Prof. Muhammet KURULAY

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International Researcher IDs
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Biography

Prof. Dr. Muhammet Kurulay was born in Of district of Trabzon. He completed his primary and high school education in Istanbul (1997), his undergraduate education at AU (2001), and his master's and doctorate education at YTU (2009). Between 2010-2011, he was a visiting professor at the University of Connecticut in the USA. He gave lectures at various universities. He served as vice dean at his faculty between 2014-2016 and as a member of the board of directors at Yıldız Technopark at the university. He still continues his studies at Yıldız Technical University, Department of Mathematics Engineering.

He has about 50 published articles and more than 60 oral presentations at international conferences. He is the chief editor in 3 academic journals, editor and referee in many academic journals and a member of scientific juries in various fields. He mentored and graduated 4 doctoral and 3 master's students. His work has received over 600 citations. He has 6 internationally published books and 2 national book chapters. He acted as a coordinator in 4 technopark projects and 3 university BAP projects.

He has organized and conducted dozens of international conferences and seminars in academic and professional fields abroad and in Turkey.

He is married and has 2 children.

Education Information

Post Doctorate, University of Connecticut, Mathematics, Mathematics, United States Of America 2010 - 2011
Doctorate, Yildiz Technical University, Fen Edebiyat F., Matematik, Turkey 2006 - 2009

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Numerical solutions of time-fractional non-linear partial differential equations, Yildiz Technical University, Faculty of Arts & Science, Department of Mathemeatics, 2009

Research Areas

algorithms, Artificial Intelligence, Computer Learning and Pattern Recognition, Differential Equations, Partial Differential Equations, Numerical Analysis

Academic Titles / Tasks

Professor, Yildiz Technical University, Faculty Of Chemıcal And Metallurgıcal Engıneerıng, Department Of Mathematics Engineering, 2020 - Continues

Associate Professor, Yildiz Technical University, Faculty Of Chemıcal And Metallurgıcal Engıneerıng, Department Of Mathematics Engineering, 2014 - 2019

Assistant Professor, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, 2009 - 2014

Research Assistant, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, 2005 - 2009

Academic and Administrative Experience

Fakülte Kurulu Üyesi, Yildiz Technical University, FACULTY OF CHEMICAL AND METALLURGICAL ENGINEERING, Department of Mathematics Engineering, 2014 - 2016

Vice Dean, Yildiz Technical University, FACULTY OF CHEMICAL AND METALLURGICAL ENGINEERING, 2014 - 2016

Fakülte Yönetim Kurulu Üyesi, Yildiz Technical University, FACULTY OF CHEMICAL AND METALLURGICAL ENGINEERING, Department of Mathematics Engineering, 2014 - 2016

Araştırma Görevlisi Fakülte Temsilcisi, Yildiz Technical University, Faculty of Arts & Science, 2007 - 2008

Courses

Kısmi diferansiyel Denklemler, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Bitirme Çalışması, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015

Temel Bilgisayar Bilimleri, Undergraduate, 2018 - 2019

Matematik Mühendialiğinde Tasarım Uygulamaları, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015

C Programlamaya Giriş, Undergraduate, 2017 - 2018

Matematik Tarihi, Undergraduate, 2018 - 2019

Analiz 1, Undergraduate, 2014 - 2015

Diferansiyel Denklemler, Undergraduate, 2015 - 2016

Bitirme Tezi, Undergraduate, 2013 - 2014

Diferansiyel Denklemler, Undergraduate, 2014 - 2015

Sayısal Analiz 1, Undergraduate, 2014 - 2015

Uzmanlık Alan Dersi (Yüksek Lisans, Postgraduate, 2012 - 2013

ADVENCE NUMARİCAL ANALYSİS, Doctorate, 2012 - 2013

DİFERANSİYEL DENKLEMLER, Undergraduate, 2013 - 2014

Matematik Mühendialiğinde Tasarım Uygulamaları, Undergraduate, 2013 - 2014

Uzmanlık Alan Dersi (Doktora), Doctorate, 2012 - 2013

Kısmi Diferansiyel Denklemlerde Nümerik Metodlar, Doctorate, 2012 - 2013

Differential Equations, Undergraduate, 2012 - 2013, 2011 - 2012, 2009 - 2010

SOLVİNG OF DİFFERENTİAL EQUATİONS, Undergraduate, 2011 - 2012

Advising Theses

Kurulay M., Indexing with DataMatrix System, Doctorate, M.YEŞİLTEPE(Student), 2022

Kurulay M., Social Network Analysis in Telecom Industry with Data Mining Machine Learning Algorithms, Postgraduate, F.Ulku(Student), 2021

Kurulay M., Guebbaib H., Analytical and numerical study of nonlinear Volterra integro-differential equations with new Caputo fractional derivative, Doctorate, M.BEKKOUCHE(Student), 2021

Kurulay M., LARGE SCALE MATRIX DIFFERENTIAL EQUATIONS FOR KRYLOV METHODS, Doctorate, Y.DERİCİOĞLU(Student), 2019

Kurulay M., Hybridizable non-continuous Galerkin method for some fractional differential equations, Doctorate, M.FATİH(Student), 2016

Kurulay M., Klein-Gordon denkleminin sonlu farklar metodu ile çözümü, Postgraduate, H.BERAN(Student), 2015

