



Contents of Volume 24, 2024

Volume 24	Number 1	2024
Sequential Initial Value Problems with Delay	1	
<i>A. Adoui, A. Guezane-Lakoud and R. Khaldi</i>		
A General Kinematic-Based Walking Algorithm of a Hexapod Robot on Irregular Terrain .	12	
<i>A. Aissaoui, C. Mahfoudi and S. Djeffal</i>		
Analysis of Customer Satisfaction Survey on E-Wallets Using Simple Additive Weighting and TOPSIS Methods	28	
<i>M. Y. Anshori, I. H. Santoso, T. Herlambang, M. Tafrikan, M. Adinugroho, K. Oktafianto and A. A. Firdaus</i>		
A New Feedback Control for Exponential and Strong Stability of Semi-Linear Systems with General Decay Estimates	41	
<i>M. Chqondi, S. Chqondi, K. Tigma and Y. Akdim</i>		
Spectral Analysis and Invariant Measure in Studying the Dynamics of a Metabolic Process in the Glycolysis-Gluconeogenesis System	54	
<i>V. I. Grytsay and I. V. Musatenko</i>		
A New Efficient Step-Size in Karmarkar's Projective Interior Point Method for Optimization Problems	65	
<i>F. Leulmi and A. Leulmi</i>		
Thermo-Electroelastic Contact Problem with Temperature Dependent Friction Law	80	
<i>A. Oultou, O. Baiz and H. Benaissa</i>		
Regional Weak and Strong Stabilization of Time Delay Infinite Dimensional Bilinear Systems	99	
<i>E. Zerrik, A. Akoubi and A. Ait Aadi</i>		
Volume 24	Number 2	2024
Boundary Value Problem for Fractional q -Difference Equations	111	
<i>N. Allouch, S. Hamani and J. Henderson</i>		
Numerical Approach for Solving Incommensurate Higher-Order Fractional Differential Equations	123	
<i>Iqbal M. Batiha, Iqbal H. Jebril, Shameseddin Alshorm, Mazin Aljazzazi and Shawkat Alkhazaleh</i>		
Derivation of Multi-Asset Black-Scholes Differential Equations	135	
<i>K. Fahim, A. U. Alfajriyah and E. R. M. Putri</i>		
Dynamic Analysis of a New Hyperchaotic System with Infinite Equilibria and Its Synchronization	147	
<i>Yasmina Ghettout, Lotfi Meddour, Tayeb Hamaizia and Rabiaa Ouahabi</i>		
Conformable Fractional Inverse Gamma Distribution	159	
<i>Mamon Abu Hammad, Shameseddin Alshorm, Sondos Rasem and Lena Abed</i>		
Analysis of Water Depth Variation Impact on CALM Buoy Performance for Shallow Water Condition	168	

<i>T. Herlambang, D.B. Magfira, R.K. Wibowo, K. Oktafianto, A.A. Firdaus and H. Arof</i>	
The Twin-Well Duffing Equation: Escape Phenomena, Bistability, Jumps, and Other Bifurcations	181
<i>J. Kyziot and A. Okniński</i>	
Application of Mamdani Fuzzy Method in Herbal Soap Production Planning	193
<i>I. H. Santoso, P. Katias, T. Herlambang, M. Tafrikan, K. Oktafianto, A. A. Firdaus and H. Arof</i>	
Analysis and Numerical Approximation of the Variable-Order Time-Fractional Equation ..	205
<i>Abdelwahab Zarour and Mohamed Dalah</i>	

