Case Studies and Success Stories of a Decade of Research in Applied Artificial Intelligence

Amir Mosavi

January 6, 2025

Case Studies and Success Stories of a Decade of Research in Applied Artificial Intelligence

Amir Mosavi
Independent researcher, Hamburg, Germany.

Abstract:
This systematic review represents a decade-long exploration into Applied AI and synthesizes the collective contribution of the author's contributions with some foundational studies in the discipline. Through consolidating these insights from diverse case studies and pioneering work, the article sets out a panoramic view regarding the practical uses and transformational potential for AI in such areas as healthcare, finance, manufacturing, and environmental sustainability. The review critically scrutinizes key success stories by providing evidence-based analyses of how AI has been implemented to solve complex real-world challenges. It also critically looks at persistent barriers around ethical dilemmas, data limitations, and scalability concerns, hence giving a balanced narrative of progress and ongoing hurdles. Through the human-centered lens, this article reflects on lessons learned from applied AI projects and brings into view the interplay between technical innovation and societal impact. By integrating original research with broader contributions from the field, this review seeks to inform future directions to guide researchers and practitioners in using AI for meaningful and sustainable advancement. This article presents the work-in-progress and an early draft of my work.

Keywords:
Machine Learning, Artificial Intelligence, Deep Learning, Generative AI

Introduction:
Applied AI presents the practical use of the techniques of AI in solving some real-world problems from different domains, which are usually machine learning, deep learning, optimization algorithms, and other computational methods. As opposed to theoretical AI, which aims at developing algorithms and models, applied AI places an emphasis on deploying these very technologies to create actionable solutions that bring tangible gain in efficiency, decision-making, and innovation. It finds successful applications in healthcare, where AI enhances diagnostics and treatment planning, cybersecurity by enhancing threat detection and protection of data, energy, where it is used to optimize renewable energy systems. Applied AI integrates advanced computational techniques with domain-specific knowledge and closes the gap between theory and practice. Technological advancement and complex challenges faced by society are driven forward by Applied AI. The motivation for the literature review in applied AI is to address the dynamic and interdisciplinary nature of the field that has undergone rapid growth over the last decade. Applied AI cuts across a wide domain of cybersecurity, healthcare, energy, and construction, each with unique challenges and transformative potential. However, the large and fragmented body of research makes it hard to draw overarching insights or identify emerging trends. The following review systematically analyzes and synthesizes contributions from the author's research and fundamental studies in the field to give an overview of the evolution of applied AI, showing how advances in theory have translated into impactful real-world solutions. The originality and added value of this review lie in consolidating findings from various disciplines into one holistic view to bridge the gaps among these isolated studies. Success stories are highlighted, persistent challenges identified, and patterns unveiled that may direct further research and application. Reviewing such barriers to scalability, ethical considerations, and technological constraints develops a more accurate understanding of the current status and potentials of applied AI. It thereby contributes to the scientific debate and, equally, provides actionable insights for practitioners and policymakers in their search to deploy AI responsibly across many domains. Applied AI focuses on the implementation of AI techniques to address practical, real-world challenges across various industries. By applying machine learning, deep learning, and optimization algorithms, applied AI creates solutions that enhance efficiency, accuracy, and decision-making. In cybersecurity, for instance, Nadeem et al. (2023) developed a two-layer symmetric cryptography algorithm to protect sensitive data, while Farooq et al. (2023) employed a fused machine learning approach to enhance intrusion detection systems. These advancements illustrate how applied AI directly contributes to improving security frameworks and combating modern threats.

In construction, energy, and materials science, applied AI has demonstrated its ability to optimize processes and innovate solutions. Kazemi et al. (2023) applied AI techniques to analyze the effects of medium-density fiberboard waste ash on concrete properties, aiding in sustainable construction practices. Similarly, Dehghan Manshadi et al. (2022) utilized deep learning to model offshore hybrid wind-wave energy systems, advancing renewable energy technologies. These applications underscore how applied AI bridges computational power and domain knowledge to address pressing challenges in engineering and environmental sustainability.
Beyond technical industries, applied AI has found success in healthcare, agriculture, and organizational decision-making. Rehman et al. (2022) integrated blockchain with federated learning to create a secure and scalable healthcare 5.0 system, demonstrating AI's potential to enhance data security in biomedical contexts. In agriculture, Mallah et al. (2022) employed

random forest models to predict soil textural classes, improving resource management in farming. Meanwhile, Pap et al. (2022) explored AI-driven models to optimize organizational performance, offering actionable insights for business strategies. These examples illustrate the versatility and transformative power of applied AI in diverse fields, paving the way for innovative and impactful solutions. Applied AI is important, as it attempts to solve complex real-world challenges; more precisely, it connects theoretical improvements with practical solutions for the development of different industries. For example, in traffic management systems, much improvement has been contributed to its development. A few works propose, such as that proposed by Khan et al. (2022), which presents a Q-learning-based routing scheme for smart transportation. On the related note, Azhir et al. (2022) reviewed query plan recommendation with systems like Apache Hadoop and Spark, demonstrating various ways AI can improve computational efficiency. These improvements illustrate some areas where investment in applied AI research has the possibility to improve performance, scale better, and manage such resources for even smarter systems for the benefit of societal systems. Investment in applied AI research also becomes highly valuable in healthcare, environmental sustainability, and industrial development. Mosavi et al. (2022) explored deep learning in fuzzy control for type-I diabetes management and underlined how AI will revolutionize personalized medicine and patient care. In the energy sector, Danyali et al. (2022) and Zhao et al. (2022) employed predictive control methods to optimize, respectively, photovoltaic systems and microgrid load frequencies, further improving the integration of renewable energies. Meanwhile, Mahmoudzadeh et al. (2022) have shown the role of AI in urban ecological network planning and how that bears on environmental conservation. These applications can validate the transformative impact of AI across diverse domains and reinforce the need for sustained investment in driving innovation to address global challenges effectively.

Review

Recent developments in applied AI and computational techniques have shown great potential for optimizing different processes in engineering and healthcare applications. Alanazi et al. (2022) proposed a new Adaptive Gaussian TLBO method to determine the optimal power flow solution with improved efficiency in energy systems. On a parallel note, Alanazi et al. (2022) designed the Hill Climbing Artificial Electric Field Algorithm for Maximum Power Point Tracking in photovoltaic systems for better renewable energy utilization. In another dimension, Vafaie et al. (2022) introduced the photoacoustic method for pollutant gas detection from transportation systems and emphasized the possible role of AI in the enhancement of automotive sustainability through providing an accurate level of environmental monitoring. AI in healthcare and robotics has also given some revolutionary applications. Arooj et al. (2022) improved the transfer learning techniques for breast cancer detection and classification, showcasing AI's ability to improve diagnostic accuracy and facilitate early intervention. Jeong et al. (2022) proposed a hybrid cryptography-based secure healthcare routing scheme for wireless body sensor networks, addressing critical security challenges in telemedicine. Meanwhile, Roshanianfard et al. (2022) demonstrated an autonomous robotic system for pumpkin harvesting to show AI's potential for improving agricultural productivity by means of automation and precision. These studies are representative of the many ways in which AI continuously transforms traditionally manual or error-prone processes in a variety of industries. Scientific modeling and predictive analytics have integrated AI with mathematical and computational frameworks to overcome complex challenges. Najafi et al. (2022) applied the local influence analysis by using the multifactor skew-normal linearmixed model. Mahmoudi and Mosavi (2022) have suggested the use of the Cyclocopula technique for the analysis of the relationships of the cyclostationary time series and further developing stochastic processes. Medical research by Mousavi et al. (2022) applied 3D computational modeling along with machine learning to investigate the effectiveness of anti-angiogenic drugs in treating solid tumors and highlighted the potential role of AI in promoting therapeutic approaches. In total, these contributions underpin the versatility and growing importance of applied AI in solving interdisciplinary challenges.

