

Name : Duygu DÖNMEZ DEMİR

E-mail : duygu.donmez@cbu.edu.tr ; d.donmez83@hotmail.com

Research Interests : Partial and Ordinary Differential Equations and Numerical Solutions, Fractional Differential Equations, Dynamical Analysis of Continuous Systems, Linear and Nonlinear Vibrations.

EDUCATION

Academic Degree	Branch/Program	University	Year
Under Graduate	Mathematics / General	Celal Bayar University	2000 - 2004
MSc	Mathematics / Applied Mathematics	Celal Bayar University	2004 - 2008
PhD	Mathematics / Applied Mathematics	Celal Bayar University	2009 - 2012

Title of MSc Thesis - Supervisor: On the Solutions of the Differential Equations with B-spline Method – Prof. Dr. Necdet BİLDİK, 2008.

Title of PhD Thesis - Supervisor: The Dynamic Analysis of the Continuum with the Fractional Derivatives - Prof. Dr. Necdet BİLDİK, 2012.

WORK EXPERIENCE

Title	University/Faculty	Year
Research Assistant	Celal Bayar University / Faculty of Arts & Science	2005-2013
Assistant Professor	Celal Bayar University / Faculty of Arts & Science	2013-

ACADEMIC STUDIES

A. Papers Indexed in SCI/SCI-Expanded

1. Necdet Bildik, **Duygu Dönmez Demir**, “The Solution of Lateral Heat Loss Problem Using Collocation Method with Cubic B-Splines Finite Element”, *Applied Mechanics and Materials*, Vols. 110-116, 3184-3190, 2012.
2. **Duygu Dönmez Demir**, Necdet Bildik, B. Gultekin Sinir, “Application of fractional calculus in the dynamics of beams”, *Boundary Value Problems*, 135, 1-13, 2012.
3. **Duygu Dönmez Demir**, Necdet Bildik and Berra Gültekin Sinir, “Linear vibrations of continuum with fractional derivatives”, *Boundary Value Problems*, 104, 1-15, 2013; doi:10.1186/1687-2770-2013-104

B. Refereed Papers Published in International Journals not Indexed in SCI/SCI (Expanded)

1. Salih Yalçınbaş, Ali Konuralp, **D. Dönmez Demir**, H. Hilmi Sorkun, “The Solution of the Fractional Differential Equation with the Generalized Taylor Collocation Method”, *IJRRAS*, Pp. 77-84, 2010.
2. Ali Demir, **Duygu Dönmez Demir**, Recep Tuğrul Erdem, Muhiddin Bağcı “Torsional Irregularity Effects of Local Site Classes in Multiple Storey Structures”, *IJRRAS* , Pp. 38-43, 2010.
3. **D.D. Demir**, N. Bildik, A. Konuralp, A.Demir, “Numerical Solution to the Damped Generalized Regularized Long-Wave Equation”, *World Applied Sciences Journal*, Vol 13 (Special Issue of Applied Math), Pp.08-17, 2011.

C. Refereed Papers Published in National Journals

1. Ali Demir, Muhiddin Bağcı, **Duygu Dönmez Demir**, “Torsional Behavior in Different Floor Classroom of Existing Concrete Hospital Building”, *C.B.U. Journal of Science* 7(1), 16–25, 2011.

D. International Conference, Symposium and Congress Papers

1. **D. Dönmez Demir**, N. Bildik, “A. Konuralp, Numerical Solution to the Damped Generalized Regularized Long-wave Equation”, 3rd Conference on Nonlinear Science, University of Cankaya, Ankara,Turkey,Poster, 28-31 July 2010.
2. **Duygu Dönmez Demir**, Necdet Bildik, “The Solution of Lateral Heat Loss Problem Using

Collocation Method with Cubic B-Splines Finite Element”, IV. Congress of Turkic World Mathematical Society Book of Abstracts, Azerbaijan, Baku, Vol. 4, Pp. 327, 01-03 July 2011.

3. Duygu Dönmez Demir, Necdet Bildik, Simge Öztunç, “The Solution of Heat Problem with Collocation Method Using Cubic B-Splines Finite Element”, Second International Symposium on Computing in Science and Engineering Proceedings Abstracts,(Poster) Kuşadası, Turkey, Vol. 2, Pp.565, 1-4 June 2011.

4. D. Dönmez Demir, N. Bildik, B.G. Sinir, “A Fractional Calculus Application in Dynamics of Beams”, International Conference on Applied Analysis and Algebra Proceedings Abstracts, Yıldız Technical University, İstanbul, Turkey, Pp.75, 20-24 June 2012.

5. D. Dönmez Demir, N. Bildik, B.G. Sinir, “Linear Transverse Vibrations of One-dimensional Continuum with Fractional Derivatives”, The International Congress in Honour of Professor Hari M. Srivastava Abstract Booklet, Uludağ University, Bursa, Turkey, Pp.82, 23-26 August 2012.

