

## Asst. Prof. Selmahan SELİM

### Personal Information

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### International Researcher IDs

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### Research Areas

Mathematics, Differential Equations, Numerical Analysis, Natural Sciences

### Academic and Administrative Experience

Vice Dean, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, 2016 - Continues

Deputy Head of Department, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, 2011 - 2016

### Advising Theses

Selim S., Kaynak terimli Burgers denkleminin sonlu eleman çözümleri, Postgraduate, A.BÜŞRA(Student), 2020

Selim S., İki-Noktalı Singüler Sınır Değer Problemlerinin Sayısal Çözümleri, Postgraduate, G.BAYAT(Student), 2019

Selim S., Bir Kısmi Denklemler Takımına Ait Non-Linear Sınır Değer Problemlerinin FEM İle İncelenmesi, Postgraduate, S.Ebru(Student), 2004

Akbarov S., Selim S., Eğrisel Yapıya Sahip Kompozit Malzemeler Mekaniğinin Bazı Üç Boyutlu Titreşim ve Stabilitate Problemlerinin SEY İle İncelenmesi, Doctorate, I.DEMİRİZ(Student), 2003

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

- I. **Buckling instability of a thick rectangular plate of a composite material with a spatially periodically curved structure**  
Akbarov S., Selim S., Demiriz I.  
MECHANICS OF COMPOSITE MATERIALS, vol.40, pp.389-396, 2004 (SCI-Expanded)
- II. **Item analysis of the three-dimensional buckling problem for a clamped thick rectangular plate made of a viscoelastic composite**  
Selim S., AKBAROV S.  
MECHANICS OF COMPOSITE MATERIALS, vol.39, no.6, pp.531-540, 2003 (SCI-Expanded)
- III. **Stability of a strip made of a multilayer composite with a curved structure**  
Akbarov S., Selim S.  
INTERNATIONAL APPLIED MECHANICS, vol.37, no.6, pp.831-835, 2001 (SCI-Expanded)
- IV. **Bending of a composite material strip with curved structure in the geometrically nonlinear**

## statement

Yahnioglu N., Selim S.

MECHANICS OF COMPOSITE MATERIALS, vol.36, no.6, pp.459-464, 2000 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Applying the Modified F-Expansion Method to Find the Exact Solutions of the Bogoyavlenskii Equation**  
Selim S.  
Journal of Engineering Technology and Applied Sciences, vol.9, no.2, pp.145-155, 2024 (Peer-Reviewed Journal)
- II. **A New Efficient Hybrid Method Based on FEM and FDM for Solving Burgers' Equation with Forcing Term**  
Cakay A. B., SELİM S.  
Journal of Applied Mathematics, vol.2024, 2024 (ESCI)
- III. **Numerical behavior of singular two-point boundary value problems in a comparative way**  
Selim S., Elver G., Sarı M.  
An International Journal of Optimization and Control: Theories & Applications, vol.7, pp.288-292, 2017 (Peer-Reviewed Journal)
- IV. **On the Convergence of Newton-Raphson Method Under FEM Analyses of Some Non-Linear Problems of Theory of Elasticity**  
Selim S.  
Journal of Yıldız Technical University, vol.1999, no.4, pp.41-50, 1999 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Finite Element Solutions of The Burgers Equation**  
Selim S., Çakay A. B.  
3rd International Conference On Mathematical Advances And Applications (ICOMAA2020), İstanbul, Turkey, 24 - 27 June 2020, pp.53
- II. **Numerical Solution of Boundary Value Problems in a Comparative Way**  
Selim S., Bayat G.  
International Conference on Applied Analysis and Mathematical Modeling (ICAAMM19), İstanbul, Turkey, 10 - 13 March 2019, pp.178
- III. **A discussion on singular two-point nonlinear boundary value problems**  
Selim S., Elver G., Sarı M.  
International Conference on Applied Analysis And Mathematical Modeling (ICAAMM2017), İstanbul, Turkey, 3 - 07 July 2017, pp.100
- IV. **Numerical Behavior of Singular Two-Point Boundary Value Problems in A Comparative Way**  
Selim S., Elver G., Sarı M.  
The Second International Conference on Computational Mathematics and Engineering Sciences (CMES2017), İstanbul, Turkey, 20 May 2017, pp.26
- V. **Mathematical Modeling And Numerical Investigation of The Stress Analysis in The Rectangular Thick Plate From Composite Material With Spatially Periodically Curved Structure**  
Tokath N., Tarım E., Demiriz I., Selim S.  
The 4th Congress of the Turkic World Mathematical Society (TWMS), Baku, Azerbaijan, 1 - 03 June 2011, pp.457
- VI. **Buckling Instability of a Thick Rectangular Plate Made of a Composite Material With a Periodic Spatially Curved Structure**  
Akbarov S. D., Selim S., Demiriz I.  
Thirteenth Internatioanal Conference, Mechanics of Composite Materials, Riga, Latvia, 16 - 20 May 2004, pp.9

