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ONLINE

# PROGRAM BOOK

**8<sup>th</sup> International Conference on  
Computational Mathematics  
and Engineering Sciences**

17 – 19 May 2024,  
Şanlıurfa – Türkiye



# **THE EIGHTH INTERNATIONAL CONFERENCE ON COMPUTATIONAL MATHEMATICS AND ENGINEERING SCIENCES (CMES- 2024), ŞANLIURFA/TÜRKİYE, MAY 17-19, 2024**

The **Eighth International Conference on Computational Mathematics and Engineering Sciences (CMES-2024)** will be held in Harran University from **17- to 19 May 2024 in Şanlıurfa, Türkiye**. It provides an ideal academic platform for researchers and professionals to discuss recent developments in both theoretical, applied mathematics and engineering sciences. This event also aims to initiate interactions among researchers in the field of computational mathematics and their applications in science and engineering, to present recent developments in these areas, and to share the computational experiences of our invited speakers and participants.

The Organizing Committee

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Hacı Mehmet Baskonus, Harran University, Türkiye

## MESSAGE FROM THE GENERAL CHAIRS



Dear Conference Attendees,

We are honored to welcome you to the **Eighth International Conference on Computational Mathematics and Engineering Sciences (CMES-2024)** at Harran University from 17 to 19 May 2024 in Şanlıurfa City, Türkiye.

CMES, founded in 2016 at Faculty of Science and Techniques Errachidia Moulay Ismail University Morocco is an annual international conference, which was very successful in the past years by providing opportunities to the participants in sharing their knowledge and informations and promoting excellent networking among different international universities. This year, the conference includes 200 extended abstracts, several submissions were received in response to the call for papers, selected by the Program Committee. The program features keynote talks by distinguished speakers such as:

**Dumitru Baleanu** from Institute of Space Sciences, Magurele-Bucharest, Romania; **Yusif Gasimov** from Azerbaijan University, Azerbaijan; **Naim L. Braha** from University of Prishtina, Kosovo; **Ekrem Savas** from Uşak University, Türkiye; **Mehmet Emir Köksal** from Ondokuz Mayıs University, Türkiye; **Amdulla O. Mekhrabov** from Azerbaijan Technical University, Azerbaijan. The conference also comprises contributed sessions, posters sessions and various research highlights.

We would like to thank the Program Committee members and external reviewers for volunteering their time to review and discuss submitted abstracts. We would like to extend special thanks to the Honorary, Scientific and Organizing Committees for their efforts in making CMES-2024 a successful event. We would like to thank all the authors for presenting their research studies during our conference. We hope that you will find CMES-2024 interesting and intellectually stimulating, and that you will enjoy meeting and interacting with researchers around the world.

***Hasan Bulut,***

Firat University, Elazig, Türkiye.

***Zakia Hammouch,***

ENS Meknes, Moulay Ismail University Morocco

## TOPICS

Control Theory,  
Game Theory,  
Applied Mathematics,  
Financial Mathematics,  
Artificial Intelligence,  
Education Sciences,  
Engineering Sciences,  
Computer Science,  
Information Technology,  
Geometry and Its Applications,  
Analysis and Its Applications,  
Statistics and Its Applications,  
Algebra and Its Applications,  
Topology and Its Application,  
Chaos and Dynamical Systems,  
Cryptography and its Applications,  
Fractional Calculus and Applications,  
Economics and Econometric Studies,

Electrical and Electronic Engineering,  
Defense industry and applications,  
Mathematical Biology,  
Computational Epidemiology,  
Mathematical Chemistry,  
Mathematics Education and Its Applications,  
Numerical Methods and Scientific  
Programming,  
Linear and Nonlinear programming and  
Dynamics,  
Modeling of Bio-systems for Optimization  
and Control,  
Ordinary, Partial, Stochastic and Delay  
Differential Equations,  
Computational Fluids mechanics. Heat and  
Mass Transfers,  
Earth Sciences,  
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Full version of submitted papers will be published in Special Volumes of reputed journals. Procedure, Guidelines and Checklist for the preparation and submission of papers to the Proceedings of CMES-2024 can be found in the journals websites. The journals in which selected and peer-reviewed full papers of CMES-2024 will be published are as follows:

