

## Asst. Prof. Nurullah YILMAZ

### Personal Information

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### Education Information

Doctorate, Suleyman Demirel University, Fen Bilimleri Enstitüsü, Matematik, Turkey 2012 - 2018

Postgraduate, Ahi Evran Üniversitesi, Fen Bilimleri Enstitüsü, Matematik, Turkey 2010 - 2012

Undergraduate, Ahi Evran Üniversitesi, Fen-Edebiyat Fakültesi, Matematik, Turkey 2006 - 2010

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, Diferansiyellenemeyen Amaç Fonksiyonları için Düzgünleştirme Yaklaşımı ve Yeni Bir Global Optimizasyon Tekniği, Suleyman Demirel University, Fen Bilimleri Enstitüsü, Matematik, 2018

Postgraduate, Değişken Üstlü Uzaylarda Hardy Eşitsizlikleri ve Bazı Uygulamaları, Ahi Evran Üniversitesi, Fen Bilimleri Enstitüsü, Matematik, 2012

### Research Areas

Mathematics, Functional Analysis, Optimization, Natural Sciences

### Academic Titles / Tasks

Assistant Professor, Suleyman Demirel University, Fen Edebiyat Fakültesi, Matematik Bölümü, 2020 - Continues

Research Assistant, Suleyman Demirel University, Fen Edebiyat Fakültesi, Matematik Bölümü, 2012 - 2020

### Academic and Administrative Experience

Suleyman Demirel University, 2019 - 2019

Suleyman Demirel University, 2019 - 2019

Suleyman Demirel University, 2018 - 2018

Suleyman Demirel University, 2018 - 2018

Suleyman Demirel University, 2017 - 2017

Suleyman Demirel University, 2017 - 2017

### Courses

Analysis IV, Undergraduate, 2019 - 2020

Kalkülüs II, Undergraduate, 2019 - 2020

### Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **New Smoothing Approximations to Piecewise Smooth Functions and Applications**  
YILMAZ N., ŞAHİNER A.  
NUMERICAL FUNCTIONAL ANALYSIS AND OPTIMIZATION, vol.40, no.5, pp.513-534, 2019 (Journal Indexed in SCI)
- II. **A NOVEL MODELING AND SMOOTHING TECHNIQUE IN GLOBAL OPTIMIZATION**  
ŞAHİNER A., YILMAZ N., KAPUSUZ G.  
JOURNAL OF INDUSTRIAL AND MANAGEMENT OPTIMIZATION, vol.15, no.1, pp.113-130, 2019 (Journal Indexed in SCI)
- III. **A descent global optimization method based on smoothing techniques via Bezier curves**  
ŞAHİNER A., YILMAZ N., KAPUSUZ G.  
CARPATHIAN JOURNAL OF MATHEMATICS, vol.33, no.3, pp.373-380, 2017 (Journal Indexed in SCI)
- IV. **Completed Optimised Structure of Threonine Molecule by Fuzzy Logic Modelling**  
ŞAHİNER A., UCUN F., KAPUSUZ G., YILMAZ N.  
ZEITSCHRIFT FÜR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES, vol.71, no.4, pp.381-386, 2016 (Journal Indexed in SCI)
- V. **Mathematical modeling and an application of the filled function method in entomology**  
ŞAHİNER A., YILMAZ N., Demirozer O.  
INTERNATIONAL JOURNAL OF PEST MANAGEMENT, vol.60, no.3, pp.232-237, 2014 (Journal Indexed in SCI)

