

Gamze Tanoglu

0000-0003-4870-6048

İYTE
Science Faculty, Department of Mathematics
+90 5353456488
gamzetanoglu@iyte.edu.tr
www.linkedin.com/in/gamzetanoglu



Education

- 1997 - 2000 **Doctor of Science (PhD) in Applied Mathematics**, *University of Delaware, USA*
Thesis
- 1995-1997 **Master of Science in Mathematics**, *University of Delaware, USA*
- 1998 - 2002 **Bachelor of Science**, *Middle East Technical University*, Turkey

Professional Experience

- 2023-ongoing **Professor**, *İzmir Institute of Technology*, Chair of Computational Science and Engineering, Türkiye
- 2019-ongoing **Professor**, *İzmir Institute of Technology*, Vice Rector-Director of Education, Türkiye
- 2014-ongoing **Professor**, *İzmir Institute of Technology*, Department of Mathematics, Türkiye
- 2009-2014 **Associate Professor**, *İzmir Institute of Technology*, Department of Mathematics, Türkiye
- 2001 - 2008 **Assistant Professor**, *İzmir Institute of Technology*, Department of Mathematics, Türkiye
- 2000 -2001 **Lecturer**, *İzmir Institute of Technology*, Department of Mathematics, Türkiye

Skills

Softwares **Matlab, LaTeX**, (open source)

Research Interests

Computational Mathematics, Applied Mathematics, Numerical Analysis

Research Experience

- 2015-2016 **Visitor Professor**, *Gebze Technical University*, Department of Mathematics, İstanbul
- 2010 **Visitor Professor**, *Humboldt University*, supported by DAAD, Department of Mathematics, Germany
- 2009 **Visitor Professor**, *Humboldt University*, supported by TÜBİTAK, Department of Mathematics, Germany
- 1995-2000 **Research Assistant**, *University of Delaware*, Department of Mathematics, USA
- 1999 **Research Assistant**, *MPI Workshop Participant*, *University of Delaware*, *University of Delaware*, USA
- 1997 **Research Assistant**, *Summer Job*, *University of Delaware under the advisor R.J. Braun*, Department of Mathematics, USA

Publications

, scholar.google.com

Book Chapters

#1, S Ismoilov, G Gurarslan, G Tanoğlu, *Higher-Order and Stable Numerical Scheme for Nonlinear Diffusion System via Compact Finite Difference and Adaptive Step-Size Runge-Kutta Methods*, *The International Conference on Artificial Intelligence and Applied Mathematics in Engineering*, published in Springer International Publishing (2022)

Doctoral Thesis direct supervision

#1, Nurcan Gücüyen, *Iterative Splitting Method for System of Nonlinear Parabolic Equations*, 2008-2013.

#2 , Onur Baysal, *Stabilized Finite Element Methods for Time Dependent Convection- Diffusion Equations*, 2009-2013.

#3 , Yeşim Yazıcı, *Converge Analysis of Operator Splitting Methods for Burger-Huxley Equation*, 2012-2015.

#4 , Sıla Korkut, *New approaches for Solving Nonlinear Oscillation Problems*, 2012-2015.

#5 , Neslişah İmamoğlu Karabaş, *A new linerization Technique and its application*,2017-2020

Master Thesis direct supervision

#1 , Onur Açıroğlu, *The Application of a Finite Difference Method to a Dynamical Interface Problem*, IYTE, 2001-2004.

#2 , Arzu Kıran, *Nonstandard Finite Difference Method for Differential Equations*, IYTE, 2002-2005.

#3 , Deniz Güçoğlu, *Exact Solution of the Nonlinear Partial Differential Equations by Hirota Method*, IYTE, 2002-2005

#4 , Bengi Kanat, *Numerical Solution of the Highly Oscillatory Problem by Magnus Series Method*, IYTE, 2003-2006.

#5 , Duygu Demir, *Higher Order Symplectic Methods Based on the Modified Vector Fields* , 2006-2009.

#6 , Pınar İnce, *Geometric Integrators Method for Differential Equations*, 2006-2009

#7 , Yeşim Yazıcı, *Splitting Methods for ODE* , 2008-2010

#8 , Hakan Gündüz , *Higher Order Symplectic Methods for Separable Hamiltonian Equations*, 2008-2010

#9 , Sıla Korkut, *Operator Splitting Methods for Non-Autonomous Differential Equations* 2009-2012

#10 , Melek Sofyalıoğlu, *Numerical Solutions of the Reaction-Diffusion Equations by Exponential Integrators*, 2012-2014

#11 , Fatma Zürcacı, *Converge Analysis and Numerical Solutions of the Fisher's and Benjamin-Bono-Mahony Equations by Operator Splitting Method*, 2011-2014.

#12 , Neslişah İmamoğlu, *Two Numerical Approaches for solving Stiff Differential Equation*, 2012-2014.

#13 , Elif Hacisalihoğlu, *System of Parabolic Equations via Operator splitting*, 2016-2018

#14 , Murat Oz, *A numerical approach for optimization of curing kinetics of composite material*,2021

#15 , Leyla Akbalik, *A comparison of meshless and finite difference methods for the brusselator model*, 2022

#16 , Shodijon Ismoilov, *A compact finite difference method of lines for solving non-linear partial differential equations*, 2022

#17 , Fatih İdiz, *Legendre wavelet collocation method with quasilinearization technique for fractional differential equations*, 2022

Projects

#1, *Horizon 2020, Green Night Project*, id:101036089, Project Coordinator

#2 , *Development of the Computer Algorithm for Molecular Dynamics Simulations*, TUBITAK-SLOVENYA, TBAG-U/104 (104T105, Director of the project)

#3, *Nonstandard Finite Difference Method for Nonlinear Parabolic Differential Equations*, BAP, 2004 IYTE 27, Director of the project

#4 , *Solution of the Mathematical Model of Interface Problem by New Modern Mathematical Techniques*, BAP, 2002 IYTE 25, Director of the project

#5 , *Numerical Solution of the Highly Oscillatory Problem by Magnus Series Method* BAP, 2004 IYTE 21, Director of the project

#6 , *Numerical Solution of Differential Equation by Geometric Integration*, BAP, 2007 IYTE 18, Director of the project.

#7 , *Development of a new algorithm for numerical solution of stochastic differential equations*, BAP, 2016 IYTE 35, Director of the project

Honors and Activities

#1 , *Tubitak scholarship*, 1988-1989

#2 , *Honor student in Mathematics department in METU* 1988-1989, 1990-1991

#3 , *Scholarship from Ministry of Education for Ph.D in USA*, 1995-2000

#4 , *DFG-Tübitak, Exchange program scholarship visiting 2 months*, Humboldt University/Germany, June-July 2011

#5 , *DAAD, Exchange program scholarship visiting 1 month*, Humboldt University/Germany, January 2011

Courses taught

Calculus, Differential Equations, Partial Differential Equations, Mathematical Methods for Engineering, Numerical Analysis, Numerical Solution of ODE, Numerical Solutions of PDE, (Izmir Institute of Technology)

Languages

English: High Level

Turkish: Native language



(GAMZE TANOGLU)

Place: İzmir, Türkiye

Date: 17th March, 2024