2022 9th Iranian Joint Congress on Fuzzy and Intelligent Systems (CFIS 2022)

Bam, Iran 2-4 March 2022



IEEE Catalog Number: CFP22TPD-POD ISBN:

978-1-6654-7873-1

Copyright © 2022 by the Institute of Electrical and Electronics Engineers, Inc. All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

*** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.

 IEEE Catalog Number:
 CFP22TPD-POD

 ISBN (Print-On-Demand):
 978-1-6654-7873-1

 ISBN (Online):
 978-1-6654-7872-4

ISSN: 2771-1366

Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA Phone: (845) 758-0400

Fax: (845) 758-2633

E-mail: curran@proceedings.com Web: www.proceedings.com



CFIS2022 Papers

2022 9th Iranian Joint Congress on Fuzzy and Intelligent Systems (CFIS)

Conference Record Number: 54774

#	Paper Title	Authors	Pages
1	A Dynamic SDN-based Privacy-Preserving Approach for Smart City Using Trust Technique	Mehdi Gheisari ,AliAkbar Movassagh ,hamid esameili ,AAfiq Afzal Abbasi AAfiq Afzal Abbasi ,Yang Liu Yang Liu ,Mahdieh Izadpanahkakhk Mahdieh Izadpanahkakhk	1-5
2	A New Edge and Pixel-Based Image Quality Assessment Metric for Colour and Depth Images	Mousavi Seyed Muhammad Hossein ,S. Muhammad Hassan Mosavi	6-15
3	Seven Staged Identity Recognition System Using Kinect V.2 Sensor	Mousavi Seyed Muhammad Hossein ,Atiye Ilanloo	16-21
4	Intelligent Transmitter: Analysis of Effective parameters on Sensor Response of Gas Transmitter to Enhancement Measurment Accuracy by Intelligent Corrective Model Based on Artificial Neural Network	Mohammad Mohseni Ahad, Touba Hamoule	22-28
5	Best Proximity Point for Various Classes of Proximal Contraction in Fuzzy Metric Space	Razieh Gholipour ,hamid mazaheri- tehrani	29-31
6	Scattering and Regional Features Fusion Using Collaborative Representation for PolSAR Image Classification	Maryam Imani	32-37
7	Solving fuzzy bilevel linear programming problem based on interval approximation	Niloofar Davoudi ,Farhad Hamidi ,Hasan Mishmast Nehi	38-40
8	Communication-based Optimization Algorithm: A Meta-heuristic Technique for Solving Single-Objective Problems	Majid Hadi ,Reza Ghazizadeh	41-46
9	Improving The Obtained Results Of Monte Carlo Simulation For Interval Linear Programming Problem By Using Particle Swarm Optimization	moslem javanmard ,Hassan Mishmast Nehi	47-49
10	Calculating The Range Of Optimal Values Of The Interval Linear Programming Problems: Comparing Genetic Algorithm With Monte Carlo Simulation	moslem javanmard ,Hassan Mishmast Nehi	50-52
11	A New Technique For Deciding On The Interval Type- 2 Fuzzy Transportation Problem Based On Interval Linear Programming Problems	moslem javanmard ,Hassan Mishmast Nehi	53-58
12	How weight-sharing mechanisms affect the performance of deep Siamese networks	Mahvash Mohazzebi,Mahdi Eftekhari, Mahdi Shariatzadeh	59-64
13	Early COVID-19 Diagnosis from Lung Ultrasound Images Combining RIULBP-TP and 3D-DenseNet	Vida Esmaeili ,Mahmood Mohassel Feghhi ,Seyed Omid Shahdi	65-69
14	ECG-Based Prediction of Epileptic Seizures Using Machine Learning Methods	Bahare Seifi ,Mahsa Barfi ,Mansour Esmaeilpour	70-76
15	Notes on energy of matching in fuzzy graphs	Majid Khalili ,Rajab Ali Borzooei	77-80
16	Farsi Text Detection and Localization in Videos and Images	Mobina Mosannafat ,Fatemeh Taherinezhad ,Hassan Khotanlou ,Elham Alighardash	81-86

2022 9th Iranian Joint Congress on Fuzzy and intelligent Systems (CFIS), March 2-4, 2022, Bam, Iran Higher Education Complex of Bam

