN MEDICINE, vol.228, pp.1117-1125, 2014 (SCI-Expanded)
- VIII. **Impact of fibular torsion and rotation on chronic ankle instability**
Bozkurt M., Apaydin N., TÖNÜK E., Isik C., Cay N., Kartal G., Acar H. I., Tubbs S. R.
FOOT AND ANKLE SURGERY, vol.20, no.2, pp.125-129, 2014 (SCI-Expanded)
- IX. **Non-integer viscoelastic constitutive law to model soft biological tissues to in-vivo indentation**
Demirci N., Tönük E.
ACTA OF BIOENGINEERING AND BIOMECHANICS, vol.16, pp.13-21, 2014 (SCI-Expanded)
- X. **Predicting bone remodeling around tissue- and bone-level dental implants used in reduced bone width**
Eser A., Tönük E., Akça K., Dard M. M., Cehreli M. C.
JOURNAL OF BIOMECHANICS, vol.46, pp.2250-2257, 2013 (SCI-Expanded)
- XI. **Effects of custom made insole on gait pattern of patients with unilateral displaced intra articular calcaneal fracture evaluation with computerized gait analysis**
ÖÇGÜDER A., GÖK H., HEYCAN C., O T., TÖNÜK E., BOZKURT M.
Acta Orthopaedica Et Traumatologica Turcica, vol.46, pp.1-7, 2012 (SCI-Expanded)
- XII. **Ankle clonus and its relationship with the medium-latency reflex response of the soleus by peroneal nerve stimulation**
UYSAL H., BOYRAZ I., Yagcioglu S., OKTAY F., KAFALI P., TÖNÜK E.
JOURNAL OF ELECTROMYOGRAPHY AND KINESIOLOGY, vol.21, no.3, pp.438-444, 2011 (SCI-Expanded)
- XIII. **IN VIVO INDENTER EXPERIMENTS VIA ELLIPSOID INDENTER TIPS TO DETERMINE THE PERSONAL AND LOCAL IN-PLANE ANISOTROPIC MECHANICAL BEHAVIOR OF SOFT BIOLOGICAL TISSUES**
Petekkaya A. T., TÖNÜK E.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.26, no.1, pp.63-72, 2011 (SCI-Expanded)
- XIV. **Predicting time-dependent remodeling of bone around immediately loaded dental implants with different designs**
Eser A., Tönük E., Akça K., Cehreli M. C.
MEDICAL ENGINEERING & PHYSICS, vol.32, pp.22-31, 2010 (SCI-Expanded)
- XV. **Numeric Simulation of Time-Dependent Remodeling of Bone Around Loaded Oral Implants**
Eser A., Tönük E., Akça K., Cehreli M. C.
INTERNATIONAL JOURNAL OF ORAL & MAXILLOFACIAL IMPLANTS, vol.24, pp.597-608, 2009 (SCI-Expanded)
- XVI. **Axial rotation and mediolateral translation of the fibula during passive plantarflexion**

- BOZKURT M., TÖNÜK E., Elhan A., Tekdemir I., Doral M. N.
FOOT & ANKLE INTERNATIONAL, vol.29, no.5, pp.502-507, 2008 (SCI-Expanded)
- XVII. **Numerical Study of the Aerodynamic Effects of Septoplasty and Partial Lateral Turbinectomy**
OZLUGEDIK S., NAKIBOGLU G., SERT C., Elhan A., TÖNÜK E., Akyar S., Tekdemir I.
LARYNGOSCOPE, vol.118, no.2, pp.330-334, 2008 (SCI-Expanded)
- XVIII. **Dynamic function of the fibula. Gait analysis evaluation of three different parts of the shank after fibulectomy: proximal, middle and distal**
BOZKURT M., Yavuzer G., Tonuk E., KENTEL B. B.
ARCHIVES OF ORTHOPAEDIC AND TRAUMA SURGERY, vol.125, no.10, pp.713-720, 2005 (SCI-Expanded)
- XIX. **The annular ligament - An anatomical study**
BOZKURT M., ACAR H. I., APAYDIN N., Leblebicioglu G., ELHAN A., TEKDEMİR İ., Tonuk E.
AMERICAN JOURNAL OF SPORTS MEDICINE, vol.33, no.1, pp.114-118, 2005 (SCI-Expanded)
- XX. **Functional evaluation of intraarticular severely comminuted fractures of the calcaneus with gait analysis**
BOZKURT M., Kentel B. B., Yavuzer G., Öçgüder A., Heycan C., TÖNÜK E.
Journal of Foot and Ankle Surgery, vol.43, no.6, pp.374-379, 2004 (SCI-Expanded)
- XXI. **An anatomical study of the meniscofibular ligament**
BOZKURT M., ELHAN A., Tekdemir I., Tonuk E.
KNEE SURGERY SPORTS TRAUMATOLOGY ARTHROSCOPY, vol.12, no.5, pp.429-433, 2004 (SCI-Expanded)
- XXII. **Accuracy of a manual torque application device for morse-taper implants: A technical note**
CEHRELI M. C., AKCA K., Tonuk E.
INTERNATIONAL JOURNAL OF ORAL & MAXILLOFACIAL IMPLANTS, vol.19, no.5, pp.743-748, 2004 (SCI-Expanded)
- XXIII. **Nonlinear viscoelastic material property estimation of lower extremity residual limb tissues**
Tonuk E., Silver-Thorn M.
JOURNAL OF BIOMECHANICAL ENGINEERING-TRANSACTIONS OF THE ASME, vol.126, no.2, pp.289-300, 2004 (SCI-Expanded)
- XXIV. **Nonlinear elastic material property estimation of lower extremity residual limb tissues**
Tonuk E., SILVER-THORN M.
IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING, vol.11, no.1, pp.43-53, 2003 (SCI-Expanded)
- XXV. **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)

