

Academic Resume



Fawaz Alsaadi

Associate Professor, Information Technology Department

Contact Information.

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Highest Degree.

2017, , Biometric Security, University of Colorado Colorado Springs, USA.

Academic and Professional Experiences.

1. **2021 - Present**
Associate Professor, Jeddah, Saudi Arabia, Department of Information Technology, Faculty of Computing and Information Technology, King Abdulaziz University.
2. **2017 - 2021**
Assistant Professor, Jeddah, Saudi Arabia, Department of Information Technology, Faculty of Computing and Information Technology, King Abdulaziz University.
3. **2011 - 2017**
Lecturer, Jeddah, Saudi Arabia, Department of Informaiton Technology, Faculty of Computing and Informaiton Technology, King Abdulaziz University.
4. **2007 - 2011**
Adjunct Lecturer, Jeddah, Saudi Arabia, Department of Information Technology, Faculty of Computing and Information Technology, King Abdulaziz University.
5. **2000 - 2010**
Teaching Assistant, Jeddah, Saudi Arabia, Jeddah College of Technology.
6. **1999 - 2000**
Teaching Assistant, Medina, Saudi Arabia, Medina College of Technology.

Research Interests.

Biometrics Security, Information Security, Cloud Computing, Storage Security, Networking, Distributes Systems, Internet of Things.

Teaching Interests.

Face Recognition and Deep Learning, Biometric Authentication, Machine Learning, Introduction to Computing, Networks Administration, Introduction to IT.

Certifications and Trainings.

1. Interconnecting Cisco Network Devices, Cisco System, Denver, Colorado, United States.
2. Introduction to Cisco Networking Technologies, Cisco System, Denver, Colorado, United States.
3. Building Cisco Multilayer Switch Networks (BSMSN), Cisco System, Denver, Colorado, United States.
4. Cisco Internetwork Troubleshooting, Cisco System, Denver, Colorado, United States.
5. Building Cisco Remote Access Networks, Cisco System, Denver, Colorado, United States.
6. Building Scalable Cisco Internetworks, Cisco System, Denver, Colorado, United States.

Social, Scientific and Professional Affiliation.

Excellence Awards and Patents.

1. 2020, Patent, SYSTEM, DEVICE, AND METHOD FOR PATTERN REPRESENTATION AND RECOGNITION, United States Patent.

Funded Projects.

1. 2021, Dynamic Event-Based Non-fragile state estimation for complex networks via partial nodes information, KAU
2. 2021, Finite-time synchronization for complex dynamic networks, KAU
3. 2021, Synchronization of Quaternion valued neural networks with mixed time delays using Lyapunov function method, KAU

Publications.

