

Academic Resume



Mahmoud Ragab Al-Refaey

Professor, Information Technology Department

He obtained his Ph.D. degree in Partial Quicksort Algorithms and weighted branching Processes from the faculty of Mathematics and Natural Sciences of the Christian-Albrechts-University at Kiel (CAU), Schleswig-Holstein, Germany. He is a Professor at the Department of Information Technology, Faculty of Computing and Information Technology, King Abdulaziz University, Jeddah, Saudi Arabia. Former researcher: Combinatorial Optimization and Graph Algorithms, Berlin University of Technology and others

Contact Information.

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Highest Degree.

2012, Doctor Rerum Naturalium/ Ph.D. degree of the faculty of Mathematics and Natural Sciences, Sorting Algorithms, Christian-Albrechts-University at Kiel (CAU), Schleswig-Holstein, Germany.

Academic and Professional Experiences.

1. **2022 - Present**
Professor of Data Science, Information Technology Department of Information Technology, Faculty of Computing and Information Technology, King Abdulaziz University, Jeddah, Saudi Arabia, , .
2. **2021 - 2022**
Consultant for Vice President for Graduate Studies and Scientific Research, King Abdulaziz University, Jeddah, Saudi Arabia, King Abdulaziz University, Jeddah, Saudi Arabia, King Abdulaziz University, Jeddah, Saudi Arabia.
3. **2020 - Present**
Head of the Biological Quantum Computing Unit, Center of Artificial Intelligence for Precision Medicines, King Abdulaziz University, Jeddah, Saudi Arabia., , .
4. **2020 - Present**
Associate Professor, Department of information technology, Faculty of Computing and information technology, King Abdulaziz University, Jeddah, Saudi Arabia., , .
5. **2018 - 2020**
Consultant for Vice President for Development, Vice Presidency for Development, King Abdulaziz University, Jeddah, Saudi Arabia, , .
6. **2017 - 2021**
Associate Professor, Mathematics department, Faculty of Informatics and Computer Science , British University in Egypt (BUE), Cairo, Egypt., Egypt, British University in Egypt (BUE).
7. **2017 - 2021**
Associate Professor, Cairo , Egypt, Mathematics Department, Faculty of Science, Al-Azhar University, Naser City, Egypt.

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Academic and Professional Experiences.

8. **2014 - 2016**
Postdoc, Combinatorial Optimization and Graph Algorithms Group (COGA), Institute of Mathematics, Faculty II Mathematics and Natural Sciences, Berlin University of Technology, Berlin, Germany, , .
9. **2013 - 2014**
Assistant Professor, Mathematics department, Faculty of Engineering, British University in Egypt (BUE), Cairo, Egypt., , .
10. **2012 - 2013**
Assistant Professor, Mathematics department, Faculty of Engineering, Misr International University (MIU), Cairo, Egypt., , .
11. **2008 - 2011**
Research Assistant & "Arbeitsgruppe Stochastik" under the supervision of Prof. Dr. Uwe Roesler, Mathematics department, CAU Kiel, Germany, , .
12. **2006 - 2008**
Research associate, Department of Computer Science and Automation, Integrated Communication Systems Group, Ilmenau University of Technology (TU Ilmenau), Ilmenau, Thuerengen, Germany, , .
13. **2001 - 2005**
Assistant Lecturer, Mathematics department, Faculty of Science, Al Azhar University, Cairo, Egypt., , .
14. **2000 - 2001**
Assistant Research, Statistics and Computer Science, Mansoura, Egypt, Faculty of Science, Mansoura University.

Research Interests.

Data Science, Optimization, Quantum Computation, Neural Networks, Data Mining, Mathematical Modeling, DL Medical Applications, Time series, Machin leaning, Deep learning, AI applications in Biomedicines.

Teaching Interests.

Data Science, Data Analysis, Optimization, Operations Research, Artificial Intelligence Techniques, Deep Learning, Strategic Planning, Graph theory, Probability and distribution theory, Mathematics of statistics, Sampling theory and practice, Algebra, Geometry, Calculus concepts with foundations, Partial differential equations, Real analysis, Bayesian Statistical inference and decision making, Regression and forecasting models, Nonparametric statistics, Analysis of time series, Risk.

Certifications and Trainings.

