

Assoc. Prof. SÜMEYYE ÇAKAN

Personal Information

Office Phone: [+90 422 377 3638](tel:+904223773638)

Email: sumeyye.tay@inonu.edu.tr

Other Email: sumeyye.tay@gmail.com

Web: <https://avesis.inonu.edu.tr/sumeyye.tay>

International Researcher IDs

ORCID: 0000-0001-8761-8564

Yoksis Researcher ID: 45647

Education Information

Doctorate, Inonu University, Fen Bilimleri Enstitüsü, Fonksiyonlar Teorisi Ve Analiz, Turkey 2012 - 2016

Postgraduate, Inonu University, Fen Bilimleri Enstitüsü, Fonksiyonlar Teorisi Ve Analiz, Turkey 2009 - 2012

Foreign Languages

English, B2 Upper Intermediate

Certificates, Courses and Trainings

Other, Tübitak Bideb 2237-B Bilimsel Eğitim Etkinliklerini Destekleme Programı 2019/2, Sağlık, Fen ve Doğa Bilimlerinde Akademik Düzeyde Ulusal ve Uluslararası Bilimsel Araştırma Projeleri Hazırlama ve Yürütme Eğitimi Etkinliği, 07.02.2020-09.02.2020, İnönü Üniversitesi, Malatya., İnönü Üniversitesi, 2020

Dissertations

Doctorate, Normlu Quasilineer Uzaylar Teorisine İlişkin Bazı Yeni Sonuçlar, Inonu University, Fen Bilimleri Enstitüsü, Fonksiyonlar Teorisi Ve Analiz, 2016

Postgraduate, Hilbert Uzaylarında ve Hilbert C^* -Modüllerinde Bessel Dizileri, Riesz Bazları ve Frame'ler, Inonu University, Fonksiyonlar Teorisi Ve Analiz, 2012

Research Areas

Mathematics, Functional Analysis, Natural Sciences

Academic Titles / Tasks

Associate Professor, Inonu University, Fen Bilimleri Enstitüsü, Matematik, 2022 - Continues

Research Assistant PhD, Inonu University, Fen Bilimleri Enstitüsü, Matematik, 2016 - Continues

Research Assistant, Inonu University, Fen Bilimleri Enstitüsü, Fen Bilimleri Enstitüsü, 2010 - 2016

Courses

Kompleks Fonksiyonlar Teorisi II - B, Undergraduate, 2022 - 2023
Kompleks Fonksiyonlar Teorisi II - A, Undergraduate, 2022 - 2023
Bitirme Çalışması (Matematik Bölümü), Undergraduate, 2021 - 2022
Analiz IV, Undergraduate, 2021 - 2022
Kompleks Fonksiyonlar Teorisi II - B, Undergraduate, 2022-2023
Kompleks Fonksiyonlar Teorisi II - A, Undergraduate, 2022-2023
Bitirme Çalışması (Matematik Bölümü), Undergraduate, 2021-2022
Analiz IV (B), Undergraduate, 2021-2022
Matematik (Sosyal Güvenlik), Associate Degree, 2019-2020
Matematik-B (İşletme), Associate Degree, 2019-2020
İstatistik (Muhasebe ve Vergi Uygulamaları I-A(INUZEM)-MMYO), Associate Degree, 2018 - 2019
Matematik-B (İşletme), Associate Degree, 2019 - 2020
İstatistik (Muhasebe ve Vergi Uygulamaları I-A-MMYO), Associate Degree, 2018 - 2019
Bitirme Çalışması (Matematik Bölümü), Undergraduate, 2019-2020
Matematik (Makine), Associate Degree, 2019 - 2020
Mesleki Matematik (İnşaat-1B-MMYO), Associate Degree, 2018 - 2019
Reel Analiz II, Undergraduate, 2018 - 2019
İstatistik (İşletme Yönetimi I-B-MMYO), Associate Degree, 2018 - 2019
İstatistik (İşletme Yönetimi I-A-MMYO), Associate Degree, 2018 - 2019
Matematik (Sosyal Güvenlik), Associate Degree, 2019 - 2020
Matematik (İklimlendirme ve Soğutma), Associate Degree, 2019 - 2020
Mesleki Matematik (Elektronik Haberleşme I-MMYO), Associate Degree, 2018 - 2019
Matematik (İklimlendirme ve Soğutma), Associate Degree, 2019-2020
İstatistik (Muhasebe ve Vergi Uygulamaları I-B-MMYO), Associate Degree, 2018 - 2019
Matematik (Makine), Associate Degree, 2019-2020
Matematik I-A (İşletme I-MMYO), Associate Degree, 2018 - 2019
Matematik I-A (İşletme I-MMYO), Associate Degree, 2018-2019
Mesleki Matematik (Makine-1-MMYO), Associate Degree, 2017 - 2018
Reel Analiz II, Undergraduate, 2018-2019
İstatistik (Muhasebe ve Vergi Uygulamaları I-A(INUZEM)-MMYO), Associate Degree, 2018-2019
Matematik I-B (İşletme I-MMYO), Associate Degree, 2018-2019
Bitirme Çalışması (Matematik Bölümü), Undergraduate, 2018-2019
Matematik I (Makine-MMYO), Associate Degree, 2018-2019
İstatistik (İşletme Yönetimi I-A-MMYO), Associate Degree, 2018-2019
Matematik I (Elektronik Haberleşme-MMYO), Associate Degree, 2018 - 2019
Mesleki Matematik (İnşaat-1B-MMYO), Associate Degree, 2018-2019
İstatistik (Muhasebe ve Vergi Uygulamaları I-B-MMYO), Associate Degree, 2018-2019
Matematik I (Elektronik Haberleşme-MMYO), Associate Degree, 2018-2019
İstatistik (Muhasebe ve Vergi Uygulamaları I-A-MMYO), Associate Degree, 2018-2019
Mesleki Matematik (Elektronik Haberleşme I-MMYO), Associate Degree, 2018-2019
Matematik I (Makine-MMYO), Associate Degree, 2018 - 2019
İstatistik (İşletme Yönetimi I-B-MMYO), Associate Degree, 2018-2019
Matematik I-B (İşletme I-MMYO), Associate Degree, 2018 - 2019
Matematik (Bahçe Tarımı-BMYO), Associate Degree, 2017 - 2018
Matematik I (Pazarlama-KMYO), Associate Degree, 2017 - 2018
Matematik (Süs Bitkileri Yetiştiriciliği-BMYO), Associate Degree, 2017 - 2018
Matematik I (Pazarlama-KMYO), Associate Degree, 2017-2018
Matematik (Süs Bitkileri Yetiştiriciliği-BMYO), Associate Degree, 2017-2018
Mesleki Matematik (Makine-1-MMYO), Associate Degree, 2017-2018