1. Tianhu Yu, Yingzhao Liu, Jinde Cao, Fawaz E Alsaadi, "Finite-Time Stability Of Dynamical System Under Event-Triggered Hybrid Control", *Applied Mathematical Modelling*, vol: 117, pp. 286-295, 2023.
DOI: [10.1016/j.apm.2022.12.031](https://doi.org/10.1016/j.apm.2022.12.031)
2. Yuxuan Shen, Zidong Wang, Hongli Dong, Guoping Lu, Fawaz E. Alsaadi, "Distributed Recursive State Estimation For A Class Of Multi-Rate Nonlinear Systems Over Wireless Sensor Networks Under Flexray Protocols", *Ieee Transactions On Network Science And Engineering*, vol: 10, pp. 1551-1563, 2023.
DOI: [10.1109/TNSE.2022.3229889](https://doi.org/10.1109/TNSE.2022.3229889)
3. Hong-Li Li, Jinde Cao, Cheng Hu, Haijun Jiang, Fawaz E. Alsaadi, "Synchronization Analysis Of Discrete-Time Fractional-Order Quaternion-Valued Uncertain Neural Networks", *Ieee Transactions On Neural Networks And Learning Systems*, pp. 1-12, 2023.
DOI: [10.1109/TNNLS.2023.3274959](https://doi.org/10.1109/TNNLS.2023.3274959)
4. Luyang Yu, Weibo Liu, Yurong Liu, Changfeng Xue, Fawaz E. Alsaadi, "Learning-Based Non-Fragile State Estimation For Switching Complex Dynamical Networks", *Discrete And Continuous Dynamical Systems - S*, vol: 16, pp. 1701-1721, 2023.
DOI: [10.3934/dcdss.2022177](https://doi.org/10.3934/dcdss.2022177)
5. Xinyu Li, Zunshui Cheng, Jinde Cao, Fawaz E. Alsaadi, "Stability And Bifurcation Behavior Of A Neuron System With Hyper-Strong Kernel", *Neural Processing Letters*, vol: 55, pp. 12143-12167, 2023.
DOI: [10.1007/s11063-023-11413-y](https://doi.org/10.1007/s11063-023-11413-y)
6. J.E. Lav?n-Delgado, S. Ch?vez-V?zquez, J.F. G?mez-Aguilar, Madini O. Alassafi, Fawaz E. Alsaadi, Adil M. Ahmad, "Intelligent Neural Integral Sliding-Mode Controller For A Space Robotic Manipulator Mounted On A Free-Floating Satellite", *Advances In Space Research*, vol: 71, pp. 3734-3747, 2023.
DOI: [10.1016/j.asr.2022.08.053](https://doi.org/10.1016/j.asr.2022.08.053)
7. Yiheng Wei, Linlin Zhao, Junguo Lu, Fawaz E. Alsaadi, Jinde Cao, "Lmi Stability Condition For Delta Fractional Order Systems With Region Approximation", *Ieee Transactions On Circuits And Systems I: Regular Papers*, vol: 70, pp. 3735-3745, 2023.
DOI: [10.1109/TCSI.2023.3281639](https://doi.org/10.1109/TCSI.2023.3281639)
8. YUANYUAN YANG, RAVEENA JUDIE DOLLY, MADINI O. ALASSAFI, ADAM SLOWIK, FAWAZ E. ALSAADI, "Multi-Source And Heterogeneous Online Music Education Mechanism: An Artificial Intelligence-Driven Approach", *Fractals*, vol: 31, 2023.
DOI: [10.1142/S0218348X23401540](https://doi.org/10.1142/S0218348X23401540)
9. Fawaz E. Alsaadi, Hadi Jahanshahi, Qijia Yao, Jun Mou, "Recurrent Neural Network-Based Technique For Synchronization Of Fractional-Order Systems Subject To Control Input Limitations And Faults", *Chaos, Solitons & Fractals*, vol: 173, pp. 113717, 2023.
DOI: [10.1016/j.chaos.2023.113717](https://doi.org/10.1016/j.chaos.2023.113717)
10. MINGZHU TANG, JUN TANG, HUAWEI WU, YANG WANG, YIYUN HU, BEIYUAN LIU, MADINI O. ALASSAFI, FAWAZ E. ALSAADI, ADIL M. AHMAD, FUQIANG XIONG, "Abnormal Detection Of Wind Turbine Converter Based On Cwgangp-Cssvm", *Fractals*, vol: 31, 2023.
DOI: [10.1142/S0218348X23401394](https://doi.org/10.1142/S0218348X23401394)
11. Fawaz E. Alsaadi, Stelios Bekiros, Qijia Yao, Jinping Liu, Hadi Jahanshahi, "Achieving Resilient Chaos Suppression And Synchronization Of Fractional-Order Supply Chains With Fault-Tolerant Control", *Chaos, Solitons & Fractals*, vol: 174, pp. 113878, 2023.
DOI: [10.1016/j.chaos.2023.113878](https://doi.org/10.1016/j.chaos.2023.113878)
12. Weiyang Shang, Weiwei Zhang, Hai Zhang, Hongmei Zhang, Jinde Cao, Fawaz E. Alsaadi, "Finite-Time Lag Projective Synchronization Of Delayed Fractional-Order Quaternion-Valued Neural Networks With Parameter Uncertainties", *Nonlinear Analysis: Modelling And Control*, vol: 28, pp. 1-22, 2023.
DOI: [10.15388/namc.2023.28.30817](https://doi.org/10.15388/namc.2023.28.30817)

Publications.