An Efficient Collaborative Filtering for Recommendation Systems Using Differential Machine Learning An Ensemble Of Feature Selection Algorithms Using OWA Operator Owl Operator Owl Operator Owl Operator A Fault Isolation Approach for Data-Driven Device Replacement Decision Making Evaluation multi-label text data: An ensemble approach using geometric mean aggregation Evaluation multi-label feature selection for text classification using weighted borda count approach On P-torsion EQ-modules and P-cyclic EQ-modules A Novel Approach to Optimizing the Initial Path of Mobile Robots in Static Environments A novel ensemble feature selection method through Type I fuzzy A novel ensemble feature selection method through mixtures of Student's distributions with missing information Learning-based fuzzy e-means clustering using mixtures of Student's distributions with missing information Learning-based fuzzy e-means clustering using mixtures of Student's distributions with missing information The Behavior of L-graph Automata The Behavior of L-graph Automata Approximation of derivation-homomorphism fuzzy functional inequalities in matrix valued FCd -algebras Determining the Severity of Depression in Speech Based on Combination of Acoustic-Space and Scorey Based o				
OwA Operator Online streaming feature selection based on Sugeno fuzzy integral Amin Hashemi Mohammad Reza Pajoohan Anchammad Bagher Dowlatshahi Amin Hashemi Mohammad Bagher Dowlatshahi Amin Hashemi Yekamoghadum.Amirhossein Nikoofard On P-torsion Evaluation multi label feature selection for text classification using weighted bords count approach classification using weighted bords count approach Shoben Miri Mohammad Bagher Dowlatshahi Amin Hashemi Owlashahi Amin Hashemi Owlashahi Amin Hashemi Mohammad Bagher Dowlatshahi Amin Hashemi Owlashahi Amin Hashemi Mohammad Bagher Dowlatshahi Amin Hashemi Owlashahi Amin Hashemi Mohammad Bagher Dowlatshahi Amin Hashemi Owlashahi Amin Hash	17	Recommendation Systems Using Differential Machine		87-93
100-1015 fuzzy integral 20 A Fault Isolation Approach for Data-Driven Device Replacement Decision Making 21 Feature selection for multi-label text data: An ensemble approach using geometric mean aggregation 22 Evaluation multi label feature selection for text classification using weighted borda count approach 23 On P-torsion EQ-modules and P-cyclic EQ-modules 24 A Novel Approach to Optimizing the Initial Path of Mobile Robots in Static Environments 25 A novel ensemble feature selection method through 26 Type I fuzzy 27 Initiating-based fuzzy e-means clustering using mixtures of Student's-t distributions with missing information 28 Location of fire station in Bam city using Fuzzy 29 Some Properties of L-graph automata 30 The Behavior of L-graph Automata 31 Approximation of derivation-homomorphism fuzzy functional inequalities in matrix valued FC-I -algebras Determining the Severity of Depression in Spece Based on Combination of Acoustic-Space and Score-Space Features 31 A new contrast enhancement method for Color dark and low-light images 32 An enverontrast enhancement method for Color dark and low-light images 33 A new contrast enhancement method for Color dark and low-light images 34 Detection and visualization of COVID-19 in chest Xray images using CNN and Grad-CAM (GCCN) 35 Adaptive TSK Fuzzy Terminal Siliding-Mode Control of Two Coupled Cart-Mounted Inverted Pendulums 40 Fuzzy Control of Automomous Vehicle at Nonsignalized Intersection in Mixed Traffic Flow 36 Asymmetric distributions based on Multi-Stacked-CNN-BILSTM for Rumor Detection on Social Media 37 Apprendiction of Covincement Learning Reward Function for Fest Case Prioritization in Continuous Integration 38 Apprendiction and Covince Control of Two Coupled Cart-Mounted Inverted Pendulums 49 Power Allocation in CRNs based on the t-copula Refreshed and Jayah Mixed Control of Two Coupled Cart-Mounted Inverted Pendulums 40 Pendulum Application of Media Application of Media Chalechale Chalechale Chalechale Chalechale Chalechale Chalechale Chalechale Chal	18		_	94-99
