

Assoc. Prof. Taylan Tuğrul

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: D-4372-2017

Yoksis Researcher ID: 26182

Education Information

Doctorate, Tobb University Of Economics And Technology, Institute Of Science, Biyomedikal Mühendisliği, Turkey 2017 - 2020

Postgraduate, Ege University, Faculty Of Medicine, Radyasyon Onkolojisi / Sağlık Fiziği, Turkey 2010 - 2012

Undergraduate, Gazi University, Fen Fakültesi, Fizik, Turkey 2004 - 2009

Foreign Languages

English, B2 Upper Intermediate

Research Areas

Medicine, Health Sciences, Internal Medicine Sciences, Radiation Oncology

Academic Titles / Tasks

Associate Professor, Van Yüzüncü Yil University, Tıp Fakültesi, Dahili Tıp Bilimleri Bölümü, 2023 - Continues

Courses

Radyasyon Dozimetrisi, Associate Degree, 2018 - 2019

Bilgisayarlı Tomografi ve Magnetik Rezonans Fiziği, Associate Degree, 2018 - 2019, 2017 - 2018, 2016 - 2017

Radyoterapi Tedavi Cihazları, Undergraduate, 2018 - 2019

Radyoterapide Hasta Planlaması, Undergraduate, 2018 - 2019

Radyoterapide Kalite Kontrol, Undergraduate, 2018 - 2019

RADYOTERAPİDE KALİTE KONTROL, Undergraduate, 2018 - 2019

TIPTA KULLANILAN RADYOİZOTOPLAR, Undergraduate, 2018 - 2019

Radyoterapide Dozimetri, Undergraduate, 2018 - 2019

Radyoizotopların Tıbbi Uygulama Yöntemleri, Associate Degree, 2018 - 2019, 2017 - 2018

TIBBİ RADYOFİZİK, Undergraduate, 2018 - 2019

Radyoterapi Mesleki Uygulama IV, Associate Degree, 2017 - 2018, 2016 - 2017

Radyoterapi Mesleki Uygulama III , Associate Degree, 2017 - 2018, 2016 - 2017
Radyoterapi, Associate Degree, 2017 - 2018, 2015 - 2016, 2014 - 2015
Radyoizotopların Tıbbi Uygulamaları, Associate Degree, 2016 - 2017
Klinik Onkoloji, Associate Degree, 2015 - 2016
Radyoizotopların Tıbbi Uygulamaları, Associate Degree, 2015 - 2016, 2013 - 2014
Radyoterapi, Associate Degree, 2015 - 2016
Simülasyon Tekniği II, Associate Degree, 2015 - 2016
Bilgisayarlı Tomografi Fiziği, Associate Degree, 2014 - 2015

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **INVESTIGATION OF RADIOLOGICAL PROPERTIES OF IMAGING AGENTS USED IN NUCLEAR MEDICINE WITH DIFFERENT METHODS AND GATE/GEANT4 SIMULATION PROGRAM**
Sahmaran T., Tuğrul T.
Nuclear Technology and Radiation Protection, vol.38, no.2, pp.116-124, 2023 (SCI-Expanded)
- II. **The effect of the tongue and groove of the multileaf collimator on dose distribution: examination of results of measurements and treatment planning system**
Tuğrul T.
Radiation Effects and Defects in Solids, vol.178, no.11-12, pp.1404-1412, 2023 (SCI-Expanded)
- III. **INVESTIGATION OF PHOTON DOSES REACH ING HEALTHYTISSUES IN THE USE OF DIFFERENT NEUTRON ENERGIES INBORON NEUTRON CAPTURE THERAPY**
Tuğrul T.
Nuclear Technology and Radiation Protection, vol.37, no.4, pp.334-339, 2022 (SCI-Expanded)
- IV. **Investigation of Buildup Region and Surface Dose: Comparison of Parallel Plane Ion Chamber, Treatment Planning System, and MC Simulation**
Tuğrul T.
NUCLEAR TECHNOLOGY, vol.208, no.2, pp.357-363, 2022 (SCI-Expanded)
- V. **Comparison of Monaco treatment planning system algorithms and Monte Carlo simulation for small fields in anthropomorphic RANDO phantom: The esophagus case**
Tuğrul T.
JOURNAL OF CANCER RESEARCH AND THERAPEUTICS, vol.17, no.6, pp.1370-1375, 2021 (SCI-Expanded)
- VI. **Effect of different target materials of LINAC head on photon spectrum**
Tuğrul T.
JOURNAL OF RADIATION RESEARCH AND APPLIED SCIENCES, vol.14, no.1, pp.204-209, 2021 (SCI-Expanded)
- VII. **The effects of thymoquinone on DNA damage, apoptosis and oxidative stress in an osteoblast cell line exposed to ionizing radiation**
Yılmaz O., Yuksek V., Çetin S., Dede S., Tuğrul T.
RADIATION EFFECTS AND DEFECTS IN SOLIDS, vol.176, no.5-6, pp.575-589, 2021 (SCI-Expanded)
- VIII. **Analysis of water-equivalent materials used during irradiation in the clinic with XCOM and BEAMnrc**
Tuğrul T., EROĞUL O.
JOURNAL OF RADIATION RESEARCH AND APPLIED SCIENCES, 2020 (SCI-Expanded)
- IX. **Investigation of mass attenuation coefficients, effective atomic numbers, and effective electron density for some molecules: study on chemotherapy drugs**
Tuğrul T.
JOURNAL OF RADIATION RESEARCH AND APPLIED SCIENCES, vol.13, no.1, pp.758-764, 2020 (SCI-Expanded)