13. Fawaz E. Alsaadi, Amirreza Yasami, Christos Volos, Stelios Bekiros, Hadi Jahanshahi, "A New Fuzzy Reinforcement Learning Method For Effective Chemotherapy", *Mathematics*, vol: 11, pp. 477, 2023.
DOI: [10.3390/math11020477](https://doi.org/10.3390/math11020477)
14. Qinyuan Liu, Shaoyu Zheng, Zidong Wang, Naif D. Alotaibi, Fawaz E. Alsaadi, "Distributed Estimation For Multi-Agent Systems With Relative Measurements And Quantized Communication: A Feedback Quadratic Framework", *International Journal Of Robust And Nonlinear Control*, vol: 33, pp. 3164-3184, 2023.
DOI: [10.1002/rnc.6564](https://doi.org/10.1002/rnc.6564)
15. Lei Liu, Jinde Cao, Fawaz E. Alsaadi, "Aperiodically Intermittent Event-Triggered Optimal Average Consensus For Nonlinear Multi-Agent Systems", *Ieee Transactions On Neural Networks And Learning Systems*, pp. 1-15, 2023.
DOI: [10.1109/TNNLS.2023.3240427](https://doi.org/10.1109/TNNLS.2023.3240427)
16. Ruoyu Wei, Jinde Cao, Fawaz E. Alsaadi, "Fixed/Prescribed-Time Bipartite Synchronization Of Coupled Quaternion-Valued Neural Networks With Competitive Interactions", *Neural Processing Letters*, 2023.
DOI: [10.1007/s11063-023-11225-0](https://doi.org/10.1007/s11063-023-11225-0)
17. Hanjing Cheng, Zidong Wang, Lifeng Ma, Zhihui Wei, Fawaz E. Alsaadi, Xiaohui Liu, "Differentiable Channel Pruning Guided Via Attention Mechanism: A Novel Neural Network Pruning Approach", *Complex & Intelligent Systems*, 2023.
DOI: [10.1007/s40747-023-01022-6](https://doi.org/10.1007/s40747-023-01022-6)
18. Qiongwen Zhang, Jun Cheng, Daixi Liao, Jinde Cao, Fawaz E Alsaadi, "Improved Dynamic Event-Triggered Control For Nonlinear Systems With Fading Channels", *Applied Mathematics And Computation*, vol: 450, pp. 127990, 2023.
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19. Xue Tian, Madini O. Alassafi, Fawaz E. Alsaadi, "An Efficient English Teaching Driven By Enterprise-Social Media Big Data: A Neural Network-Based Solution", *Fractals*, 2023.
DOI: [10.1142/S0218348X23401515](https://doi.org/10.1142/S0218348X23401515)
20. Fernando Serrano, Oscar Castillo, Madini Alassafi, Fawaz Alsaadi, Adil Ahmad, "Terminal Sliding Mode Attitude-Position Quaternion Based Control Of Quadrotor Unmanned Aerial Vehicle", *Advances In Space Research*, vol: 71, pp. 3855-3867, 2023.
DOI: [10.1016/j.asr.2023.02.030](https://doi.org/10.1016/j.asr.2023.02.030)