20 A Fault Isolation Approach for Data-Driven Device Replacement Decision Making 21 Feature selection for multi-label text data: An ensemble approach using geometric mean aggregation 22 Evaluation multi label feature selection for text classification using weighted borda count approach 23 On Porsoin EQ-modules and P-cyclic EQ-modules 24 A Novel Approach to Optimizing the Initial Path of Mobile Robots in Static Environments 25 A novel ensemble feature selection method through Type I fuzzy 26 A Secure mechanism to protect UAV communications 27 Learning-based fuzzy c-means clustering using mixtures of Student's-t distributions with missing information 28 Learning-based fuzzy c-means clustering using mixtures of Student's-t distributions with missing information 29 Some Properties of L-graphs 30 The Behavior of L-graph Automata 31 Approximation of derivation-homomorphism fuzzy functional inequalities in matrix valued FC-l-algebras Determining the Severity of Depression in Speech 32 Based on Combination of Acoustic-Space and Seore-Space Features 33 A new contrast enhancement method for Color dark and low-light images 34 Detection and visualization of COVID-19 in chest Xray images using CNN and Grad-CAM (GCCN) 35 Adaptive TSK Fuzzy Terminal Sliding-Mode Control of Two Coupled Cart-Mounted Inverted Pendulums 36 Fuzzy Control of Autonomous Vehicle at Nonsignalized Intersection in Mixed Fuznition and Sultanian Raisi Sarbizhan Mohammad Reza Keyanpour Application of Working Learning Reward Function for Text Case Prioritization in Continuous Integration Application of Machine Learning Methods in Diagnosis of Alzheimer Disease Based on Fractal Feature Extraction and Visualizarion based on the t-copula Profile-based Covariance Descriptors and Log-Euclidean Kernel SVM 43 Power Allocation in CRNs based on QoS and QoE 44 Power Allocation in CRNs based on QoS and QoE 45 Power Allocation in CRNs based on QoS and QoE	19		Pajoohan ,Mohammad Bagher	100-105
22 Evaluation multi label feature selection for text classification using weighted borda count approach Dowlatshahi, Amin Hashemi 2 classification using weighted borda count approach 23 On P-torsion EQ-modules and P-cyclic EQ-modules A Novel Approach to Optimizing the Initial Path of Mobile Robots in Static Environments 24 A Novel Approach to Optimizing the Initial Path of Mobile Robots in Static Environments 25 A novel ensemble feature selection method through Type I fuzzy 25 A Secure mechanism to protect UAV communications Learning-based fuzzy e-means clustering using information 28 Location of fire station in Bam city using Fuzzy Analytic Hierarchy Process 29 Some Properties of L-graphs 20 Mohammad Mehdi Zahedi Elham Raisi Sarbizhan 20 Mohammad Mehdi Zahedi Elham Raisi Sarbizhan Mohammad Mehdi Zahedi	20		Yektamoghadam, Amirhossein	106-111
Evaluation multi label feature selection for text classification using weighted borda count approach deastification using weighted borda count approach Mobile Robots in Static Environments 24	21			112-117
23 On P-torsion EQ-modules and P-cyclic EQ-modules 24 A Novel Approach to Optimizing the Initial Path of Mobile Robots in Static Environments 25 Type I fuzzy 26 A secure mechanism to protect UAV communications 27 Learning-based fuzzy c-means clustering using minormation 28 Learning-based fuzzy c-means clustering using information 29 Exercised Forest Station in Bam city using Fuzzy Analytic Hierarchy Process 29 Some Properties of L-graphs 30 The Behavior of L-graph Automata 31 Approximation of derivation-homomorphism fuzzy functional inequalities in matrix valued FC-I -algebras Determining the Severity of Depression in Speech Based on Combination of Acoustic-Space and Score-Space Features 31 Anew contrast enhancement method for Color dark and low-light images using CNA and Grad-CAM (GCCN) 32 Adaptive TSK Fuzzy Terminal Sliding-Mode Control of Two Coupled Carr-Mounted Inverted Pendulums 33 Adaptive TSK Fuzzy Terminal Sliding-Mode Control of Two Coupled Carr-Mounted Inverted Pendulums 34 Detection and visualization on Social Media 35 Puzzy Control of Autonomous Vehicle at Nonsignalized Intersection in Mixed Traffic Flow 36 Puzzy Control of Autonomous Vehicle at Nonsignalized Intersection in Mixed Traffic Flow 37 An Ensembled Text-based Multi-Stacked-CNN-BILSTM for Rumor Detection on Social Media 38 Potentia for Convolutional Neural network 49 Asymmetric distributions based on the t-copula fereshteh arad, asyyub sheikhi 41 Of Alzheimer Disease Based on Fractal Feature Extraction and Convolutional Neural Network 42 Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM 40 Power Allocation in CRNs based on QoS and QoE 41 Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM 41 Power Allocation in CRNs based on QoS and QoE 42 Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM	22	Evaluation multi label feature selection for text	Mohsen Miri ,Mohammad Bagher	118-123