## 1. BOOK OF ABSTRACTS [Free of charge]

If Authors submit ABSTRACT TEXTS, then, after getting referees evaluations for these abstracts, they will be published in ABSTRACT PROCEEDING BOOK of CMES-2024. For FULL TEXT PAPERS, Authors have to submit their FULL TEXT PAPERS online via submission system of CMES-2024. These FULL TEXT PAPERS will be published in FULL TEXT PROCEEDING BOOK of CMES-2024 after getting at least two positive reports.

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At the beginning, if Authors submit FULL TEXT PAPERS, then, after getting at least two positive referee reports, FULL TEXT PAPERS will be published in FULL TEXT PROCEEDING BOOK of CMES-2024 with ISBN:77733 number. Therefore, Abstracts of these FULL TEXT PAPERS will **NOT** be published in ABSTRACT PROCEEDING BOOK of CMES-2024.

## 3. FRACTAL AND FRACTIONAL JOURNAL [SCI-E], Selected papers from CMES-2024 will be published in a special issue dedicated to the Conference entitled "Feature Papers for Mathematical Physics Section".

[https://www.mdpi.com/journal/fractalfract/special\\_issues/1TAP5BBZ45](https://www.mdpi.com/journal/fractalfract/special_issues/1TAP5BBZ45)

This journal is indexed by SCI-E.

## 4. PROCEEDINGS OF THE INSTITUTE OF MATHEMATICS AND MECHANICS [E-SCI]

Selected papers from CMES-2024 will be published by <https://proc.imm.az/special/>

This journal is indexed by E-SCI.

## 5. TURKISH JOURNAL OF SCIENCE, [FREE]

Participants of CMES 2024 can submit their good quality papers to Turkish Journal of Science. After the peer review process, the papers will be published at TJOS. The authors must write "CMES 2024" as comments to the editor.

(Editor in Chief: Dr. Ahmet Ocak AKDEMİR) For online submission: <https://dergipark.org.tr/pub/tjos>

## 6. TURKISH JOURNAL OF INEQUALITIES, [FREE]

"Participants of CMES 2024 can submit their good quality papers to Turkish Journal of Inequalities. Selected papers will be published at TJI after the peer review process. The participants can send their papers to [erhanset@tjinequality.com](mailto:erhanset@tjinequality.com). The authors must write "CMES 2024" as the subject.

(Editor in Chief: Prof. Dr. Erhan SET)  
<http://tjinequality.com/>

## 7. MATHEMATICS IN NATURAL SCIENCE (MNS)

Authors can submit their full text paper directly to the journal by using the following link  
<https://www.isr-publications.com/mns>

## 8. MATHEMATICS IN ENGINEERING, SCIENCE AND AEROSPACE (MESA), [FREE, SCOPUS]

"Selected papers will be published after peer review in the Journal of Mathematics in Engineering, Science and Aerospace (MESA)"

(Editor in Chief: Prof. Seenith Sivasundaram)  
<http://nonlinearstudies.com/index.php/mesa>

## 9. APPLIED MATHEMATICS AND NONLINEAR SCIENCES, [SCOPUS]

Participants of CMES 2024 can submit their high quality full text papers to Applied Mathematics and Nonlinear Sciences by selecting CMES-2024 under the Select Article Type Menu.