21. Lichao Feng, Lei Liu, Jinde Cao, Fawaz E. Alsaadi, "General Stabilization Of Non-Autonomous Hybrid Systems With Delays And Random Noises Via Delayed Feedback Control", *Communications In Nonlinear Science And Numerical Simulation*, vol: 117, pp. 106939, 2023.
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22. Qian Cui, Lulu Li, Jinde Cao, Fawaz E. Alsaadi, "Synchronization Of Kuramoto-Oscillator Networks Under Event-Triggered Delayed Impulsive Control", *Physica A: Statistical Mechanics And Its Applications*, vol: 608, pp. 128250, 2022.
DOI: [10.1016/j.physa.2022.128250](https://doi.org/10.1016/j.physa.2022.128250)
23. Fawaz E. Alsaadi, Amirreza Yasami, Hajid Alsubaie, Ahmed Alotaibi, Hadi Jahanshahi, "Control Of A Hydraulic Generator Regulating System Using Chebyshev-Neural-Network-Based Non-Singular Fast Terminal Sliding Mode Method", *Mathematics*, vol: 11, pp. 168, 2022.
DOI: [10.3390/math11010168](https://doi.org/10.3390/math11010168)
24. Yousef Almaghthawi, Iftikhar Ahmad, Fawaz E. Alsaadi, "Performance Analysis Of Feature Subset Selection Techniques For Intrusion Detection", *Mathematics*, vol: 10, pp. 4745, 2022.
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25. Chi Zhao, Yinfang Song, Yurong Liu, Fawaz E. Alsaadi, "N Th Moment Synchronization Of Stochastic Impulsive Neural Networks With Time-Varying Coefficients And Unbounded Delaysn", *Neurocomputing*, vol: 514, pp. 500-511, 2022.
DOI: [10.1016/j.neucom.2022.10.010](https://doi.org/10.1016/j.neucom.2022.10.010)
26. Zhongwen Cao, Liang Zhang, Adil M. Ahmad, Fawaz E. Alsaadi, Madini O. Alassafi, "Adaptive Neural Prescribed Performance Control For Switched Pure-Feedback Non-Linear Systems With Input Quantization", *Assembly Automation*, vol: 42, pp. 869-880, 2022.
DOI: [10.1108/AA-05-2022-0126](https://doi.org/10.1108/AA-05-2022-0126)
27. Lu Chai, Zidong Wang, Jianqing Chen, Guokai Zhang, Fawaz E. Alsaadi, Fuad E. Alsaadi, Qinyuan Liu, "Synthetic Augmentation For Semantic Segmentation Of Class Imbalanced Biomedical Images: A Data Pair Generative Adversarial Network Approach", *Computers In Biology And Medicine*, vol: 150, pp. 105985, 2022.
DOI: [10.1016/j.compbiomed.2022.105985](https://doi.org/10.1016/j.compbiomed.2022.105985)
28. Zhixun Zhang, Jianqiang Hu, Jianquan Lu, Jinde Cao, Fawaz E Alsaadi, "Preventing False Data Injection Attacks In Lfc System Via The Attack-Detection Evolutionary Game Model And Kf Algorithm", *Ieee Transactions On Network Science And Engineering*, vol: 9, pp. 4349-4362, 2022.