A Novel Approach to Optimizing the Initial Path of Mobile Robots in Static Environments A novel ensemble feature selection method through Type I fuzzy 6 A Secure mechanism to protect UAV communications Learning-based fuzzy c-means clustering using mixtures of Student's-t distributions with missing information Location of fire station in Bam city using Fuzzy Analytic Hierarchy Process Some Properties of L-graphs 30 The Behavior of L-graph Automata 31 Approximation of derivation-homomorphism fuzzy functional inequalities in matrix valued FC-II -algebras Determining the Severity of Depression in Speech and low-light images using CNN and Grad-CAM (GCCN) 32 Based on Combination of Acoustic-Space and Score-Space Features 33 A new contrast enhancement method for Color dark and low-light images using CNN and Grad-CAM (GCCN) 34 Eprocy Control of Autonomous Vehicle at Nonsignalized Intersection in Mixed Traffic Flow 35 Adaptive TSK Fuzzy Terminal Sliding-Mode Control of Two Coupled Cart-Mounted Inverted Pendulums 36 Fuzzy Control of Autonomous Vehicle at Nonsignalized Intersection in Mixed Traffic Flow 37 An Ensembled Text-based Multi-Stacked-CNN-BILSTM for Rumor Detection on Social Media 38 Poeter City Control of Tust Intersection in Mixed Traffic Flow 39 Asymmetric distributions based on the t-copula 40 Reinforcement Learning Reward Function for Test Case Prioritization in Continuous Integration 41 Application of Machine Learning Methods in Diagnosis of Alzheimer Disease Based on Fractal Feature Extraction and Convolutional Neural Network Face Recognition based on Multi-shape Morphological Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM 43 Power Allocation in CRNs based on QoS and QoE 44 Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM 45 Power Allocation in CRNs based on GoS and QoE 46 Mahdich Ghazvini, Marjane Moghbeli (Omid Abedi Mostafa)	23			124-126
Mobile Robots in Static Environments			· ·	
Type I fuzzy A Secure mechanism to protect UAV communications Learning-based fuzzy c-means clustering using mixtures of Student's-t distributions with missing information Saecd Darijani ,Hamid Bigdeli 146-151 information Saecd Darijani ,Hamid Bigdeli 146-151 information Amirabbas Abouei Mehrizi, Tahereh Kordi Karimabadi Mohammad Mehdi Zahedi ,Elham Raisi Sarbizhan	24	Mobile Robots in Static Environments	·	12/-133
Learning-based fuzzy c-means clustering using mixtures of Student's-t distributions with missing information Location of fire station in Bam city using Fuzzy Analytic Hierarchy Process Some Properties of L-graphs The Behavior of L-graph Automata Approximation of derivation-homomorphism fuzzy functional inequalities in matrix valued FC-I -algebras Determining the Severity of Depression in Speech Based on Combination of Acoustic-Space and Score-Space Features Adenyani Activate Hierarchy Process ReZA SAADATI ,Safoura Rezaei Aderyani nasrin hamiditabar ,S. Jahanshah Kabudian ,Abdolah Chalechale Merdad Kargari ,Meysam Alavi 173-177 Merdad Kargari ,Meysam Alavi 178-184 Merdad Kargari ,Meysam Alavi 185-189 Masan Hammad, Hassan Khotanlou 185-189 Masan Hammad, Hassan Knotanlou		Type I fuzzy	Bagher Dowlatshahi ,Mehdi Joodaki	
mixtures of Student's-t distributions with missing information 28 Location of fire station in Bam city using Fuzzy Analytic Hierarchy Process 29 Some Properties of L-graphs 30 The Behavior of L-graph Automata 31 Approximation of derivation-homomorphism fuzzy functional inequalities in matrix valued FC-II -algebras 32 Determining the Severity of Depression in Speech Based on Combination of Acoustic-Space and Score-Space Factures 33 A new contrast enhancement method for Color dark and low-light images 34 Detection and visualization of COVID-19 in chest Xray images using CNN and Grad-CAM (GCCN) 35 Two Coupled Carl-Mounted Inverted Pendulums 36 Fuzzy Control of Autonomous Vehicle at Nonsignalized Intersection in Mixed Traffic Flow 37 Ale Ensembled Text-based Multi-Stacked-CNN-BILSTM for Rumor Detection on Social Media 38 Detection of multiple emotions in texts using a new deep convolutional neural network 40 Reinforcement Learning Reward Function for Test Case Prioritization in Continuous Integration 40 Application Of Machine Learning Methods in Diagnosis of Alzheimer Disease Based on Fractal Feature Extraction and Convolutional Neural Network Face Recognition based on Multi-shape Morphological Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM Apower Allocation in CRNs based on QoS and QoE Mahdieh Ghazvini Marjane Applexim Mehrizzi, Tahereh Kordi Karimabadii Admida Its2-157 Amirabas Abouei Mehrizi, Tahereh Kordi Karimabadii Abouei Alexing Amirabadii Alberiz, Tahereh Kordi Karimabadii Abouei Alexing Amirabadia Its3-162 163-166 163-166 163-166 163-166 163-166 163-166 163-166 163-166 163-166 163-169 163-160 16	26		Seyed Aref Ayati ,Hamid Reza Naji	140-145