Kurulay M., Kesirli mertebeden Burger denkleminin sonlu fark yöntemi ile çözümü ve analizi, Postgraduate, İ.ŞENTÜRK(Student), 2014

Jury Memberships

Appointment to Academic Staff-Assistant Professorship, Appointment to Academic Staff-Assistant Professorship, İstanbul Gelişim Üniversitesi, May, 2023

Appointment to Academic Staff-Assistant Professorship, Appointment to Academic Staff-Assistant Professorship, İstanbul Gelişim Üniversitesi, May, 2023

Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, June, 2022

Associate Professor Exam, Associate Professor Exam, Balıkesir Üniversitesi, June, 2022

Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, June, 2022

Associate Professor Exam, Associate Professor Exam, Yildiz Technical University, July, 2021

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Yıldız Teknik Üniversitesi, July, 2021

Associate Professor Exam, Associate Professor Exam, Yildiz Technical University, June, 2020

Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, İstanbul Teknik Üniversitesi, February, 2020

Published journal articles indexed by SCI, SSCI, and AHCI

I. **A Novel Nonlinear Dynamic Model Describing the Spread of Virus**
    Shakhmurov V. B., Kurulay M., Sahmurova A., Gursesli M. C., Lanata A.
    MATHEMATICS, vol.11, no.20, pp.1-15, 2023 (SCI-Expanded)

II. **Nonlocal fractional elliptic equations and applications**
    Shakhmurov V., Kurulay M.
    NUMERICAL METHODS FOR PARTIAL DIFFERENTIAL EQUATIONS, vol.39, no.2, pp.923-931, 2023 (SCI-Expanded)

III. **Interaction of Virus in Cancer Patients: A Theoretical Dynamic Model**
    Shakhmurov V. B., Kurulay M., Sahmurova A., Gursesli M. C., Lanata A.
    Bioengineering, vol.24, no.10, pp.1-17, 2023 (SCI-Expanded)

IV. **Maximal Lp−regularity of two−term fractional differential equations with boundary conditions**
    Şahmurov V., Karaaslan M. F., Kurulay M.
    TWMS JOURNAL OF PURE AND APPLIED MATHEMATICS, vol.13, pp.1-14, 2022 (SCI-Expanded)

V. **On the solvability fractional of a boundary value problem with new fractional integral**
    Bekkouche M. M., Guebbai H., KURULAY M.
    JOURNAL OF APPLIED MATHEMATICS AND COMPUTING, vol.64, pp.551-564, 2020 (SCI-Expanded)

VI. **On the weakly singular integro-differential nonlinear Volterra equation depending in acceleration**

term

Ghiat M., Guebbai H., Kurulay M., Segni S.

Computational and Applied Mathematics, vol.39, no.3, 2020 (SCI-Expanded)

VII. **An efficient indexing for Internet of Things massive data based on cloud-fog computing**

Benrazek A., Kouahla Z., Farou B., Ferrag M. A., Seridi H., KURULAY M.

TRANSACTIONS ON EMERGING TELECOMMUNICATIONS TECHNOLOGIES, vol.31, no.3, 2020 (SCI-Expanded)

VIII. **A computational method for large-scale differential symmetric Stein equation**

Dericioglu Y., Kurulay M.

MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.42, no.16, pp.5438-5445, 2019 (SCI-Expanded)

IX. **A hybridizable discontinuous Galerkin method for a class of fractional boundary value problems**

Karaaslan M. F., Celiker F., Kurulay M.

JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, vol.333, pp.20-27, 2018 (SCI-Expanded)

X. **Fake and Real Massaging at the Same Time with QR Code in Web Services for Different Users**

Yeşiltepe M., Kurulay M.

SECURITY AND COMMUNICATION NETWORKS, 2018 (SCI-Expanded)

XI. **Approximate solution of the Bagley-Torvik equation by hybridizable discontinuous Galerkin methods**

Karaaslan M. F., Celiker F., Kurulay M.

APPLIED MATHEMATICS AND COMPUTATION, vol.285, pp.51-58, 2016 (SCI-Expanded)

XII. **Fractional Calculus and Its Applications in Applied Mathematics and Other Sciences**

Ray S. S., Atangana A., Noutchie S. C. O., Kurulay M., Bildik N., Kilicman A.

MATHEMATICAL PROBLEMS IN ENGINEERING, 2014 (SCI-Expanded)

XIII. **A Novel Matching of MR Images Using Gabor Wavelets**

Akinlar M. A., Kurulay M., Seçer A., Celenk M.

IETE TECHNICAL REVIEW, vol.30, pp.129-133, 2013 (SCI-Expanded)

XIV. **A fast and efficient 3D medical image registration method Szybka i efektywna metoda rejestracji obrazu medycznego 3D**

Akinlar M. A., KURULAY M., SEÇER A.

Przeglad Elektrotechniczny, vol.89, pp.199-202, 2013 (SCI-Expanded)

XV. **A New Approximate Analytical Solution of Kuramoto - Sivashinsky Equation Using Homotopy Analysis Method**

Kurulay M., Secer A., Akinlar M. A.

APPLIED MATHEMATICS & INFORMATION SCIENCES, vol.7, pp.267-271, 2013 (SCI-Expanded)

XVI. **Computational Solution of a Fractional Integro-Differential Equation**

Kurulay M., Akinlar M. A., Ibragımov R.

ABSTRACT AND APPLIED ANALYSIS, 2013 (SCI-Expanded)

XVII. **A Novel Method for Analytical Solutions of Fractional Partial Differential Equations**

Akinlar M. A., Kurulay M.

