Theme 4-1: AI Applications - 2022

Title	Authors	Scopus Source title	Volume	Issue	Pages	Publication type
An IoT System Using Deep Learning to Classify Camera Trap Images on the Edge	Zualkernan, I. | Dhou, S. | Judas, J. | Sajun, A.R. | Gomez, B.R. | Hussain, L.A.	Computers	11	1	-	Article
Generative Deep Learning to Detect Cyberattacks for the IoT-23 Dataset	Abdalgawad, N. | Sajun, A. | Kaddoura, Y. | Zualkernan, I.A. | Aloul, F.	IEEE Access	10	-	6430-6441	Article
A CSI-Based Multi-Environment Human Activity Recognition Framework	Alsaify, B.A. | Almazari, M. | Alazrai, R. | Alouneh, S. | Daoud, M.I.	Applied Sciences (Switzerland)	12	2	-	Article
A deep learning approach for decoding visually imagined digits and letters using time–frequency–spatial representation of EEG signals	Alazrai, R. | Abuhijleh, M. | Ali, M.Z. | Daoud, M.I.	Expert Systems with Applications	203	-	-	Article
A Multi-Step Approach for Optically Active and Inactive Water Quality Parameter Estimation Using Deep Learning and Remote Sensing	Ahmed, M. | Mumtaz, R. | Anwar, Z. | Shaukat, A. | Arif, O. | Shafiq, F.	Water (Switzerland)	14	13	-	Article
Generalized Zero-Shot Learning using Identifiable Variational Autoencoders	Gull, M. | Arif, O.	Expert Systems with Applications	191	-	-	Article
Voice-Based Human Identification using Machine Learning	Alsaify, B.A. | Abu Arja, H.S. | Maayah, B.Y. | Al-Taweel, M.M. | Alazrai, R. | Daoud, M.I.	2022 13th International Conference on Information and Communication Systems, ICICS 2022	-	-	205-208	Conference Paper
Power Prediction in Register Files Using Machine Learning	Elnawawy, M. | Sagahyroon, A. | Pasquier, M.	IEEE Access	10	-	48358-48366	Article
Intrusion Detection for CAN Using Deep Learning Techniques	Suwean, R. | Alkaffi, S. | Elsadek, L. | Afifi, K. | Zualkernan, I. | Aloul, F.	Lecture Notes in Networks and Systems	378	-	13-19	Conference Paper
Machine Learning Approach for Smart Distribution Transformers Load Monitoring and Management System	Ramesh, J. | Shahriar, S. | Al-Ali, A.R. | Osman, A. | Shaaban, M.F.	Energies	15	21	-	Article
Diagnosing COVID-19 in Chest X-ray Images based on Deep Learning: Transfer Learning versus Deep Features Extraction	Daoud, M.I. | Elmuhtadi, W. | Faidi, M. | Alrahaileh, Y. | Abdel-Rahman, S. | Al-Ali, A. | Alsaify, B.A. | Alazrai, R.	2022 13th International Conference on Information and Communication Systems, ICICS 2022	-	-	246-251	Conference Paper
Evaluating the FixMatch Semi-Supervised Algorithm for Unbalanced Image Data	Mohammed Husein Sajun, A.R. | Ahmed Zualkernan, I.	ACM International Conference Proceeding Series	-	-	119-123	Conference Paper
A Survey of Machine Learning Approaches for Detecting Depression Using Smartphone Data	Solatidehkordi, Z. | Ramesh, J. | Pasquier, M. | Sagahyroon, A. | Aloul, F.	Proceedings of the 2022 IEEE International Conference on Industry 4.0, Artificial Intelligence, and Communications Technology, IAICT 2022	-	-	184-190	Conference Paper
Deep Learning Approach for Smart Home Appliances Monitoring and Classification	Ramesh, J. | Al-Ali, A.R. | Al Nabulsi, A. | Osman, A. | Shaaban, M.	Digest of Technical Papers - IEEE International Conference on Consumer Electronics	2022-	-	-	Conference Paper
Needle detection using ultrasound B-mode and power Doppler analyses	Daoud, M.I. | Abu-Hani, A.F. | Shtayat, A. | Ali, M.Z. | Alazrai, R.	Medical Physics	49	8	4999-5013	Article
An Enhanced Multi-Phase Stochastic Differential Evolution Framework for Numerical Optimization	Abdel Alabi, M. | Ali, M. | Daoud, M. | Alazrai, R. | Awajan, A. | Reynolds, R. | Suganthan, P.N.	2022 IEEE Congress on Evolutionary Computation, CEC 2022 - Conference Proceedings	-	-	-	Conference Paper
User identification using deep learning and human activity mobile sensor data	Alawneh, L. | Al-Zinati, M. | Al-Ayyoub, M.	International Journal of Information Security	-	-	-	Article