Recent developments in machine learning and optimization have significantly improved diagnostic and predictive capabilities in both healthcare and environmental systems. Venkatesh et al. (2022) presented a neural network-based system for the detection of lung cancer in CT images, thus showing the potential of AI in improving early diagnosis of cancer. Similarly, Rahman et al. (2022) utilized transfer learning to develop a histopathologic oral cancer prediction model that shows the way for AI in empowering pathological diagnosis for better patient outcomes. Simultaneously, Naseer et al. (2022) investigated state-of-the-art CNNs on different medical image datasets such as LUNA16, further developing insights in optimizing deep learning frameworks towards healthcare applications. The studies keep indicating the core role of AI in advanced diagnosis in medical treatment and developing accurate solutions for healthcare. AI has facilitated effective resource management and sustainability practices related to energy and environmental systems. Aazami et al. (2022) proposed an optimum controller for energy storage in microgrids that smoothens the fluctuations of wind power and hence enhances the stability of the grid. Similarly, Almutairi et al. (2022) proposed a TLBO-tuned neural processor for predicting heating loads in residential buildings and hence proposed solutions for energy-efficient housing. Das et al. (2022) applied machine learning and fuzzy logic while analyzing built-up area expansion, highlighting the role of AI in urban planning and development. These studies underpin the importance of AI for sustainable development and addressing energy consumption and urbanization challenges. Again, the contribution of AI has been remarkable in environmental monitoring and disaster management. Abrar et al. (2022) assessed the urban heat island in Dhaka, mapped heat vulnerability, and proposed strategies for climate resilience. Sarkar et al. (2022) developed a robust flood susceptibility model for northwest Bangladesh to enable sustainable agriculture and flood management. Mahmoodi et al. (2022) explored the ecological conservation of an aromatic plant, using AI-driven modeling to aid biodiversity conservation. Together, these works show how AI applications can solve pressing ecological and social problems, illustrating the versatility and transformative potential of this technology in a wide array of domains. The intersection of AI and environmental science has seen quite a number of pathbreaking innovations. Karami et al. (2022) introduced a hybrid intelligent algorithm to estimate sediment load in the dam reservoirs, posing a very serious challenge for water resource management. Ehteram et al. (2022) introduced the hybrid artificial neural network model for the prediction of evaporation, offering robust tools for environmental forecasting. Similarly, Wang et al. (2022) proposed an enhanced machine learning model using wavelet theory for estimating monthly river streamflow, demonstrating an improved predictive capability. These studies show AI's crucial role in addressing critical environmental challenges through innovative solution finding and sustainable management of the environment. In many health and engineering applications, AI has been of paramount importance in enhancing system performance and decision-making. Akhtar et al. (2022) developed a multi-agent formalism based on contextual defeasible logic in healthcare systems that allows advanced decision support. Sandhu et al. (2022) forecasted the risk of heart failure using clinical data and showed how AI can transform medical diagnostics. In engineering, Akbari et al. (2022) proposed a fault-tolerant multilevel inverter for smart grids to ensure reliability in domestic power applications. Collectively, these developments underpin the versatility of AI in enhancing operational efficiency and delivering important outcomes across a wide range of fields. The adaptability of AI also extends to infrastructure, energy, and resource management. Yan et al. (2022) applied machine learning to mid-term energy demand forecasting, giving a way to sustainable energy planning. Habibi et al. (2022) used AI in sustainable landscape design for road safety improvement, bringing together ecological principles with technology. Rezaei et al. (2022) proposed a real-time, deep learning-based approach to fault detection in a capacitor bank with the aim of enhancing reliability in mobile vehicles. These studies demonstrate how AI can convert major resource optimization, safety, and sustainability challenges into opportunities.

ML has significantly enhanced healthcare diagnostics and predictions. Khan et al. (2022) presented a deep convolutional neural network (DCNN) model for brain tumor detection, achieving high accuracy and reliability. Similarly, Yaseliani et al. (2022) proposed a hybrid deep convolutional neural network for pneumonia detection, combining advanced architectures with machine learning classifiers for improved diagnostic precision. In the realm of genetic disorders, Rahman et al. (2022) developed IoMT-based models leveraging ML to predict mitochondrial and multifactorial genetic inheritance disorders. These studies underscore the potential of AI to revolutionize healthcare by enabling early detection and precise treatment planning.AI and computational models have also shown promise in addressing environmental challenges and optimizing engineering applications. Lin et al. (2022) utilized gated recurrent unit deep neural networks for groundwater level forecasting, demonstrating robust performance in time-series prediction. Gundoshmian et al. (2022) modeled oyster mushroom growth using artificial neural networks, linking economic and environmental benefits to optimized agricultural practices. Similarly, Zhang et al. (2022) compared MLP-RBF neural networks with fuzzy logic models to predict thermophysical properties of CuO/liquid paraffin mixtures, enhancing fluid mechanics applications. These works highlight the adaptability of AI in addressing diverse scientific and engineering problems effectively. In computational and structural advancements, researchers have achieved notable progress in improving systems' efficiency and usability. Riaz et al. (2022) explored transforming hand-drawn wireframes into front-end code using deep learning, offering a bridge between manual design and automated coding. Amanlou et al. (2022) conducted a systematic review on single-image reflection removal using deep learning, providing insights into refining image processing techniques. Additionally, Shakibjoo et al. (2022) optimized type-2 fuzzy frequency control for multi-area power systems, enhancing power grid reliability. These innovations exemplify how AI and computational strategies are being integrated into technical domains to improve functionality, performance, and automation.

ML developments contributed to an improvement in environmental modeling and infrastructure evaluation. Chen et al. (2022) proposed hybrid deep learning algorithms that combined decision trees and boosting methods for the prediction of groundwater potential and showed the efficiency of models in environmental applications. Mosavi et al. (2022) carried out flood and erosion susceptibility mapping using ensemble models that contained GLM, FDA, MARS, and RF and emphasized the importance of robust modeling in sub-basin prioritization. Zhang et al. (2022) extended this approach to MARS-GOA-MCS for assessing the reliability of the strength of roller-compacted concrete pavement, with the intersection of advanced algorithms for infrastructure resilience. Thermal and material engineering have also been the beneficiaries of research with innovative approaches. Farahani et al. (2021) analyzed the effect of magnetic fields on heat transfer in nanofluid flow in channels, opening a new paradigm toward more efficient energy systems. Their study on the melting of non-Newtonian phase change materials in finned triple tubes under non-uniform magnetic fields added immense value to energy storage systems. Mohammadi et al. (2021) used extreme gradient boosting in order to model hydrogen solubility in hydrocarbons, demonstrating the role that machine learning can play in improving material properties for energy applications. These studies underscore the versatility of ML techniques in solving complex engineering challenges. Other key themes which evolved included sustainable construction and town planning. Ahmed et al. (2021) comprehensively reviewed the compressive strength of sustainable geopolymer concrete composites and their role in eco-friendly construction practices. Rafiei-Sardooi et al. (2021) used a hybrid approach based on TOPSIS and machine learning for assessment of urban flood risks as a critical challenge to enhancement of urban resilience. Ebrahimi-Khusfi et al. (2021) considered dust pollution dynamics in western Iran, using game-theoretic and data mining algorithms in order to develop informed environmental management. Altogether, these works illustrate the contributions of new computational tools toward sustainability and resilience both in natural and built environments.

