# Res. Asst. PhD MUSTAFA BAYRAM GÜCEN

## Personal Information

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**International Researcher IDs**

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Publons / Web Of Science ResearcherID: AAZ-5722-2020

ScopusID: 55209866900

Yoksis Researcher ID: 51811

## Education Information

Doctorate, Gebze Technical University, Faculty Of Basıc Scıences, Department Of Mathematıcs, Turkey 2011 - 2019

Postgraduate, Gebze Technical University, Faculty Of Basıc Scıences, Department Of Mathematıcs, Turkey 2009 - 2011

Undergraduate, Anadolu University, Faculty Of Busıness Admınıstratıon, Department Of Busıness, Turkey 2006 - 2010

Undergraduate, Gebze Technical University, Faculty Of Basıc Scıences, Department Of Mathematıcs, Turkey 2004 - 2009

## Foreign Languages

English, C2 Mastery

## Dissertations

Doctorate, Stability Analyses of Nonlinear Fuzzy Dynamic Systems of Perturbed Systems with respect to Unperturbed Systems with Initial Time Difference, Gebze Technical University, Instıtute Of Scıence, 2019

Postgraduate, Lineer olmayan dinamik sistemler için stabilite ve kesin stabilite kriterleri, Gebze Technical University, Instıtute Of Scıence, 2011

## Research Areas

Mathematics, Computer Science, Differential Equations, Natural Sciences

## Academic Titles / Tasks

Research Assistant PhD, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatıcs, 2010 - Continues

Courses

## Courses

Mathematics 1, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020
Linear Algebra, Undergraduate, 2021 - 2022
MATHEMATICS 2, Undergraduate, 2020 - 2021, 2019 - 2020
Differential Equations, Undergraduate, 2019 - 2020

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

I. **Construction of periodic and solitary wave solutions for the complex nonlinear evolution equations**
ÇEVİKEL A. C., Bekir A., San S., GÜCEN M. B.
JOURNAL OF THE FRANKLIN INSTITUTE-ENGINEERING AND APPLIED MATHEMATICS, vol.351, no.2, pp.694-700, 2014 (SCI-Expanded)

II. **Practical stability in terms of two measures for fractional order dynamic systems in Caputo's sense with initial time difference**
Cicek M., Yakar C., GÜCEN M. B.
JOURNAL OF THE FRANKLIN INSTITUTE-ENGINEERING AND APPLIED MATHEMATICS, vol.351, no.2, pp.732-742, 2014 (SCI-Expanded)

III. **Initial time difference stability of causal differential systems in terms of Lyapunov functions and Lyapunov functionals**
Yakar C., GÜCEN M. B.
Journal of Applied Mathematics, vol.2014, 2014 (SCI-Expanded)

IV. **Practical stability, boundedness criteria and Lagrange stability of fuzzy differential systems**
Yakar C., Cicek M., Gucen M. B.
COMPUTERS & MATHEMATICS WITH APPLICATIONS, vol.64, no.6, pp.2118-2127, 2012 (SCI-Expanded)

V. **Boundedness and Lagrange stability of fractional order perturbed system related to unperturbed systems with initial time difference in Caputo's sense**
Yakar C., Cicek M., GÜCEN M. B.
ADVANCES IN DIFFERENCE EQUATIONS, 2011 (SCI-Expanded)

## Articles Published in Other Journals

I. **Strict Stability of Fuzzy Differential Equations by Lyapunov Functions**
Gücen M. B., Yakar C.
International Journal of Computer and Information Engineering, vol.12, pp.315-319, 2018 (Peer-Reviewed Journal)

II. **Strict Stability Criteria of Unperturbed Systems with Initial Time Difference**
Gücen M. B., Yakar C.
Journal of Concrete and Applicable Mathematics, vol.9, no.3, pp.213-222, 2011 (Peer-Reviewed Journal)

III. **A Special Application Of The Power Series Expansion Method To Nonlinear Fractional Order Differential Equations**
GÜCEN M. B.
Nonlinear Science Letters A, vol.2, no.1, pp.47-52, 2011 (Peer-Reviewed Journal)

## Books

I. **Initial Time Difference Strict Stability of Fractional Dynamic Systems**
Yakar C., Gücen M. B.
in: Fractional Dynamics and Control, Dumitru Baleanu,José António Tenreiro Machado,Albert C. J. Luo, Editor, Springer, London/Berlin , New-York, pp.133-144, 2012

II. **Strict Stability of Fractional Perturbed Systems in Terms of Two Measures**
Yakar C., Gücen M. B., Çiçek M.
in: Fractional Dynamics and Control, Dumitru Baleanu,José António Tenreiro Machado,Albert C. J. Luo, Editor,
Springer, London/Berlin , New-York, pp.119-132, 2012

## Refereed Congress / Symposium Publications in Proceedings

I. **Diabetes Data Analysis via Gaussian Membership Functions with Deep Neural Networks**
GÜCEN M. B., Aykut Karaboga H.
3rd International Symposium on Multidisciplinary Studies and Innovative Technologies, ISMSIT 2019, Ankara,
Turkey, 11 - 13 October 2019

II. **Initial Time Difference Stability of Fuzzy Differential Equations By Lyapunov Functions**
Gücen M. B., Yakar C.
International Conference on Mathematics: An Istanbul Meeting for World Mathematicians including
Minisymposium on Approximation Theory and Minisymposium on Mathematics Education(ICOMATH 2018),
İstanbul, Turkey, 3 - 06 July 2018, pp.1-2