1. Training in Teaching and Education Systems.
2. Training in Management and Leadership..
3. Good eye for detail; well organized, skilled in setting priorities.
4. Faculty Member of the Post Grauate devolpement Comittee..
5. Member of the Arabic students in German univerisities club, Berlin, Germany.
6. Inter-Culture Training for students of high schools, Student Services, Schleswig-Holstein, Germany..
7. Certified KPI Professional Diplome, The KPI Institute..
8. The International Computer Driving License (ICDL) issued by the UNESCO.
9. Certified in Organization Design Master, Organizational designe Comunity, Caliber Academy.
10. Professional Certification in Quality Assurance of Higher Education.

Social, Scientific and Professional Affiliation.

1. 2018-2021, Associate Professor, Information Technology Dept., Faculty Computing and Information Technology, King Abdulaziz University, Jeddah, Saudi Arabia..
2. 2021-Present, Associate Editor, Journal Annals of Advanced Biomedical Sciences (AABSc), ISSN :2641-

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3. 2020-Present, Associate Editor, Journal of Mathematical Modeling and Operations Research JMMOR, ISSN 2377-6404, Sacramento, California, USA..
4. 2020-Present, Scientific visitor, Faculty II Mathematics and Natural Sciences, TU Berlin, Germany..
5. 2020-Present, Member, The Egyptian Mathematical Society.
6. 2007-2015, Member, Schleswig-Holstein, Germany.
7. 2014-Present, Editor, LAP Lambert Academic Publishing, ISBN- 13:978-3-659-38289-5, ISBN-10:3659382892, EAN:9783659382895, Germany.
8. 2022-Present, Professor of Data Science, Information Technology Dept., Faculty Computing and Information Technology, King Abdulaziz University.
9. 2022-Present, Associate Editor Robotics, Journal of Basic and Applied Sciences.
10. 2021-, Master degree, The KPI Institute.
11. 2021-, Member, Christian-Albrechts-University at Kiel (CAU).
12. 2010-Present, Member, Berlin, Germany.

Excellence Awards and Patents.

1. 2015, Interior, Technische Universität Berlin active participant, Combinatorial Optimization and Graph Algorithms Group (COGA), Institute of Mathematics, Faculty II Mathematics and Natural Sciences, Berlin University of Technology, Berlin, Germany..
2. 2023, Patent, A System for Medical Diagnosis using Artificial Intelligence and Deep Learning Approach, United States Patent and Trade Mark Office, US20220313209A1.
3. 2022, Patent, Automated System and Method for Detecting Plant Disease and Providing Treatment Solution, ID: US-1289, ID: 100901-15000, United States Patent and Trade Mark Office.
4. 2022, Patent, An independent system to predict atrial fibrillation in cryptogenic embolic stroke patients using the Internet of Things, ID: 202022100910.4, German Patent and Trade Mark Office, ID: 202022100910.4, Mar 25, 2022.
5. 2022, Patent, A Handwritten Text Detection System Using Brain Net And Artificial Intelligence, ID: 202022101842, German Patent and Trade Mark Office.

Publications.