- VII. **Yapısında İki Yönde Eğrilik Olan Kompozit Malzemeden Hazırlanmış Kalın Plâğın Stabilite Kaybı**  
Selim S., Demiriz I.  
XIII. Ulusal Mekanik Kongresi, Gaziantep, Turkey, 8 - 12 September 2003, pp.685-691
- VIII. **FEM Analyses of The Three-Dimensional Buckling Problem For a Clamped Thick Rectangular Plate From Viscoelastic Composites**  
Selim S., Akbarov S.  
Twelfth Internatioanl Conference, Mechanics of Composite Materials, Riga, Latvia, 9 - 13 June 2002, pp.177
- IX. **Eğrisel Yapıya Sahip Kompozit Malzemeden Hazırlanmış Kalın Dikdörtgen Plaktaki Gerilme Dağılımının İncelenmesi**  
Kahramaner Y., Taylan İ., Demiriz I., Selim S.  
XII. Ulusal Mekanik Kongresi, Konya, Turkey, 10 - 14 September 2001, pp.525-530
- X. **Investigation on The Stress Distribution in a Thick Plate Fabricated From The Curved Composite**  
Kahramaner Y., Taylan İ., Demiriz I., Selim S.  
Eight Annual International Conference On Composites Engineering - ICCE/8, Tenerife, Spain, 5 - 11 August 2001, pp.413-414
- XI. **Stability of Strip Fabricated from the Multilayered Composite Material with Locally Curved Structures**  
Akbarov S., Selim S.  
Seventh Annual International Conference on Composites Engineering - ICCE/7, Colorado, United States Of America, 2 - 08 July 2000, pp.785-786
- XII. **Geometrical Non-Linear Bending Problems of The Strip Fabricated From The Multilayered Composite Material With Periodically Curved Structures**  
Yahnioğlu N., Selim S.  
2nd Pacific-Asia Conference On Mechanical Engineering, September 9-11, 1998 Manila Philippines, Manila, Philippines, 9 - 11 September 1998, pp.1
- XIII. **The stability loss of the strip fabricated from the composite material with periodically curved structure**  
Yahnioğlu N., Selim S.  
Ninth International Symposium on Continuun Models and Discrete Systems (CMDS9 ), İstanbul, Turkey, 29 June - 03 July 1998, pp.832-835
- XIV. **Homojen Olmayan Anizotrop Malzemeden Yapılmış Şerit İçin Bir Geometrik Non-Linear Problemin İncelenmesi**  
Yahnioğlu N., Selim S.  
X. Ulusal Mekanik Kongresi, İstanbul, Turkey, 15 - 19 September 1997, pp.443-452

## Supported Projects

Akbarov S., Selim S., Demiriz I., Tarım E., Project Supported by Higher Education Institutions, Delik ve Çatlak İçeren Kompozit Plakların Çekme Durumundaki Yerel Stabilite Kaybına Ait Matematik Modellemenin Geliştirilmesi ve Sonlu Elemanlar Yöntemi İle İncelenmesi, 2005 - 2008

Akbarov S., Selim S., Demiriz I., Project Supported by Higher Education Institutions, Non-Linear Elastisite Teorisi Denklemlerinin Sonlu Alanlar İçin Olan Sınır Değer Problemlerinin Perturbasyon Yöntemiyle İncelenmesi, 1997 - 2002

## Scientific Refereeing

Turkish Journal of Mathematics, SCI Journal, February 2016

Sigma Mühendislik ve Fen Bilimleri Dergisi, National Scientific Refreed Journal, March 2005

## **Metrics**

Publication: 22

Citation (WoS): 15

Citation (Scopus): 15

H-Index (WoS): 2

H-Index (Scopus): 2