<https://www.editorialmanager.com/amns/default.aspx>

## 10. MATHEMATICAL MODELLING AND NUMERICAL SIMULATION WITH APPLICATIONS (MMNSA), [TR DİZİN]

The Special Issue on "Advanced Methods of Modelling and Numerical Computation in Science and Engineering". Authors can submit their full text paper directly to the journal by using the information provided in the following link

[https://mmnsa.org/index.php/mmnsa/special\\_issues/SI-CMES2023](https://mmnsa.org/index.php/mmnsa/special_issues/SI-CMES2023)

## 11. SYMMETRY [SCI-E] ; SPECIAL ISSUE "ADVANCES IN MATRIX TRANSFORMATIONS, OPERATORS AND SYMMETRY"

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## 12. YUZUNCU YIL UNIVERSITY JOURNAL OF THE INSTITUTE OF NATURAL AND APPLIED SCIENCES (TR-Dizin)

Authors can submit their full text paper directly to the journal by using the following link

<https://dergipark.org.tr/tr/pub/yyufbed>

## 13. PEDAGOGICAL PERSPECTIVE (PEDPER)

Pedagogical Perspective (PedPer) is an international, double blind reviewing, non-profit, professional scientific journal. PedPer is a journal that accepts manuscripts related to pedagogy and education. <http://pedagogicalperspective.com/>



**PLENARY & INVITED  
TALKS**



## Generalised fractional operators with some applications

**Dumitru Baleanu**

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Lebanon

Institute of Space Sciences, Magurele-Bucharest, Romania

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**Abstract:** We know that fractional calculus deals with the study of so-called fractional order integral and derivative operators over real or complex domains, and their applications. However, a clear definition of a generalized fractional operator is needed. In this talk I will concentrate on solving this important issue and provide some real-world applications.

**Keywords:** fractional calculus, generalised fractional operators

### References

- [1] Al-Refai, M, Baleanu, D (2022), On an extension of the operator with Mittag-Leffler kernel, *Fractals*, 30(5): 2240129.
- [2] Anwar A, Baleanu D (2023), On two backward problems with Dzherbashian-Nersesian operator, 8(1): 887-904, *AIMS Mathematics*.



## On Some Inverse Problems In Untraditional Formulation

Yusif Gasimov<sup>1</sup>

<sup>1</sup>Azerbaijan University, Baku, Azerbaijan; <sup>2</sup>Baku State University, Baku, Azerbaijan  
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**Abstract:** The talk is devoted to the solution of some type of inverse problems. Usually, when solving inverse problems one has to recover the equation or boundary conditions describing the process using given additional conditions. As such conditions usually some signals received from the object may be taken. These signals in mathematical formulation are called spectral data that must satisfy some conditions. The searched objects are some functions, coefficients in the equations or in the boundary conditions. The problems considered in the talk are different from the traditional ones. Here we consider the inverse problems for some operators and the searched object are not functions as usual but are domains. We try to identify the domain where the process is going on. To solve such problems one meets some serious mathematical problems. The first problem is the choice of additional conditions – spectral data that satisfies all necessary conditions and allows to find the domain. The second problem is to construct a constructive mathematical apparatus that allows to work with functionals of the domains. To do this the space of the domains should be developed with all necessary mechanisms. In the work the space of the convex bounded domains is constructed and a scalar product is defined there. Then the definition of the s-functions expressed by the spectral data of the Schrodinger operator is given. A scheme is proposed to solve the following inverse spectral problem with respect to domain: Define a domain on the boundary of which the s-functions of the Schrodinger operator are equal to the given functions.

**Keywords:** Schrödinger operator, convex bounded domains.

### References

1. Pontryagin L.S., Boltyansky V.G., Gomkrelidze R.V., Mishchenko E. (1969). Mathematical theory of optimal processes. Moscow, Nauka, 1969, 384 p.
2. Gabasov R., Kirillova F.M. (1981). Optimization Methods. Minsk, BSU, 1981, 350 p.



## **THE SECRET BEHIND WESTERN CIVILIZATION: ISLAMIC SCIENCE**

Ekrem Savas<sup>1</sup>

<sup>1</sup> Department of Mathematics, Usak University, Usak, Turkey

ekremsavas@yahoo.com,

### **Abstract**

In this study; what is the place of the Islamic Cultural world in the history of sciences? I will try to explain this. I will also explain that Western civilization is the continuation of Islamic civilization under different geographical and economic conditions.