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Mathematical analysis of local and global dynamics of a new epidemic model**
ÇAKAN S.
TURKISH JOURNAL OF MATHEMATICS, vol.46, pp.533-551, 2021 (SCI-Expanded)
- II. **Dynamic analysis of a mathematical model with health care capacity for COVID-19 pandemic**
ÇAKAN S.
CHAOS SOLITONS & FRACTALS, vol.139, 2020 (SCI-Expanded)
- III. **Riesz Lemma in Normed Quasilinear Spaces and Its an Application**
ÇAKAN S., Yilmazl Y.
PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES INDIA SECTION A-PHYSICAL SCIENCES, vol.88, no.2, pp.231-239, 2018 (SCI-Expanded)
- IV. **Normed proper quasilinear spaces**
ÇAKAN S., YILMAZ Y.
JOURNAL OF NONLINEAR SCIENCES AND APPLICATIONS, vol.8, no.5, pp.816-836, 2015 (SCI-Expanded)
- V. **Topological Quasilinear Spaces**
YILMAZ Y., ÇAKAN S., Aytakin S.
ABSTRACT AND APPLIED ANALYSIS, 2012 (SCI-Expanded)

Articles Published in Other Journals

- I. **From quasilinear structures to population dynamics: Global stability analysis of an uncertain nonlinear delay system with interval approach**
Çakan S.
Open Journal of Mathematical Science, vol.6, no.1, pp.35-50, 2022 (Peer-Reviewed Journal)
- II. **Threshold and Stability Results of a New Mathematical Model for Infectious Diseases Having Effective Preventive Vaccine**
ÇAKAN S.
Journal of Mathematical Sciences and Modelling, vol.4, no.2, pp.56-64, 2021 (Peer-Reviewed Journal)
- III. **A generalization of the Hahn-Banach theorem in seminormed quasilinear spaces**
Çakan S., Yılmaz Y.
Journal of Mathematics and Applications, vol.42, pp.79-94, 2019 (Peer-Reviewed Journal)
- IV. **On Solvability of Some Nonlinear Fractional Interval Integral Equations**
ÇAKAN S., ÇAKAN Ü.
Fractional Differential Calculus, vol.2017, no.7, pp.235-246, 2017 (Peer-Reviewed Journal)
- V. **On Orthonormal Sets in Inner Product Spaces**
Yılmaz Y., Bozkurt H., ÇAKAN S.
Creative Mathematics and Informatics, vol.2016, no.25, pp.237-247, 2016 (Peer-Reviewed Journal)
- VI. **Lower and Upper Semi Convergence in Normed Quasilinear Spaces**
ÇAKAN S., Yılmaz Y.
Nonlinear Functional Analysis and Applications, vol.2016, no.21, pp.501-511, 2016 (Scopus)
- VII. **Lower and Upper Semi Basis in Quasilinear Spaces**
ÇAKAN S., Yılmaz Y.
Erciyes University Journal of the Institute of Science and Technology, vol.2015, no.31, pp.97-104, 2015 (Peer-Reviewed Journal)
- VIII. **Localization Principle in Normed Quasilinear Spaces**
ÇAKAN S., Yılmaz Y.