Articles Published in Other Journals

- I. **Investigation of the dose profiles in the junction region between the supraclavicular and tangential**

fields

TUĞRUL T.

Experimental Biomedical Research, vol.7, no.2, pp.103-108, 2024 (Peer-Reviewed Journal)

- II. **Measuring Out-of-Field Dose to The Whole Brain In Radiotherapy**
Demir H., Gül O. V., Tuğrul T.
Eastern Journal of Medicine, vol.29, no.4, pp.419-425, 2024 (Scopus)
- III. **Investigation of Shielding Parameters of Fast Neutrons for Some Chemotherapy Drugs by Different Calculation Methods**
Şahmaran T., Tuğrul T.
International Journal of Computational and Experimental Science and Engineering (IJCESEN), vol.9, no.4, pp.388-393, 2023 (Scopus)
- IV. **Examination of Dosimetric Verification of Prowess Panther Treatment Planning System Using Monte Carlo Method For Small Fields**
Tuğrul T.
Eastern Journal of Medicine, vol.27, no.1, pp.53-56, 2022 (Scopus)
- V. **CLINICAL COMMISSIONING AND DOSIMETRIC VERIFICATION OF THE RAYSTATION TREATMENT PLANNING SYSTEM**
Tuğrul T.
EAST EUROPEAN JOURNAL OF PHYSICS, vol.2021, no.4, pp.114-119, 2021 (ESCI)
- VI. **ESTIMATION OF NEUTRONS OCCURRING IN THE LINAC ROOM AT DIFFERENT PHOTON ENERGIES**
TUĞRUL T.
Middle East Journal of Science, vol.7, no.2, pp.160-166, 2021 (Peer-Reviewed Journal)
- VII. **Examination of the dosimetric effects of the headrest used in radiotherapy by different algorithms**
TUĞRUL T.
Avrupa Bilim ve Teknoloji Dergisi, no.27, pp.837-841, 2021 (Peer-Reviewed Journal)
- VIII. **The effect of algorithms on dose distribution in inhomogeneous phantom: Monaco treatment planning system versus monte carlo simulation**
Tuğrul T.
JOURNAL OF MEDICAL PHYSICS, vol.46, no.2, pp.111-115, 2021 (ESCI)
- IX. **Comparison of conformal radiotherapy, intensity-modulated radiotherapy and tomotherapy irradiation techniques in prostate cancers**
Tuğrul T., OLACAK N., KÖYLÜ M.
JOURNAL OF RADIOTHERAPY IN PRACTICE, vol.18, no.3, pp.276-279, 2019 (ESCI)
- X. **Dosimetric comparison of 3D-conformal and IMRT radiotherapy techniques in gastric cancer**
Çakır T., YILMAZER G., Tuğrul T.
Eastern Journal of Medicine, vol.24, pp.299-302, 2019 (Scopus)
- XI. **Van kedilerinde total beyin hacminin bilgisayarlı tomografi görüntüleri kullanılarak hesaplanması**
Yılmaz O., Tuğrul T.
Eurasian Journal of Biological and Chemical Sciences, vol.2, pp.42-46, 2019 (Peer-Reviewed Journal)
- XII. **Determination of initial electron parameters by means of Monte Carlo simulations for the Siemens Artiste Linac 6 MV photon beam**
Tuğrul T., EROĞUL O.
REPORTS OF PRACTICAL ONCOLOGY AND RADIOTHERAPY, vol.24, no.4, pp.331-337, 2019 (ESCI)
- XIII. **Dosimetric comparison of 3D-conformal and IMRT radiotherapy techniques in gastric cancer**
Çakır T., Yilmazer G., Tuğrul T.
Eastern Journal of Medicine, vol.24, no.3, pp.299-302, 2019 (Scopus)
- XIV. **Absorption ratio of treatment couch and effect on surface and build-up region doses**
Tuğrul T.
REPORTS OF PRACTICAL ONCOLOGY AND RADIOTHERAPY, vol.23, no.1, pp.1-5, 2018 (ESCI)