**Keywords:** Islamic culture; Western civilization

### **REFERENCES**

1. Fuat sezgin, İslam Bilim tarihi, Timaş yayınları, 2015.



## Fractional Order Thinking and Proportional-Integral-Derivative (PID) Control

Mehmet Emir KÖKSAL

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**Abstract:** The subject of fractional calculus has become very well-known and popular in recent decades. This is because fractional-order models simulate the properties of real systems better than whole order models. Therefore, fractional calculus is used as a powerful and important tool for defining, investigating, analyzing, solving, and understanding many different chemical, engineering, mathematical, physical, statistical, and social problems in real life. In this lecture, the basic concepts of fractional calculus and various common definitions of fractional integration and differentiation are introduced. Various applications in science and engineering are mentioned. In particular, the design of fractional-order proportional integral derivative controllers is emphasized. Mathematical formulations of five design specifications corresponding to the 3D drawing are presented with program implementations. The system design specifications of phase margin, gain margin, phase flatness, low-frequency output noise suppression, and high-frequency noise suppression are considered for designing controllers using the presented 3D graphical method. Each specification is represented by some surfaces that define the boundaries of the permissible parameters of PID control coefficients. The requirements are mapped in the 3D Euclid space by 3D surfaces and/or lines so that the proportional, integral, derivative control coefficients can be optimally chosen to meet the given specifications in an optimum way and to allow trade-off or compromise.

**Keywords:** Fractional calculus, Fractional order modeling, PID controller, FOPID controller, 3D plots.

### References:

1. M.E. Koksals, Time and frequency responses of non-integer order RLC circuits, *AIMS Mathematics*, 4 (1) 61-75, 2019
2. M.E. Koksals, Stability analysis of fractional differential equations with unknown parameters, *Nonlinear Analysis: Modeling and Control*, 24 (2) 224-240, 2019
3. M.E. Koksals, Explicit commutativity conditions for second-order linear time-varying systems with non-zero initial conditions, *Archives of Control Sciences*, 29 (3) 413-432, 2019



## Design and Development of Advanced Magnetic Materials via Computational Material Science for Technological Applications

Amdulla O. Mekhrabov<sup>1\*</sup> and M. Vedat Akdeniz<sup>2</sup>

<sup>1</sup>Novel Materials and Nanotechnologies Institute, Azerbaijan Technical University (AzTU), Az1073, Baku, Azerbaijan, \*emdulla.mehrabov@aztu.edu.az

<sup>2</sup>Novel Alloys Design and Development Lab (NOVALAB), Department of Metallurgical and Materials Engineering (Met E), Middle East Technical University (METU), 06800-Ankara, Turkey

**Abstract:** The presentation will be an overview of the main research thrusts at the “Novel Alloys Design and Development Lab” (NOVALAB) of MetE-METU and at "Novel Materials and Nanotechnologies" Institute of Azerbaijan Technical University (AzTU) in the designing, development and utilizations of advanced multicomponent magnetic materials for technological applications. Fundamental principles and main aspects of *Computational Materials Science (CMS)* for *modeling and simulation based “alloy design”* which has been developed over 45 years by Prof. Mekhrabov, will be presented.

**Keywords:** Modeling, Simulation, Soft Magnetic Materials, Metallic Glasses, Nanostructured alloys, Glass Formation Ability, Monte Carlo, Reverse Monte Carlo, Molecular Dynamics

### REFERENCES

1. Aykol M., Mekhrabov A.O. and Akdeniz M.V., Nano-scale Phase Separation in Amorphous Fe-B Alloys: Atomic and Cluster Ordering, Acta Mater., vol. 57, 171- 81, 2009.
2. Aykol M., Akdeniz M.V. and Mekhrabov A.O., Solidification behavior, glass forming ability and thermal characteristics of soft magnetic Fe-Co-B-Si-Nb-Cu bulk amorphous alloys, Intermetallics, vol. 19, 1330-1337, 2011.
3. M.V. Akdeniz and A.O. Mekhrabov, Size dependent stability and surface energy of amorphous FePt nanoalloy, J. of Alloys and Comp., vol. 788, 787-798, 2019.