For example, advanced environmental modeling underpins the capability of AI in solving ecological challenges. Mosavi et al. (2021) applied fuzzy clustering and distributed models in streamflow estimation over ungauged watersheds, emphasizing the importance of accurate predictions with regard to water resource management. Similarly, Wang et al. (2021) investigated resampling strategies in enhancing machine learning models of head-cut gully erosion susceptibility, showcasing AI in soil conservation. The following efforts underlying progress of AI for environmental practices are highlighted. The application of AI in renewable energy and resource optimization has turned out to be very efficient. Zhang et al. (2021) revealed estimation of solar radiation across diversified climates by Bayesian model averaging coupled with soft computing models. This is a critical element in any solar energy project. Cao (2021) contributed to the advancement of renewable energy modeling by incorporating a deep learned recurrent type-3 fuzzy system that enhanced prediction accuracy and operational efficiency. Such studies demonstrate that AI has played a crucial role in the transformational role of energy management for cleaner, more reliable systems. Extensive AI-driven progress in material sciences and chemical engineering has also taken place. Another recent example is the optimization of the removal of harmful dyes by nanozeolites using the Taguchi method and response surface methodology proposed by Shojaei et al. (2021), which further advanced waste treatments. Similarly, Liu et al. (2021) employed AI in the synthesis of Cesium-doped Tungstate nanorods for efficient light absorption in dye-sensitized solar cells, which has solved some problems in sustainable material development. These examples illustrate how AI not only accelerates material discovery but also contributes toward eco-friendly solutions in engineering. Finally, there have been significant AI innovations in urban planning and disaster management. Janizadeh et al. (2021) mapped flood hazard variability under changing climate and land-use conditions, thus helping to build more resilient urban infrastructures. Moreover, the role of AI in mitigating health crises was exemplified by Kumar et al. (2021), who developed a recurrent neural network and reinforcement learning model to predict COVID-19 dynamics. These applications underline the versatility of AI in enhancing human resilience against natural and societal challenges.

Overview of Application of AI and ML within the Reviewed WorksThe reviewed studies indicate a wide-ranging set of applications for which AI and ML have been applied to solve some of the most daunting tasks in order to further improve performance and efficiency of operations across industries. Shahgholian et al. (2023) review the overall landscape of application of AI at hydroelectric power plants related to predictive maintenance, load forecasting, and optimization of efficiency. Their work highlights the role of AI in promoting the adoption of renewable energy through reducing downtime and enhancing system reliability. Similarly, Ardabili et al. (2023) discuss ML techniques in heat transfer, providing a taxonomy that classifies these approaches and assesses their effectiveness. It also shows how ML can make thermal management systems leaner, quicker, and more responsive to dynamic environmental conditions, impacting energy systems and industrial processes.In renewable energy systems, Zanjani et al. (2023) explore the simulation and analysis of wind farms utilizing squirrel cage induction generators. They illustrate how AI-based models enhance the prediction and stabilization of electrical distribution in wind energy systems for strong renewable energy infrastructure. Meanwhile, Mudabbiruddin and Mosavi (2023) indicated the capability of AI in predicting structural material aging and thus provided valuable insights for maintenance and lifecycle management of infrastructures. These developments really show how AI is instrumental in solving sustainability problems, enhancing resource efficiency, and prolonging the life of crucial systems.Going beyond energy and materials, the impact of AI in healthcare and diagnostics can be demonstrated by Manshadi et al. (2023), who introduce a deep learning framework for real-time polyp detection. Their approach combines image restoration and advanced neural networks to achieve high detection accuracy, emphasizing the transformative potential of AI in medical imaging and early diagnosis. In this line, Zeinali et al. (2023) discuss torque control in mechanical systems where the AI technique optimizes the performance of resonant two-mass systems, showing applications to robotics and industrial automation. These works underline how AI brings about a revolution in domains requiring precision due to predictive analytics and automatic decision-making.The integration of AI with advanced technologies like 5G and 6G, as discussed by Ardabili et al. (2023), holds great potential for the transformation of paradigms in communication and computation. The enhancements in AI-powered environmental modeling, testified by Choubin et al. (2023) on flood hazard assessment, are further putting into perspective the role of AI in climate resilience and disaster preparedness. These works, together, show the rising versatility of AI and ML in several sectors, while they at once denote a number of further areas where model transparency, ethical deployment, and scalability in view of the requirements regarding sustainability, fairness, and impact must be researched for sustainable delivery of such technologies.

Conclusions:

The development of applied AI has demonstrated its potentially transformational power in a wide swath of areas, from industry reformation and innovation related to environmental sustainability, renewable energy, and urban planning. With large-scale data analytics, identification of complex patterns, and solution optimization, AI empowered breakthroughs with predictive modeling, resource management, and material science. Fuzzy clustering, for example, neural networks, and Bayesian models greatly enhanced natural hazards, energy efficiency, and ecological conservation. These are feats that have to do directly with finding solutions for the present world challenges on climate change, sustainable development, and resource optimization. These developments underline how essential the collaboration between disciplines is to frame ethical, scalable, and context-sensitive AI solutions balancing innovation with societal impact. Looking ahead, generative AI is a particularly promising frontier with immense potential to redefine the capabilities of applied AI. Generative models, such as transformers and GANs, may enable unprecedented levels of creativity and precision in domains like material design, environmental simulation, and even societal applications such as education and governance. This may involve the design of materials by generative AI, with better performance for renewable energy applications, or simulate future climate scenarios to inform policy decisions with an unprecedented degree of detail. Integration with quantum computing and edge AI will further enhance scalability and efficiency to enable real-time solutions for disaster response, personalized medicine, and adaptive infrastructure systems. With great power comes new challenges: how to use data in a most ethical way, reduce bias, and tackle environmental costs while training large models. This calls for an interdisciplinary approach to research, innovation in policy, and an emphasis on transparency in taping the transformative power of generative AI for the solution of future global challenges in a manner both equitable and responsible.

References

Nadeem, M., et al., Two Layer Symmetric Cryptography Algorithm for Protecting Data from Attacks (2023) Computers, Materials and Continua, 74 (2), pp. 2625-2640.

Farooq, M.S., et al., A Fused Machine Learning Approach for Intrusion Detection System (2023) Computers, Materials and Continua, 74 (2), pp. 2607-2623.

Kazemi, H., et al., Effect of medium-density fiberboard wastes ash on calcium silicate hydrate crystal of concrete (2023) Journal of the Air and Waste Management Association, 73 (1), pp. 40-49.

Pap, J., et al., Modeling Organizational Performance with Machine Learning (2022) Journal of Open Innovation: Technology, Market, and Complexity, 8 (4), art. no. 177.

Dehghan Manshadi, M., et al., Deep Learning for Modeling an Offshore Hybrid Wind–Wave Energy System (2022) Energies, 15 (24), art. no. 9484.

Servati, M.R., et al., Cryptanalysis of Two Recent Ultra-Lightweight Authentication Protocols (2022) Mathematics, 10 (23), art. no. 4611.

Yousefi, E., et al., A novel long-term water absorption and thickness swelling deep learning forecast method for corn husk fiber-polypropylene composite (2022) Case Studies in Construction Materials, 17, art. no. e01268.

Hejazi, F., et al., Fracture mechanics modeling of reinforced concrete joints strengthened by CFRP sheets (2022) Case Studies in Construction Materials, 17, art. no. e01273, .

Hossein Rabiee, A., et al., Active vibration control of tandem square cylinders for three different phenomena: Vortex-induced vibration, galloping, and wake-induced vibration (2022) Alexandria Engineering Journal, 61 (12), pp. 12019-12037.

Band, S.S., et al., Colonial competitive evolutionary Rao algorithm for optimal engineering design (2022) Alexandria Engineering Journal, 61 (12), pp. 11537-11563.

Moayedi, H., Mosavi, A. A water cycle-based error minimization technique in predicting the bearing capacity of shallow foundation (2022) Engineering with Computers, 38, pp. 3993-4006.

