

## Prof. Fevzi Erdoğan

### Personal Information

**Office Phone:** [+90 432 444 5065](tel:+904324445065) Extension: 27807

**Email:** ferdogan@yyu.edu.tr

**Web:** <https://avesis.yyu.edu.tr/ferdogan>

**Address:** Yuzuncu Yil Üniversitesi Fen Fakültesi

### Education Information

Doctorate, Van Yüzüncü Yil University, Fen Bilimleri Enstitüsü, Matematik, Turkey 1995 - 1999

Postgraduate, Van Yüzüncü Yil University, Fen Bilimleri Enstitüsü, Matematik, Turkey 1992 - 1995

Undergraduate, Van Yüzüncü Yil University, Fen Edebiyat Fakültesi, Matematik, Turkey 1988 - 1992

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, Başlangıç Sıçramalı Başlangıç Sınır Değer Problemlerinin Sonlu Fark Metoduyla Çözümü, Van Yüzüncü Yil University, Fen Bilimleri Enstitüsü, Matematik, 1999

Postgraduate, Diferansiyel Denklemlerin Çözümlerinin Kararlılığı, Van Yüzüncü Yil University, Fen Bilimleri Enstitüsü, Matematik, 1995

### Research Areas

Mathematics, Numerical Analysis, Natural Sciences

### Academic Titles / Tasks

Professor, Van Yüzüncü Yil University, İktisadi ve İdari Bilimler Fakültesi, Ekonometri, 2017 - Continues

Associate Professor, Van Yüzüncü Yil University, Fen Fakültesi, Matematik, 2012 - 2017

Assistant Professor, Van Yüzüncü Yil University, Fen Fakültesi, Matematik, 2000 - 2012

Research Assistant, Van Yüzüncü Yil University, Fen Fakültesi, Matematik, 1992 - 2010

### Academic and Administrative Experience

Van Yüzüncü Yil University, İktisadi ve İdari Bilimler Fakültesi, 2019 - Continues

Van Yüzüncü Yil University, İktisadi ve İdari Bilimler Fakültesi, Ekonometri, 2017 - Continues

Van Yüzüncü Yil University, İktisadi ve İdari Bilimler Fakültesi, 2017 - Continues

Van Yüzüncü Yil University, Bitlis Sağlık Yüksekokulu, 2000 - 2008

## Courses

İleri Nümerik Analiz, Doctorate, 2018 - 2019

## Advising Theses

Erdoğan F., Belirli Singular pertürbe özellikli reaksiyon-difüzyon problem sınıfının nümerik çözümleri, Doctorate, K.YAMAÇ(Student), 2019

Erdoğan F., Didaktik Oyunların Öğrencilerin Derse Karşı Tutum ve Başarılarına Etkisi, Postgraduate, G.ADANAŞ(Student), 2019

Erdoğan F., Kayri M., ÖĞRENCİLERİN MATEMATİK BAŞARILARINI ETKİLEYEN FAKTÖRLERİN RASTGELE ORMAN, ÇOK KATMANLI ALGILAYICI VE RADYAL TABANLI FONKSİYON YAPAY SİNİR AĞLARI YÖNTEMLERİ İLE TAHMİNLEME YETENEĞİ AÇISINDAN KARŞILAŞTIRILMASI: Türkiye Örneği, Doctorate, Ö.BEZEK(Student), 2019

Erdoğan F., The Study of Traffic Fatal Crashes Based on Time series Model, Postgraduate, H.Rashid(Student), 2017

Erdoğan F., The 2018 Forecasting of OPEC price by using Time series model, Postgraduate, H.Assad(Student), 2017

Erdoğan F., Doğuran Çekirdekli Hilbert Uzaylarında Bazı Diferansiyel Denklemlerin Nümerik Çözümleri, Postgraduate, F.Uludağ(Student), 2014

Erdoğan F., Kesirli Mertebeli Diferansiyel Denklemlerin Analitik ve Nümerik Çözümleri, Doctorate, M.Ğiyas(Student), 2012

Erdoğan F., Birinci Mertebe Gecikmeli Diferansiyel Denklemler için üstel katsayılı fark şemaları, Postgraduate, M.Erdoğan(Student), 2009

Erdoğan F., Birinci Mertebe Lineer Gecikmeli Diferansiyel Denklemlerin Sayısal Çözümü, Postgraduate, T.Yüksel(Student), 2007

Erdoğan F., Parabolik Başlangıç-sınır Değer Problemlerinin Nümerik Çözümleri, Postgraduate, M.Gök(Student), 2006

Erdoğan F., Singular Perturbe Özellikli Bir Başlangıç-sınır Değer Probleminin Sonlu Fark Yöntemiyle Çözümü, Postgraduate, T.Tuğ(Student), 2004