MATHEMATICAL PROBLEMS IN ENGINEERING, 2013 (SCI-Expanded)

XVIII. **A computational method using multiresolution for volumetric data integration**

Akinlar M. A., Kurulay M., Seçer A., Celenk M.

BOUNDARY VALUE PROBLEMS, 2012 (SCI-Expanded)

XIX. **Approximate analytic solutions of the modified Kawahara equation with homotopy analysis method**

Kurulay M.

ADVANCES IN DIFFERENCE EQUATIONS, 2012 (SCI-Expanded)

XX. **Efficient Variational Approaches for Deformable Registration of Images**

Akinlar M. A., Kurulay M., Seçer A., Bayram M.

ABSTRACT AND APPLIED ANALYSIS, 2012 (SCI-Expanded)

XXI. **The sinc-Galerkin method and its applications on singular Dirichlet-type boundary value problems**

Seçer A., Kurulay M.

BOUNDARY VALUE PROBLEMS, pp.1-14, 2012 (SCI-Expanded)

XXII. **Solving the fractional nonlinear Klein-Gordon equation by means of the homotopy analysis method**

KURULAY M.

ADVANCES IN DIFFERENCE EQUATIONS, 2012 (SCI-Expanded)

XXIII. **Curvature-driven diffusion-based mathematical image registration models**

Akinlar M. A., Kurulay M., Seçer A., Celenk M.

ADVANCES IN DIFFERENCE EQUATIONS, 2012 (SCI-Expanded)

XXIV. **Some properties of the Mittag-Leffler functions and their relation with the Wright functions**

Kurulay M., Bayram M.

ADVANCES IN DIFFERENCE EQUATIONS, 2012 (SCI-Expanded)

XXV. **An efficient computer application of the sinc-Galerkin approximation for nonlinear boundary value problems**

Seçer A., Kurulay M., Bayram M., Akinlar M. A.

BOUNDARY VALUE PROBLEMS, 2012 (SCI-Expanded)

XXVI. **Approximate analytical solution for the fractional modified KdV by differential transform method**

KURULAY M., Bayram M.

COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, vol.15, no.7, pp.1777-1782, 2010 (SCI-Expanded)

XXVII. **Solving a system of nonlinear fractional partial differential equations using three dimensional differential transform method**

KURULAY M., İBRAHİMOĞLU B. A., Bayram M.

INTERNATIONAL JOURNAL OF THE PHYSICAL SCIENCES, vol.5, no.6, pp.906-912, 2010 (SCI-Expanded)

Articles Published in Other Journals

I. **Innovative deep learning approach for cross-crop plant disease detection: A generalized method for identifying unhealthy leaves**

Bouacida I., Farou B., Djakhdjakha L., Seridi H., KURULAY M.

Information Processing in Agriculture, 2024 (Scopus)

II. **On the Construction of Quantum and LCD Codes from Cyclic Codes over the Finite Commutative Rings**

Ali S., Alali A. S., Jeelani M., Kurulay M., Öztas E. S., Sharma P.

Axioms, vol.12, no.367, pp.1-13, 2023 (Scopus)

III. **Метод проекции Канторовича в приближении обобщенного квадратичного спектра**

Kamouche S., Guebbai H., Ghait M., Kurulay M.

Numerical Methods and Programming, vol.23, no.3, pp.240-247, 2022 (Peer-Reviewed Journal)

IV. **A Survey on Big IoT Data Indexing: Potential Solutions, Recent Advancements, and Open Issues**

Kouahla Z., Benrazek A., Ferrag M. A., Farou B., Seridi H., KURULAY M., Anjum A., Asheralieva A.

FUTURE INTERNET, vol.14, no.1, 2022 (ESCI)

V. **A new fractional integral associated with the Caputo-Fabrizio fractional derivative**

Moumen Bekkouche M., Guebbai H., KURULAY M., Benmahmoud S.

RENDICONTI DEL CIRCOLO MATEMATICO DI PALERMO, vol.70, no.3, pp.1277-1288, 2021 (ESCI)

VI. **A numerical approach for Camassa-Holm equation using extended trial equation method**

Karaaslan M. F., Kurulay M.

Tbilisi Mathematical Journal, no.7, pp.33-38, 2021 (ESCI)

VII. **Ascending hierarchical classification for camera clustering based on FoV overlaps for WMSN**

Benrazek A., Farou B., Seridi H., Kouahla Z., KURULAY M.

IET WIRELESS SENSOR SYSTEMS, vol.9, no.6, pp.382-388, 2019 (ESCI)

VIII. **NUMERICAL SOLUTION OF TIME AND SPACE FRACTIONAL BURGER'xxS EQUATION WITH FINITE DIFFERENCE METHOD**

Şentürk İ., KURULAY M.