1. Mahmoud Ragab, "Multi-Label Scene Classification On Remote Sensing Imagery Using Modified Dingo Optimizer With Deep Learning", Ieee Access, vol: 12, pp. 11879-11886, 2024.
DOI: [10.1109/ACCESS.2023.3344773](https://doi.org/10.1109/ACCESS.2023.3344773)
2. Mona Ahamd Alghamdi, Abdullah S. AL-Malaise AL-Ghamdi, Mahmoud Ragab, "Predicting Energy Consumption Using Stacked Lstm Snapshot Ensemble", Big Data Mining And Analytics, vol: 7, pp. 247-270, 2024.
DOI: [10.26599/BDMA.2023.9020030](https://doi.org/10.26599/BDMA.2023.9020030)
3. Mahmoud Ragab, Felwa Abukhodair, Abdullah AL-Malaise AL-Ghamdi, Sahar Shabanah, Baraa Alfasi, Mohannad Alyamani, "Synergizing Remora Optimization Algorithm And Transfer Learning For Visual Places Recognition In Intelligent Transportation Systems And Consumer Electronics", Ieee Transactions On Consumer Electronics, pp. 1-1, 2024.
DOI: [10.1109/TCE.2024.3376376](https://doi.org/10.1109/TCE.2024.3376376)
4. Adil O. Khadidos, Nawaf Alhebaishi, Alaa O. Khadidos, Mohammed Altwijri, Ayman G. Fayoumi, Mahmoud Ragab, "Efficient Key Distribution For Secure And Energy-Optimized Communication In Wireless Sensor Network Using Bioinspired Algorithms", Alexandria Engineering Journal, vol: 92, pp. 63-73, 2024.
DOI: [10.1016/j.aej.2024.02.064](https://doi.org/10.1016/j.aej.2024.02.064)
5. Sultanah M. Alshammari, Nofe A. Alganmi, Mohammed H. Ba-Aoum, Sami Saeed Binyamin, Abdullah AL-Malaise AL-Ghamdi, Mahmoud Ragab, "Hybrid Arithmetic Optimization Algorithm With Deep Learning Model For Secure Unmanned Aerial Vehicle Networks", Aims Mathematics, vol: 9, pp. 7131-7151, 2024.
DOI: [10.3934/math.2024348](https://doi.org/10.3934/math.2024348)
6. Louai A. Maghrabi, Sahar Shabanah, Turki Althaqafi, Dheyaaldin Als Salman, Sultan Algarni, Abdullah AL-Malaise AL-Ghamdi, Mahmoud Ragab, "Enhancing Cybersecurity In The Internet Of Things Environment Using Bald Eagle Search Optimization With Hybrid Deep Learning", Ieee Access, vol: 12, pp. 8337-8345, 2024.
DOI: [10.1109/ACCESS.2024.3352568](https://doi.org/10.1109/ACCESS.2024.3352568)
7. Mahmoud Ragab, "Leveraging Mayfly Optimization With Deep Learning For Secure Remote Sensing Scene Image Classification", Computers And Electrical Engineering, vol: 108, pp. 108672, 2023.
DOI: [10.1016/j.compeleceng.2023.108672](https://doi.org/10.1016/j.compeleceng.2023.108672)
8. Mahmoud Ragab, "Hybrid Firefly Particle Swarm Optimisation Algorithm For Feature Selection Problems", Expert Systems, 2023.
DOI: [10.1111/exsy.13363](https://doi.org/10.1111/exsy.13363)
9. Ehab Bahaudien Ashary, Sahar Jambi, Rehab B. Ashari, Mahmoud Ragab, "Entropy Based Feature Fusion Using Deep Learning For Waste Object Detection And Classification Model", Computer Systems Science And Engineering, vol: 47, pp. 2953-2969, 2023.
DOI: [10.32604/csse.2023.041523](https://doi.org/10.32604/csse.2023.041523)
10. Mahmoud Ragab, Sultanah M. Alshammari, Louai A. Maghrabi, Dheyaaldin Als Salman, Turki Althaqafi, Abdullah AL-Malaise AL-Ghamdi, "Robust Ddos Attack Detection Using Piecewise Harris Hawks Optimizer With Deep Learning For A Secure Internet Of Things Environment", Mathematics, vol: 11, pp. 4448, 2023.
DOI: [10.3390/math11214448](https://doi.org/10.3390/math11214448)
11. Mona AL-Ghamdi, Abdullah AL-Malaise AL-Ghamdi, Mahmoud Ragab, "A Hybrid Dnn Multilayered Lstm Model For Energy Consumption Prediction", Applied Sciences, vol: 13, pp. 11408, 2023.
DOI: [10.3390/app132011408](https://doi.org/10.3390/app132011408)