### **Approximation by modified $(p, q)$ -gamma-type operators**

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#### **Abstract**

The main object of this paper is to construct a new class of modified  $(p, q)$ -Gamma-type operators. For this new class of operators, in section one, the general moments are found; in section two, the Korovkin-type theorem and some direct results are proved by considering the modulus of continuity and modulus of smoothness and their behavior in Lipschitz-type spaces. In section three, some results in the weighted spaces are given, and in the end, some shape-preserving properties are proven.

**Keywords:** Modified  $(p, q)$ -Gamma-type operators; Modulus of continuity; Shape-preserving approximation

#### **References**

1. Altomare, F., Campiti, M.: Korovkin-Type Approximation Theory and Its Application. Walter de Gruyter Studies in Math., vol. 17. de Gruyter & Co., Berlin (1994)
2. Atlihan, O.G., Unver, M., Duman, O.: Korovkin theorems on weighted spaces: revisited. Period. Math. Hung. 75(2), 201–209 (2017)

5/19/2024

10:00-10:45

**Ana Salon Toplantı Erişim Linki**

PLENARY LECTURE-Hall-Invited Speaker

Speaker: Prof. Dr. Amdulla O. Mekhrabov

Title: Design and Development of Advanced Magnetic Materials via Computational Material Science for Technological Applications

Chair: Dr. Öğr. Üyesi Hatice ASLAN

11:00-11:45

PLENARY LECTURE-Hall-Invited Speaker

Speaker: Prof. Dr. Naim Latif Braha

Title: Approximation by modified  $(p, q)$ -gamma-type operators

Chair: Dr. Öğr. Üyesi Hatice ASLAN

**Salon 1 Toplantı Erişim Linki**

14:00-16:00  
19.05.2024

**Chair**

Authors

Özge Akçay

Servet Akbaş, Bilgi Yılmaz

Deniz Öztürk

Aslı Öner, Sertac Goktas,  
Büşra Barut

Ali Olgun, Zekiye Rana  
Lüsna, Oğuz Yağcı

Keziban Taş

Yılmaz Erol, Ummahan  
Acar

**Dr. Öğr. Üyesi Mustafa Çağrı GÜRBÜZ**

Titles

Inverse Scattering Problem For Discontinuous Sturm-Liouville Operator

Exploring Divergence Measures: Concepts, Applications, and Advances across Disciplines

Mathematical Analysis and Modeling of Biofouling in Urban Water Filtration Systems

Conformable Sturm-Liouville Problem With Two Parameter

Several Integral Representations of the  $p$ - $k$  Srivastava's triple hypergeometric functions

On The Inverse Problem For A Secondorder Differential Operator With A Matrix Potential