Information Sciences and Computing, vol.2015, pp.1-15, 2015 (Peer-Reviewed Journal)

IX. On the Quasimodules and Normed Quasimodules

ÇAKAN S., Yilmaz Y.

Nonlinear Functional Analysis and Applications, vol.2015, no.20, pp.269-288, 2015 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

- I. **A Quasilinear Space Based Interval Dynamical System And Its Qualitative Analysis**
ÇAKAN S.
Euroasia Summit 5th International Applied Sciences Congress, Varna, Bulgaria, 15-16 January 2022., Varna, Bulgaria, 15 January 2022
- II. **Local Asymptotic Stability Analysis of a new endemic-epidemic model with varying infectious and recovery period**
ÇAKAN S.
5th International Mardin Artuklu Scientific Researches Conference, Mardin, 15-16 January 2021., Mardin, Turkey, 15 January 2021
- III. **Examination of an SVEIR Mathematical Epidemic Model and its Stability Analysis**
ÇAKAN S.
2nd International Eurasian Conference on Science, Engineering and Thechnology (EurasianSciEnTech 2020), Gaziantep University, Gaziantep, 7-9 October 2020., 07 September 2020
- IV. **A Mathematical Epidemic Model Considered of The Vaccination Factor Applied In Course Of Some Epidemic Diseases and Its Analysis**
ÇAKAN S.
3th International Battalgazi Scientific Studies Congress, Malatya, 21-23 September 2019., Malatya, Turkey, 21 September 2019
- V. **An Application of Mathematical Modelling in Epidemiology**
ÇAKAN S.
3th International Battalgazi Scientific Studies Congress, Malatya, 21-23 September 2019., 21 September 2019
- VI. **Functional interval integral equations of fractional order**
ÇAKAN S., ÇAKAN Ü.
Caucasian Mathematics Conference (CMC-II), Yüzüncü Yıl University, Van, 22-24 August 2017., 22 August 2017
- VII. **On Solvability Of Some Nonlinear Fractional Interval Integral Equations**
ÇAKAN S., ÇAKAN Ü.
International Conference on Mathematics and Mathematics Education (ICMME-2017), Harran University, Şanlıurfa, 11-13 May 2017., 11 May 2017
- VIII. **Quasilinear Spaces with its Regular Singular Dimensions and Some New Results**
ÇAKAN S., YILMAZ Y.
International Conference on Mathematics and Mathematics Education (ICMME-2016), Fırat University, Elazığ, 12-14 May 2016., 12 May 2016
- IX. **Some Characterizations on Compact Subsets of Normed Quasilinear Spaces Riesz Lemma and its an Application**
ÇAKAN S., YILMAZ Y.
International Conference on Mathematics and Mathematics Education (ICMME-2016), Fırat University, Elazığ, 12-14 May 2016., 12 May 2016
- X. **Quasimodules and Normed Quasimodules on a Quasiring**
ÇAKAN S., YILMAZ Y.
Karatekin Mathematics Days 2014, Karatekin University, Çankırı, 11-13 June 2014., 11 June 2014
- XI. **Topological Quasilinear Spaces**
Yılmaz Y., Çakan S.
Conference on Summability and Applications 2011, Istanbul Commerce University, İstanbul, 12-13 May 2011.,

İstanbul, Turkey, 12 May 2011

XII. Quasilinear Uzaylarda Baz ve Boyut Kavramı

YILMAZ Y., TEMİZSU F., ÇAKAN S.

XXIV. Ulusal Matematik Sempozyumu, Uludağ Üniversitesi, Bursa, 7-11 Eylül 2011., Bursa, Turkey, 07 September 2011

Scientific Refereeing

Journal of Mathematical Sciences and Modelling, Other Indexed Journal, August 2021

TURKISH JOURNAL OF MATHEMATICS, Journal Indexed in SCI-E, July 2021

Adıyaman University Journal of Science, Other Indexed Journal, February 2020

FILOMAT, Journal Indexed in SCI-E, February 2020

Metrics

Publication: 28

Citation (WoS): 35

Citation (Scopus): 6

H-Index (WoS): 3

H-Index (Scopus): 2

Congress and Symposium Activities

Euroasia Summit 5th International Applied Sciences Congress, Moderator, Varna, Bulgaria, 2022