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12. Ehab Bahaudien Ashary, Sahar Jambi, Rehab B. Ashari, Mahmoud Ragab, "Oppositional Jellyfish Search Optimizer With Deep Transfer Learning Enabled Secure Content-Based Biomedical Image Retrieval", Ieee Access, vol: 11, pp. 87849-87858, 2023.
DOI: [10.1109/ACCESS.2023.3305368](https://doi.org/10.1109/ACCESS.2023.3305368)
13. Sultan M. Almeghle, Abdullah AL-Malaise AL-Ghamdi, Muhammad Sher Ramzan, Mahmoud Ragab, "Machine Learning-Based Dos Amplification Attack Detection Against Constrained Application Protocol", Applied Sciences, vol: 13, pp. 7391, 2023.
DOI: [10.3390/app13137391](https://doi.org/10.3390/app13137391)
14. Sultan M. Almeghle, Abdullah AL-Malaise AL-Ghamdi, Muhammad Sher Ramzan, Mahmoud Ragab, "Application Layer-Based Denial-Of-Service Attacks Detection Against Iot-Coap", Electronics, vol: 12, pp. 2563, 2023.
DOI: [10.3390/electronics12122563](https://doi.org/10.3390/electronics12122563)
15. Turki Althaqafi, Abdullah S. AL-Malaise AL-Ghamdi, Mahmoud Ragab, "Artificial Intelligence Based Covid-19 Detection And Classification Model On Chest X-Ray Images", Healthcare, vol: 11, pp. 1204, 2023.
DOI: [10.3390/healthcare11091204](https://doi.org/10.3390/healthcare11091204)
16. Abdullah S. AL-Malaise AL-Ghamdi, Mahmoud Ragab, "Tunicate Swarm Algorithm With Deep Convolutional Neural Network-Driven Colorectal Cancer Classification From Histopathological Imaging Data", Electronic Research Archive, vol: 31, pp. 2793-2812, 2023.
DOI: [10.3934/era.2023141](https://doi.org/10.3934/era.2023141)
17. Abdullah S. AL-Malaise AL-Ghamdi, Sultanah M. Alshammari, Mahmoud Ragab, "Deep Learning Based Face Mask Detection In Religious Mass Gathering During Covid-19 Pandemic", Computer Systems Science And Engineering, vol: 46, pp. 1863-1877, 2023.
DOI: [10.32604/csse.2023.035869](https://doi.org/10.32604/csse.2023.035869)
18. Bahjat Fakieh, Abdullah S. AL-Malaise AL-Ghamdi, Farrukh Saleem, Mahmoud Ragab, "Optimal Machine Learning Driven Sentiment Analysis On Covid-19 Twitter Data", Computers, Materials & Continua, vol: 75, pp. 81-97, 2023.
DOI: [10.32604/cmc.2023.033406](https://doi.org/10.32604/cmc.2023.033406)
19. Mahmoud Ragab, Mohammed W. Al-Rabia, Sami Saeed Binyamin, Ahmed A. Aldarmahi, "Intelligent Firefly Algorithm Deep Transfer Learning Based Covid-19 Monitoring System", Computers, Materials & Continua, vol: 74, pp. 2889-2903, 2023.
DOI: [10.32604/cmc.2023.032192](https://doi.org/10.32604/cmc.2023.032192)
20. Mahmoud Ragab, "Optimal Deep Transfer Learning Based Colorectal Cancer Detection And Classification Model", Computers, Materials & Continua, vol: 74, pp. 3279-3295, 2023.
DOI: [10.32604/cmc.2023.031037](https://doi.org/10.32604/cmc.2023.031037)
21. Mahmoud Ragab, Jaber Alyami, "Stacked Gated Recurrent Unit Classifier With Ct Images For Liver Cancer Classification", Computer Systems Science And Engineering, vol: 44, pp. 2309-2322, 2023.
DOI: [10.32604/csse.2023.026877](https://doi.org/10.32604/csse.2023.026877)
22. Mahmoud Ragab, Hani Choudhry, Amer H. Asseri, Sami Saeed Binyamin, Mohammed W. Al-Rabia, "Enhanced Gravitational Search Optimization With Hybrid Deep Learning Model For Covid-19 Diagnosis On Epidemiology Data", Healthcare, vol: 10, pp. 1339, 2022.
DOI: [10.3390/healthcare10071339](https://doi.org/10.3390/healthcare10071339)
23. Rasha A. Mansouri, Mahmoud Ragab, "Equilibrium Optimization Algorithm With Ensemble Learning Based Cervical Precancerous Lesion Classification Model", Healthcare, vol: 11, pp. 55, 2022.
DOI: [10.3390/healthcare11010055](https://doi.org/10.3390/healthcare11010055)

Publications.