Analytic Hierarchy Process Some Properties of L-graphs The Behavior of L-graph Automata Approximation of derivation-homomorphism fuzzy functional inequalities in matrix valued FC-I algebras Determining the Severity of Depression in Speech Based on Combination of Acoustic-Space and Score-Space Features A new contrast enhancement method for Color dark and low-light images A new contrast enhancement method for Color dark and low-light images Detection and visualization of COVID-19 in chest Xray images using CNN and Grad-CAM (GCCN) Adaptive TSK Fuzzy Terminal Sliding-Mode Control of Two Coupled Cart-Mounted Inverted Pendulums Fuzzy Control of Autonomous Vehicle at Nonsignalized Intersection in Mixed Traffic Flow An Ensembled Text-based Multi-Stacked-CNN-BILSTM for Rumor Detection on Social Media Detection of multiple emotions in texts using a new deep convolutional neural network Application Of Machine Learning Methods in Diagnosis of Alzheimer Disease Based on Fractal Feature Extraction and Convolutional Neural Network Face Recognition based on Multi-shape Morphological Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM Mandieh Ghazvini Marjane Moghbeli ,Omid Abedi Mohammad Meholi Zahedi ,Elham Raisi Sarbizhan ,Mohammad Reza (Acryani 163-160 REZA SAADATI ,Safoura Rezaei Aderyani nasrin hamiditabar ,S. Jahanshah Kabudian ,Abdolah Chalechale Merdad Kargari ,Meysam Alavi Hasan Hammad,Hassan Khotanlou 185-189 Maser Padar,Mohammad Javad Mirzaei,Amir Abolfazl Suratgar Matinch Hajyan ,Amirhossein Nikoofard Rashid Behzadidoost ,Habib Izadkhah 202-207 Habib Izadkhah 202-207 Habib Izadkhah 202-207 Beham Asghari Beirami 223-227	27	mixtures of Student's-t distributions with missing information	Saeed Darijani ,Hamid Bigdeli	146-151
The Behavior of L-graph Automata The Behavior of L-graph Automata Approximation of derivation-homomorphism fuzzy functional inequalities in matrix valued FC-I -algebras Determining the Severity of Depression in Speech Based on Combination of Acoustic-Space and Score-Space Features A new contrast enhancement method for Color dark and low-light images A new contrast enhancement method for Color dark and low-light images Detection and visualization of COVID-19 in chest Xray images using CNN and Grad-CAM (GCCN) Adaptive TSK Fuzzy Terminal Sliding-Mode Control of Two Coupled Cart-Mounted Inverted Pendulums Fuzzy Control of Autonomous Vehicle at Nonsignalized Intersection in Mixed Traffic Flow An Ensembled Text-based Multi-Stacked-CNN-BILSTM for Rumor Detection on Social Media Detection of multiple emotions in texts using a new deep convolutional neural network Asymmetric distributions based on the t-copula Reinforcement Learning Reward Function for Test Case Prioritization in Continuous Integration Application Of Machine Learning Methods in Diagnosis of Alzheimer Disease Based on Fractal Feature Extraction and Convolutional Neural Network Face Recognition based on Multi-shape Morphological Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM Raisi Sarbizhan "Mohammad Mehdi Zahedi Mehdi Zahedi Mehdi Zahedi Mehdi Zahedi Mehdi Zahedi Mehdi Zahedi Mehdi Zahedi Mehdi Zahedi Mehdi Zahedi Mehdi Zahedi Mehdi Zahedi Mehdi Zahedi Mehdi Zahedi Mehdi Zahedi Mehdi Zahedi Mehdi Zahedi Mehdi Zahedi Mehdi Zahedi Merdad Kargari "Meysam Alavi 173-177 Masar Padar, Mohammad Javad Mirzaei, Amir Abolfazl Suratgar Hasin Hammad, Hassan Khotanlou 185-189 Naser Padar, Mohammad Javad Mirzaei, Amir Abolfazl Suratgar Mirzaei, Amir Abolfazl Suratgar Nikoofard Rashid Behzadidoost "Habib Izadkhah 202-207 Habib Izadkhah 208-213 Behnam Asghari Beirami 223-227	28			152-157
Approximation of derivation—homomorphism fuzzy functional inequalities in matrix valued FC-II -algebras Determining the Severity of Depression in Speech Based on Combination of Acoustic-Space and Score-Space Features A new contrast enhancement method for Color dark and low-light images Detection and visualization of COVID-19 in chest Xray images using CNN and Grad-CAM (GCCN) Adaptive TSK Fuzzy Terminal Sliding-Mode Control of Two Coupled Cart-Mounted Inverted Pendulums Fuzzy Control of Autonomous Vehicle at Nonsignalized Intersection in Mixed Traffic Flow An Ensembled Text-based Multi-Stacked-CNN-BILSTM for Rumor Detection on Social Media Detection of multiple emotions in texts using a new deep convolutional neural network Asymmetric distributions based on the t-copula Reinforcement Learning Reward Function for Test Case Prioritization in Continuous Integration Application Of Machine Learning Methods in Diagnosis of Alzheimer Disease Based on Fractal Feature Extraction and Convolutional Neural Network Face Recognition based on Multi-shape Morphological Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM Mahdieh Ghazvini Marjane Moghbeli Mo	29	Some Properties of L-graphs		158-162