Journal of Engineering Technology and Applied Sciences, vol.4, no.2, pp.71-83, 2019 (Peer-Reviewed Journal)

IX. **On the Study of Nonlinear Fractional Di?erential Equations on Unbounded Interval**
Hallaci A., Boulares ., Kurulay M.
General Letters in Mathematics, vol.5, no.3, pp.111-117, 2018 (Peer-Reviewed Journal)

X. **Efficient Camera Clustering Method Based onOverlapping FoVs for WMSNs**
Eddine B. A., Brahim F., Kurulay M.
International Journal of Informatics and Applied Mathematics, vol.1, no.1, pp.10-23, 2018 (Peer-Reviewed Journal)

XI. **Low-rank approximate solutions to large-scale differential matrix Riccati equations**
Güldoğan Y., Hached M., Jbilou K., Kurulay M.
Applicationes Mathematicae, vol.45, pp.233-254, 2018 (Scopus)

XII. **Sort of Turkey's top 20 banks by cipher suite value**
Yeşiltepe M., Yılmaz B., Yeni Ö., Kurulay M.
Global Journal Of Computer Sciences, vol.5, no.2, pp.74-79, 2015 (Peer-Reviewed Journal)

XIII. **Compression internet access methods of Universities in Turkey**
Yeşiltepe M., Yılmaz I., Kurulay M.
Global Journal Of Computer Sciences, vol.5, no.2, pp.68-73, 2015 (Peer-Reviewed Journal)

XIV. **WCF'DE THROTTLING (AZALTMA) MEKANİZMASININ PROTOKOL BAZLI İNCELENMESİ**
Yeşiltepe M., Kurulay M.
Uluslararası Bilgi Güvenliği Mühendisliği Dergisi, vol.1, no.2, pp.27-32, 2015 (Peer-Reviewed Journal)

XV. **An Application of the Differential Transform Method to the Biochemical Reaction Systems**
Bayram M., Yıldırım K., Kurulay M.
Applied Mechanics and Materials, vol.319, pp.151-156, 2013 (Peer-Reviewed Journal)

XVI. **Metabolic control analysis in enzymes kinetics**
Bayram M., KURULAY M.
Malaysian Journal of Mathematical Sciences, vol.6, pp.61-71, 2012 (ESCI)

XVII. **Comparison of numerical solutions of time-fractional reaction-diffusion equations**
KURULAY M., Bayram M.
Malaysian Journal of Mathematical Sciences, vol.6, pp.49-59, 2012 (ESCI)

XVIII. **Variational Iteration Method For Solving Nonlinear Fractional Integro Differential Equations**
Kurulay M., Seçer A.
Int. J. of Computer Science and Emerging Technologies, vol.2, pp.18-20, 2011 (Peer-Reviewed Journal)

XIX. **The approximate and exact solutions of the space and time fractional Burggres equations**
Kurulay M.
International Journal of Research and Reviews in Applied Sciences, vol.3, pp.257-263, 2010 (Peer-Reviewed Journal)

XX. **Power Series Method for Linear Partial Differential Equations of Fractional Order**
KURULAY M., Bayram M.
COMMUNICATIONS IN MATHEMATICS AND APPLICATIONS, vol.1, no.2, pp.71-76, 2010 (ESCI)

XXI. **A novel power series method for solving second order partial differential equations**
Kurulay M., Bayram M.
EUROPEAN JOURNAL OF PURE AND APPLIED MATHEMATICS, vol.2, pp.268-277, 2009 (Peer-Reviewed Journal)

XXII. **Solution of Stiff Systems by using Differential Transform Method**
GÜZEL N., KURULAY M.
Dumlupınar Üniversitesi Fen Bilimleri Dergisi, no.16, pp.49-59, 2008 (Peer-Reviewed Journal)

XXIII. **SOLUTION OF THE DIFFERENTIAL ALGEBRAIC EQUATIONS WITH INDEX 3 USING DIFFERENTIAL TRANSFORM METHOD**
Murat O., Kurulay M., Bayram M.
Dumlupınar Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.1, pp.25-30, 2008 (Peer-Reviewed Journal)

XXIV. **Application of the Differential Transform Method to Differential-Algebraic Equations With Index 2**
OSMANOĞLU M., KURULAY M., BAYRAM M.
AKÜ-Fen Bilimleri Dergisi, vol.8, no.1, pp.259-268, 2008 (Peer-Reviewed Journal)

XXV. **POWER SERIES SOLUTION OF DIFFERENTIAL ALGEBRAIC EQUATION**

Kurulay M., Bayram M.

Dumlupmar Universitesi Fen Bilirnleri Enstitusu Dergisi, vol.13, no.1, pp.39-44, 2007 (Peer-Reviewed Journal)

XXVI. SABiT KATSAYILI LiNEER DiFERENSiYEL CEBiRSEL DENKLEMLERiN DiFERENSiYEL DONUSUM YONTEMi iLE NUMERiK COZUMU

OSMANOĞLU M., KURULAY M., BAYRAM M.

Dumlupınar Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.13, no.1, pp.5-53, 2007 (Peer-Reviewed Journal)

Books & Book Chapters

I.   **Proceedings of the third Conference on Informatics and Applied Mathematics (IAM-2020)**
Kurulay M. (Editor)
CEUR-WS.org, Guelma, 2020

II. **7th International Congress on Fundamental and Applied Sciences 2020**
Kurulay M. (Editor)
Muhammet Kurulay, Priştine, 2020

III. **Conference on Innovative Trends in Computer Science**
Kurulay M. (Editor)
CEU Press see Central European University Press, Guelma, 2019

IV. **International congress on fundamental and applied sciences 2019 book of abstract**
Kurulay M. (Editor), Oztas E. S. (Editor)
Muhammet Kurulay, İstanbul, 2019

