Lect. Osman KOÇ

Personal Information

Office Phone: +90 212 383 29
Email: osmankoc@yildiz.edu.tr
Web: https://avesis.yildiz.edu.tr/osmankoc
Address: Yildiz Technical University Mechanical Engineering Department, Mechanical Faculty Office: A Bloc, 119-d Barbaros Boulevard, 34349, Yildiz / İstanbul

International Researcher IDs
ScholarID: 0xmDzcsAAAAJ
ORCID: 0000-0002-2682-8282
Publons / Web Of Science ResearcherID: AAZ-8998-2020
ScopusID: 57393142100
Yoksis Researcher ID: 147490

Research Areas

Biomedical Engineering, Computer Aided Design and Manufacturing, Finite Element Methods, Biomechanics, Engineering and Technology

Articles

I. **Authors' response -Queries regarding methodological and representational inconsistencies in the article titled "Optimizing mandibular second molar mesialization: A comparative analysis of stress distribution and displacement using tie-back and temporary skeletal anchorage device-assisted mechanisms with a nonlinear finite element model"**
Olmez C., Halicioglu K., Gok G. D., Koç O.
AMERICAN JOURNAL OF ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS, vol.169, no.2, pp.136-138, 2026 (SCI-Expanded, Scopus)

II. **Biomechanical effects of attachment designs in maxillary first molar mesialization with clear aligners: a finite element study**
Vatansever R., Gurel H. G., Koç O.
Progress in Orthodontics, vol.26, no.1, 2025 (SCI-Expanded, Scopus)

III. **Optimizing mandibular second molar mesialization: A comparative analysis of stress distribution and displacement using tie-back and temporary skeletal anchorage device-assisted mechanisms with a nonlinear finite element model**
Olmez C., Halicioglu K., Dumanli Gok G., KOÇ O.
American Journal of Orthodontics and Dentofacial Orthopedics, vol.168, no.4, pp.451-465, 2025 (SCI-Expanded, Scopus)

IV. **Comparison of the biomechanical effect of distal implants placed at different angles in the all-on-four technique: A nonlinear finite element analysis.**
Unuvar Y., Calis A., Koc O.
Journal of stomatology, oral and maxillofacial surgery, vol.126, no.4, 2025 (SCI-Expanded, Scopus)

V. **Effects of different expansion appliances and surgical incisions on maxillary expansion: A finite element analysis**

Ateş E. M., Pamukçu H., Koç O., Altıparmak N.
Journal of Stomatology, Oral and Maxillofacial Surgery, vol.125, no.5, 2024 (SCI-Expanded, Scopus)

VI. **Effect of different palatal expanders with miniscrews in surgically assisted rapid palatal expansion: A non-linear finite element analysis**
Koç O., Koç N., Jacob H. B.
Dental Press Journal of Orthodontics, vol.29, no.1, 2024 (Scopus)

VII. **Effects of different distractor positions on the formation of expansion, stress and displacement patterns in surgically assisted rapid maxillary expansion without pterygomaxillary disjunction: a finite element analysis study**
Koç O., Bolat Gümüş E.
Computer Methods in Biomechanics and Biomedical Engineering, vol.27, no.1, pp.56-66, 2024 (SCI-Expanded, Scopus)

VIII. **Comparison of 3 different bone-borne type expansion appliances used in surgically-assisted rapid palatal expansion: A finite element analysis**
Koç O., Pamukçu H., Kocabalkan A. A.
AMERICAN JOURNAL OF ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS, vol.1, pp.1-15, 2022 (SCI-Expanded, Scopus)

IX. **Surgically assisted rapid palatal expansion: is the pterygomaxillary disjunction necessary? A finite element study**
Koç O., Jacob H. B.
Seminars in Orthodontics, vol.28, no.3, pp.227-242, 2022 (SCI-Expanded, Scopus)

X. **Influence of fiber insertion and different material type on stress distribution in endocrown restorations: a 3D-FEA study**
Yildirim G., Demir C., Guven M. C., Koç O., Dalkılıç E.
COMPUTER METHODS IN BIOMECHANICS AND BIOMEDICAL ENGINEERING, vol.25, no.13, pp.1509-1519, 2022 (SCI-Expanded, Scopus)

XI. **Fren Balata Sisteminde Sürtünme Sonucu Oluşan Isı Transferi Ve Termal Gerilme Analizi**
Koç O., Taşgetiren S., Mutlu İ.
Teknolojik Araştırmalar Dergisi, vol.1, no.2, pp.9-20, 2009 (Peer-Reviewed Journal)

Papers Presented at Peer-Reviewed Scientific Conferences

I. **Is Closed-Bar Design a Better Option for All-on-Four Concept ?**
Pervanlı N., Polat C., Koç O.
The 48th Annual EPA Congress, Nevşehir, Turkey, 11 - 13 September 2025, pp.1-32, (Full Text)

II. **EVALUATION OF THE EFFECTS OF 2 DIFFERENT MINI-SCREW-ASSISTED MAXILLARY EXPANSION APPLIANCES IN UNILATERAL CROSSBITE CASES BY FINITE ELEMENT ANALYSIS**
Baştaş M., Koç O., Aras A.
XIX. Uluslararası Türk Ortodonti Derneği Kongresi, Antalya, Turkey, 2 - 06 November 2024, pp.383-384, (Summary Text)

III. **Comparison of Stress Distribution Around Sloped İmplant With Finite Element Analysis**
Ünüvar Y., Çalış A., Koç O.
Türk Oral ve Maksillofasiyal Cerrahi Derneği (TAOMS'23) 30. ULUSLARARASI BİLİMSEL KONGRESİ, Antalya, Turkey, 17 - 21 November 2023, pp.64, (Summary Text)

Funded Projects

KOÇ O., Endüstride Kullanılan Yüksek Güçlü Elektrik Motorlarının Arızalarını Önlemeye Yönelik Yenilikçi Bir Soğutma Sistemi Tasarımı, 2012 - 2013

KOÇ O., TUBITAK Project, Bor minareleri katkılı otomotiv fren balatası üretimi ve frenleme karakteristiğinin incelenmesi, 2007 - 2008

Peer Reviews in Scientific Publications

Sinusitis, National Scientific Refreed Journal, February 2024
ORTHODONTICS AND CRANIOFACIAL RESEARCH, National Scientific Refreed Journal, February 2024
BMC ORAL HEALTH, National Scientific Refreed Journal, February 2024
PEERJ, National Scientific Refreed Journal, February 2024
JOURNAL OF COMPUTER METHODS IN BIOMECHANICS AND BIOMEDICAL ENGINEERING: IMAGING AND VISUALIZATION, National Scientific Refreed Journal, February 2024
AMERICAN JOURNAL OF ORTHODONTICS AND DENTOFACIAL ORTHOPEDICS, National Scientific Refreed Journal, February 2024
PROGRESS IN ORTHODONTICS, National Scientific Refreed Journal, February 2024

Metrics

Publication: 14
Citation (WoS): 39
Citation (Scopus): 57
H-Index (WoS): 4
H-Index (Scopus): 5

Non Academic Experience

Trakya Üniversitesi, Öğretim görevlisi