### Articles Published in Other Journals

- I. **On a New Smoothing Technique for Non-smooth, Non-convex Optimization**  
YILMAZ N., ŞAHİNER A.  
Numerical Algebra Control and Optimization, vol.10, pp.317-330, 2020 (Journal Indexed in ESCI)
- II. **Fuzzy Logic Modeling and Optimization of Academic Achievement of Students**  
ŞAHİNER A., AKBAY R., YILMAZ N.  
Yıldız Journal of Educational Research, vol.4, no.1, pp.85-100, 2019 (Refereed Journals of Other Institutions)
- III. **A new auxiliary function approach for inequality constrained global optimization problems**  
YILMAZ N., ŞAHİNER A.  
International Journal of Optimization and Control: Theories and Applications, vol.9, no.3, pp.31-38, 2019 (Refereed Journals of Other Institutions)
- IV. **Smoothing Approximations to Non-smooth Functions**  
ŞAHİNER A., İBRAHEM S. A., YILMAZ N.  
Journal of Multidisciplinary Modeling and Optimization, vol.1, no.2, pp.69-74, 2018 (Refereed Journals of Other Institutions)
- V. **Application of Modern and Classical Optimization Techniques in Abrasion of Al-Cu-SiCp and Al-Cu-B4Cp Composites**  
ŞAHİNER A., YILMAZ N., BEDİR F.  
Journal of Multidisciplinary Modeling and Optimization, vol.1, no.1, pp.23-32, 2018 (Refereed Journals of Other Institutions)
- VI. **A NEW SMOOTHING APPROACH TO EXACT PENALTY FUNCTIONS FOR INEQUALITY CONSTRAINED OPTIMIZATION PROBLEMS**  
ŞAHİNER A., KAPUSUZ G., YILMAZ N.  
NUMERICAL ALGEBRA CONTROL AND OPTIMIZATION, vol.6, no.2, pp.161-173, 2016 (Journal Indexed in ESCI)
- VII. **Determining of The Achievement of Students by Using Classical and Modern Optimization Techniques**

AKBAY R., ŞAHİNER A., YILMAZ N.

Eurasian Journal of Physics and Chemistry Education, vol.8, no.1, pp.3-13, 2016 (Refereed Journals of Other Institutions)

**VIII. MULTIPLE SEQUENCES IN CONE METRIC SPACES**

ŞAHİNER A., YILMAZ N.

TWMS J. App. Eng. Math, vol.4, no.2, pp.226-233, 2014 (Refereed Journals of Other Institutions)

**IX. Ideal Convergence of Multiple Sequences in Cone Metric Spaces**

ŞAHİNER A., YİĞİT T., YILMAZ N.

Contemporary Analysis and Applied Mathematics, vol.2, no.1, pp.116-126, 2014 (Refereed Journals of Other Institutions)

## **Books & Book Chapters**

**I. Increasing the Effects of Auxiliary Function by Multiple Extrema in Global Optimization**

ŞAHİNER A., İBRAHEM S. A. , YILMAZ N.

in: Numerical Solutions of Real-Life Nonlinear Phenomena, J. A. Tenreiro Machado, Necati Özdemir, Dumitru Baleanu, Editor, Springer, pp.125-143, 2020

**II. Escaping from Current Minimizer by Using an Auxiliary Function Smoothed by Bezier Curves**

ŞAHİNER A., ABDULHAMİD İ. A. M. , YILMAZ N.

in: Numerical Solutions of Real-Life Nonlinear Phenomena, J. A. Tenreiro Machado, Necati Özdemir, Dumitru Baleanu, Editor, Springer, pp.87-105, 2020

## **Refereed Congress / Symposium Publications in Proceedings**

**I. Smoothing Techniques in Solving Absolute Value Equations**

YILMAZ N., ŞAHİNER A.

11. International Statistics Congress, 4 - 08 October 2019

**II. Approximated Convex Bezier Curve for the Continuation Global Optimization Approach**

ŞAHİNER A., YILMAZ N., ABDULHAMİD İ. A. M.

11. International Statistics Congress, 4 - 08 October 2019

**III. A New Local Smoothing Technique for Non-smooth Functions**

YILMAZ N.

Operators in General Morrey-Type Spaces and Applications, 16 - 20 July 2019, vol.1, pp.41

**IV. A generalized hyperbolic smoothing approach for non-smooth and non-Lipschitz functions**

YILMAZ N., ŞAHİNER A.

International Conference on Mathematics and Mathematics Education, 11 July - 13 September 2019, vol.1, pp.59-60

**V. A New Algorithm Based on Penalty Function Approach for Inequality Constrained Global Optimization Problems**

YILMAZ N., ŞAHİNER A.

INTERNATIONAL CONFERENCE on RECENT ADVANCES in PURE AND APPLIED MATHEMATICS, 23 - 27 July 2018

**VI. A New Auxiliary Function Approach for Inequality Constrained Global Optimization Problems**

YILMAZ N., ŞAHİNER A.