Volume 24**Number 3****2024**

Improved Power Quality with Active Shunt Power Filter Based on Optimized PI Controller and Flying Squirrel Search MPPT Technique Applied to the WECS	217
<i>A. Abbadi, F. Hamidia, A. Morsli, M. R. Skender and A. Tlemçani</i>	
Optimization of Hotel W Management through Performance Comparison of Support Vector Machine and Linear Regression Algorithm in Forecasting Occupancy	228
<i>M. Y. Anshori, T. Herlambang, V. Asy'ari, H. Arof, A. A. Firdaus, K. Oktafianto and B. Suharto</i>	
Numerical Solution of Neutral Double Delay Volterra Integral Equations Using Taylor Collocation Method	236
<i>H. Bouzeraieb, H. Laib and A. Boulmerka</i>	
Stability Analysis of a Coupled System of Two Nonlinear Differential Equations with Boundary Conditions	246
<i>Besma Fadlia, Abdelwahab Zarour, Rima Faizi and Mohamed Dalah</i>	
Trajectory Estimation of Amphibious Aircraft Using H -Infinity and Ensemble Kalman Filter Methods	259
<i>T. Herlambang, S. Syamsuar, F. Yudianto, A. Basuki, G. Wijiatmoko, A. Roschyntawati, H. Hendrato, K. Oktafianto and R. S. Marjianto</i>	
Numerical Solution for Benjamin-Bona-Mahony-Burgers Equation Using Septic B-Spline Galerkin Method	267
<i>Ali M. Jasim, Adham A. Ali, Isam H. Halil, Fatima Z. Ahmed and Muhamnad A. Shallal</i>	
A New Chaotic Supply Chain Model, Its Bifurcation Analysis, Multi-Stability and Synchronization Using Backstepping Control	275
<i>M. D. Johansyah, A. Sambas, S. Vaidyanathan, S. S. Abas, H. Hassan, M. Makhtar, S. Purnama and B. Foster</i>	
On Unique Solvability and a Generalized Newton Method for Solving New General Absolute Value Equations	286
<i>M. Khaldi and M. Achache</i>	
Adaptive Control for the Stabilization, Synchronization and Anti-Synchronization of New Chaotic System with a Line Equilibrium	298
<i>K. Mesbah and N. E. Hamri</i>	
Properties of MDTM and RDTM for Nonlinear Two-Dimensional Lane-Emden Equations	309
<i>N. Teyar</i>	

Volume 24**Number 4****2024**

Existence of Solution for a General Class of Strongly Nonlinear Elliptic Problems	321
---	-----

Y. Akdim and M. Ouboufettal

- Optimization of Hotel Y Management through Application of Occupancy Forecasting by Support Vector Machine and K-Nearest Neighbors Methods 331
M. Y. Anshori, I. H. Santoso, P. Katias, T. Herlambang, H. Arof, B. Suharto and K. Oktafianto

- A New Numerical Scheme for Solving Time-Fractional Variable-Order Partial Differential Equations 340
Soufiane Benyoussef, Oumkeltoum Benhamouda, Mohamed Dalah and Khaled Zennir

- Application of Discrete Event Simulation and System Dynamics Modeling in Optimizing the Performance of OutPatient Department 354
Amina Boukoftane, Muhammad Ahmed Kalwar, Nadia Oukid, Khaled Zennir, Muhammad Saad Memon and Muhammad Ali Khan

- Sharing Keys Using Some Toeplitz Matrices and Logistic Maps 366
Benzeghlia Brahim and Adoui Salah

- Analysis and Existence of Rumor Spreading with Campaign and Punishment Control 380
Irma Fitria, Subchan Subchan, Dinda Anisa Maulina and Alvian Alif Hidayatullah

- Square Root Ensemble Kalman Filter for Forefinger Motion Estimation as Post-Stroke Patients' Medical Rehabilitation 392
T. Herlambang, F.A. Susanto, H. Nurhadi, K. Oktafianto, H. Arof and R.S. Marjianto

- On the Synchronization of a Novel Chaotic System with Two Control Methods 400
Lakehal Nadjet and Fareh Hannachi

- An Efficient DCA Algorithm for Solving Non-Monotone Affine Variational Inequality Problem 410
A. Noui, Z. Kebaili and M. Achache

- A Novel Numerical Approach for Solving Nonlinear Volterra Integral Equation with Constant Delay 419
K. Rouibah, S. Kaouache and A. Bellour

Volume 24

Number 5

2024

- On Localization of Spectrum of an Integro-Differential Convection-Diffusion-Reaction Operator 431
O. Bahi, A. Khellaf and H. Guebbai