Mallah, S., et al., Predicting Soil Textural Classes Using Random Forest Models: Learning from Imbalanced Dataset (2022) Agronomy, 12 (11), art. no. 2613.

Wang, H., et al., Comprehensive review of load forecasting with emphasis on intelligent computing approaches (2022) Energy Reports, 8, pp. 13189-13198.

Rehman, A., et al., A secure healthcare 5.0 system based on blockchain technology entangled with federated learning technique (2022) Computers in Biology and Medicine, 150, art. no. 106019.

Vo Thanh, H., et al., Knowledge-based rigorous machine learning techniques to predict the deliverability of underground natural gas storage sites for contributing to sustainable development goals (2022) Energy Reports, 8, pp. 7643-7656.

Zhang, G., et al., A robust approach to pore pressure prediction applying petrophysical log data aided by machine learning techniques (2022) Energy Reports, 8, pp. 2233-2247.

Band, S.S., et al., Feasibility of soft computing techniques for estimating the long-term mean monthly wind speed (2022) Energy Reports, 8, pp. 638-648.

Khan, M.U., et al., An Intersection-Based Routing Scheme Using Q-Learning in Vehicular Ad Hoc Networks for Traffic Management in the Intelligent Transportation System (2022) Mathematics, 10 (20), art. no. 3731, .

Azhir, E., et al., Performance Evaluation of Query Plan Recommendation with Apache Hadoop and Apache Spark (2022) Mathematics, 10 (19), art. no. 3517.

Mosavi, A.H., et al., Deep learning fuzzy immersion and invariance control for type-I diabetes (2022) Computers in Biology and Medicine, 149, art. no. 105975, .

Danyali, S., et al., A New Model Predictive Control Method for Buck-Boost Inverter-Based Photovoltaic Systems (2022) Sustainability (Switzerland), 14 (18), art. no. 11731, .

Zhao, D., et al., Adaptive Intelligent Model Predictive Control for Microgrid Load Frequency (2022) Sustainability (Switzerland), 14 (18), art. no. 11772, .

Pap, J., et al., Correlation Analysis of Factors Affecting Firm Performance and Employees Wellbeing: Application of Advanced Machine Learning Analysis (2022) Algorithms, 15 (9), art. no. 300.

Hassannataj Joloudari, J., et al., Application of artificial intelligence techniques for automated detection of myocardial infarction: a review (2022) Physiological Measurement, 43 (8), art. no. 08TR01.

Mahmoudzadeh, H., et al., Ecological networks and corridors development in urban areas: An example of Tabriz, Iran (2022) Frontiers in Environmental Science, 10, art. no. 969266.

Alanazi, A., et al., Determining Optimal Power Flow Solutions Using New Adaptive Gaussian TLBO Method (2022) Applied Sciences (Switzerland), 12 (16), art. no. 7959.

Vafaie, R.H., et al., Photoacoustic Detection of Pollutants Emitted by Transportation System for Use in Automotive Industry (2022) Photonics, 9 (8), art. no. 526.

Najafi, Z., et al., Inference and Local Influence Assessment in a Multifactor Skew-Normal Linear Mixed Model (2022) Mathematics, 10 (15), art. no. 2820.

Mahmoudi, M.R., Mosavi, A. CYCLOCOPULA TECHNIQUE TO STUDY THE RELATIONSHIP BETWEEN TWO CYCLOSTATIONARY TIME SERIES WITH FRACTIONAL BROWNIAN MOTION ERRORS (2022) Fractals, 30 (5), art. no. 2240137.

Maleki, M., et al., SKEWED AUTO-REGRESSIVE PROCESS WITH EXOGENOUS INPUT VARIABLES: AN APPLICATION IN THE ADMINISTERED VACCINE DOSES ON COVID-19 SPREAD (2022) Fractals, 30 (5), art. no. 2240148.

Sabzehali, M., et al., Predicting the energy and exergy performance of F135 PW100 turbofan engine via deep learning approach (2022) Energy Conversion and Management, 265, art. no. 115775.

Alanazi, M., et al., Hill Climbing Artificial Electric Field Algorithm for Maximum Power Point Tracking of Photovoltaics (2022) Frontiers in Energy Research, 10, art. no. 905310.

Jeong, H., et al., SecAODV: A Secure Healthcare Routing Scheme Based on Hybrid Cryptography in Wireless Body Sensor Networks (2022) Frontiers in Medicine, 9, art. no. 829055.

Arooj, S., et al., Breast Cancer Detection and Classification Empowered With Transfer Learning (2022) Frontiers in Public Health, 10, art. no. 924432.

Yang, L., et al., Taylor Series-Based Fuzzy Model Predictive Control for Wheeled Robots (2022) Mathematics, 10 (14), art. no. 2498.

Roshanianfard, A., et al., Autonomous Robotic System for Pumpkin Harvesting (2022) Agronomy, 12 (7), art. no. 1594.

Mousavi, M., et al., Modeling the efficacy of different anti-angiogenic drugs on treatment of solid tumors using 3D computational modeling and machine learning (2022) Computers in Biology and Medicine, 146, art. no. 105511.

Band, S.S., et al., A Survey on Machine Learning and Internet of Medical Things-Based Approaches for Handling COVID-19: Meta-Analysis (2022) Frontiers in Public Health, 10, art. no. 869238.

Ahila, A., et al., Meta-Heuristic Algorithm-Tuned Neural Network for Breast Cancer Diagnosis Using Ultrasound Images (2022) Frontiers in Oncology, 12, art. no. 834028.

Venkatesh, C., et al., A Neural Network and Optimization Based Lung Cancer Detection System in CT Images (2022) Frontiers in Public Health, 10, art. no. 769692.

Naseer, I., et al., Performance Analysis of State-of-the-Art CNN Architectures for LUNA16 (2022) Sensors, 22 (12), art. no. 4426.

Mahmoudi, M.R., et al., A novel approach to compare the spectral densities of some uncorrelated cyclostationary time series (2022) Alexandria Engineering Journal, 61 (6), pp. 4995-5001.

Aazami, R., et al., Optimal Control of an Energy-Storage System in a Microgrid for Reducing Wind-Power Fluctuations (2022) Sustainability (Switzerland), 14 (10), art. no. 6183.

Manshadi, M.D., et al., Comparative Analysis of Machine Learning and Numerical Modeling for Combined Heat Transfer in Polymethylmethacrylate (2022) Polymers, 14 (10), art. no. 1996.

Almutairi, K., et al., A TLBO-Tuned Neural Processor for Predicting Heating Load in Residential Buildings (2022) Sustainability (Switzerland), 14 (10), art. no. 5924.

Das, T., et al., Analysing Process and Probability of Built-Up Expansion Using Machine Learning and Fuzzy Logic in English Bazar, West Bengal (2022) Remote Sensing, 14 (10), art. no. 2349.

Rahman, A.-U., et al., Histopathologic Oral Cancer Prediction Using Oral Squamous Cell Carcinoma Biopsy Empowered with Transfer Learning (2022) Sensors, 22 (10), art. no. 3833.

Islam, A.R.M.T., et al., Assessing the Impact of the Farakka Barrage on Hydrological Alteration in the Padma River with Future Insight (2022) Sustainability (Switzerland), 14 (9), art. no. 5233.

Rahman, A.-U., et al., Rainfall Prediction System Using Machine Learning Fusion for Smart Cities (2022) Sensors, 22 (9), art. no. 3504.

Abrar, R., et al., Assessing the Spatial Mapping of Heat Vulnerability under Urban Heat Island (UHI) Effect in the Dhaka Metropolitan Area (2022) Sustainability (Switzerland), 14 (9), art. no. 4945.