functional inequalities in matrix valued FC-II -algebras Determining the Severity of Depression in Speech Based on Combination of Acoustic-Space and Score- Space Features A new contrast enhancement method for Color dark and low-light images Detection and visualization of COVID-19 in chest Xray images using CNN and Grad-CAM (GCCN) Adaptive TSK Fuzzy Terminal Sliding-Mode Control of Two Coupled Cart-Mounted Inverted Pendulums Fuzzy Control of Autonomous Vehicle at Nonsignalized Intersection in Mixed Traffic Flow An Ensembled Text-based Multi-Stacked-CNN- BILSTM for Rumor Detection on Social Media Detection of multiple emotions in texts using a new deep convolutional neural network Asymmetric distributions based on the t-copula Reinforcement Learning Reward Function for Test Case Prioritization in Continuous Integration Application Of Machine Learning Methods in Diagnosis of Alzheimer Disease Based on Fractal Feature Extraction and Convolutional Neural Network Face Recognition based on Multi-shape Morphological Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM Agental Reinforcement Learning Methods in Diagnosis of Alzheimer Disease Based on Fractal Feature Extraction and Convolutional Neural Network Face Recognition based on Multi-shape Morphological Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM Mahdieh Ghazvini ,Marjane Moghbeli ,Omid Abedi ,Mostafa Aderyani nasrin hamiditabar ,S. Jahanshah Kabudian, Abdolah Chalechale Merdad Kargari ,Meysam Alavi Merdad Kargari ,Meysam Alavi 173-177 Merdad Kargari ,Meysam Alavi 178-184 Merdad Kargari ,Meysam Alavi 185-189 Masan Hammad,Hassan Khotanlou 185-189 Matica Hasan Hamma	30		Mehdi Zahedi	163-166
Based on Combination of Acoustic-Space and Score-Space Features A new contrast enhancement method for Color dark and low-light images Detection and visualization of COVID-19 in chest Xray images using CNN and Grad-CAM (GCCN) Adaptive TSK Fuzzy Terminal Sliding-Mode Control of Two Coupled Cart-Mounted Inverted Pendulums Fuzzy Control of Autonomous Vehicle at Nonsignalized Intersection in Mixed Traffic Flow An Ensembled Text-based Multi-Stacked-CNN-BILSTM for Rumor Detection on Social Media Detection of multiple emotions in texts using a new deep convolutional neural network Asymmetric distributions based on the t-copula Reinforcement Learning Reward Function for Test Case Prioritization in Continuous Integration Application Of Machine Learning Methods in Diagnosis of Alzheimer Disease Based on Fractal Feature Extraction and Convolutional Neural Network Face Recognition based on Multi-shape Morphological Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM Basen Hammad, Hassan Khotanlou 185-189 Merdad Kargari ,Meysam Alavi 173-177 Merdad Kargari ,Meysam Alavi 185-189 Maser Padar, Mohammad Javad Mirzaei, Amir Abolfazl Suratgar Matineh Hajyan ,Amirhossein Nikoofard Rashid Behzadidoost ,Habib Izadkhah 202-207 Habib Izadkhah 208-213 Fereshteh arad ,ayyub sheikhi Hajar Mirzaei ,Mohammad Reza Keyvanpour Morteza Amini ,Mir Mohsen Pedram Extraction and Convolutional Neural Network Face Recognition based on Multi-shape Morphological Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM Mahdieh Ghazvini ,Marjane Morteza Amini ,Marjane	31	functional inequalities in matrix valued FC-I -algebras		167-172
178-184 188-189 188-	32	Based on Combination of Acoustic-Space and Score-		173-177
images using CNN and Grad-CAM (GCCN) Adaptive TSK Fuzzy Terminal Sliding-Mode Control of Two Coupled Cart-Mounted Inverted Pendulums Fuzzy Control of Autonomous Vehicle at Nonsignalized Intersection in Mixed Traffic Flow An Ensembled Text-based Multi-Stacked-CNN-BILSTM for Rumor Detection on Social Media Detection of multiple emotions in texts using a new deep convolutional neural network Asymmetric distributions based on the t-copula Reinforcement Learning Reward Function for Test Case Prioritization in Continuous Integration Application Of Machine Learning Methods in Diagnosis of Alzheimer Disease Based on Fractal Feature Extraction and Convolutional Neural Network Face Recognition based on Multi-shape Morphological Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM Hasan Hammad, Hassan Knotaniou Naser Padar, Mohammad Javad Mitzaei, Amir Abolfazl Suratgar Matineh Hajyan , Amirhossein Nikoofard Habib Izadkhah 202-207 Habib Izadkhah 202-201 Habib Izadkhah 208-213 Mohammad Frassan Knotaniou Intersection of Machine Hajyan delication in Cantinose Matineh Hajyan , Amirhossein Nikoofard Habib Izadkhah 208-213 Mohammad Frassan Knotaniou Matineh Hajyan , Amirhossein Nikoofard Habib Izadkhah 208-213 Mohammad Frascan Knotaniou Matineh Hajyan , Amirhossein Matineh Hajyan , Amirhossein Nikoofard Habib Izadkhah 208-213 Morteza Amini , Mir Mohsen Pedram 217-222 Matineh Hajyan , Amirhossein Nikoofard Matineh Hajyan , Amirhossein Matineh Hajyan , Amirhossein Nikoofard Matineh Hajyan , Amirhossein Nikoofard Habib Izadkhah 208-213 Morteza Amini , Mir Mohsen Pedram 223-227 Matineh Hajyan , Amirhossein Nikoofard Matineh Hajyan , Amirhossein Nikoofard Matineh Hajyan , Amirhosein Pedral Matine	33		Merdad Kargari ,Meysam Alavi	178-184