III. **Practical Stability Analyses of Fuzzy Dynamic Systems of Perturbed Systems with respect to
Unperturbed Systems with Initial Time Difference**
Gücen M. B., Yakar C.
", International Conference on Mathematics: An Istanbul Meeting for World Mathematicians including
Minisymposium on Approximation Theory and Minisymposium on Mathematics Education(ICOMATH 2018),
İstanbul, Turkey, 3 - 06 July 2018, pp.1-2

IV. **Strict Stability of Fuzzy Differential Equations by Lyapunov Functions**
Gücen M. B., Yakar C.
20th International Conference on Fuzzy Systems and Neural Computing, Berlin, Germany, 21 - 22 May 2018,
pp.2327-2331

V. **Strict Stability of Unperturbed Fuzzy Differential Equations**
Gücen M. B., Yakar C.
", INTERNATIONAL CONFERENCE on MATHEMATICAL ADVANCES and APPLICATIONS (ICOMAA2018), İstanbul,
Turkey, 11 - 13 May 2018, pp.1-2

VI. **Practical Stability Analyses of Nonlinear Fuzzy Dynamic Systems of Unperturbed Systems with Initial
Time Difference**
Gücen M. B., Yakar C.
Algebraic Hyperstructures and its Applications Conference(AHA 2017), İstanbul, Turkey, 24 - 27 July 2017, pp.1-2

VII. **Stability analysis of nonlinear fuzzy dynamic systems of unperturbed systems with initial time
difference**
Gücen M. B., Yakar C.
2nd International Conference on Pure & Applied Science, İstanbul, Turkey, 1 - 05 June 2016, pp.1

VIII. **Soyut Uzaylarda Sabitlerin Değişimi ve Başlangıç Zaman Farklı bir Uygulama**
GÜCEN M. B., YAKAR C.
8. ANKARA MATEMATİK GÜNLERİ, 01 June 2013

IX. **Strict Stability Criteria of Fractional Order Differential Equations in Caputo' s Sense**
GÜCEN M. B., YAKAR C.
ICAAA 2011, 01 July 2011, vol.1, pp.209

X. **Practical Stability In Terms Of Two Measures For Fractional Order Dynamic Systems In Caputo's
Sense With Initial Time Difference**
Gücen M. B., Yakar C., Çiçek M.
ICAAA 2011, İstanbul, Turkey, 29 - 30 June 2011, pp.1-2

XI. **Construction Of Periodic And Solitary Wave Solutions For The Complex Nonlinear Evolution
Equations**

Gücen M. B., Çevikel A. C., San S., Bekir A.

ICAAA 2011, İstanbul, Turkey, 29 - 30 June 2011, pp.1-2

XII. **Caputo Anlamında Başlangıç Zaman Farklı Fraksiyonel Dinamik Sistemler için Lagrange Kararlılık ve Sınırlılık Kriteri**

Yakar C., Gücen M. B., Çiçek M.

6. AMG 2011, Ankara, Turkey, 2 - 03 June 2011, pp.1-2

XIII. **Strict Stability Criteria of Unperturbed Systems with Initial Time Difference**

Gücen M. B., Yakar C.

Third International Interdisciplinary Chaos Symposium on Chaos and Complex Systems, İstanbul, Turkey, 21 - 24 May 2010, pp.1-4

XIV. **Strict Stability Criteria of Fractional Order Differential Equations in Caputo's Sense in Terms of Two Measures with Initial Time Diference**

Gücen M. B., Yakar C., Çiçek M.

Conference on New Trends in Nanotechnology and Nonlinear Dynamical Systems, Ankara, Turkey, 25 - 27 July 2010, pp.1-8

XV. **Lineer Olmayan Diferansiyel Denklemler için Başlangıç Zaman Farklı Sınrlılık ve Lagrange Stabilite Kriteri**

Gücen M. B., Yakar C., Çiçek M.

XXIII. Ulusal Matematik Sempozyumu. UMS23 , Kayseri, Turkey, 4 - 07 August 2010, pp.1-2

XVI. **Initial Time Difference Strict Stability Criteria of Fractional Order Differential Equations in Caputo's Sense at Çankaya University Department of Mathematics. Ankara, Turkey. 25 – 27 July, 2010.**

Gücen M. B., Yakar C.

Conference on New Trends in Nanotechnology and Nonlinear Dynamical Systems, NTNDS10, Ankara, Turkey, 25 - 27 July 2010, pp.1-2

XVII. **Pertörb Olmayan Sistemlerin Başlangıç Zaman Farklı İki Ölçü Cinsinden Kesin Kararlılık Kriterleri**

Gücen M. B., Yakar C.

V. Ankara Matematik Günleri Ulusal Matematik Sempozyumu, Ankara, Turkey, 3 - 04 June 2010, pp.1-2

## Scientific Refereeing

The Journal of The Franklin Institute, Journal Indexed in SSCI, March 2016

## Metrics

Publication: 27
Citation (WoS): 36
Citation (Scopus): 72
H-Index (WoS): 4
H-Index (Scopus): 4

## Congress and Symposium Activities

13th Algebraic Hyperstructures and its Applications Conference, Attendee, İstanbul, Turkey, 2017
2nd International Conference on Pure and Applied Sciences, Attendee, İstanbul, Turkey, 2016