DOI: [10.1109/TNSE.2022.3199881](https://doi.org/10.1109/TNSE.2022.3199881)
29. Yumeng Cao, Ning Zhao, Ning Xu, Xudong Zhao, Fawaz E. Alsaadi, "Minimal-Approximation-Based Adaptive Event-Triggered Control Of Switched Nonlinear Systems With Unknown Control Direction", *Electronics*, vol: 11, pp. 3386, 2022.
DOI: [10.3390/electronics11203386](https://doi.org/10.3390/electronics11203386)
30. Can Zhao, Jinde Cao, Kaibo Shi, Yiqian Tang, Shouming Zhong, Fawaz E. Alsaadi, "Improved Nonfragile Sampled-Data Event-Triggered Control For The Exponential Synchronization Of Delayed Complex Dynamical Networks", *Mathematics*, vol: 10, pp. 3504, 2022.
DOI: [10.3390/math10193504](https://doi.org/10.3390/math10193504)
31. Ruoyu Wei, Jinde Cao, Fawaz E Alsaadi, "Fixed-Time Passivity Of Coupled Quaternion-Valued Neural Networks With Multiple Delayed Couplings", *Soft Computing*, 2022.
DOI: [10.1007/s00500-022-07500-2](https://doi.org/10.1007/s00500-022-07500-2)
32. Yuanqing Wang, Ben Niu, Adil Ahmad, Yajuan Liu, Huanqing Wang, Guangdeng Zong, Fawaz Alsaadi, "Adaptive Command Filtered Control For Switched Multi?Input Multi?Output Nonlinear Systems With Hysteresis Inputs", *International Journal Of Adaptive Control And Signal Processing*, vol: 36, pp. 3023-3042, 2022.
DOI: [10.1002/acs.3501](https://doi.org/10.1002/acs.3501)
33. Fawaz E. Alsaadi, Xiulan Zhang, Madini O. Alassafi, Reem M. Alotaibi, Adil M. Ahmad, Jinde Cao, "Fuzzy Command Filter Backstepping Control For Incommensurate Fractional-Order Systems Via Composite Learning", *International Journal Of Fuzzy Systems*, vol: 24, pp. 3293-3307, 2022.
DOI: [10.1007/s40815-022-01344-6](https://doi.org/10.1007/s40815-022-01344-6)
34. Zewei Yang, Luyang Yu, Yurong Liu, Naif D. Alotaibi, Fawaz E. Alsaadi, "Event-Triggered Privacy-Preserving Bipartite Consensus For Multi-Agent Systems Based On Encryption", *Neurocomputing*, vol: 503, pp. 162-172, 2022.
DOI: [10.1016/j.neucom.2022.06.074](https://doi.org/10.1016/j.neucom.2022.06.074)
35. Li Cai, Lianglin Xiong, Jinde Cao, Haiyang Zhang, Fawaz E. Alsaadi, "State Quantized Sampled-Data Control Design For Complex-Valued Memristive Neural Networks", *Journal Of The Franklin Institute*, vol: 359, pp. 4019-4053, 2022.
DOI: [10.1016/j.jfranklin.2022.04.016](https://doi.org/10.1016/j.jfranklin.2022.04.016)