International Conference on Applied Mathematics in Engineering, 27 June - 29 July 2018

**VII. Smoothing Technique with Auxiliary Function Thru Bezier Curves for Global Optimization**

ŞAHİNER A., MASOUD ABDULHAMİD İ. A. , YILMAZ N.

International Conference on Applied Mathematics in Engineering, 27 - 29 June 2018

**VIII. A New Auxiliary Function Method for Unconstrained Global Optimization**

ŞAHİNER A., İBRAHEM S. A. , YILMAZ N.

International Conference on Applied Mathematics in Engineering, 27 - 29 June 2018

- IX. **A New Penalty Function Approach for Inequality Constrained Optimization Problems**  
YILMAZ N., ŞAHİNER A.  
Operators in Morrey-type Spaces and Applications, 10 - 13 July 2017, pp.148
- X. **A New Auxiliary Function Approach based on New Search Strategy**  
YILMAZ N., ŞAHİNER A.  
International Conference on Mathematics and Engineering, 10 - 12 May 2017, pp.53
- XI. **A New Smooth and Descent Method for Global Optimization**  
YILMAZ N., ŞAHİNER A.  
International Workshop on Mathematical Methods in Engineering, 27 - 29 April 2017, pp.139
- XII. **New Global Optimization Method for Non-Smooth Unconstrained Continuous Optimization**  
YILMAZ N., ŞAHİNER A.  
International Conference on Numerical Analysis and Applied Mathematics (ICNAAM), Rhodes, Greece, 19 - 25 September 2016, vol.1863
- XIII. **A New Mathematical Modeling Approach for the Energy of Threonine Molecule**  
ŞAHİNER A., KAPUSUZ G., YILMAZ N.  
International Conference on Numerical Analysis and Applied Mathematics (ICNAAM), Rhodes, Greece, 19 - 25 September 2016, vol.1863
- XIV. **New Global Optimization Method for Non Smooth Unconstrained Optimization**  
YILMAZ N., ŞAHİNER A.  
International Conference of Numerical Analysis and Applied Mathematics, 19 - 25 September 2016
- XV. **A New Smoothing Approximation to Piecewise Smooth Functions and Applications**  
YILMAZ N., ŞAHİNER A.  
International Conference on Analysis and Applications, Kırşehir, Turkey, 12 - 15 July 2016
- XVI. **A New Smoothing Method via Bezier Curve for Non smooth Functions**  
ŞAHİNER A., KAPUSUZ G., YILMAZ N.  
ICAA 2016, 12 - 15 July 2016
- XVII. **Completed Optimized Structure of Threonine Molecule by Fuzzy Logic Modelling**  
ŞAHİNER A., UCUN F., GÜLDEN K., YILMAZ N.  
INTERNATIONAL CONFERENCE ON ADVANCEMENT İN MATHEMATİCAL SCIENCES, Antalya, Turkey, 5 - 07 November 2015
- XVIII. **A Novel Smoothing Approach for Non smooth and Non Lipschitz Optimization**  
YILMAZ N., ŞAHİNER A.  
International Conference on Advancement in Mathematical Sciences, 5 - 07 November 2015
- XIX. **Completed Optimized Structure of Threonine Molecule by Fuzzy Logic Modeling**  
ŞAHİNER A., UCUN F., GÜLDEN K., YILMAZ N.  
International Conference on Advancement in Mathematical Sciences, 5 - 07 November 2015
- XX. **A new smoothing approach to exact penalty functions for inequality constrained optimization problems**  
ŞAHİNER A., KAPUSUZ G., YILMAZ N.  
INTERNATIONAL CONFERENCE ON APPLIED ANALYSIS AND MATHEMATİCAL MODELLİNG, İstanbul, Turkey, 8 - 12 June 2015
- XXI. **Application of Modern and Classical Optimiation Techniques in Abrasion of Al Cu SiCp and Al Cu B4Cp Composites**  
ŞAHİNER A., BEDİR F., YILMAZ N.  
Joint ORSC/EURO Int. Conference 2015 on Cont. Opt, Shanghai, China, 10 - 12 May 2015
- XXII. **A new global optimization technique for non smooth and non convex optimization**  
YILMAZ N., ŞAHİNER A.  
Joint ORSC/EURO International Conference 2015 on Continuous Optimization, 10 - 12 May 2015
- XXIII. **Optimality Conditions and Smoothing Approach for Non Lipschitz Optimzation**  
YILMAZ N., ŞAHİNER A.  
Veszprem Optimization Conference (VOCAL), 17 - 19 December 2014