- A Priori Predictions for a Weak Solution to Time-Fractional Nonlinear Reaction-Diffusion Equations Incorporating an Integral Condition 442
Abdelouahab Benbrahim, Iqbal M. Batiha, Iqbal H. Jebril, Ahmed Bourabta, Taki-Eddine Oussaeif and Shawkat Alkhazaleh

- Numerical Solution of Fractional Hopfield Neural Networks Using Reproducing Kernel Hilbert Space Method 460
Yassamine Chellouf, Banan Maayah, Omar Abu Arquib and Shaher Mohammad Momani

- A Dynamic Problem with Wear Involving Thermoviscoelastic Materials with a Long Memory 473
C. Guenoune, A. Bachmar and S. Boutechebak

- Relationship between Persymmetric Solutions and Minimal Persymmetric Solutions of $AXA^{(*)} = B$ 485
S. Guerarra

Conformable Fractional Khalouta Transform and Its Applications to Fractional Differential Equations	495	
<i>A. Khalouta</i>		
Complex Dynamics of Novel Chaotic System with No Equilibrium Point: Amplitude Control and Offset Boosting Control, Its Adaptive Synchronization	505	
<i>Rameshbabu Ramar, V. Sandhiya, N. Santhiya, R. Vinothini and S. Vinothini</i>		
A Remotely Operated Vehicle Tracking Model Estimation Using Square Root Ensemble Kalman Filter and Particle Filter	517	
<i>A. Suryowinoto, T. Herlambang, I. Kurniastuti, M. S. Baital, K. Oktafianto and I. W. Farid</i>		
Diagnosis of Diabetes Mellitus Symptoms Using Simple Additive Weighting and Weighted Product Methods	526	
<i>F. A. Susanto, T. Herlambang, M. Tafrikan and K. Oktafianto, B. Belgis and H. Arof</i>		
Volume 24	Number 6	2024
Using a 2-D Discrete Chaotic Map to Create a Safe Data in Symmetric Systems	537	
<i>Salah Adoui and Brahim Benzeghlia</i>		
The Advection-Diffusion-Reaction Equation: A Numerical Approach Using a Combination of Approximation Techniques	549	
<i>N. Arar, Z. Laouar and A. Hioual</i>		
Superlinear Problem with Inverse Coefficient for a Time-Fractional Parabolic Equation with Integral Over-Determination Condition	561	
<i>Iqbal M. Batiha, Amal Benguesmia, Moataz Alosaimi, Taki-Eddine Oussaeif, Nidal Anakira and Mohammad Odeh</i>		
On Stability and Convergence of a Fractional Convection Reaction-Diffusion Model	575	
<i>OumKeltoum Benhamouda, Mohamed El-Hadi Smakdji, Ammar Derbazi, Allaoua Boudjedour, Mohamed Dalah, Khaled Zennir and Abdelwahab Zarour</i>		
Inducing Chaos through Timescales in a Three-Species Food Chain Model	582	
<i>Khadidja Daas and Nasreddine Hamri</i>		
Analysis of Customer Satisfaction Survey on E-Commerce Using Simple Additive Weighting Method	594	
<i>P. Katias, T. Herlambang, M. Tafrikan, N. E. Suharno, K. Oktafianto, A. A. Firdaus and H. Arof</i>		
A New Generalization of Fuglede's Theorem and Operator Equations	603	
<i>S. Makhlof and F. Lombarkia</i>		
Boundedness in Nonlinear Oscillatory Systems over a Given Time Interval	615	
<i>A. A. Martynyuk, T. O. Lukyanova and Yu.A. Martynyuk-Chernienko</i>		
Analysis of the Best Laptop Selection System Using Simple Additive Weighting (SAW) Method and Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) Method	625	
<i>D. Novita, T. Herlambang, M. Tafrikan, K. Oktafianto, R. A. Sinulingga and H. Arof</i>		
Analysis and Optimal Control of a Mathematical Model of Malaria	635	
<i>L. Ouattara, D. Ouedraogo, O. Diop and A. Guiro</i>		
Well-Posedness of Boundary Control System of Nonlinear Chemical Reaction	648	
<i>S. Sutrima, S. Wibowo and R. Setiyowati</i>		
Contents of Volume 24, 2024	663	