



Contents of Volume 19, 2019

Volume 19	Number 1	2019
Existence of Solutions for a Biological Model Using Topological Degree Theory		1
<i>C.H.D. Alliera</i>		
Solution of 2D Fractional Order Integral Equations by Bernstein Polynomials Operational Matrices		10
<i>M. Asgari, R. Ezzati and H. Jafari</i>		
Singular Analysis of Reduced ODEs of Rotating Stratified Boussinesq Equations Through the Mirror Transformations		21
<i>B.S. Desale and K.D. Patil</i>		
Real Time Analysis of Signed Marked Random Measures with Applications to Finance and Insurance		36
<i>Jewgeni H. Dshalalow and Kizza M. Nandyose</i>		
Decentralized Stabilization for a Class of Nonlinear Interconnected Systems Using SDRE Optimal Control Approach		55
<i>A. Feydi, S. Elloumi and N. Benhadj Braiek</i>		
Analysis and Adaptive Control Synchronization of a Novel 3-D Chaotic System		68
<i>F. Hannachi</i>		
Mathematical Model of C_d for Circular Cylinder Using Two Passive Controls at $Re = 5000$		79
<i>C. Imron C.J. Kumalasari, B. Widodo and T.Y. Yuwono</i>		
A Variety of New Solitary-Solutions for the Two-mode Modified Korteweg-de Vries Equation		88
<i>A. Jaradat, M.S.M. Noorani, M. Alquran and H.M. Jaradat</i>		
Existence of Renormalized Solutions for Some Strongly Parabolic Problems in Musielak-Orlicz-Sobolev Spaces		97
<i>A. Talha, A. Benkirane and M.S.B. Elemine Vall</i>		
Volume 19	Number 1-SI	2019
Preface to the Special Issue: Recent Trends in Theoretical Aspects and Computational Methods in Differential and Difference Equations		111
PERSONAGE IN SCIENCE		
Professor Emeritus I.P. Stavroulakis		113
<i>H. Jafari, G. Ladas and I. Gyori</i>		
On Stability of a Second Order Integro-Differential Equation		117
<i>L. Berezansky and A. Domoshnitsky</i>		

Oscillation of Second Order Nonlinear Differential Equations with Several Sub-Linear Neutral Terms	124
<i>J. Dzurina, E. Thandapani, B. Baculikova, C. Dharuman and N. Prabakaran</i>	
Approximate Analytical Solutions for Transient Heat Transfer in Two-Dimensional Straight Fins	133
<i>N. Fallo and R. J. Moitsheki</i>	
Mathematical Analysis of a Differential Equation Modeling Charged Elements Aggregating in a Relativistic Zero-Magnetic Field	141
<i>E.F. Dounqmo Goufo and G.M. Moremedi</i>	
Application of Extended Fan Sub-Equation Method to Generalized Zakharov Equation	151
<i>Nematollah Kadhoda</i>	
Comparison of New Iterative Method and Natural Homotopy Perturbation Method for Solving Nonlinear Time-Fractional Wave-Like Equations with Variable Coefficients	160
<i>A. Khalouta and A. Kadem</i>	
Complete Symmetry and μ -Symmetry Analysis of the Kawahara-KdV Type Equation	170
<i>M. Khorshidi and Kh. Goodarzi</i>	
A Phase Change Problem including Space-Dependent Latent Heat and Periodic Heat Flux	178
<i>Ajay Kumar, Abhishek Kumar Singh and Rajeev</i>	
Lie Group Classification of a Generalized Coupled Lane-Emden-Klein-Gordon-Fock System with Central Symmetry	186
<i>S. O. Mbusi, B. Muatjetjeja and A. R. Adem</i>	
A Recursive Solution Approach to Linear Systems with Non-Zero Minors	193
<i>A. Moradi, A. Kameli, H. Jafari and A. Valinejad</i>	
Numerical Solutions of Fractional Chemical Kinetics System	200
<i>M. Sheybak and H. Tajadodi</i>	
Dual Phase Synchronization of Chaotic Systems Using Nonlinear Observer Based Technique	209
<i>Vijay K. Yadav, Vijay K. Shukla, Mayank Srivastava and Subir Das</i>	
 Volume 19	 Number 2
 2019	
Optimal Voltage Controller using T-S Fuzzy Model for Multimachine Power Systems	217
<i>A. Abbadi, F. Hamidia, A. Morsli and A. Tlemcani</i>	
Nonlinear Elliptic Equations with Some Measure Data in Musielak-Orlicz Spaces ..	227
<i>A. Aberqi, J. Bennouna and M. Elmassoudi</i>	
A New Integral Transform for Solving Higher Order Ordinary Differential Equations	243
<i>S.A. Pourreza Ahmadi, H. Hosseinzadeh and A. Yazdani Cherati</i>	