Safaei-Farouji, et al., Oil Family Typing Using a Hybrid Model of Self-Organizing Maps and Artificial Neural Networks (2022) ACS Omega, 7 (14), pp. 11578-11586.

Zhang, G., et al., Feasibility of Random Forest and Multivariate Adaptive Regression Splines for Predicting Long-Term Mean Monthly Dew Point Temperature (2022) Frontiers in Environmental Science, 10, art. no. 826165.

Sarkar, S.K., et al., Developing Robust Flood Susceptibility Model with Small Numbers of Parameters in Highly Fertile Regions of Northwest Bangladesh for Sustainable Flood and Agriculture Management (2022) Sustainability (Switzerland), 14 (7), art. no. 3982.

Mahmoodi, S., et al., The current and future potential geographical distribution of Nepeta crispa Willd., an endemic, rare and threatened aromatic plant of Iran: Implications for ecological conservation and restoration (2022) Ecological Indicators, 137, art. no. 108752.

Karami, H., et al., A Novel Approach for Estimation of Sediment Load in Dam Reservoir With Hybrid Intelligent Algorithms (2022) Frontiers in Environmental Science, 10, art. no. 821079.

Ardabili, S., et al., Systematic Review of Deep Learning and Machine Learning for Building Energy (2022) Frontiers in Energy Research, 10, art. no. 786027.

Akhtar, S.M., et al., A Multi-Agent Formalism Based on Contextual Defeasible Logic for Healthcare Systems (2022) Frontiers in Public Health, 10, art. no. 849185.

Hamah Sor, N., et al., The behavior of sustainable self-compacting concrete reinforced with low-density waste Polyethylene fiber (2022) Materials Research Express, 9 (3), art. no. 035501.

Jamil, S., et al., Large electromagnetic field enhancement in plasmonic nanoellipse for tunable spaser based applications (2022) PLoS ONE, 17 (3 March), art. no. e0263630.

Ahmed, H.U., et al., Statistical Methods for Modeling the Compressive Strength of Geopolymer Mortar (2022) Materials, 15 (5), art. no. 1868.

Tavoosi, J., et al., A machine learning approach for active/reactive power control of grid-connected doubly-fed induction generators (2022) Ain Shams Engineering Journal, 13 (2), art. no. 101564.

Pak, A., et al., Estimation of stress-strength reliability R=P(X>Y) based on Weibull record data in the presence of inter-record times (2022) Alexandria Engineering Journal, 61 (3), pp. 2130-2144.

Band, S.S., et al., Evaluation of Time Series Models in Simulating Different Monthly Scales of Drought Index for Improving Their Forecast Accuracy (2022) Frontiers in Earth Science, 10, art. no. 839527, .

Habibi, M., et al., Green Resources for Safety Improvement and Sustainable Landscape Design: The Case of a Dangerous Tehran-Dizin Road Bend (2022) Resources, 11 (2), art. no. 19.

Farahani, S.D., et al., A comparison of the pulsating and steady jets on flow-induced vibrations and thermal behavior of a sprung cylinder inside an isothermal channel (2022) Case Studies in Thermal Engineering, 30, art. no. 101761.

Mani, V., et al., A Recommendation System Based on AI for Storing Block Data in the Electronic Health Repository (2022) Frontiers in Public Health, 9, art. no. 831404.

Iranmehr, H., et al., Modeling the Price of Emergency Power Transmission Lines in the Reserve Market Due to the Influence of Renewable Energies (2022) Frontiers in Energy Research, 9, art. no. 792418.

Ehteram, M., et al., Inclusive Multiple Model Using Hybrid Artificial Neural Networks for Predicting Evaporation (2022) Frontiers in Environmental Science, 9, art. no. 789995.

Sandhu, J.K., et al., Predicting the Risk of Heart Failure Based on Clinical Data (2022) Human-centric Computing and Information Sciences, 12, art. no. 57.

Rezaei, M.A., et al., Adaptation of a Real-Time Deep Learning Approach with an Analog Fault Detection Technique for Reliability Forecasting of Capacitor Banks Used in Mobile Vehicles (2022) IEEE Access, 10, pp. 132271-132287.

Hai, T., et al., Comparison of the efficacy of particle swarm optimization and stochastic gradient descent algorithms on multi-layer perceptron model to estimate longitudinal dispersion coefficients in natural streams (2022) Engineering Applications of Computational Fluid Mechanics, 16 (1), pp. 2206-2220.

Yan, S.-R., et al., An Experimental Machine Learning Approach for Mid-Term Energy Demand Forecasting (2022) IEEE Access, 10, pp. 118926-118940.

Akbari, E., et al., A Fault-Tolerant Cascaded Switched-Capacitor Multilevel Inverter for Domestic Applications in Smart Grids (2022) IEEE Access, 10, pp. 110590-110602.

Asif, R.N., et al., Development and Validation of Embedded Device for Electrocardiogram Arrhythmia Empowered with Transfer Learning (2022) Computational Intelligence and Neuroscience, 2022, art. no. 5054641.

Wang, K., et al., Performance improvement of machine learning models via wavelet theory in estimating monthly river streamflow (2022) Engineering Applications of Computational Fluid Mechanics, 16 (1), pp. 1833-1848.

Nejad, H.D., et al., Fuzzy State-Dependent Riccati Equation (FSDRE) Control of the Reverse Osmosis Desalination System With Photovoltaic Power Supply (2022) IEEE Access, 10, pp. 95585-95603.

Khan, M.S.I., et al., Accurate brain tumor detection using deep convolutional neural network (2022) Computational and Structural Biotechnology Journal, 20, pp. 4733-4745.

Heydarpour, Z., et al., A study on a special case of the Sturm-Liouville equation using the Mittag-Leffler function and a new type of contraction (2022) AIMS Mathematics, 7 (10), pp. 18253-18279.

Lin, H., et al., Time series-based groundwater level forecasting using gated recurrent unit deep neural networks (2022) Engineering Applications of Computational Fluid Mechanics, 16 (1), pp. 1655-1672.

Rahman, A.-U., et al., ECG Classification for Detecting ECG Arrhythmia Empowered with Deep Learning Approaches (2022) Computational Intelligence and Neuroscience, 2022, art. no. 6852845.

Mahjoub, S., et al., A New Combination Method for Improving Parallelism in Two and Three Level Perfect Nested Loops (2022) IEEE Access, 10, pp. 74542-74554.

Rahman, A.-U., et al., IoMT-Based Mitochondrial and Multifactorial Genetic Inheritance Disorder Prediction Using Machine Learning (2022) Computational Intelligence and Neuroscience, 2022, art. no. 2650742.

Gundoshmian, T.M., et al., Modeling and optimization of the oyster mushroom growth using artificial neural network: Economic and environmental impacts (2022) Mathematical Biosciences and Engineering, 19 (10), pp. 9749-9768.

Atta-Ur-Rahman, et al., Advance Genome Disorder Prediction Model Empowered with Deep Learning (2022) IEEE Access, 10, pp. 70317-70328.

Wang, G.C., et al., Monthly and seasonal hydrological drought forecasting using multiple extreme learning machine models (2022) Engineering Applications of Computational Fluid Mechanics, 16 (1), pp. 1364-1381.

Yaseliani, M., et al., Pneumonia Detection Proposing a Hybrid Deep Convolutional Neural Network Based on Two Parallel Visual Geometry Group Architectures and Machine Learning Classifiers (2022) IEEE Access, 10, pp. 62110-62128.

Band, S.S., et al., When Smart Cities Get Smarter via Machine Learning: An In-Depth Literature Review (2022) IEEE Access, 10, pp. 60985-61015.

Khan, M.B.S., et al., Intelligent breast cancer diagnostic system empowered by deep extreme gradient descent optimization (2022) Mathematical Biosciences and Engineering, 19 (8), pp. 7978-8002.