Two Coupled Cart-Mounted Inverted Pendulums Mirzaei, Amir Abolfazl Suratgar Fuzzy Control of Autonomous Vehicle at Nonsignalized Intersection in Mixed Traffic Flow An Ensembled Text-based Multi-Stacked-CNN-BILSTM for Rumor Detection on Social Media Detection of multiple emotions in texts using a new deep convolutional neural network Asymmetric distributions based on the t-copula fereshteh arad ,ayyub sheikhi Reinforcement Learning Reward Function for Test Case Prioritization in Continuous Integration Application Of Machine Learning Methods in Diagnosis of Alzheimer Disease Based on Fractal Feature Extraction and Convolutional Neural Network Face Recognition based on Multi-shape Morphological Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM Mahdieh Ghazvini ,Marjane Moghbeli ,Omid Abedi ,Mostafa 232-238	34	images using CNN and Grad-CAM (GCCN)	· ·	185-189
Intersection in Mixed Traffic Flow An Ensembled Text-based Multi-Stacked-CNN-BILSTM for Rumor Detection on Social Media Detection of multiple emotions in texts using a new deep convolutional neural network Asymmetric distributions based on the t-copula fereshteh arad ,ayyub sheikhi Reinforcement Learning Reward Function for Test Case Prioritization in Continuous Integration Application Of Machine Learning Methods in Diagnosis of Alzheimer Disease Based on Fractal Feature Extraction and Convolutional Neural Network Face Recognition based on Multi-shape Morphological Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM Nikoofard Rashid Behzadidoost ,Habib Izadkhah 202-207 Habib Izadkhah 208-213 Ereshteh arad ,ayyub sheikhi 214-216 Hajar Mirzaei ,Mohammad Reza Keyvanpour Morteza Amini ,Mir Mohsen Pedram 223-227 Morteza Amini ,Mir Mohsen Pedram 223-227 Mahdieh Ghazvini ,Marjane Moghbeli ,Omid Abedi ,Mostafa 232-238	35			190-195
BILSTM for Rumor Detection on Social Media Detection of multiple emotions in texts using a new deep convolutional neural network Asymmetric distributions based on the t-copula Reinforcement Learning Reward Function for Test Case Prioritization in Continuous Integration Application Of Machine Learning Methods in Diagnosis of Alzheimer Disease Based on Fractal Feature Extraction and Convolutional Neural Network Face Recognition based on Multi-shape Morphological Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM Mahdieh Ghazvini ,Marjane Moghbeli ,Omid Abedi ,Mostafa 232-238	36			196-201
208-213 214-216 214-216 217-222 217-222 Application Of Machine Learning Methods in Diagnosis of Alzheimer Disease Based on Fractal Feature Extraction and Convolutional Neural Network Face Recognition based on Multi-shape Morphological Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM Mahdieh Ghazvini ,Marjane Moghbeli ,Omid Abedi ,Mostafa 232-238	37	BILSTM for Rumor Detection on Social Media	Rashid Behzadidoost ,Habib Izadkhah	202-207
Application Of Machine Learning Methods in Diagnosis of Alzheimer Disease Based on Fractal Feature Extraction and Convolutional Neural Network Face Recognition based on Multi-shape Morphological Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM Mahdieh Ghazvini ,Marjane Moghbeli ,Omid Abedi ,Mostafa 232-238	38		Habib Izadkhah	208-213
Prioritization in Continuous Integration Application Of Machine Learning Methods in Diagnosis of Alzheimer Disease Based on Fractal Feature Extraction and Convolutional Neural Network Face Recognition based on Multi-shape Morphological Profiles-based Covariance Descriptors and Log-Euclidean Kernel SVM Mahdieh Ghazvini ,Marjane Moghbeli ,Omid Abedi ,Mostafa 232-238	39	Asymmetric distributions based on the t-copula		214-216
41 of Alzheimer Disease Based on Fractal Feature Extraction and Convolutional Neural Network Face Recognition based on Multi-shape Morphological Profiles-based Covariance Descriptors and Log- Euclidean Kernel SVM Mahdieh Ghazvini ,Marjane Moghbeli ,Omid Abedi ,Mostafa 232-238	40	Prioritization in Continuous Integration		217-222
42Profiles-based Covariance Descriptors and Log- Euclidean Kernel SVMBehnam Asghari Beirami228-23143Power Allocation in CRNs based on QoS and QoEMahdieh Ghazvini Moghbeli M	41	of Alzheimer Disease Based on Fractal Feature Extraction and Convolutional Neural Network	Morteza Amini ,Mir Mohsen Pedram	223-227
43 Power Allocation in CRNs based on QoS and QoE Moghbeli ,Omid Abedi ,Mostafa 232-238	42	Profiles-based Covariance Descriptors and Log-	Behnam Asghari Beirami	228-231
	43	Power Allocation in CRNs based on QoS and QoE	Moghbeli ,Omid Abedi ,Mostafa	232-238