On Prime Subhypermodules



### Salon 2 Toplantı Erişim Linki

14:00–16:00  
19.05.2024

| Chair   | Dr. Öğr. Üyesi Işıl BOZKURT  |
|---|--|
| Authors   | Titles   |
| Nuket Aykut Hamal,<br>Furkan Erkan              | Existence And Uniqueness Results For Singular Fractional Differential Equations With P-Laplacian Operator                      |
| Emre Aydın, İnci Çilingir<br>Süngü              | On The Semi-Analytical And Hybrid Methods For The Drinfeld-Sokolov-Wilson System Modelling Dispersive Water Waves              |
| Ahmed Abuhatim,<br>Ebru Cavlak Aslan            | Investigation of extended type a NLS equation using the extended direct algebraic method                                       |
| Hülya Gültekin Çitil, Fatma<br>Gizem Özmen      | An Investigation Of A Fuzzy Boundary Value Problem   |
| Mine Babaoglu                                   | Dirac Systems That Contain Eigenvalue Dependent Boundary Conditions  |
| Feride Tuğrul                                   | Explaining Of Decision Making Processes With The Help Of Intuitionistic Fuzzy Sets   |
| Zeynep Gülcan Kaya,<br>Murat Şahin, Ayça Gülten | A Comparative Analysis Of Tree-Inspired Fractal Branchings Dendriform Structures, From The Bc To The L-System Based Structures |
| Hülya Gültekin Çitil,<br>Ayşe Nur Başar         | An Approach To A Fuzzy Problem With Variable Coefficients  |

### Salon 3 Toplantı Erişim Linki

14:00–16:00  
19.05.2024

| Chair   | Arş. Gör. Ömer Faruk BOYUN  |
|---|---|
| Authors   | Titles  |
| Merve Karaoğlan, Erdal Baş                        | Introduction To M-Sturm-Liouville Problem For Diffusion Operator  |
| Erdal Baş, Ali Selçuk                             | Generalized Fractional The Vertical Motion Of A Falling Body Problem  |
| Enise Kartal, Erdal Baş                           | Generalized Systems of Linear Equations With Local Derivative   |
| Emre Civgin, Numan Yalcin                         | Fundamental Algebraic And Topological Concepts In Geometric Analysis  |
| Gülistan Butakin,<br>Erhan Pişkin                 | Explosive Solutions for a Fourth-Order Reaction-Diffusion Equation in Variable Exponent Sobolev Spaces            |
| E.Panakhov, F.Asadli                              | The Calculation of the Trace Formulas for Dirac Operator by Lax Method  |
| E.Panakhov, I.Shikhaliyeva                        | The Calculation of the Regularization Trace of the Diffusion Equation by Lax's Method                             |
| Serdar Kaan Hortooğlu,<br>Efe Işık, Sedat Tarakçı | Torsional Buckling Behaviour of Propeller Shaft: Comparative Investigation of Experimental and Numerical Analysis |

#### Salon 4 Toplantı Erişim Linki

14:00–16:00  
19.05.2024

| Chair   | Doç. Dr. Gülay OĞUZ  |
|---|--|
| Authors   | Titles   |
| Hakkı Güngör  | The Novel Numerical Solutions Of Conformable Fractional Benjamin–Bona– Mahony Equation By Using The Robust Conformable Method                      |
| Süleyman Cengizci   | Applications of the SUPG–YZ finite element formulation: from mussel–algae interactions to Schnakenberg reaction models                             |
| Haci Mehmet Baskonus, Halil Şençiçek  | Some New Analytical Solutions to the Nonlinear Modified Quantum Zakharov–Kuznetsov Equation  |
| İlkay Koçoğlu, Hasan Bulut  | New Wave Behaviors For Solutions Of The Truncated M–Fractional Variant Boussinesq System   |
| Ceylan Çelik, Ebru Cavlak Aslan   | "Diverse new solitons and other exact solutions for the 3–D generalized Zakharov–Kuznetsov equation using the generalized (G /G)–expansion method" |
| Mustafa Raed Najeeb, Omar Saber Qasim   | Improving $\alpha$ -Parameter New Iterative Method With Dandelion Optimizer For Solving Partial Differential Equations Of Fractal Order            |
| Aytekin Enver, Mostafa Raed Najeeb, Fatma Ayaz, Omar Saber Qasim, Ahmed Entesar | Solving A System Of Partial Differential Equations Via A Hybrid Method Between Homotopy Analytical Method And Chaotic Sine Cosine Algorithm        |