Publications.

36. Zewei Yang, Yurong Liu, Wenbing Zhang, Fawaz E. Alsaadi, Khalid H. Alharbi, "Differentially Private Containment Control For Multi-Agent Systems", International Journal Of Systems Science, vol: 53, pp. 2814-2831, 2022.
DOI: [10.1080/00207721.2022.2070794](https://doi.org/10.1080/00207721.2022.2070794)
37. Lifeng Ma, Zidong Wang, Hongjian Liu, Fuad E. Alsaadi, Fawaz E. Alsaadi, "Neural-Network-Based Filtering For A General Class Of Nonlinear Systems Under Dynamically Bounded Innovations Over Sensor Networks", Ieee Transactions On Network Science And Engineering, vol: 9, pp. 1395-1408, 2022.
DOI: [10.1109/TNSE.2022.3144484](https://doi.org/10.1109/TNSE.2022.3144484)
38. BO WANG, YE WANG, J. F. GOMEZ-AGUILAR, ZULQURNAIN SABIR, MUHAMMAD ASIF ZAHOOR RAJA, HADI JAHANSHAH, MADINI O. ALASSAFI, FAWAZ E. ALSAADI, "Gudermannian Neural Networks To Investigate The Lienard Differential Model", Fractals, vol: 30, 2022.
DOI: [10.1142/S0218348X22500505](https://doi.org/10.1142/S0218348X22500505)
39. Luyang Yu, Ying Cui, Yurong Liu, Naif D. Alotaibi, Fawaz E. Alsaadi, "Sampled-Based Consensus Of Multi-Agent Systems With Bounded Distributed Time-Delays And Dynamic Quantisation Effects", International Journal Of Systems Science, vol: 53, pp. 2390-2406, 2022.
DOI: [10.1080/00207721.2022.2053230](https://doi.org/10.1080/00207721.2022.2053230)
40. Lichao Feng, Qiumei Liu, Jinde Cao, Chunyan Zhang, Fawaz Alsaadi, "Stabilization In General Decay Rate Of Discrete Feedback Control For Non-Autonomous Markov Jump Stochastic Systems", Applied Mathematics And Computation, vol: 417, pp. 126771, 2022.
DOI: [10.1016/j.amc.2021.126771](https://doi.org/10.1016/j.amc.2021.126771)
41. Bo Wang, J. F. Gomez-Aguilar, Zulqurnain Sabir, Muhammad Asif Zahoor Raja, Wei-Feng Xia, Hadi Jahanshahi, Madini O. Alassafi, Fawaz E. Alsaadi, "Numerical Computing To Solve The Nonlinear Corneal System Of Eye Surgery Using The Capability Of Morlet Wavelet Artificial Neural Networks", Fractals, 2022.
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42. Fawaz E. Alsaadi, Lichao Feng, Madini O. Alassafi, Reem M. Alotaibi, Adil M. Ahmad, Jinde Cao, "Stochastic Robustness Of Delayed Discrete Noises For Delay Differential Equations", Mathematics, vol: 10, pp. 743, 2022.
DOI: [10.3390/math10050743](https://doi.org/10.3390/math10050743)
43. Dan Liu, Zidong Wang, Yurong Liu, Fawaz E. Alsaadi, Fuad E. Alsaadi, "Recursive State Estimation For Stochastic Complex Networks Under Round-Robin Communication Protocol: Handling Packet Disorders", Ieee Transactions On Network Science And Engineering, vol: 8, pp. 2455-2468, 2021.
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44. Luyang Yu, Yurong Liu, Ying Cui, Naif D. Alotaibi, Fawaz E. Alsaadi, "Intermittent Dynamic Event-Triggered State Estimation For Delayed Complex Networks Based On Partial Nodes", Neurocomputing, vol: 459, pp. 59-69, 2021.
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45. BO WANG, HADI JAHANSHAH, STELIOS BEKIROU, YU-MING CHU, J. F. GOMEZ-AGUILAR, FAWAZ E. ALSAADI, MADINI O. ALASSAFI, "Tracking Control And Stabilization Of A Fractional Financial Risk System Using Novel Active Finite-Time Fault-Tolerant Controls", Fractals, vol: 29, pp. 2150155, 2021.
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46. Luyang Yu, Weibo Liu, Yurong Liu, Fawaz E. Alsaadi, "Nonlinear Learning-Based Nonlinear Shdp() For Optimal Control Of A Class Of Nonlinear Discrete-Time Systems", International Journal Of Robust And Nonlinear Control, vol: 32, pp. 2624-2643, 2021.
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47. Ashish, Jinde Cao, Fawaz Alsaadi, "Chaotic Evolution Of Difference Equations In Mann Orbit", Journal Of Applied Analysis & Computation, vol: 11, pp. 3063-3082, 2021.
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48. Ying Cui, Luyang Yu, Yurong Liu, Wenbing Zhang, Fawaz E. Alsaadi, "Dynamic Event-Based Non-Fragile State Estimation For Complex Networks Via Partial Nodes Information", Journal Of The Franklin Institute, vol: 358, pp. 10193-10212, 2021.