6. D. Dönmez Demir, N. Bildik, “A General Solution Procedure for Fractionally Damped Beams”, 1st International Eurasian Conference on Mathematical Sciences and Applications (IECMSA) Proceedings Book, Prishtine, Kosovo, Pp.96, 03-07 September 2012.

7. D. Dönmez Demir, B. G. Sinir, N. Bildik “Dynamical Behavior of an Axially Moving String Constituted by a Fractional Differentiation Law”, International Conference On Applied Analysis And Mathematical Modelling (ICAAMM 2013), İstanbul, Turkey, 2-5 June 2013.

8. D. Dönmez Demir, B. G. Sinir, N. Bildik, “The Combination Resonance Analysis for an Axially Moving String”, 11. The International Conference of Numerical Analysis and Applied Mathematics (ICNAAM 2013), Rhodos, Greece, 21-27 September 2013.

9. D. Dönmez Demir, Erhan KOCA, “A Numerical Solution for Vibrations of an Axially Moving Beam”, The International Congress in Honour of Professor Ravi P. Agarwal Abstract Booklet, Uludağ University, Bursa, Turkey, Pp.163, 23-26 June 2014.

10. D. Dönmez Demir, Erhan KOCA, The Solution of a String Model by Adomian Decomposition Method, 12. The International Conference of Numerical Analysis and Applied Mathematics (ICNAAM 2014), Rhodos, Greece, 22-28 September 2014.

11. D. Dönmez Demir, Erhan KOCA, Variational Iteration Method for Transverse Vibrations of the Elastic, Tensioned Beam, 4th International Conference on Pure and Applied Mathematics (ICPAM 2015), Italy, Rome, 16-17 July 2015.

12. Duygu Dönmez Demir, Erhan Koca, The Shooting Method for the Second Order Singularly Perturbed Differential Equation, 13th International Conference of Numerical Analysis and Applied

Mathematics (ICNAAM 2015), Rhodos, Greece, 23-29 September 2015.

E. National Conference, Symposium and Congress Papers

1. **D. Dönmez Demir**, N. Bildik, Erhan Koca, "The Solution of the Two-point Boundary Value Problem for a Singularly Perturbed Differential Equations Using Shooting Method", The Symposium Proceeding Book, Pp. 193, 13th Symposium of Mathematics, Karabük University, Karabük, 15-17 May 2014.

G. As a Reviewer on Journals

1. Applied Mathematics (2012-2015).
2. American Journal of Computational and Applied Mathematics (2012-2015).
3. American Journal of Mathematics and Statistics (2012-2015).
4. International Journal of Mechanics and Applications (2012-2015).
5. Nonlinear Dynamics (2013-2015, **SCI**).
6. Mathematical Problems in Engineering (2013-2015, **SCI**).
7. Journal of Applied Mathematics (2013-2015, **SCI**).
8. Scientific Journal of Mathematics Research (2013-2015).
9. Mathematical Review Database (2013-2015).
10. Current Advances in Mathematics (2013-2015).
11. Mathematical and Computational Applications (2014-2015).
12. New Trends in Mathematical Sciences (2015).
13. Applied Mathematical Modelling (2015, **SCI**).

H. Editorial Board Member on Journals

1. Applied Mathematics (2012-2015).
2. Universal Journal of Applied Mathematics (2013-2015).
3. Applied and Computational Mathematics (2014-2015).
4. International Journal of Mathematical Analysis and Applications (2014-2015).

I. Awards

1. TÜBİTAK Encouragement Award (The Scientific and Technological Research Council of Turkey), December 29th, 2012.
2. Celal Bayar University Publication Performance Award, 2012.
3. TÜBİTAK Encouragement Award (The Scientific and Technological Research Council of Turkey), May 13th, 2014.
4. TÜBİTAK (The Scientific and Technological Research Council of Turkey), April 16th, 2014.
5. Celal Bayar University Thesis Award, 2014.

H. Other Activities

1. Erasmus+ Department Coordinator (2013-)
2. Member of Organizing Committee, 4th International Conference on Mathematical and Computational Applications, 11-13 June 2013, Manisa, Turkey.
3. International Conference (Sessions-Minisympoia) Organizer, "Some New Trends in Nonlinear Differential Equations", 12th International Conference of Numerical Analysis and Applied Mathematics, ICNAAM 2014, 22-28 September 2014, Rodos Palace Hotel, Rhodes, Greece.
4. Variational Iteration Method for Transverse Vibrations of the Elastic, Tensioned Beam, Celal Bayar University, Project Manager, Scientific Research Project Coordination Unit, Project number: 2015-103, 2015.
5. International Conference (Sessions-Minisympoia) Organizer, "I. Applications of Mathematical Methods and Models in Sciences and Engineering", 13th International Conference of Numerical Analysis and Applied Mathematics, ICNAAM 2015, 23-29 September 2015, Rodos Palace Hotel, Rhodes, Greece.

Update: December 14th, 2015