Articles Published in Other Journals

- I. **Yürüme ve Hareket Analizi Sistemleri Teknik Ayrıntılar**
TÖNÜK E.
TOTBİD Dergisi, vol.13, pp.309-313, 2014 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Strain Measurement and Electric Resistance Strain Gauges**
Tönük E.
in: Biomechanics of Oral Implants: Handbook of Researchers, Murat Cavit Cehreli, Editor, NOVA Science Publishers Inc. , New-York, pp.39-60, 2012
- II. **Yumuşak Doku Mekanik Modelleri**
Petekkaya A. T., Üsü K., Tönük E.

in: Kas İskelet Sistemi Biyomekaniği, Akçalı İ. D., Gülşen M., Ün K., Editor, Akademisyen Kitabevi, Adana, pp.197-226, 2009

III. Yürüme Analizi: Temel Prensipler

Tönük E., Tümer S. T.

in: Kas İskelet Sistemi Biyomekaniği, Akçalı İ. D., Gülşen M., Ün K., Editor, Akademisyen yayınevi, Adana, pp.1109-1136, 2009

Refereed Congress / Symposium Publications in Proceedings

- I. **DEVELOPMENT OF A 3D PIP JOINT MODEL**
YATAĞAN K. M., TÖNÜK E., LEBLEBİCİOĞLU A. G.
EORS 2020 European Orthopaedic Reserch Society 28th Annual Meeting Congress, İzmir, Turkey, 17 - 18 September 2020, pp.386
- II. **Gait & Motion Analysis, Technology and Use in Clinics**
TÖNÜK E.
EORS 2020 European Orthopaedic Research Society 28th Annual Meeting Congress, İzmir, Turkey, 17 - 18 September 2020, pp.86
- III. **Biomechanics Research in Middle East Technical University Mechanical Engineering Department Part II**
Tönük E.
Symposina/Workshops for the Erasmus Project: Emerging Nanotechnology Approaches in Musculoskeletal Tissue Engineering and Regenerative Medicine, Ankara, Turkey, 26 - 30 November 2018
- IV. **THE EFFECT OF EULER ANGLE SEQUENCES TO THE KINEMATIC RESULTS OF GAIT ANALYSIS**
Biçer M., Tönük E.
9th International Biomechanics Congress, Eskişehir, Turkey, 19 - 22 September 2018, pp.234-238
- V. **Cable Tension for Trochanteric Fixation: Ratio Of Overtightening**
BAŞARIR K., KÜÇÜKKARAPINAR İ., KARACA M. O., ERCAN N., TÖNÜK E.
18th EFORT Congress, Vienna, 31 May - 02 June 2017
- VI. **Modüler Multiplanar Poliaksiyal Aanatmik Biyolojik Minimalistik Kişiyeye Özgü Yeni Bir Kemik Tesbit İmplantı ORTOSTAR 1**
OĞUZ E., YILDIZ C., ÖZKAN H., TÖNÜK E., pektaş ö., keskin c., erkan O. M., AKPANCAR S., bahtiyar e. e.
26. Ulusal Türk Ortopedi ve Travmatoloji Kongresi, Antalya, Turkey, 25 - 30 October 2016
- VII. **Trokanterik Osteotomi Sonrası Kablo Gerginliği Ne Kadar Sıkıyoruz Tork Kısıtlayıcı Gerekli mi**
BAŞARIR K., KARACA M. O., KÜÇÜKKARAPINAR İ., ERCAN N., TÖNÜK E.
26. Ulusal Türk Ortopedi ve Travmatoloji Kongresi, Antalya, Turkey, 25 - 30 October 2016
- VIII. **Biyomekanik Kullanım Amaçlı Denge Platformu Tasarımı**
Çuvalcı A. U., TÖNÜK E.
VIII Ulusal Biyomekanik Kongresi, Ankara, Turkey, 19 - 23 October 2016
- IX. **Dinamik Postürografi Cihazının Denge Bozukluğu Üzerindeki Etkileri**
sümbül e., demir g. u., TÖNÜK E.
VIII Ulusal Biyomekanik Kongresi, Ankara, Turkey, 19 - 23 October 2016
- X. **In vivo Verification of Different Hip Joint Center Estimation Methods in Gait Analysis for Healthy Subjects**
Yousefi A., Tönük E., Kentel B. B.
VII. Ulusal Biyomekanik Kongresi, Isparta, Turkey, 14 October 2014 - 16 November 2019, pp.175-176
- XI. **Indentation and Observation of Anisotropic Soft Tissues Using an Indenter Device**
Ashrafi P., Tönük E.
VII. Ulusal Biyomekanik Kongresi, Isparta, Turkey, 16 - 18 October 2014, pp.69-72
- XII. **A Fractional Calculus Based Viscoelastic Material Model for Soft Biological Tissues and Its Finite Element Application**