Erdoğan F., Reaksiyon-difüzyon Sınır-değer Problemlerinin Sonlu Fark Metodu ile Çözümü, Postgraduate, C.Hezer(Student), 2003

## Jury Memberships

Post Graduate, Yüksek Lisans Tez Savunması, Yüzüncü Yıl Üniversitesi, July, 2019

Associate Professor Exam, Doçentlik yayın Jurisi, Doçentlik Sınav Jürisi, Üniversitelerarası Kurul, Mart 2019, July, 2019

Doctorate, Yüksek Lisans Tez Savunması, Yüzüncü Yıl Üniversitesi, June, 2019

Associate Professor Exam, Doçentlik Eser İnceleme, YÖK, December, 2017

Associate Professor Exam, Doçentlik Eser İnceleme, YÖK, December, 2017

Doctorate, Doktora Savunması, Atatürk Üniversitesi, November, 2017

Doctoral Examination, Doktora Savunması, Fırat Üniversitesi, November, 2017

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Existence, uniqueness and blow-up of solutions for generalized auto-convolution Volterra integral equations**  
Mostafazadeh M., Shahmorad S., Erdoğan F.  
Applied Mathematics and Computation, vol.471, 2024 (SCI-Expanded)
- II. **An iterative approximation for time-fractional Cahn–Allen equation with reproducing kernel method**  
Sakar M. G., Saldır O., Erdoğan F.  
COMPUTATIONAL & APPLIED MATHEMATICS, vol.37, pp.5951-5964, 2018 (SCI-Expanded)

- III. **A uniformly almost second order convergent numerical method for singularly perturbed delay differential equations**  
Erdoğan F., Cen Z.  
JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.333, pp.382-394, 2018 (SCI-Expanded)
- IV. **Novel Behaviors to the Nonlinear Evolution Equation Describing the Dynamics of Ionic Currents along Microtubules**  
Başkonuş H. M., Erdoğan F., Arif O., İlham A.  
INTERNATIONAL JOURNAL OF WEB SERVICES RESEARCH, vol.13, pp.10-15, 2017 (SCI-Expanded)
- V. **On the new hyperbolic and trigonometric structures to the simplified MCH and SRLW equations**  
BULUT H., SULAIMAN T. A., Erdoğan F., BASKONUS H. M.  
EUROPEAN PHYSICAL JOURNAL PLUS, vol.132, no.350, pp.1-15, 2017 (SCI-Expanded)
- VI. **Numerical solution of time-fractional nonlinear PDEs with proportional delays by homotopy perturbation method**  
Sakar M. G., Uludağ F., Erdoğan F.  
APPLIED MATHEMATICAL MODELLING, vol.40, pp.6639-6649, 2016 (SCI-Expanded)
- VII. **An almost second order uniformly convergent scheme for a singularly perturbed initial value problem**  
Cen Z., Erdoğan F., XU A.  
NUMERICAL ALGORITHMS, vol.67, no.2, pp.457-476, 2014 (SCI-Expanded)
- VIII. **The homotopy analysis method for solving the time-fractional Fornberg-Whitham equation and comparison with Adomian's decomposition method**  
Sakar M. G., Erdoğan F.  
APPLIED MATHEMATICAL MODELLING, vol.37, pp.8876-8885, 2013 (SCI-Expanded)
- IX. **Variational iteration method for the time-fractional Fornberg-Whitham equation**  
Sakar M. G., Erdoğan F., YILDIRIM A.  
COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.63, no.9, pp.1382-1388, 2012 (SCI-Expanded)
- X. **Fitted finite difference method for singularly perturbed delay differential equations**  
Erdoğan F., Amiraliev G. M.  
NUMERICAL ALGORITHMS, vol.59, no.1, pp.131-145, 2012 (SCI-Expanded)
- XI. **A uniform numerical method for dealing with a singularly perturbed delay initial value problem**  
Amiralieva I. G., Erdoğan F., Amiraliev G. M.  
APPLIED MATHEMATICS LETTERS, vol.23, no.10, pp.1221-1225, 2010 (SCI-Expanded)
- XII. **A Parameter Robust Method for Singularly Perturbed Delay Differential Equations**  
Erdogan F.  
JOURNAL OF INEQUALITIES AND APPLICATIONS, 2010 (SCI-Expanded)
- XIII. **A finite difference scheme for a class of singularly perturbed initial value problems for delay differential equations**  
AMIRALIYEV G. M., Erdoğan F.  
NUMERICAL ALGORITHMS, vol.52, no.4, pp.663-675, 2009 (SCI-Expanded)
- XIV. **An Exponentially Fitted Method for Singularly Perturbed Delay Differential Equations**  
Erdogan F.  
ADVANCES IN DIFFERENCE EQUATIONS, 2009 (SCI-Expanded)
- XV. **Uniform numerical method for singularly perturbed delay differential equations**  
AMIRALIYEV G. M., Erdogan F.  
COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.53, no.8, pp.1251-1259, 2007 (SCI-Expanded)

### Articles Published in Other Journals

- I. **STATISTICAL METHODS FOR EFFECTIVE DECISION MAKING IN BUSINESS**  
Taha H. R., Erdoğan F.