Degenerate Bogdanov-Takens Bifurcations in the Gray-Scott Model	253
<i>B. Al-Hdaibat, M.F.M. Naser and M.A. Safi</i>	
Dynamic Modelling of Boosting the Immune System and Its Functions by Vitamins Intervention	263
<i>S. A. Alharbi, A. S. Rambely and A. Othman Almatroud</i>	
A Piecewise Orthogonal Functions-Based Approach for Minimum Time Control of Dynamical Systems	274
<i>S. Bichiou, M.K. Bouafoura and N. Benhadj Braiek</i>	
Weakly Nonlinear Integral Equations of the Hammerstein Type	289
<i>A.A. Boichuk, N.A. Kozlova and V.A. Feruk</i>	
Particle Distributions in Nucleation Lattice Models: A Matrix Approach	302
<i>O. Gutiérrez</i>	
Increased and Reduced Synchronization between Discrete-Time Chaotic and Hyperchaotic Systems	313
<i>L. Jouini and A. Ouannas</i>	
A New Representation of Exact Solutions for Nonlinear Time-Fractional Wave-Like Equations with Variable Coefficients	319
<i>A. Khalouta and A. Kadem</i>	

Volume 19

Number 3

2019

Robust Output Feedback Stabilization and Boundedness of Highly Nonlinear Induction Motors Systems Using Single-Hidden-Layer Neural-Networks	331
<i>H. Ait Abbas, A. Seghiour, M. Belkheiri and M. Rahmani</i>	
Sumudu Decomposition Method for Solving Higher-Order Non-linear Volterra-Fredholm Fractional Integro-Differential Equations	348
<i>K. Al-Khaled and M.H. Yousef</i>	
Analysis of the Model Reduction Using Singular Perturbation Approximation on Unstable and Non-Minimal Discrete-Time Linear Systems and Its Applications	362
<i>D. K. Arif, Fatmawati, D. Adzkiya, Mardlijah, H. N. Fadhilah and P. Aditya</i>	
Stability Analysis for Stochastic Neural Networks with Markovian Switching and Infinite Delay in a Phase Space	372
<i>B. Benaid, H. Bouzahir, C. Imzegouan and F. El Guezar</i>	
Exact Solutions of a Klein-Gordon System by (G'/G) -Expansion Method and Weierstrass Elliptic Function Method	386
<i>M. Al Ghabshi, E.V. Krishnan and M. Alquran</i>	
Extensions of Schauder's and Darbo's Fixed Point Theorems	396
<i>Zhaocai Hao, Martin Bohner and Junjun Wang</i>	
State Estimation of Rotary Inverted Pendulum Using HOSM Observers: Experimental Results	405
<i>F. A. Haouari, Q. V. Dang, J.-Y. Jun, M. Djemai and B. Cherki</i>	

Chaos Synchronization and Anti-Synchronization of Two Fractional-Order Systems via Global Synchronization and Active Control	416
<i>M. Labid and N. Hamri</i>	
Comparison of Quadrotor Performance Using Forwarding and PID-Backstepping Control	427
<i>F. Ouendi, S. Houti and M. Tadjine</i>	
Volume 19	Number 4
	2019
Diagonal Riccati Stability of a Class of Matrices and Applications	445
<i>A. Yu. Aleksandrov and N. O. Kovaleva</i>	
Kalman Filter Estimation of Identified Reduced Model Using Balanced Truncation: a Case Study of the Bengawan Solo River	455
<i>D. K. Arif, D. Adzkiya and H. N. Fadhillah</i>	
Uniform Asymptotic Stability in Probability of Nontrivial Solution of Nonlinear Stochastic Systems	464
<i>A. Barbata, M. Zasadzinski, R. Chatbouri and H. Souley Ali</i>	
Oscillation and Nonoscillation for Caputo–Hadamard Impulsive Fractional Differential Equations	474
<i>Mouffak Benchohra, Samira Hamani and Juan Nieto</i>	
Higher-Order Sliding Mode Control of a Wind Energy Conversion System	486
<i>S. Boukhrachef, A. Moualdia, DJ. Boudana and P. Wira</i>	
Resonance in the Motion of a Geo-Centric Satellite Due to the Poynting-Robertson Drag and Oblateness of the Earth	497
<i>Charanpreet Kaur, Binay Kumar Sharma and Sushil Yadav</i>	
(G'/G)-Expansion Method and Weierstrass Elliptic Function Method Applied to Coupled Wave Equation	512
<i>E. V. Krishnan, M. Al Ghabshi and M. Alquran</i>	
Control, Stabilization and Synchronization of Fractional-Order Jerk System	523
<i>A. Senouci and T. Menacer</i>	
Existence and Stability of Equilibrium Points in the Problem of a Geo-Centric Satellite Including the Earth's Equatorial Ellipticity	537
<i>Sushil Yadav, Vinay Kumar and Rajiv Aggarwal</i>	
Contents of Volume 19, 2019	551