S. Çakan, Local Asymptotic Stability Analysis of a new endemic-epidemic model with varying infectious and recovery period, 5th International Mardin Artuklu Scientific Researches Conference, Mardin, 15-16 January 2021., Moderator, Mardin, Turkey, 2021

S. Çakan, Examination of an SVEIR Mathematical Epidemic Model and its Stability Analysis, 2nd International Eurasian Conference on Science, Engineering and Thechnology (EurasianSciEnTech 2020), Gaziantep University, Gaziantep, 7-9 October 2020., Attendee, Gaziantep, Turkey, 2020

Tübitak Bideb 2237-Bilimsel Eğitim Etkinliklerini Destekleme Programı 2019/2, Attendee, Malatya, Turkey, 2020

S. Çakan, An Application of Mathematical Modelling in Epidemiology, III. Uluslararası Battalgazi Bilimsel Çalışmalar Kongresi, Malatya, 21-23 Eylül 2019., Attendee, Malatya, Turkey, 2019

S. Çakan, A Mathematical Epidemic Model Considered of The Vaccination Factor Applied In Course Of Some Epidemic Diseases and Its Analysis, III. Uluslararası Battalgazi Bilimsel Çalışmalar Kongresi, Malatya, 21-23 Eylül 2019., Attendee, Turkey, 2019

S. Çakan, Ü. Çakan, Functional interval integral equations of fractional order, Caucasian Mathematics Conference (CMC-II), Yüzüncü Yıl University, Van, Turkey, August 22-24, 2017., Attendee, Van, Turkey, 2017

S. Çakan, Ü. Çakan, On Solvability Of Some Nonlinear Fractional Interval Integral Equations, International Conference on Mathematics and Mathematics Education (ICMME-2017), Harran University, Şanlıurfa, 11-13 May 2017., Attendee, Şanlıurfa, Turkey, 2017

S. Çakan, Y. Yılmaz, Quasilinear Spaces with its Regular-Singular Dimensions and Some New Results, International Conference on Mathematics and Mathematics Education (ICMME-2016), Fırat University, Elazığ, 12-14 May 2016., Attendee, Elazığ, Turkey, 2016

S. Çakan, Y. Yılmaz, Quasilinear Spaces with its Regular-Singular Dimensions and Some New Results, International Conference on Mathematics and Mathematics Education (ICMME-2016), Fırat University, Elazığ, 12-14 May 2016., Attendee, Elazığ, Turkey, 2016

S. Çakan, Y. Yılmaz, Quasimodules and Normed Quasimodules on a Quasiring, Karatekin Mathematics Days 2014,

Karatekin University, Çankırı, 11-13 June 2014, Attendee, Çankırı, Turkey, 2014

Tübitak-4007 Bilim Şenliği, Session Moderator, Malatya, Turkey, 2014

Y. Yılmaz, F. Temizsu, S. Çakan, Quasilinear Uzaylarda Boyut ve Baz Kavramı, Türk Matematik Derneği, XXIV. Ulusal Matematik Sempozyumu, Uludağ Üniversitesi, Bursa, 7-10 Eylül 2011., Attendee, Bursa, Turkey, 2011

Y. Yılmaz, S. Çakan, Topological Quasilinear Spaces, Conference on Summability and Applications 2011, İstanbul Commerce University, 12-13 May 2011., Attendee, İstanbul, Turkey, 2011

Bilimsel Proje Hazırlama Çalıştayı, Working Group, Malatya, Turkey, 2010

Awards

Çakan S., Uluslararası Bilimsel Yayın Teşvik Ödülü, Tübitak, August 2022

Çakan S., Akademik Teşvik Ödülü, Yükseköğretim Kurulu Başkanlığı, February 2022

Çakan S., Uluslararası Bilimsel Yayın Teşvik Ödülü, Tübitak, February 2021

Çakan S., Akademik Teşvik Ödülü, Yükseköğretim Kurulu Başkanlığı, February 2021

Çakan S., Akademik Teşvik Ödülü, Yükseköğretim Kurulu Başkanlığı, February 2020

Çakan S., Uluslararası Bilimsel Yayın Teşvik Ödülü, Tübitak, October 2018

Çakan S., Akademik Teşvik Ödülü, Yükseköğretim Kurulu Başkanlığı, February 2017

Çakan S., Akademik Teşvik Ödülü, Yükseköğretim Kurulu Başkanlığı, February 2016

Çakan S., Akademik Teşvik Ödülü, Yükseköğretim Kurulu Başkanlığı, February 2015

Çakan S., Uluslararası Bilimsel Yayın Teşvik Ödülü, Tübitak, December 2012