V.   **- Türk Spor Yazarlarının Yazıları ve Twitter Hesapları Üzerinden Tanınabilirliği**
KURULAY M., YEŞİLTEPE M., ÇAKIR N. N.
in: Mühendislikte Yeni Yaklaşımlar, Kerimak ÖNER M. N., UZUN R. O., Editor, Berikan Yayınevi, Ankara, pp.1-254, 2019

VI. **International congress on fundamental and applied sciences 2018 book of abstract**
Kurulay M. (Editor), Oztas E. S. (Editor)
Muhammet Kurulay, İstanbul, 2018

VII. **Methods in Computational and Applied Mathematics**
Kurulay M.
Auris Reference Limited; 1st edition (April 1, 2017), London, 2017

VIII. **International congress on fundamental and applied sciences 2017 book of abstract**
Öztaş E. S., Kurulay M. (Editor)
Muhammet Kurulay, İstanbul, 2017

IX. **International congress on fundamental and applied sciences 2016 book of abstract**
Kurulay M. (Editor)
Muhammet Kurulay, İstanbul, 2016

X.   **Yurtdışı Doktora Programlarının İncelenmesi ve Değerlendirilmesi**
KURULAY M.
Üniversite Öğretim Elemanları Dayanışma Derneği, İstanbul, 2016

Refereed Congress / Symposium Publications in Proceedings

I.   **Uniform separability of four- term fractional differential equations on real line**
Karaaslan M. F., Kurulay M.
8th International Congress on Fundamental and Applied Sciences, Antalya, Turkey, 19 - 21 October 2021, pp.1-7

II. **Customer Churn Behaviour Predicting Using Social Network Analysis Techniques: A Case Study**
Gursoy U., KURULAY M., AKTAŞ M. S.
3rd International Conference on Electrical, Communication and Computer Engineering, ICECCE 2021, Kuala-

Lumpur, Malaysia, 12 - 13 June 2021

III. **Customer Churn Behaviour Predicting Using Social Network Analysis Techniques: A Case Study**
Gursoy U. F., KURULAY M., AKTAŞ M. S.
3rd International Conference on Electrical, Communication and Computer Engineering, ICECCE 2021, Kuala-Lumpur, Malaysia, 12 - 13 June 2021

IV. **Automatic labeling of tracked objects based on an indexing mechanism**
Allele I., Benrazek A., Kouahla Z., Farou B., Seridi H., KURULAY M.
2021 International Conference on Theoretical and Applicative Aspects of Computer Science, ICTAACS 2021, Skikda, Algeria, 15 - 16 December 2021

V. **A stability and existence-uniqueness results for the system of fractional-order mathematical model of COVID-19-disease**
Karaaslan M. F., Kurulay M.
4th International Conference on Mathematics "An Istanbul Meeting for World Mathematicians", İstanbul, Turkey, 27 - 28 October 2020, pp.1-2

VI. **A DYNAMİC MODEL DESCRİBİNG OF İNTERACTİON OF CORONOVİRUS İN CANCER PATİENTS**
Aida S., KURULAY M., Veli S.
A DYNAMİC MODEL DESCRİBİNG OF İNTERACTİON OF CORONOVİRUS İN CANCER PATİENTS, 6 - 08 October 2020

VII. **Mühendislik**
KURULAY M.
Conference on Innovative Trends in Computer Science (CITCS'xx2019), 20 - 21 November 2019

VIII. **Hexadecimal Hash Value Hiding in a Message in Web Service against Deep Learning**
YEŞİLTEPE M., Jamil A., Rasheed J., KURULAY M.
11th International Conference on Electrical and Electronics Engineering, ELECO 2019, Bursa, Turkey, 28 - 30 November 2019, pp.693-697

IX. **Big IoT Data Indexing: Architecture, Techniques and Open Research Challenges**
Seridi H., Kouahla Z., KURULAY M., Ferrag M. A.
2019 International Conference on Networking and Advanced Systems (ICNAS), Annaba, Algeria, 26 - 27 June 2019

X. **Low Rank Approximate Solutions to Large-Scale Differential Matrix Riccati Equations**
Kurulay M.
First-edition-doctoral-days-informatics-and-applied-mathematics, Guelma, Algeria, 3 - 04 October 2018

XI. **Model Reductions in Large Scale Fractional Dynamical Systems with Applications**
Kurulay M.
first-edition-doctoral-days-informatics-and-applied-mathematics, Guelma, Algeria, 03 October 2018, pp.1

XII. **Extended Trial Equation Method to Camassa-Holm Equation**
Karaaslan M. F., Kurulay M.
International Congress on Fundamental and Applied Sciences, Skopje, Macedonia, 18 - 22 June 2018, pp.1

XIII. **ENCRYPTION MECHANISM IN QUANTUM COMPUTERS**
YEŞİLTEPE M., KURULAY M.
İCFAS2017, 21 - 24 August 2017, no.1

XIV. **NUMERICAL SOLUTIONS TO LARGE-SCALE SINGULARLY PERTURBED SYSTEMS USING KRYLOV SUBSPACE METHOD**
DERİCİOĞLU Y., KURULAY M., HACHED M., JBILOU K.
International Congress on Fundamental and Applied Sciences 2017, Sarajevo, Bosnia And Herzegovina, 21 August 2017, pp.67

XV. **Social networking for mobile devices**
Yeşiltepe M., Kurulay M.
nternational Congress on Fundamental and Applied Sciences 2016 (ICFAS2016), İstanbul, Turkey, 22 - 26 August 2016, vol.1, no.1, pp.32