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49. Madini O. Alassafi, Shumin Ha, Fawaz E. Alsaadi, Adil M. Ahmad, Jinde Cao, "Fuzzy Synchronization Of Fractional-Order Chaotic Systems Using Finite-Time Command Filter", Information Sciences, vol: 579, pp. 325-346, 2021.
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50. Hua Yang, Zidong Wang, Yuxuan Shen, Fuad E. Alsaadi, Fawaz E. Alsaadi, "Event-Triggered State Estimation For Markovian Jumping Neural Networks: On Mode-Dependent Delays And Uncertain Transition Probabilities", Neurocomputing, vol: 424, pp. 226-235, 2021.
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51. Pei-Ying Xiong, Hadi Jahanshahi, Ra?l Alcaraz, Yu-Ming Chu, J.F. Gomez-Aguilar, Fawaz E. Alsaadi, "Spectral Entropy Analysis And Synchronization Of A Multi-Stable Fractional-Order Chaotic System Using A Novel Neural Network-Based Chattering-Free Sliding Mode Technique", Chaos, Solitons & Fractals, vol: 144, pp. 110576, 2021.
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52. Jingjing Tang, Yiwei He, Yingjie Tian, Dalian Liu, Gang Kou, Fawaz E. Alsaadi, "Coupling Loss And Self-Used Privileged Information Guided Multi-View Transfer Learning", Information Sciences, vol: 551, pp. 245-269, 2021.
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53. Gang Kou, Yi Peng, Xiangrui Chao, Enrique Herrera-Viedma, Fawaz E. Alsaadi, "A Geometrical Method For Consensus Building In Gdm With Incomplete Heterogeneous Preference Information", Applied Soft Computing, vol: 105, pp. 107224, 2021.
DOI: [10.1016/j.asoc.2021.107224](https://doi.org/10.1016/j.asoc.2021.107224)
54. TIE-HONG ZHAO, OSCAR CASTILLO, HADI JAHANSHAH, ABDULLAHI YUSUF; MADINI O. ALASSAFI, FAWAZ E. ALSAADI, YU-MING CHU, "A Fuzzy-Based Strategy To Suppress The Novel Coronavirus (2019-Ncov) Massive Outbreak", Applied And Computational Mathematics, 2021.
55. Fawaz E. Alsaadi, Faisal Ali, Imran Khalid, Masood Ur Rehman, Muhammad Salman, Madini Obad Alassafi, Jinde Cao, "Quantifying Some Distance Topological Properties Of The Non-Zero Component Graph", Aims Mathematics, vol: 6, pp. 3512-3524, 2021.
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56. Shuang-Shuang Zhou, Hadi Jahanshahi, Qamar Din, Stelios Bekiros, Ra?l Alcaraz, Madini O. Alassafi, Fawaz E. Alsaadi, Yu-Ming Chu, "Discrete-Time Macroeconomic System: Bifurcation Analysis And Synchronization Using Fuzzy-Based Activation Feedback Control", Chaos, Solitons & Fractals, vol: 142, pp. 110378, 2021.
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57. Feng Shen, Xingchao Zhao, Gang Kou, Fawaz E. Alsaadi, "A New Deep Learning Ensemble Credit Risk Evaluation Model With An Improved Synthetic Minority Oversampling Technique", Applied Soft Computing, vol: 98, pp. 106852, 2021.
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58. Fawaz E. Alsaadi, Syed Ahtsham Ul Haq Bokhary, Aqsa Shah, Usman Ali, Jinde Cao, Madini Obad Alassafi, Masood Ur Rehman, Jamshaid Ul Rahman, "On Knowledge Discovery And Representations Of Molecular Structures Using Topological Indices", Journal Of Artificial Intelligence And Soft Computing Research, vol: 11, pp. 21-32, 2021.
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59. Fawaz E. Alsaadi, Muhammad Salman, Masood Ur Rehman, Abdul Rauf Khan, Jinde Cao, Madini Obad Alassafi, Muhammad Javaid, "On The Geodesic Identification Of Vertices In Convex Plane Graphs", Mathematical Problems In Engineering, vol: 2020, pp. 1-13, 2020.
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60. Changsheng Lin, Gang Kou, Yi Peng, Fawaz E. Alsaadi, "Two-Stage Prioritization Procedure For Multiplicative Ahp-Group Decision Making", Technological And Economic Development Of Economy, vol: 26, pp. 525-545, 2020.
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