Shahgholi, G., et al., Computational Analysis of the Effect of Balancer on the Vibration Performance of the Engine: Experimental and Simulation (2022) Acta Polytechnica Hungarica, 19 (4), pp. 129-146.

Tabrizchi, H., et al., Deep Learning Applications for COVID-19: A Brief Review (2022) Lecture Notes in Networks and Systems, 422, pp. 117-130.

Riaz, S., et al., Transforming Hand Drawn Wireframes into Front-End Code with Deep Learning (2022) Computers, Materials and Continua, 72 (3), pp. 4302-4321.

Chen, W., et al., Accurate discharge coefficient prediction of streamlined weirs by coupling linear regression and deep convolutional gated recurrent unit (2022) Engineering Applications of Computational Fluid Mechanics, 16 (1), pp. 965-976.

Liu, S., et al., Efficacy of applying discontinuous boundary condition on the heat transfer and entropy generation through a slip microchannel equipped with nanofluid (2022) Engineering Applications of Computational Fluid Mechanics, 16 (1), pp. 952-964.

Zhang, X., et al., Energetic thermo-physical analysis of MLP-RBF feed-forward neural network compared with RLS Fuzzy to predict CuO/liquid paraffin mixture properties (2022) Engineering Applications of Computational Fluid Mechanics, 16 (1), pp. 764-779.

Zhang, G., et al., Integration of neural network and fuzzy logic decision making compared with bilayered neural network in the simulation of daily dew point temperature (2022) Engineering Applications of Computational Fluid Mechanics, 16 (1), pp. 713-723.

Amanlou, A., et al., Single-Image Reflection Removal Using Deep Learning: A Systematic Review (2022) IEEE Access, 10, pp. 29937-29953.

Rezaei, M.A., et al., A New Hybrid Cascaded Switched-Capacitor Reduced Switch Multilevel Inverter for Renewable Sources and Domestic Loads (2022) IEEE Access, 10, pp. 14157-14183.

Shakibjoo, A.D., et al., Optimized Type-2 Fuzzy Frequency Control for Multi-Area Power Systems (2022) IEEE Access, 10, pp. 6989-7002.

Habibi, H., et al., SaaSRec+: a new context-aware recommendation method for SaaS services (2022) Mathematical Biosciences and Engineering, 19 (2), pp. 1471-1495.

Sharma, M., et al., A wider impedance bandwidth dual filter symmetrical mimo antenna for high-speed wideband wireless applications (2022) Symmetry, 14 (1), art. no. 29.

Zhang, G., et al., Reliability assessment of compressive and splitting tensile strength prediction of roller compacted concrete pavement: introducing MARS-GOA-MCS (2022) International Journal of Pavement Engineering, 23 (14), pp. 5030-5047.

Chen, Y., et al., Evaluation efficiency of hybrid deep learning algorithms with neural network decision tree and boosting methods for predicting groundwater potential (2022) Geocarto International, 37 (19), pp. 5564-5584.

Mosavi, A., et al., Ensemble models of GLM, FDA, MARS, and RF for flood and erosion susceptibility mapping: a priority assessment of sub-basins(2022) Geocarto International, 37 (9), pp. 2541-2560.

Ahmed, H.U., et al., Compressive strength of sustainable geopolymer concrete composites: A state-of-the-art review (2021) Sustainability (Switzerland), 13 (24), art. no. 13502, .

Farahani, S.D., et al., Effect of magnetic field on heat transfer from a channel: Nanofluid flow and porous layer arrangement (2021) Case Studies in Thermal Engineering, 28, art. no. 101675.

Panahi, F., et al., Streamflow prediction with large climate indices using several hybrid multilayer perceptrons and copula Bayesian model averaging (2021) Ecological Indicators, 133, art. no. 108285.

Farahani, S.D., et al., Melting of non-Newtonian phase change material in a finned triple-tube: Efficacy of non-uniform magnetic field (2021) Case Studies in Thermal Engineering, 28, art. no. 101543.

Ebrahimi-Khusfi, Z., et al., Determining the contribution of environmental factors in controlling dust pollution during cold and warm months of western Iran using different data mining algorithms and game theory (2021) Ecological Indicators, 132, art. no. 108287.

Rafiei-Sardooi, E., et al., Evaluating urban flood risk using hybrid method of TOPSIS and machine learning (2021) International Journal of Disaster Risk Reduction, 66, art. no. 102614.

Mohammadi, M.-R., et al., Modeling hydrogen solubility in hydrocarbons using extreme gradient boosting and equations of state (2021) Scientific Reports, 11 (1), art. no. 17911.

Davoodabadi Farahani, S., et al., Numerical simulation of NEPCM series two-layer solidification process in a triple tube with porous fin (2021) Case Studies in Thermal Engineering, 28, art. no. 101407.

Haji-Savameri, et al., Experimental study and modelling of asphaltene deposition on metal surfaces with superhydrophobic and low sliding angle inner coatings (2021) Scientific Reports, 11 (1), art. no. 16812.

Shojaei, S., et al., Application of Taguchi method and response surface methodology into the removal of malachite green and auramine-O by NaX nanozeolites (2021) Scientific Reports, 11 (1), art. no. 16054.

Wang, F., et al., Applying different resampling strategies in machine learning models to predict head-cut gully erosion susceptibility (2021) Alexandria Engineering Journal, 60 (6), pp. 5813-5829.

Mosavi, A., et al., Fuzzy clustering and distributed model for streamflow estimation in ungauged watersheds (2021) Scientific Reports, 11 (1), art. no. 8243.

Janizadeh, S., et al., Mapping the spatial and temporal variability of flood hazard affected by climate and land-use changes in the future (2021) Journal of Environmental Management, 298, art. no. 113551.

Zhang, G., et al., Solar radiation estimation in different climates with meteorological variables using Bayesian model averaging and new soft computing models (2021) Energy Reports, 7, pp. 8973-8996.

Cao, Y., Deep learned recurrent type-3 fuzzy system: Application for renewable energy modeling/prediction (2021) Energy Reports, 7, pp. 8115-8127.

Haghighat Shoar, et al., Effects of triethylene glycol mono methyl ether (TGME) as a novel oxygenated additive on emission and performance of a dual-fuel diesel engine fueled with natural gas-diesel/biodiesel (2021) Energy Reports, 7, pp. 1172-1189.

Kumar, R.L., et al., Recurrent Neural Network and Reinforcement Learning Model for COVID-19 Prediction (2021) Frontiers in Public Health, 9, art. no. 744100.

Meiabadi, M.S., et al., Modeling the producibility of 3d printing in polylactic acid using artificial neural networks and fused filament fabrication (2021) Polymers, 13 (19), art. no. 3219, .

Liu, B.-T., et al., Fabrication and characterization of Cesium-doped Tungstate nanorods for Near-Infrared light absorption in dye sensitized solar cells (2021) Results in Physics, 29, art. no. 104804.

Tavoosi, J., et al., Medical Image Interpolation Using Recurrent Type-2 Fuzzy Neural Network (2021) Frontiers in Neuroinformatics, 15, art. no. 667375.

Shahbazpanahi, S., et al., Crack propagation modeling of strengthening reinforced concrete deep beams with CFRP plates (2021) Materials Research Express, 8 (9), art. no. 095502.

Yang, F., et al., Predicting the degree of dissolved oxygen using three types of multi-layer perceptron-based artificial neural networks (2021) Sustainability (Switzerland), 13 (17), art. no. 9898.

Darban, S., et al., Application of analytical hierarchy process for structural health monitoring and prioritizing concrete bridges in iran (2021) Applied Sciences (Switzerland), 11 (17), art. no. 8060.