24. Bahjat Fakieh, Abdullah S. AL-Malaise AL-Ghamdi, Mahmoud Ragab, Abdellatif Ben Makhlof, "The Effect Of Utilizing Business Model Canvas On The Satisfaction Of Operating Electronic Business", Complexity, vol: 2022, pp. 1-10, 2022.
DOI: [10.1155/2022/1649160](https://doi.org/10.1155/2022/1649160)
25. Basim Aljabhan, Mahmoud Ragab, Sultanah M. Alshammari, Abdullah S. Al-Malaise Al-Ghamdi, "Optimal Logistics Activities Based Deep Learning Enabled Traffic Flow Prediction Model", Computers, Materials & Continua, vol: 73, pp. 5269-5282, 2022.
DOI: [10.32604/cmc.2022.030694](https://doi.org/10.32604/cmc.2022.030694)
26. Mahmoud Ragab, Alaa F. Nahhas, "Optimal Deep Transfer Learning Model For Histopathological Breast Cancer Classification", Computers, Materials & Continua, vol: 73, pp. 2849-2864, 2022.
DOI: [10.32604/cmc.2022.028855](https://doi.org/10.32604/cmc.2022.028855)
27. Mahmoud Ragab and Nouf Alghanmi, "Biomedical Data Analysis And Processing Using Explainable (Xai) And Responsive Artificial Intelligence (Rai)", 2022.
28. Mahmoud Ragab and Sami Saeed Binyamin, "Intelligent Energy Aware Thermal Exchange Optimization With Deep Learning Model For Iot Enabled Smart Healthcare", Journal Of Healthcare Engineering, 2022.
29. Mahmoud Ragab, Maha Farouk S. Sabir, "Outlier Detection With Optimal Hybrid Deep Learning Enabled Intrusion Detection System For Ubiquitous And Smart Environment", Sustainable Energy Technologies And Assessments, vol: 52, pp. 102311, 2022.
DOI: [10.1016/j.seta.2022.102311](https://doi.org/10.1016/j.seta.2022.102311)
30. Mahmoud Ragab, Maha Farouk S. Sabir, "Arithmetic Optimization With Deep Learning Enabled Anomaly Detection In Smart City", Computers, Materials & Continua, vol: 73, pp. 381-395, 2022.
DOI: [10.32604/cmc.2022.027327](https://doi.org/10.32604/cmc.2022.027327)
31. Mahmoud Ragab, Adel A. Bahaddad, "Improved Harmony Search With Optimal Deep Learning Enabled Classification Model", Computers, Materials & Continua, vol: 73, pp. 1783-1797, 2022.
DOI: [10.32604/cmc.2022.028055](https://doi.org/10.32604/cmc.2022.028055)
32. Mahmoud Ragab, Hesham A. Abdushkour, Alaa F. Nahhas, Wajdi H. Aljedaibi, "Deer Hunting Optimization With Deep Learning Model For Lung Cancer Classification", Computers, Materials & Continua, vol: 73, pp. 533-546, 2022.
DOI: [10.32604/cmc.2022.028856](https://doi.org/10.32604/cmc.2022.028856)
33. Bahjat Fakieh, Abdullah S. AL-Malaise AL-Ghamdi, Mahmoud Ragab, "Optimal Deep Stacked Sparse Autoencoder Based Osteosarcoma Detection And Classification Model", Healthcare, vol: 10, pp. 1040, 2022.
DOI: [10.3390/healthcare10061040](https://doi.org/10.3390/healthcare10061040)
34. Mahmoud Ragab, Wajdi H. Aljedaibi, Alaa F. Nahhas, Ibrahim R. Alzahrani, "Computer Aided Diagnosis Of Diabetic Retinopathy Grading Using Spiking Neural Network", Computers And Electrical Engineering, vol: 101, pp. 108014, 2022.
DOI: [10.1016/j.compeleceng.2022.108014](https://doi.org/10.1016/j.compeleceng.2022.108014)
35. Mahmoud Ragab, Ehab Bahaudien Ashary, "Metaheuristic Lightweight Cryptography For Security Enhancement In Internet Of Things", Computers, Materials & Continua, vol: 72, pp. 3009-3023, 2022.
DOI: [10.32604/cmc.2022.025763](https://doi.org/10.32604/cmc.2022.025763)
36. Mahmoud Ragab, Samah Alshehri, Nabil A. Alhakamy, Wafaa Alsaggaf, Hani A. Alhadrami, Jaber Alyami, K. Shankar, "Machine Learning With Quantum Seagull Optimization Model For Covid-19 Chest X-Ray Image Classification", Journal Of Healthcare Engineering, vol: 2022, pp. 1-13, 2022.
DOI: [10.1155/2022/6074538](https://doi.org/10.1155/2022/6074538)

Publications.