XVI. **A hybridizable discontinuous Galerkin method for thesteady state fractional advection dispersion equation**
Karaaslan M. F., Kurulay M.

http://www.icfas2016.yildiz.edu.tr/, İstanbul, Turkey, 22 - 26 August 2016, vol.1, pp.121

XVII. **Cloud interaction and safety features of mobiles devices**
Yeşiltepe M., Kurulay M.
International Congress on Fundamental and Applied Sciences 2016, İstanbul, Turkey, 22 - 26 August 2016, vol.1, pp.175

XVIII. **A new application for solving large scale differential matrix Riccati equations**
DERİCİOĞLU Y., HACHED M., KURULAY M., JBILOU K.
International Congress on Fundamental and Applied Sciences 2016, İstanbul, Turkey, 22 August 2016, pp.120

XIX. **A Hybridizable discontinuous Galerkin method for a class of fractional boundary value problem**
Karaaslan M. F., Kurulay M.
2 nd International Conference on Analysis and its Applications, Kırşehir, Turkey, 12 - 15 July 2016, pp.201

XX. **Krylov subpsace methods for large differential Riccati equations**
HACHED M., DERİCİOĞLU Y., JBILOU K., KURULAY M.
2nd International Conference on Pure and Applied Sciences, İstanbul, Turkey, 01 June 2016, pp.21

XXI. **A NEW METHOD FOR SOLVINGLARGE SCALE DİFFERENTIAL MATRIXRICCATI EQUATIONS**
Kurulay M., Jbılou K., Dericioğlu Y.
International Conference on Engineering and Natural Sciences (ICENS) 2016, Sarajevo, Bosnia And Herzegovina, 24 May 2016, pp.487

XXII. **Study Triple Data Encryption Standart Encryption Algorithm In Windows Communication Foundation Environment**
YEŞİLTEPE M., KACMAZ E., KURULAY M.
Electric Electronics, Computer Science, Biomedical Engineerings' Meeting (EBBT), İstanbul, Turkey, 26 - 27 April 2016

XXIII. **Analytical Solutions Of Time FractionalNavier Stokes Equations**
Kurulay M., Yeşiltepe M.
he 11th IMT-GT International Conference on Mathematics, Statistics and Its Applications 2015, Pattani, Thailand, 23 - 25 November 2015, vol.1, pp.106

XXIV. **On Using of the Advection diffusion problem as Environmental Modelling**
Kurulay M., Karaaslan M. F.
1st International Conference on Environmental Science and Technology (ICOEST), Sarajevo, Bosnia And Herzegovina, 9 - 13 September 2015, vol.1, pp.107-108

XXV. **Sosyal Medya Sitelerinin Kullandıkları Şifreleme Paketlerine Göre Sınıflandırılması**
Yeşiltepe M., Kurulay M.
8. Uluslararası Bilgi Güvenliği ve Kriptoloji Konferansı, Ankara, Turkey, 30 - 31 October 2015, vol.1, pp.1-4

XXVI. **Türkiye deki Bankaların 2015 Ekim Ayı ŞifrelemePaketlerinin İncelenmesi**
Yeşiltepe M., Yeni Ö., Yılmaz B., Kurulay M.
TBD. 32. Ulusal Bilişim Kurultayı, Ankara, Turkey, 3 - 05 December 2015, vol.1, no.1, pp.29-33

XXVII. **Using Protocol Level Parameter In WCF With Different Protocol**
Yeşiltepe M., Kurulay M.
The 11th IMT–GT International Conference onMathematics, Statistics and Its ApplicationsPROCEEDINGS(ICMSA 2015), Pattani, Thailand, 23 - 25 October 2015, vol.1, pp.34-42

XXVIII. **Fractional difference approximations for the time-space fractional differential equation**
KURULAY M., DERİCİOĞLU Y.
International Congress on Modelling and Scientific Computing in Engineering Mathematics (MOCASIM 2014), Marrakech, Morocco, 19 November 2014, pp.69

XXIX. **Solving of Fractional Burger's Equation with Finite Difference Method.**
Kurulay M., Şenturk İ.
SOUTH EASTERN EUROPEAN MATHEMATICAL OLYMPIAD FOR UNIVERSITY STUDENTS 2015, Ohrid, Macedonia, 24 - 27 September 2014, pp.1

XXX. **Hybridizable Discontinuous Galerkin Method for Convection-Diffusion-Reaction Problems**
Karaaslan M. F., Çeliker F., Kurulay M.

Karatekin Mathematics Days, İstanbul, Turkey, 11 - 13 June 2014, pp.197

XXXI. **A Comparative Analysis of Galerkin and Hybridizable Discontinuous Galerkin Method On Second Order Differential Equation**
Karaaslan M. F., Çeliker F., Kurulay M.
2nd International Eurasian Conference on Mathematical Sciences and Applications, Sarajevo, Bosnia And Herzegovina, 26 - 29 August 2013, pp.177

XXXII. **An application of the differential transform method to the biochemical reaction systems**
Bayram M., Yildirim K., KURULAY M.
2013 2nd International Conference on Chemical, Mechanical and Materials Engineering, CMME 2013, Melbourne, Australia, 20 - 21 January 2013, vol.319, pp.151-156