Mohammadzadeh, A., et al., A Novel Fractional-Order Multiple-Model Type-3 Fuzzy Control for Nonlinear Systems with Unmodeled Dynamics (2021) International Journal of Fuzzy Systems, 23 (6), pp. 1633-1651.

Mohammed, A.A., Survey of mechanical properties of geopolymer concrete: A comprehensive review and data analysis (2021) Materials, 14 (16), art. no. 4690,

Manshadi, M.D., et al., Predicting the parameters of vortex bladeless wind turbine using deep learning method of long short-term memory (2021) Energies, 14 (16), art. no. 4867, .

Ayoobi, N., et al., Time series forecasting of new cases and new deaths rate for COVID-19 using deep learning methods (2021) Results in Physics, 27, art. no. 104495.

Ayub, S., et al., Graphene and iron reinforced polymer composite electromagnetic shielding applications: A review (2021) Polymers, 13 (15), art. no. 2580.

Kazemian-Kale-Kale, A., Uncertainty assessment of entropy-based circular channel shear stress prediction models using a novel method (2021) Geosciences (Switzerland), 11 (8), art. no. 308, .

Nasseralshariati, E., et al., The effect of incorporating industrials wastewater on durability and long-term strength of concrete (2021) Materials, 14 (15), art. no. 4088.

Dehghani, E., et al., Introducing copula as a novel statistical method in psychological analysis (2021) International Journal of Environmental Research and Public Health, 18 (15), art. no. 7972.

Ayub, S., et al., Preparation methods for graphene metal and polymer based composites for emi shielding materials: State of the art review of the conventional and machine learning methods (2021) Metals, 11 (8), art. no. 1164,

Shadkani, S., et al., Comparative study of multilayer perceptron-stochastic gradient descent and gradient boosted trees for predicting daily suspended sediment load: The case study of the Mississippi River, U.S. (2021) International Journal of Sediment Research, 36 (4), pp. 512-523.

Ghaemi, A., et al., Reliability-based design and implementation of crow search algorithm for longitudinal dispersion coefficient estimation in rivers (2021) Environmental Science and Pollution Research, 28 (27), pp. 35971-35990.

Tabrizchi, H., et al., Densely connected convolutional networks (DenseNet) for Diagnosing Coronavirus Disease (COVID-19) from Chest X-ray Imaging (2021) 2021 IEEE International Symposium on Medical Measurements and Applications, MeMeA 2021 - Conference Proceedings, art. no. 9478715.

Mahmoudi, et al., Factor analysis approach to classify COVID-19 datasets in several regions (2021) Results in Physics, 25, art. no. 104071.

Kalbasi, R., et al., Finding the best station in Belgium to use residential-scale solar heating, One-year dynamic simulation with considering all system losses: Economic analysis of using ETSW (2021) Sustainable Energy Technologies and Assessments, 45, art. no. 101097.

Azareh, A., et al., Detection and prediction of lake degradation using landscape metrics and remote sensing dataset (2021) Environmental Science and Pollution Research, 28 (21), pp. 27283-27298.

Navabi, D., et al., The high-performance light transmitting concrete and experimental analysis of using polymethylmethacrylate optical fibers in it (2021) Journal of Building Engineering, 38, art. no. 102076.

Li, Y., et al., Synthesis of new dihybrid nanofluid of TiO2/MWCNT in water–ethylene glycol to improve mixture thermal performance: preparation, characterization, and a novel correlation via ANN based on orthogonal distance regression algorithm (2021) Journal of Thermal Analysis and Calorimetry, 144 (6), pp. 2587-2603.

Awan, H.H., et al., Experimental evaluation of untreated and pretreated crumb rubber used in concrete (2021) Crystals, 11 (5), art. no. 558.

Masoomi, M., et al., Efficiency assessment of an amended oscillating water column using openfoam (2021) Sustainability (Switzerland), 13 (10), art. no. 5633.

Javed, M.F., et al., Effect of recycled coarse aggregate and bagasse ash on two-stage concrete (2021) Crystals, 11 (5), art. no. 556.

Karimimoshaver, M., et al., Art in urban spaces (2021) Sustainability (Switzerland), 13 (10), art. no. 5597.

Karimimoshaver, M., et al., The impact of the city skyline on pleasantness; state of the art and a case study (2021) Heliyon, 7 (5), art. no. e07009

Peng, Y., et al., Analysis of the effect of roughness and concentration of Fe3O4/water nanofluid on the boiling heat transfer using the artificial neural network: An experimental and numerical study (2021) International Journal of Thermal Sciences, 163, art. no. 106863.

Shah, M.I., et al., Modeling surface water quality using the adaptive neuro-fuzzy inference system aided by input optimization (2021) Sustainability (Switzerland), 13 (8), art. no. 4576, .

Mala, A.A., et al., Mechanical and fracture parameters of ultra-high performance fiber reinforcement concrete cured via steam and water: Optimization of binder content (2021) Materials, 14 (8), art. no. 2016.

Rafiq, W., et al., Life cycle cost analysis comparison of hot mix asphalt and reclaimed asphalt pavement: A case study (2021) Sustainability (Switzerland), 13 (8), art. no. 4411.

Alaloul, W.S., et al., Systematic review of life cycle assessment and life cycle cost analysis for pavement and a case study (2021) Sustainability (Switzerland), 13 (8), art. no. 4377.

Mousavi, S.M., et al., Deep learning for wave energy converter modeling using long short-term memory (2021) Mathematics, 9 (8), art. no. 871, .

Hosseini, F., et al., The impact of local green spaces of historically and culturally valuable residential areas on place attachment (2021) Land, 10 (4), art. no. 351.

Masoomi, M., Mosavi, A. The one-way fsi method based on rans-fem for the open water test of a marine propeller at the different loading conditions (2021) Journal of Marine Science and Engineering, 9 (4), art. no. 351.

Moayedi, H., Mosavi, A. Suggesting a stochastic fractal search paradigm in combination with artificial neural network for early prediction of cooling load in residential buildings (2021) Energies, 14 (6), art. no. 1649.

Tavoosi, J., et al., Modeling renewable energy systems by a self-evolving nonlinear consequent part recurrent type-2 fuzzy system for power prediction (2021) Sustainability (Switzerland), 13 (6), art. no. 3301.

Moayedi, H., Mosavi, A. Synthesizing multi-layer perceptron network with ant lion biogeography-based dragonfly algorithm evolutionary strategy invasive weed and league champion optimization hybrid algorithms in predicting heating load in residential buildings (2021) Sustainability (Switzerland), 13 (6), art. no. 3198.

Lashkar-Ara, B., et al., Assessing machine learning versus a mathematical model to estimate the transverse shear stress distribution in a rectangular channel (2021) Mathematics, 9 (6), art. no. 596.

Moayedi, H., Mosavi, A. Double-target based neural networks in predicting energy consumption in residential buildings (2021) Energies, 14 (5), art. no. 1331.

Taghizadeh-Mehrjardi, R., et al., Bio-inspired hybridization of artificial neural networks: An application for mapping the spatial distribution of soil texture fractions (2021) Remote Sensing, 13 (5), art. no. 1025, pp. 1-23.

Shah, M.I., et al., Performance evaluation of soft computing for modeling the strength properties of waste substitute green concrete (2021) Sustainability (Switzerland), 13 (5), art. no. 2867, pp. 1-21.

Khan, M.A., et al., Application of gene expression programming (GEP) for the prediction of compressive strength of geopolymer concrete (2021) Materials, 14 (5), art. no. 1106, pp. 1-23.

Mosavi, A., et al., Analysis of entropy generation of ferrofluid flow in the microchannel with twisted porous ribs: The two-phase investigation with various porous layers (2021) Powder Technology, 380, pp. 349-357.

Mosavi, A., et al., Susceptibility mapping of groundwater salinity using machine learning models (2021) Environmental Science and Pollution Research, 28 (9), pp. 10804-10817.