37. Mahmoud Ragab, Ashwag Albukhari, "Automated Artificial Intelligence Empowered Colorectal Cancer Detection And Classification Model", Computers, Materials & Continua, vol: 72, pp. 5577-5591, 2022.
DOI: [10.32604/cmc.2022.026715](https://doi.org/10.32604/cmc.2022.026715)
38. Adel A. Bahaddad, Mahmoud Ragab, Ehab Bahaoudien Ashary, Eied M. Khalil, K. Shankar, "Metaheuristics With Deep Learning-Enabled Parkinson'S Disease Diagnosis And Classification Model", Journal Of Healthcare Engineering, vol: 2022, pp. 1-14, 2022.
DOI: [10.1155/2022/9276579](https://doi.org/10.1155/2022/9276579)
39. Mahmoud Ragab, Abdullah Addas, "Low Complexity Encoder With Multilabel Classification And Image Captioning Model", Computers, Materials & Continua, vol: 72, pp. 4323-4337, 2022.
DOI: [10.32604/cmc.2022.026602](https://doi.org/10.32604/cmc.2022.026602)
40. Abdullah Saad AL-Malaise AL-Ghamdi, Mahmoud Ragab, "Artificial Intelligence Techniques Based Learner Authentication In Cybersecurity Higher Education Institutions", Computers, Materials & Continua, vol: 72, pp. 3131-3144, 2022.
DOI: [10.32604/cmc.2022.026457](https://doi.org/10.32604/cmc.2022.026457)
41. Abdullah Saad AL-Malaise AL-Ghamdi, Mahmoud Ragab, Maha Farouk S. Sabir, Ahmed Elhassanein, Ashraf A. Gouda, "Optimized Artificial Neural Network Techniques To Improve Cybersecurity Of Higher Education Institution", Computers, Materials & Continua, vol: 72, pp. 3385-3399, 2022.
DOI: [10.32604/cmc.2022.026477](https://doi.org/10.32604/cmc.2022.026477)
42. Mahmoud Ragab, Diaa Hamed, "Fuzzy Logic With Archimedes Optimization Based Biomedical Data Classification Model", Computers, Materials & Continua, vol: 72, pp. 4185-4200, 2022.
DOI: [10.32604/cmc.2022.027074](https://doi.org/10.32604/cmc.2022.027074)
43. Mahmoud Ragab, "Spider Monkey Optimization With Statistical Analysis For Robust Rainfall Prediction", Computers, Materials & Continua, vol: 72, pp. 4143-4155, 2022.
DOI: [10.32604/cmc.2022.027075](https://doi.org/10.32604/cmc.2022.027075)
44. Ali Algarni, Mahmoud Ragab, Wardah Alamri, Samih M. Mostafa, "Towards Improving Predictive Statistical Learning Model Accuracy By Enhancing Learning Technique", Computer Systems Science And Engineering, vol: 42, pp. 303-318, 2022.
DOI: [10.32604/csse.2022.022152](https://doi.org/10.32604/csse.2022.022152)
45. Abdullah S. AL-Malaise AL-Ghamdi, Mahmoud Ragab, Maha Farouk S. Sabir, "Enhanced Artificial Intelligence-Based Cybersecurity Intrusion Detection For Higher Education Institutions", Computers, Materials & Continua, vol: 72, pp. 2895-2907, 2022.
DOI: [10.32604/cmc.2022.026405](https://doi.org/10.32604/cmc.2022.026405)
46. Mahmoud Ragab, Ahmed Elhassanein, David Carf, "A New Bivariate Extended Generalized Inverted Kumaraswamy Weibull Distribution", Advances In Mathematical Physics, vol: 2022, pp. 1-13, 2022.
DOI: [10.1155/2022/1243018](https://doi.org/10.1155/2022/1243018)
47. Mahmoud Ragab, Sultanah M. Alshammari, Amer H. Asseri, Waleed K. Almutiry, "Optimal Fusion-Based Handcrafted With Deep Features For Brain Cancer Classification", Computers, Materials & Continua, vol: 73, pp. 801-815, 2022.
DOI: [10.32604/cmc.2022.029140](https://doi.org/10.32604/cmc.2022.029140)
48. Abdullah S. AL-Malaise AL-Ghamdi, Mahmoud Ragab, F. J. Alsolami, Hani Choudhry, Ibrahim Rizqallah Alzahrani, "Intelligent Forensic Investigation Using Optimal Stacked Autoencoder For Critical Industrial Infrastructures", Computers, Materials & Continua, vol: 72, pp. 2275-2289, 2022.
DOI: [10.32604/cmc.2022.026226](https://doi.org/10.32604/cmc.2022.026226)
49. Mahmoud Ragab, Ali Altalbe, Abdullah Saad Al-Malaise ALGhamdi, S. Abdel-khalek, Rashid A. Saeed, "A Drones Optimal Path Planning Based On Swarm Intelligence Algorithms", Computers, Materials & Continua, vol: 72, pp. 365-380, 2022.
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Publications.