Books & Book Chapters

I. Imaging in Radiotherapy

TUĞRUL T.

in: Frontiers in Intensity-Modulated Radiotherapy Research, Karaca Sibel, Editor, Nova Science Publishers, pp.63-77, 2022

Refereed Congress / Symposium Publications in Proceedings

I. DOSIMETRIC COMPARISON OF IMRT AND 3D CONFORMAL RADIATION THERAPY TECHNIQUE IN CRANIOSPINAL IRRADIATIONS

TUĞRUL T.

3rd INTERNATIONAL CONGRESS ON INNOVATIVE APPROACHES IN MEDICAL AND HEALTH SCIENCES, 07 October 2023

II. ANALYSIS OF MEASUREMENT RESULTS OF ION CHAMBERS OF DIFFERENT VOLUMES AT DIFFERENT FIELDS FOR 6 AND 15 MV PHOTON ENERGIES

TUĞRUL T.

INTERNATIONAL AEGEAN CONFERENCES on Natural & Medical Sciences-VIII, 23 September 2023

III. Monte Carlo Modeling of the Siemens® ARTISTE™ 160 Multi-leaf Collimator for IMRT dose verification

dayyani M., Hoseinian-Azghadi E., Rafat-Motavalli L., Miri-Hakimabad H., TUĞRUL T., Sobhkhiz-Sabet L. ESTRO 2023, Viyana, Austria, 12 May 2023, pp.1526

IV. Özofagus Kanserli Hastaların Radyoterapi Tedavi Planlarının Dozimetrik Olarak Karşılaştırılması

TUĞRUL T.

Uluslararası Sağlık Araştırmaları Kongresi, Turkey, 25 August 2021, pp.536-539

V. ANALYSIS OF WATER-EQUIVALENT MATERIALS USED DURING IRRADIATION IN THE CLINIC WITH XCOM AND BEAMNRC

TUĞRUL T., EROĞUL O.

4. ULUSLARARASI AKADEMİK ÖĞRENCİ ÇALIŞMALARI KONGRESİ, Turkey, 19 December 2020, pp.249

VI. İyonize radyasyon uygulanan NRK-52E hücre hattında vitamin c'nin apoptotik yolağa etkisi

Yılmaz O., Çetin S., Yüksek V., Dede S., Tuğrul T.

2nd International Eurasian Conference on Biological and Chemical Sciences, Ankara, Turkey, 28 - 29 June 2019, pp.1871-1875

VII. Determination of initial electron parameters by means of Monte Carlo simulations for the siemens artiste Linac 6 MV photon beam

Tuğrul T., EROĞUL O.

Seventh International Conference on Radiation in Various Fields of Research, 10 - 14 June 2019, pp.126

VIII. Absorption ratio of treatment couch and effect on surface and build-up region doses

Tuğrul T.