#### Salon 5 Toplantı Erişim Linki

14:00–16:00  
19.05.2024

| Chair  | Doç. Dr. Mahmut MODANLI  |
|--|--|
| Authors  | Titles   |
| Hacer Bilgin Ellidokuzoğlu, Serkan Demiriz                               | q- Paranormed Difference Sequence Spaces   |
| Hacer Bilgin Ellidokuzoğlu, Serkan Demiriz                               | Paranormed Narayana Sequence Spaces  |
| Hayatem Hamal  | Estimates of Bivariate New Kantorovich Type of the Balázs–Szabados Operators Based on q-integers                                     |
| Imane El mhamedi, Anass El karkri, Zakaria El malki, Mohammed bouachrine | Voting Classifier Based Explainable Artificial Intelligence Method For Detecting Glioma Grading Using Clinical And Mutation Features |
| Artion Kashuri, Rozana Liko  | Estimations of Integral Majorization Inequality For Differentiable Convex Functions And Applications                                 |
| Yaşar Çalışkan, Mikail Et  | On Lacunary Statistical Boundedness of Sequences of Sets   |
| Ayşe Eren, Mikail Et   | On $\lambda$ -Statistical Boundedness of Sequences of Sets   |
| Nazlım Deniz Aral , Hacer Şengül Kandemir ,Mikail Et                     | On f-Statistical Convergence Via q- Calculus   |

### Salon 6 Toplantı Erişim Linki

14:00-16:00-  
19.05.2024

| Chair  | Arş. Gör. Rümeyza YILMAZ   |
|--|--|
| Authors                                      | Titles   |
| Murat Temizkan, Hıfı Altınok                 | On Differences Of Bounded Variation Fuzzy Sequences                                    |
| Mithat Kasap, Hıfı Altınok                   | On Lacunary Statistical Boundedness  |
| Sezer Erdem, Serkan Demiriz                  | Domain Of Mersenne Matrix Operator In The Space of Convergent Sequences                |
| Serkan Demiriz, Sezer Erdem                  | A Note On Almost Convergent Mersenne Sequence Space                                    |
| Auwalu Sa'ıdu, Hikmet Kemalolu (Koyunbakan ) | An Inverse Nodal Problem Of A Conformable Sturm-Liouville Problem By Retarded Constant |
| "Süleyman Sarıkaya, Yavuz Altın"             | f-Statistical Convergence Of Double Sequences In Topological Groups                    |
| Gülcan Tokay, Emrah Yılmaz                   | Infectious Disease Models With Proportional Derivatives On Time Scales                 |
| Zehra Özdemir, Emrah Yılmaz                  | Armament Model And Its Analysis With Proportional Derivative On Time Scales            |

### Salon 7 Toplantı Erişim Linki

14:00-16:00-  
19.05.2024

| Chair                                  | Dr. Öğr. Üyesi Hatice ASLAN   |
|--|---|
| Authors                                | Titles  |
| Pınar Zengin Alp                       | A New Paranormed Sequence Space Given By Jordan Totient Function  |
| Gülcan Atıcı Turan                     | On p-Statistical Convergence Defined By Modular Sequence Spaces Of Order  |
| Sevilay Kırıcı Serenbay, Ecem Acar     | On The Approximation By Nonlinear Operators Of Max-Product Kind   |
| Imane El Mhamedi, Zakaria El Malk      | Developing High-Efficiency Organic Solar Cells through Molecular Design Analysis of Novel D-A-Di-A-D Conjugated Compounds |
| Meral Süer                             | Combinatorial Invariants Of Saturated Numerical Semigroups  |
| Teubé Cyrille Mbainaissem Déthié Dione | On solvability of cohomological equation in the space $L^2(X, )$  |
| Mehmet Sami Türker, Enes Ayan          | Performance Comparison Of Object Detection Algorithms For Ship Detection And Classification From Satellite Imagery        |