50. Mahmoud Ragab, Ali Altalbe, "A Blockchain-Based Architecture For Enabling Cybersecurity In The Internet-Of-Critical Infrastructures", *Computers, Materials & Continua*, vol: 72, pp. 1579-1592, 2022.
DOI: [10.32604/cmc.2022.025828](https://doi.org/10.32604/cmc.2022.025828)
51. Mahmoud Ragab, Samah Alshehri, Gamil Abdel Azim, Hibah M. Aldawsari, Adeeb Noor, Jaber Alyami, S. Abdel-khalek, "Covid-19 Identification System Using Transfer Learning Technique With Mobile-Netv2 And Chest X-Ray Images", *Frontiers In Public Health*, vol: 10, 2022.
DOI: [10.3389/fpubh.2022.819156](https://doi.org/10.3389/fpubh.2022.819156)
52. Mahmoud Ragab, Samah Alshehri, Hani A. Alhadrami, Faris Kateb, Ehab Bahaudien Ashary, S. Abdel-khalek, "Encryption With Image Steganography Based Data Hiding Technique In Iiot Environment", *Computers, Materials & Continua*, vol: 72, pp. 1323-1338, 2022.
DOI: [10.32604/cmc.2022.024775](https://doi.org/10.32604/cmc.2022.024775)
53. Mahmoud Ragab, Khalid Eljaaly, Maha Farouk S. Sabir, Ehab Bahaudien Ashary, S. M. Abo-Dahab, E. M. Khalil, "Optimized Deep Learning Model For Colorectal Cancer Detection And Classification Model", *Computers, Materials & Continua*, vol: 71, pp. 5751-5764, 2022.
DOI: [10.32604/cmc.2022.024658](https://doi.org/10.32604/cmc.2022.024658)
54. Mahmoud Ragab, S. M. Abo-Dahab, Ahmed E. Abouelregal, A. A. Kilany, Dan Selisteanu, "A Thermoelastic Piezoelectric Fixed Rod Exposed To An Axial Moving Heat Source Via A Dual-Phase-Lag Model", *Complexity*, vol: 2021, pp. 1-11, 2021.
DOI: [10.1155/2021/5547566](https://doi.org/10.1155/2021/5547566)
55. Mahmoud Ragab, Aisha Fayomi, Ali Algarni, G. A. Abd-Elmougod, Neveen Sayed-Ahmed, S. M. Abo-Dahab, S. Abdel-Khalek, Ahmed Mostafa Khalil, "Statistical Analysis Of Joint Type-I Generalized Hybrid Censoring Data From Burr Xii Lifetime Distributions", *Complexity*, vol: 2021, pp. 1-15, 2021.
DOI: [10.1155/2021/5543187](https://doi.org/10.1155/2021/5543187)
56. Mahmoud Ragab, Ahmed E. Abouelregal, Huda F. AlShaibi, Rasha A. Mansouri, "Heat Transfer In Biological Spherical Tissues During Hyperthermia Of Magnetoma", *Biology*, vol: 10, pp. 1259, 2021.
DOI: [10.3390/biology10121259](https://doi.org/10.3390/biology10121259)
57. Abdullah Addas, Mahmoud Ragab, Ahmad Maghrabi, S. M. Abo-Dahab, Eman F. El-Nobi, Meraj Ali Khan, "Uv Index For Public Health Awareness Based On Omi/Nasa Satellite Data At King Abdulaziz University, Saudi Arabia", *Advances In Mathematical Physics*, vol: 2021, pp. 1-11, 2021.
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