- XXIV. **Optimality Conditions for Non Lipschitz Optimization**  
YILMAZ N., ŞAHİNER A.  
International Conference on Recent Advances in Pure and Applied Mathematics, 6 - 09 November 2014
- XXV. **A new approach to the Filled Function Method for Non Smooth Problems**  
ŞAHİNER A., YILMAZ N.  
International Congress on Honour R.P. Agarwal, 23 - 26 June 2014
- XXVI. **Fixed Point Theorems for Multifunctions in Vector Valued Metric Spaces**  
YILMAZ N., ŞAHİNER A.  
Karatekin Mathematics Days, 11 - 13 June 2014
- XXVII. **On Filled Function Method and Applications**  
ŞAHİNER A., YILMAZ N.  
15 International Symposium on Econometrics, Operations Research and Statistics, Isparta, Turkey, 22 - 25 May 2014, vol.1
- XXVIII. **mu statistical Convergence of Multiple Sequences in Cone Metric Spaces**  
ŞAHİNER A., YILMAZ N.  
The Algerian Turkish International days on Mathematics, 12 - 14 September 2013, vol.1
- XXIX. **Ideal Convergence of Multiple Sequences in Cone Metric Spaces**  
ŞAHİNER A., Yiğit T., YILMAZ N.  
The Algerian Turkish International days on Mathematics, İstanbul, Turkey, 12 - 14 September 2013, vol.1
- XXX. **New Optimization Techniques in Mechanical Characterization for  $\beta$  Sn Single Crystals**  
ŞAHİNER A., UÇAR N., YILMAZ N.  
The Algerian-Turkish International days on Mathematics, 12 - 14 September 2013
- XXXI. **Mathematical Modeling and an Application of Filled Function Method in Entomology**  
YILMAZ N., ŞAHİNER A., DEMİRÖZER O.  
26th European Conference on Operational Research, Roma, Italy, 4 - 07 July 2013, vol.1, pp.422
- XXXII. **Multiple Sequences in Cone Metric Spaces**  
YILMAZ N., ŞAHİNER A.  
1st International Western Balkan Conference on Mathematical Sciences, Elbasan, Albania, 30 May - 01 June 2013, vol.1, pp.90-91
- XXXIII. **Fuzzy Logic in Diagnosing the Dermatological Diseases**  
GÜNCAN A. N. , ŞAHİNER A., YILMAZ N.  
1st International Western Balkan Conference of Mathematical Sciences, Elbasan, Albania, 30 May - 01 June 2013, vol.1

## Supported Projects

YILMAZ N., Project Supported by Other Official Institutions, Diferansiyellenemeyen Amaç Fonksiyonları için Düzgünleştirme Yaklaşımı ve Yeni Bir Global Optimizasyon Tekniği, 2015 - 2018

## Activities in Scientific Journals

Journal of Multidisciplinary Modeling and Optimization, Editor, 2018 - Continues

## Scientific Refereeing

Numerical Solutions of Real-Life Nonlinear Phenomena, Scientific / Professional Book Published by Renowned Publishing Houses, April 2019

International Journal of Supply and Operations Management, National Scientific Refreed Journal, April 2019

International Journal of Supply and Operations Management, National Scientific Refreed Journal, February 2019  
Numerical Algebra Control and Optimizaiton, National Scientific Refreed Journal, December 2018  
International Journal of Supply and Operations Management, National Scientific Refreed Journal, December 2018  
International Journal of Supply and Operations Management, National Scientific Refreed Journal, December 2018  
International Journal of Supply and Operations Management, National Scientific Refreed Journal, April 2017  
Numerical Algebra Control and Optimizaiton, SCI Journal, February 2017

## **Citations**

Total Citations (WOS):21

h-index (WOS):2