Using K-means Clustering Ensemble to Improve the Performance in Recommender Systems	Zarzour, H. | Maazouzi, F. | Al-Zinati, M. | Nusayr, A. | Alomrat, M. | Al-Ayyoub, M. | Jaraweh, Y.	2022 International Conference on Intelligent Data Science Technologies and Applications, IDSTA 2022	-	-	176-180	Conference Paper
Plant classification in the wild: Energy evaluation for deep learning models	Al-Qurran, R. | Al-Ayyoub, M. | Shatnawi, A.	Multimedia Tools and Applications	81	22	30143-30167	Article
Using Generative Adversarial Networks for Conditional Creation of Anime Posters	Sankalpa, D. | Ramesh, J. | Zualkernan, I.	Proceedings of the 2022 IEEE International Conference on Industry 4.0, Artificial Intelligence, and Communications Technology, IAICT 2022	-	-	197-203	Conference Paper
A Scalable Multi-agent Reinforcement Learning Approach for the Dynamic Taxi Dispatch Problem	Alhusin, M. | Pasquier, M. | Barlas, G.	Lecture Notes in Electrical Engineering	901	-	1137-1148	Conference Paper
Impacts of COVID-19 on Electric Vehicle Charging Behavior: Data Analytics, Visualization, and Clustering	Shahriar, S. | Al-Ali, A.R.	Applied System Innovation	5	1	-	Article
An Edge-Based Selection Method for Improving Regions-of-Interest Localisations Obtained Using Multiple Deep Learning Object-Detection Models in Breast Ultrasound Images	Daoud, M.I. | Al-Ali, A. | Alazrai, R. | Al-Najjar, M.S. | Alsaify, B.A. | Ali, M.Z. | Alouneh, S.	Sensors	22	18	211	Article
Detecting Replay Attack on Voice-Controlled Systems using Small Neural Networks	Ahmed, N. | Khan, J. | Sheta, N. | Tarek, R. | Zualkernan, I. | Aloul, F.	2022 IEEE 7th Forum on Research and Technologies for Society and Industry Innovation, RTSI 2022	-	-	50-54	Conference Paper
Virtualizing and Scheduling FPGA Resources in Cloud Computing Datacenters	Farhan, A. | Aburukba, R. | Sagahyroon, A. | Elnawawy, M. | El-Fakih, K.	IEEE Access	10	-	96909-96929	Article
Investigating the Feasibility of Assessing Depression Severity and Valence-Arousal with Wearable Sensors Using Discrete Wavelet Transforms and Machine Learning	Ahmed, A. | Ramesh, J. | Ganguly, S. | Aburukba, R. | Sagahyroon, A. | Aloul, F.	Information (Switzerland)	13	9	-	Article
AgroAid: A Mobile App System for Visual Classification of Plant Species and Diseases Using Deep Learning and TensorFlow Lite	Reda, M. | Suwean, R. | Alkaffi, S. | Rashed, Y. | Shanableh, T.	Informatics	9	3	-	Article
Detecting Diabetic Autonomic Neuropathy from Electronic Health Records Using Machine Learning	Solatidehkordi, Z. | Dhou, S.	IEEE International Conference on E-health Networking, Application & Services (Healthcom)				Conference Paper
Land subsidence and sinkholes susceptibility mapping and analysis using random forest and frequency ratio models in Al Ain, UAE	Elmahdy, S.I. | Mohamed, M.M. | Ali, T.A. | Abdalla, J.E.-D. | Abouleish, M.	Geocarto International	37	1	315-331	Article
Prediction of columns with GFRP bars through Artificial Neural Network and ABAQUS	Ahmad, A. | Aljuhni, A. | Arshid, U. | Elchalakani, M. | Abed, F.	Structures	40	-	247-255	Article
Support Vector Machine for Better Monitoring and Analyzing the City of Sharjah's Land Use/Land Cover Changes	Elmahdy, S. | Ali, T.A.	Advances in Science, Technology and Innovation	-	-	373-378	Chapter
Data-Driven Detection of Electricity Theft Cyberattacks in PV Generation	Shaaban, M. | Tariq, U. | Ismail, M. | Almadani, N. | Ahmed, M.	IEEE Systems Journal	16	2	3349-3359	Article
A New Theft Detection Approach for Cyberattacks in PV Generation	Eldahshan, N. | Asif, M. | Baqaj, T. | Shaaban, M.F. | Osman, A.H. | Tariq, U.	Proceedings of the 2022 4th International Youth Conference on Radio Electronics, Electrical and Power Engineering, REEPE 2022	-	-	-	Conference Paper
Planning and Allocation of Dynamic Wireless Charging Infrastructure for Electric Vehicles	Ozdeh, Y.S. | Elkahlout, I.S. | Nwimi, P.V. | Elghanam, E.A. | Hassan, M.S. | Osman, A.H.	2022 9th International Conference on Electrical and Electronics Engineering, ICEEE 2022	-	-	306-310	Conference Paper