### Salon 8 Toplantı Erişim Linki

14:00-16:00-  
19.05.2024

#### Chair

Authors

Muhammed Kerem Turkes,  
Yıldız Aydın

Mohammed Taleb,  
Noureddine En-Nahnahi,  
Nisrine Dad

Semra Çelebi,  
İbrahim Türkoğlu

Burak Çevik,  
Muharrem Tuncay  
Gençoğlu

Dilara Yapışkan, Beyza  
Billur İskender Eroğlu

Hazal Yüksekaya

Hazal Yüksekaya

M. Ghebleh, A. Kanso,  
M. B. Khuzam

#### Dr. Öğr. Üyesi Özlem KIRCI

Titles

A New Facial Expression Recognition Methods Based On  
Hybrid Feature

Multi-category classification of inappropriate content  
on social media using Natural Language Processing  
techniques and Transformer Models

Personality Analysis Using Artificial Intelligence  
According To The Eye Descriptions In Marifetnâme

Blockchain Applications In Medula System

Optimal culling strategy for the fractional-order  
brucellosis transmission model

Blow Up At Infinite Time Of Solutions For The  
Viscoelastic Plate Equation With Distributed Delay And  
Source Terms

Blow Up Results At Finite Time For The Kirchhoff-Type  
Viscoelastic Equation With Time Delay And Source  
Term

A Probabilistic Chaotic Image Encryption Scheme

### Salon 9 Toplantı Erişim Linki

14:00-16:00-  
19.05.2024

#### Chair

Authors

Gülşah Belhan, Vedat Asil

Betül Oğraş İkiz, Zühal  
Küçükarslan Yüzbaşı

Meltem Karaismailoğlu,  
Sezin Aykurt Sepet,  
Mahmut Ergüt

Muhittin Evren Aydın, Aykut  
Has, Beyhan Yılmaz

Murat Turan, Hülya Gün  
Bozok, Mahmut Ergüt

Mevlüt Ağar, Mustafa  
Yeneroğlu

Gökhan Dere, Melih Taş

Dilara Altan Koç, Yusuf  
Pandir, Hasan Bulut

#### Dr. Dilara ALTAN KOÇ

Titles

Focal Curves According To The Alternative Frame

Characterization Of Parametric Surfaces In Lie Groups  
Using Alternative Frame

Pointwise Hemi-Slant Submersions From Cosymplectic  
Manifolds

Multiplicative Rectifying Curve In Multiplicative  
Euclidean Space

Inextensible Flows Of Curves With Quasiframe In  
Galilean Space  $G_3$

Lie Algebra And Some Geodesic Properties

Predicting Student Performance Using Statistical  
Learning Techniques

A New Generalized Method For The Fractional Nonlinear  
Equation

## Salon 10 Toplantı Erişim Linki

14:00–16:00–  
19.05.2024

### Chair

**Doç. Dr. Gökhan GÖKDERE**

#### Authors

#### Titles

Ömer Akgüller, Mehmet  
Ali Balcı

Decoding Structural Isomer: An Artificial Intelligence Approach To Cluster Detection

Merve Ak, Senem Şahan  
Vahaplar, M. Hakkı Ersoy,  
Ahmet Feyzioğlu

Measuring And Assessing Organizational Data  
Maturity

Derya Avcı, Sanem  
Sakarya

How To Determine The Optimal Strategies To Eliminate The Harmful Effects Of Technology Addiction?

Derya Avcı, Aylin Yetim

An Optimal Training Policy To Reduce Criminal Behavior

Fatma Uzer, Resat Yilmazer

Explicit Solutions of the Schrödinger Equation Using Fractional Analysis

Asan Omuraliev, Ella  
Abylaeva

Numerical Solution of the Singularly Perturbed Cauchy Problem for an Ordinary Differential Equation

Asan Omuraliev, Peyil  
Esengul kyzy

Asymptotics Of Solutions To A First-Order Partial Differential Equation With A Power-Law Boundary Layer



**8<sup>th</sup> International Conference on  
Computational Mathematics  
and Engineering Sciences**

17 – 19 May 2024,  
Şanlıurfa – Türkiye