Demirci N., Tönük E.

Tenth Tissue Elasticity Conference, Texas, United States Of America, 12 - 15 October 2011, pp.97

- XIII. **Electromechanical heart tissue model using cellular automaton Hücresel otomaton yöntemi ile elektromekanik kalp doku modeli**
Bora C., Serinağaoğlu Y., TÖNÜK E.
2010 15th National Biomedical Engineering Meeting, BIYOMUT2010, Antalya, Turkey, 21 - 24 April 2010
- XIV. **Modeling of Soft Tissue Mechanical Behavior on Computer**
Tönük E.
VIth European Sports Medicine Congress, Antalya, Turkey, 25 - 29 September 2009, vol.8, no.11, pp.35
- XV. **Yumuşak Doku Bünye Denklemleri I: Sanki-Doğrusal Viskoelastik Model**
Üsü K., Tönük E.
Biyomedikal Mühendisliği Ulusal Toplantısı BIYOMUT 2008, Ankara, Turkey, 1 - 02 September 2008, pp.1
- XVI. **Yumuşak Doku Bünye Denklemleri II: Geliştirilmiş Sanki-Doğrusal Viskoelastik Model**
Üsü K., Tönük E.
Biyomedikal Mühendisliği Ulusal Toplantısı BIYOMUT 2008, Ankara, Turkey, 1 - 02 September 2008, pp.1
- XVII. **ACCURACY REQUIEIMENTS IN BSIP ESTIMATIONS FOR ANALYSIS OF NORMAL GAIT**
Erer S. K., Tönük E., Tümer S. T.
17th Annual Meeting of European Society of Movement Analysis for Adults and Children, Antalya, Turkey, 25 - 28 September 2008, vol.28, no.2, pp.81-82
- XVIII. **COMPARISON OF KINEMATIC RESULTS OF MIDDLE EAST TECHNICAL UNIVERSITY CUSTOM MADE KISS AND ANKARA UNIVERSITY COMMERCIAL VICON GAIT ANALYSIS SYSTEMS**
Civek E., Tönük E., Yavuzer M. G., Tümer S. T.
ESMAC 2008, 17th Annual Meeting of European Society of Movement Analysis for Adults and Children,, Antalya, Turkey, 25 - 28 September 2008, vol.28, no.2, pp.99-100
- XIX. **İndentör Deneyleleri ile Yumuşak Biyolojik Dokuların Anizotropik Mekanik Davranışının Yerinde Belirlenmesi**
Tönük E., Petekkaya A. T.
Biyomedikal Mühendisliği Ulusal Toplantısı BIYOMUT 2008, Ankara, Turkey, 1 - 03 September 2009, pp.1
- XX. **The Assessment of Nonlinear Viscoelastic Material Properties of Soft Tissues of Residual Limbs of Trans Tibial Amputees**
Tönük E., Yıldız C., Ateşalp A. S.
Third International Conference on the Ultrasonic Measurement and Imaging of Tissue Elasticity, Manchester, United Kingdom, 17 - 20 October 2004, pp.27
- XXI. **A Device for Assessment of Nonlinear Viscoelastic Material Properties of Soft Tissues In Vivo**
Tönük E.
Third International Conference on the Ultrasonic Measurement and Imaging of Tissue Elasticity, Leeds, United Kingdom, 17 - 20 October 2004, pp.26
- XXII. **Anatomy of the annular ligament: cadaveric study**
Apaydın N., Açar H. İ., Bozkurt M., Tönük E., Elhan A., Tekdemir İ.
First Joint Meeting of the European Association of Clinical Anatomy and the American Association of Clinical Anatomists, Graz, Austria, 26 - 27 December 2003, vol.16, pp.542-564
- XXIII. **Effect of curvature on lower extremity residual limb models**
Tonuk E., Silver-Thorn M.
Proceedings of the 1999 IEEE Engineering in Medicine and Biology 21st Annual Conference and the 1999 Fall Meeting of the Biomedical Engineering Society (1st Joint BMES / EMBS), Atlanta, GA, USA, 13 - 16 October 1999, vol.1, pp.639
- XXIV. **Device for viscoelastic assessment of the residual limb bulk soft tissue response to load**
Silver-Thorn M., Tonuk E.
Proceedings of the 1999 IEEE Engineering in Medicine and Biology 21st Annual Conference and the 1999 Fall Meeting of the Biomedical Engineering Society (1st Joint BMES / EMBS), Atlanta, GA, USA, 13 - 16 October 1999, vol.1, pp.646