Seventh International Conference on Radiation in Various Fields of Research, 10 - 14 June 2019, pp.243

IX. TEDAVİ DOĞRULAMASINDA KULLANILAN GÖRÜNTÜLEME TEKNİKLERİ İÇİN ANTROPOMORFİK FANTOM DOZLARININ İNCELENMESİ

HAZERAL Y. Z., KÖYLÜ M., EREN H., HAZERAL B., KANDEMİR R., YILMAZ E., TUĞRUL T., OLACAK N., ANACAK Y. XII. ULUSAL RADYASYON ONKOLOJİSİ KONGRESİ, Turkey, 20 April 2016, pp.9

X. Farklı Cihazlarda Kolimatör Değişim Etkisinin Araştırılması

Alçinkaya İ., TUĞRUL T., Şahin A., KÖYLÜ M.

XV. Ulusal Medikal Fizik Kongresi, Trabzon, Turkey, 16 May 2015

XI. Farklı Tedavi Planlama Algoritmaları Kullanılarak Yapılan Yoğunluk Ayarlı Radyoterapi Planlarının Dozimetrik Olarak Karşılaştırılması

TUĞRUL T., KÖYLÜ M., Yalman D.

- XV. Ulusal Medikal Fizik Kongresi, Trabzon, Turkey, 16 May 2015
- XII. **Monte Carlo Simulasyonu Kullanılarak Fotonların Su ve Yapay Beden Sıvısında Etkileşim Tesir Kesitleri ve Kütle Soğurma Katsayılarının Hesaplanması.**
Çakır T., Arasoğlu A., Nart M., Tuğrul T.
XV. Ulusal Medikal Fizik Kongresi, Trabzon, Turkey, 16 - 19 May 2015, pp.1
- XIII. **Opere mide Kanserli Hastalarda Konformal Radyoterapi Tekniği ile YART Tekniğinin Dozimetrik Açıdan Karşılaştırılması.**
Yilmazer G., Tuğrul T., Çakır T., IZMIRLI M., Yavuz A., Nart M.
XI. Ulusal Radyasyon Onkolojisi Kongresi, Antalya, Turkey, 22 - 26 April 2014, vol.1, no.29, pp.335
- XIV. **Jinekolojik Kanserlerin Boost Tedavisinde Brakiterapi mi? Helikal Tomoterapi mi? 2 Olgu Değerlendirmesi**
Küçüktülü E., TUĞRUL T., Kozanlılar B., Öno1 Mirik A., Göksel F.
10. Ulusal Radyasyon Onkolojisi Kongresi, Antalya, Turkey, 19 April 2012
- XV. **Baş-Boyun Kanseri Hastalarında IMRT, Rapidarc ve Helical Tomotherapy Tedavi Planlarının Dozimetrik Karşılaştırılması**
Levent A., Yılmaz M., TUĞRUL T., Özyurt S. C., Aytaş İ., Yalçın N., Aslan N.
10. Ulusal Radyasyon Onkolojisi Kongresi, Antalya, Turkey, 19 April 2012
- XVI. **PROSTAT KANSERLERİNDE 3 BOYUTLU KONFORMAL RADYOTERAPİ, YOĞUNLUK AYARLI RADYOTERAPİ VE TOMOTERAPİ TEDAVİ TEKNİKLERİNİN DOZİMETRİK OLARAK KARŞILAŞTIRILMASI**
Tuğrul T.
10. ULUSAL RADYASYON ONKOLOJİSİ KONGRESİ, Antalya, Turkey, 19 - 23 April 2012, pp.203

Scientific Refereeing

EASTERN JOURNAL OF MEDICINE, National Scientific Refreed Journal, September 2019
VAN TIP DERGİSİ, National Scientific Refreed Journal, September 2018
VAN TIP DERGİSİ, National Scientific Refreed Journal, September 2018
EASTERN JOURNAL OF MEDICINE, National Scientific Refreed Journal, May 2018
EASTERN JOURNAL OF MEDICINE, National Scientific Refreed Journal, February 2018
VAN TIP DERGİSİ, National Scientific Refreed Journal, November 2017
VAN TIP DERGİSİ, National Scientific Refreed Journal, September 2017

Metrics

Publication: 40
Citation (WoS): 29
Citation (Scopus): 22
H-Index (WoS): 3
H-Index (Scopus): 2

Non Academic Experience

Fondazione IRCCS Istituto Nazionale dei Tumori-Fisica Medica-Milano-Italy
TRABZON NUMUNE EĞİTİM VE ARAŞTIRMA HASTANESİ