2022 9th Iranian Joint Congress on Fuzzy and intelligent Systems (CFIS), March 2-4, 2022, Bam, Iran Higher Education Complex of Bam

44	Improving Image Captioning with Local Attention Mechanism	zahra familsattari ,hassan khotanlou ,elham alighardash	239-243
45	An Aggregated Revenue-Driven VPP Model Based on Marginal Price Tracking for Profit Maximization	Zohreh Azani ,Hossein Shahinzadeh ,Shohreh Azani ,Gevork B. Gharehpetian ,Ersan Kabalci ,Mohamed Benbouzid	244-250
46	Artificial Gorilla Troops Optimizer for Optimum Tuning of TID Based Power System Stabilizer	Mahmoud A. El-Dabah ,Salah Kamel ,Mohamed Khamies ,Hossein Shahinzadeh ,Gevork B. Gharehpetian	251-255
47	Fractional entropy and its applications in fuzzy c-means clustering	Raana Beigmohamadi	256-259
48	Intelligent fault detection of planetary gearbox using vibration signal processing by empirical mode decomposition and an integrated artificial neural network-support vector machine classifier	Mahdi Armoon ,Marzie Lafouti ,Amirhossein Nikoofard	260-265
49	Efficiency evaluation using fuzzy DEA-TOPSIS and possibility theory	Hani Fekri ,Moosa Darijani	266-272
50	An efficient outlier detection method based on distance ratio of k-nearest neighbors	Reza Heydari Gharaei ,Rasoul Sharify ,Hossein Nezamabadi-pour	273-277
51	Improved LOF Algorithm Using Random Point	Rasoul Sharify ,Reza Heydari Gharaei ,S. Mahmoud Taheri	278-283
52	A Novel Control Strategy Based on Fuzzy Logic in Islanded Microgrid	Farzad Rastegar	284-289
53	A Nitrate Enzymatic Biosensor based on Optimized Machine Learning Techniques	Keyvan Asefpour Vakilian	290-294
54	Modified Relay Node Placement in dense 3D Underwater Acoustic Sensor Networks	zahra mohammadi	295-298
55	A Fractional Multi-commodity Network Flow Problem with Uncertain Multi-Choice Coefficients: Model Formulations and Solution Approach	Salim Bavandi, Seyed Hadi Nasseri, Chefi Triki	299-304