- XXV. **In vivo indentation of lower extremity limb soft tissues**
Silver-Thorn M., Tonuk E., Kemp J.
Proceedings of the 1999 IEEE Engineering in Medicine and Biology 21st Annual Conference and the 1999 Fall Meeting of the Biomedical Engineering Society (1st Joint BMES / EMBS), Atlanta, GA, USA, 13 - 16 October 1999, vol.1, pp.637
- XXVI. **Nonlinear viscoelastic material property estimation for lower extremity residual limbs**
Tonuk E., Silver-Thorn M.
Proceedings of the 1999 IEEE Engineering in Medicine and Biology 21st Annual Conference and the 1999 Fall Meeting of the Biomedical Engineering Society (1st Joint BMES / EMBS), Atlanta, GA, USA, 13 - 16 October 1999, vol.1, pp.645
- XXVII. **Static Finite Element Modeling of Radial Tires**
Tönük E., Ünlüsoy Y. S.
17th Annual Meeting of the Tire Society, Michigan, United States Of America, 11 - 19 March 1999, pp.1-2
- XXVIII. **Design of Piston Driven Six-Link Mechanisms with Large Swing Angle and Optimum Transmission**
Söylemez E., Tönük E.
IFTToMM, SYROM'93 , Bucuresti, Romania, 1 - 05 June 1993, vol.1, pp.301-305

Supported Projects

TÖNÜK E., ÇUVALCI A. U., Project Supported by Higher Education Institutions, Postür Bozukluklarının İncelenebilmesi için Taşınabilir, Altı Eksenli bir Kuvvet Ölçer Yüzey Tasarım ve Üretimi, 2016 - 2016

TÖNÜK E., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

TÖNÜK E., Project Supported by Higher Education Institutions, Yumuşak Biyolojik Dokuların Mekanik Malzeme Kanununun Ve Malzeme Katsayılarının Evrik Sonlu Elemanlar Yöntemiyle Belirlenmesi İçin Mevcut İndentör Cihazının Güncellenmesi, 2010 - 2010

Patent

TÖNÜK E., Esneyebilen Üstyapiya Sahip Bir Diş İmplantı, Utility Model, CHAPTER A Human Needs, Standard Registration, 2013

Activities in Scientific Journals

Advances in Biomechanics and Applications, Committee Member, 2014 - Continues
International Journal of Vehicle Systems Modelling and Testing, Committee Member, 2005 - Continues

Scientific Refereeing

COMPOSITE INTERFACES, SCI Journal, September 2020
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART H-JOURNAL OF ENGINEERING IN MEDICINE, National Scientific Refreed Journal, September 2020
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART H-JOURNAL OF ENGINEERING IN MEDICINE, SCI Journal, August 2020
GAIT & POSTURE, SCI Journal, March 2019
INTERNATIONAL JOURNAL OF ORAL & MAXILLOFACIAL IMPLANTS, SCI Journal, February 2019
GAIT & POSTURE, SCI Journal, February 2019

Metrics

Publication: 57

Citation (WoS): 408

Citation (Scopus): 529

H-Index (WoS): 12

H-Index (Scopus): 13