XXXIII. **Hybridizable Discontinuous Galerkin Method for One Dimensional Problems**
Karaaslan M. F., Kurulay M.
International Conference on Applied Analysis and Mathematical Modelling, İstanbul, Turkey, 2 - 05 June 2013, pp.1

XXXIV. **On Solving A Type of Fractional Volterra-Integro Differential Equations Using Homotopy Analysis Method**
Karaaslan M. F., Kurulay M.
1st International Eurasian Conference on Mathematical Sciences and Applications, Priştine, Kosova, 3 - 07 September 2012, pp.1

XXXV. **Discontinuous Galerkin Methods with An Application for Elliptic Problems**
Karaaslan M. F., Kurulay M.
International Conference on Applied Analysis and Algebra, İstanbul, Turkey, 19 - 24 June 2012, pp.1

XXXVI. **A note on fractional derivatives and Laplace's transform of fractional order**
Kurulay M.
2011 Spring Southeastern Section Meeting Statesboro, Massachusetts, United States Of America, 3 - 04 January 2011, pp.1

XXXVII. **Analytic study on nonlinear fractional partial differential equations, American Mathematical Society**
Kurulay M.
2011 Spring Eastern Sectional Meeting College of the Holy Cross, Massachusetts, United States Of America, 2 - 03 December 2010, pp.1

XXXVIII. **KESİRLİ MERTEBELİ DİFERANSİYEL DENKLEMLERİN ÇÖZÜMÜ ÜZERİNE**
Kurulay M., Osmanoğlu M., Bayram M.
XXI. ULUSAL MATEMATİK SEMPOZYUMU, İstanbul, Turkey, 1 - 04 September 2008, pp.99-100

Other Publications

I. **Fractional Calculus and Its Applications**
KURULAY M.
Presentation, pp.1, 2010

Supported Projects

Kurulay M., Technopark, Electronic Document Management System-2, 2017 - 2019
KURULAY M., Project Supported by Higher Education Institutions, BÜYÜK ÖLÇEKLİ RICCATI DENKLEMLERİ İÇİN KRYLOV YÖNTEMLERİ, 2016 - 2019
Kurulay M., Technopark, Electronic Document Management System, 2016 - 2017
Kurulay M., Technopark, Augmented Reality Oriented Mobile Tourist Guide Platform, 2015 - 2016
KURULAY M., Project Supported by Higher Education Institutions, Diferensiyel denklemler için Hybridizable Discontinuous Galerkin metodu, 2013 - 2016
Kurulay M., Technopark, BROADCAST PLATFORM WITH HIGH PERFORMANCE AND SMART CONTENT, 2013 - 2014

KURULAY M., Project Supported by Higher Education Institutions, Kesirli Mertebeden Burger Denkleminin Sonlu Fark Yöntemi ile Çözümü ve Analizi, 2013 - 2014

Activities in Scientific Journals

Academic Platform journal of engineering and smart systems (Online), Editor, 2023 - Continues
International Journal of Life Sciences and Biotechnology, Editor, 2018 - Continues
International Journal of Informatics and Applied Mathematics, First Editor, 2018 - Continues
Journal of Engineering Technology and Applied Sciences, First Editor, 2016 - Continues
Tbilisi Mathematical Journal, Special Issue Editor, 2020 - 2021
International Journal of Analysis and Applications, Special Issue Editor, 2020 - 2020
JOURNAL OF INFORMATICS AND MATHEMATICAL SCIENCES, Special Issue Editor, 2018 - 2018
Communications in Mathematics and Applications, Special Issue Editor, 2018 - 2018
Mathematical Problems In Engineering, Special Issue Editor, 2014 - 2014

Memberships / Tasks in Scientific Organizations

American Mathematical Society, Member, 2020 - Continues, United States Of America
Uluslararası Öğretim Elemanları Derneği, Chairman, 2018 - Continues, Turkey
crossref, Member, 2016 - Continues, United States Of America
Türk Matematik Derneği, Member, 2013 - Continues, Turkey
ÜNDER, Chairman, 2010 - Continues, Turkey

Scientific Refereeing

OPEN MATHEMATICS, SCI Journal, August 2023
International Conference on Big Data, Machine Learning and IoT, Conference Paper (Full Text), August 2023
Axioms, SCI Journal, April 2023
NEURAL COMPUTING AND APPLICATIONS, SCI Journal, March 2023
NEURAL COMPUTING & APPLICATIONS, SCI Journal, July 2022
WAVES IN RANDOM AND COMPLEX MEDIA, SCI Journal, July 2022
NEURAL COMPUTING & APPLICATIONS, SCI Journal, May 2022
JOURNAL OF COMPUTATIONAL SCIENCE, SCI Journal, April 2022
WAVES IN RANDOM AND COMPLEX MEDIA, SCI Journal, February 2022
JOURNAL OF COMPUTATIONAL SCIENCE, SCI Journal, February 2022
NEURAL COMPUTING & APPLICATIONS, SCI Journal, December 2021
AIN SHAMS ENGINEERING JOURNAL, SCI Journal, October 2021
WAVES IN RANDOM AND COMPLEX MEDIA, SCI Journal, August 2021
AIMS MATHEMATICS, SCI Journal, August 2021
JOURNAL OF APPLIED MATHEMATICS AND COMPUTING, SCI Journal, July 2021
MATHEMATICAL METHODS IN THE APPLIED SCIENCES, SCI Journal, February 2021
NEURAL COMPUTING & APPLICATIONS, SCI Journal, July 2020
NEURAL COMPUTING & APPLICATIONS, SCI Journal, July 2020
MATHEMATICAL METHODS IN THE APPLIED SCIENCES, SCI Journal, May 2019
NONLINEAR DYNAMICS, SCI Journal, January 2019
WAVES IN RANDOM AND COMPLEX MEDIA, SCI Journal, June 2018
INTEGRAL TRANSFORMS AND SPECIAL FUNCTIONS, SCI Journal, April 2018
COMPUTERS & MATHEMATICS WITH APPLICATIONS, SCI Journal, October 2017