Community Practitioner, vol.20, no.8, pp.404-416, 2023 (Scopus)

- II. **A quasilinearization technique for the solution of singularly perturbed delay differential equation**  
Erdoğan F., Sakar M. G.  
Mathematics in Natural Science, vol.2, no.1, pp.1-7, 2018 (Peer-Reviewed Journal)
- III. **A quasilinearization technique for the solution of singularly perturbed delay differential equation**  
Erdoğan F., Sakar M. G.  
MATHEMATICS in NATURAL SCIENCE, vol.2, pp.1-7, 2018 (Peer-Reviewed Journal)
- IV. **On the instability of solutions of certain non-autonomous vector differential equations of fifth order.**  
Erdoğan F., Tunç C.  
SUT J. Math., vol.43, no.1, pp.35-48, 2007 (Peer-Reviewed Journal)

## Supported Projects

Erdoğan F., Project Supported by Higher Education Institutions, Küçük parametrelili gecikmeli konveksiyon-diffüzyon problemler için uygun fark şemaları, 2019 - 2020

Erdoğan F., Yamaç K., Project Supported by Higher Education Institutions, Belirli Singüler Pertürbe Özellikli Reaksiyon-Difüzyon Problem Sınıfının Nümerik Çözümleri, 2017 - 2020

Çelik H. E., Uludağ F., Çavuş H., Şensoy S., Tanhan F., Hamzadayı A., Van M. H., Canayaz M., Özdağ R., ÇELİK İ., et al., Project Supported by Higher Education Institutions, Uluslararası Veri Bilimi Makine Öğrenme ve İstatistik Konferansı DMS2019, 2019 - 2019

Erdoğan F., Project Supported by Higher Education Institutions, Küçük parametreye sahip gecikmeli diferansiyel denklemlerin çözümü için Yaklaşık metotlar, 2018 - 2019

Erdoğan F., Project Supported by Higher Education Institutions, A Fitted Numerical Method for Singularly Perturbed Integro Differential Equations with Delay, 2017 - 2018

AMİRALİ G., Erdoğan F., Duru H., Çakır M., Şevgin S., Project Supported by Higher Education Institutions, Nonlineer dispersive dalga yayılım problemleri için matematiksel ve hesaplama metotları, 2005 - 2008

## Activities in Scientific Journals

Journal of Mathematics Sciences and Computational mathematics, Committee Member, 2019 - Continues

VAN YÜZÜNCÜ YIL ÜNİVERSİTESİ İKTİSADİ VE İDARİ BİLİMLER FAKÜLTESİ DERGİSİ, Publication Committee Member, 2018 - Continues

Computer Simulation in Application, Committee Member, 2018 - Continues

Mathematics in Natural Sciences, Committee Member, 2018 - Continues

## Scientific Refereeing

Mathematics and Computer in Simulation, SCI Journal, August 2019

Iranian Journal of Science and Technology Transactions A, SCI Journal, August 2019

Advances in Difference Equations, SCI Journal, May 2019

Journal of Applied Mathematics and Computing, SCI Journal, January 2019

International Journal of Computer Mathematics, SCI Journal, July 2018

Differential Equations and Dynamical Systems, SCI Journal, June 2017

Mathematical Modelling and analysis, SCI Journal, June 2017

Advances in Difference Equations, SCI Journal, June 2017

Journal of Computational and Applied Mathematics, SCI Journal, April 2017

The IMA Journal of Applied Mathematics, SCI Journal, April 2017

The IMA Journal of Applied Mathematics, SCI Journal, December 2016

Applied Mathematics and Computation, SCI Journal, November 2016

Journal of Computational and Applied Mathematics, SCI Journal, February 2016

## **Metrics**

Publication: 83

Citation (WoS): 283

Citation (Scopus): 386

H-Index (WoS): 9

H-Index (Scopus): 9

## **Congress and Symposium Activities**

The 1st International Symposium on Computational Mathematics and Engineering Sciences, CMES- 2016, Invited Speaker, Miknas, Morocco, 2016

## **Non Academic Experience**

Yüzüncü Yıl Üniversitesi