COMPUTERS & MATHEMATICS WITH APPLICATIONS, SCI Journal, May 2017

JOURNAL OF PROPULSION AND POWER, SCI Journal, November 2016

MATHEMATICAL METHODS IN THE APPLIED SCIENCES, SCI Journal, August 2016

WAVES IN RANDOM AND COMPLEX MEDIA, SCI Journal, June 2016

AIN SHAMS ENGINEERING JOURNAL, SCI Journal, June 2016

NUMERICAL ALGORITHMS, SCI Journal, June 2016

MATHEMATICAL PROBLEMS IN ENGINEERING, SCI Journal, March 2016

AIN SHAMS ENGINEERING JOURNAL, SCI Journal, July 2014

NEURAL COMPUTING & APPLICATIONS, SCI Journal, June 2014

INTERNATIONAL JOURNAL OF BIOMATHEMATICS, SCI Journal, January 2014

MATHEMATICAL METHODS IN THE APPLIED SCIENCES, SCI Journal, November 2013

INTERNATIONAL JOURNAL OF BIOMATHEMATICS, SCI Journal, May 2013

Tasks In Event Organizations

Kurulay M., International Conference on Big Data, Machine Learning and IoT, Scientific Congress, United Arab Emirates, Ağustos 2023

Kurulay M., 31st IEEE Signal Processing and Communication Applications Congress, Scientific Congress, Turkey, Temmuz 2023

Kurulay M., 10th International Congress on Fundamental and Applied Sciences 2023 , Scientific Congress, Turkey, Haziran 2023

Kurulay M., 9.Uluslararası Temel ve Uygulamalı Bilimler Kongresi, Scientific Congress, İstanbul, Turkey, Haziran 2022

Kurulay M., Fourth Conference on Informatics and Applied Mathematics IAM'21, Scientific Congress, Algeria, Aralık 2021

Kurulay M., 8th International Congress of Basic and Applied Sciences, Scientific Congress, Antalya, Turkey, Ekim 2021

Kurulay M., 7th International Congress of Basic and Applied Sciences, Scientific Congress, Priştine, Kosovo, Ekim 2020

Kurulay M., Third Conference on Informatics and Applied Mathematics IAM'21, Scientific Congress, Algeria, Ekim 2020

Kurulay M., Conference on Innovative Trends in Computer Science., Scientific Congress, Algeria, Mayıs 2020

Kurulay M., 6th International Congress on Fundamental and Applied Sciences 2019, Scientific Congress, Tirane, Albania, Haziran 2019

Kurulay M., 5th International Congress on Fundamental and Applied Sciences 2019, Scientific Congress, Macedonia, Haziran 2018

Kurulay M., 4th International Congress on Fundamental and Applied Sciences , Scientific Congress, Bosnia And Herzegovina, Ağustos 2017

Kurulay M., 3th Congress on Fundamental and Applied Sciences, Scientific Congress, Turkey, Ağustos 2016

Metrics

Publication: 105
Citation (WoS): 234
Citation (Scopus): 382
H-Index (WoS): 9
H-Index (Scopus): 11

Congress and Symposium Activities

6th International Workshop on Applied Mathematics and Modeling "WIMAM'2022, Invited Speaker, Guelma, Algeria, 2022

Scientific Computing and Mathematical Modelling with Application, Invited Speaker, İstanbul, Turkey, 2022

Invited Talks

The 9th SEAMS-UGM 2023 International Conference on Mathematics and Its Applications, Conference, The 9th SEAMS-UGM 2023 International Conference on Mathematics and Its Applications, Indonesia, July 2023
Artificial Intelligence in Medical Imaging Using Matrix Computation, Conference, Diğer Kurumlar, Algeria, November 2019
The First Edition of Doctoral days on Informatics and Applied Mathematics 2018, Conference, Diğer Kurumlar, Algeria, September 2018
Analysis of Fractional Differential Equation with Finite Difference Method,
https://galileo.dm.uniba.it/Members/dellino/seminari-2013/abstract-kurulay-dottoratoerasmus-10-9-13.pdf, Seminar, Universita Degli di Verona, Italy, July 2012
Comparison of Numerical Solutions of Time-Fractional ReactionñDiffusion Equations, https://math.uconn.edu/pde-past-talks/#, Seminar, University of Connecticut, United States Of America, December 2010

Scholarships

2219 International Post-Doctoral Research Fellowship Program, TUBITAK, 2010 - 2011

Awards

Kurulay M., 2012-2013 Yıldız Teknik Üniversite'sindeki Akademisyenler Arasında En Çok Yayın Yapan Akademisyen, Birincilik Ödülü, Yıldız Teknik Üniversitesi, June 2013

Non Academic Experience

Technology Development Zone, Yildiz Technical University, Department Of Mathematics Engineering
Yildiz teknik universitesi
University of connecticut, USA