Sattari, M.T., et al., Comparative analysis of kernel-based versus ANN and deep learning methods in monthly reference evapotranspiration estimation (2021) Hydrology and Earth System Sciences, 25 (2), pp. 603-618.

Moayedi, H., Mosavi, A. An innovative metaheuristic strategy for solar energy management through a neural networks framework (2021) Energies, 14 (4), art. no. 1196, .

Moayedi, H., Mosavi, A. Electrical power prediction through a combination of multilayer perceptron with water cycle ant lion and satin bowerbird searching optimizers (2021) Sustainability (Switzerland), 13 (4), art. no. 2336, pp. 1-20.

Shahbazpanahi, S., et al., Studying the C–H crystals and mechanical properties of sustainable concrete containing recycled coarse aggregate with used nano-silica (2021) Crystals, 11 (2), art. no. 122, .

Mahmoudi, M.R., et al., Testing the equality of several independent stationary and non-stationary time series models with fractional Brownian motion errors (2021) Alexandria Engineering Journal, 60 (1), pp. 1767-1775.

Taghizadeh-Mehrjardi, R., et al., Improving the spatial prediction of soil salinity in arid regions using wavelet transformation and support vector regression models (2021) Geoderma, 383, art. no. 114793.

Mahmoudi, M.R., et al., Fuzzy clustering to classify several time series models with fractional Brownian motion errors (2021) Alexandria Engineering Journal, 60 (1), pp. 1137-1145.

Mosavi, A., et al., Atomic interactions between rock substrate and water-sand mixture with and without graphene nanosheets via molecular dynamics simulation (2021) Journal of Molecular Liquids, 323, art. no. 114610.

Mahmoudi, M.R., et al., Principal component analysis to study the relations between the spread rates of COVID-19 in high risks countries (2021) Alexandria Engineering Journal, 60 (1), pp. 457-464.

Ahmad, J., et al., A step towards sustainable self-compacting concrete by using partial substitution of wheat straw ash and bentonite clay instead of cement (2021) Sustainability (Switzerland), 13 (2), art. no. 824, pp. 1-17.

Bonakdari, H., et al., Pareto design of multiobjective evolutionary neuro-fuzzy system for predicting scour depth around bridge piers (2021) Water Engineering Modeling and Mathematic Tools, pp. 491-517.

Khan, M.S.I., et al., IoT and Wireless Sensor Networking-based Effluent Treatment Plant Monitoring System (2021) Acta Polytechnica Hungarica, 18 (10), pp. 205-224.

Hassannataj Joloudari, J., et al., GSVMA: A Genetic Support Vector Machine ANOVA Method for CAD Diagnosis (2021) Frontiers in Cardiovascular Medicine, 8, art. no. 760178.

Mashmool, A., et al., A Statistical Model to Assess the Team's Productivity in Agile Software Teams (2021) CANDO-EPE 2021 - Proceedings: IEEE 4th International Conference and Workshop in Obuda on Electrical and Power Engineering, pp. 11-18.

Nadeem, M., et al., Intercept the cloud network from brute force and ddos attacks via intrusion detection and prevention system (2021) IEEE Access, 9, pp. 152300-152309.

Zhao, N., et al., A decomposition and multi-objective evolutionary optimization model for suspended sediment load prediction in rivers (2021) Engineering Applications of Computational Fluid Mechanics, 15 (1), pp. 1811-1829.

Ahmad, H., et al., A Hybrid Deep Learning Technique for Personality Trait Classification from Text (2021) IEEE Access, 9, pp. 146214-146232.

Han, L., et al., Numerical investigation of magnetic field on forced convection heat transfer and entropy generation in a microchannel with trapezoidal ribs (2021) Engineering Applications of Computational Fluid Mechanics, 15 (1), pp. 1746-1760.

Zheng, W., et al., Forecasting the discharge capacity of inflatable rubber dams using hybrid machine learning models (2021) Engineering Applications of Computational Fluid Mechanics, 15 (1), pp. 1761-1774.

Mosavi, A.A., Torres, D. Monitoring stability of high-speed rail tracks: A feasibility study (2021) Bridge Maintenance, Safety, Management, Life-Cycle Sustainability and Innovations - Proceedings of the 10th International Conference on Bridge Maintenance, Safety and Management, IABMAS 2020, pp. 399-406.

Shao, Q., et al., Diffusion analysis with high and low concentration regions by the finite difference method, the adaptive network-based fuzzy inference system, and the bilayered neural network method (2021) Engineering Applications of Computational Fluid Mechanics, 15 (1), pp. 1392-1399.

Danial, M.S., et al., Three-Dimensional Modeling and Analysis of Mechanized Excavation for Tunnel Boring Machines (2021) Acta Polytechnica Hungarica, 18 (4), pp. 213-230.

Zhao, X., et al., The Implementation of Border Gateway Protocol Using Software-Defined Networks: A Systematic Literature Review (2021) IEEE Access, 9, art. no. 9508974, pp. 112596-112606.

Bavili, R.E., et al., A New Active Fault Tolerant Control System: Predictive Online Fault Estimation (2021) IEEE Access, 9, art. no. 9521521, pp. 118461-118471.

Haghighat Shoar, F., et al., Different scenarios of glycerin conversion to combustible products and their effects on compression ignition engine as fuel additive: a review (2021) Engineering Applications of Computational Fluid Mechanics, 15 (1), pp. 1191-1228.

Cheng, L., et al., Role of gradients and vortexes on suitable location of discrete heat sources on a sinusoidal-wall microchannel (2021) Engineering Applications of Computational Fluid Mechanics, 15 (1), pp. 1176-1190.

Fan, L., et al., Introducing an evolutionary-decomposition model for prediction of municipal solid waste flow: application of intrinsic time-scale decomposition algorithm (2021) Engineering Applications of Computational Fluid Mechanics, 15 (1), pp. 1159-1175.

Khosravi, K., et al., Improving daily stochastic stream flow prediction: comparison of novel hybrid data-mining algorithms (2021) Hydrological Sciences Journal, 66 (9), pp. 1457-1474.

Band, S.S., et al., Groundwater level prediction in arid areas using wavelet analysis and Gaussian process regression (2021) Engineering Applications of Computational Fluid Mechanics, 15 (1), pp. 1147-1158.

Hu, Z., et al., Using soft computing and machine learning algorithms to predict the discharge coefficient of curved labyrinth overflows (2021) Engineering Applications of Computational Fluid Mechanics, 15 (1), pp. 1002-1015.

Bangash, K.A., et al., Thickness optimization of thin-film tandem organic solar cell (2021) Micromachines, 12 (5), art. no. 518.

Homaei, M.H., et al., DDSLA-RPL: Dynamic Decision System Based on Learning Automata in the RPL Protocol for Achieving QoS (2021) IEEE Access, 9, art. no. 9411861, pp. 63131-63148.

Band, S.S., et al., Evaluating the potential of offshore wind energy in the Gulf of Oman using the MENA-CORDEX wind speed data simulations (2021) Engineering Applications of Computational Fluid Mechanics, 15 (1), pp. 613-626.

Iqtidar, A., et al., Prediction of compressive strength of rice husk ash concrete through different machine learning processes (2021) Crystals, 11 (4), art. no. 352.

Sadeghiravesh, M.H., et al., Fuzzy logic model to assess desertification intensity based on vulnerability indices (2021) Acta Polytechnica Hungarica, 18 (3), pp. 7-24.

Nabipour, M., et al., Predicting Stock Market Trends Using Machine Learning and Deep Learning Algorithms Via Continuous and Binary Data; A Comparative Analysis (2020) IEEE Access, 8, art. no. 9165760, pp. 150199-150212.

Rahman, A., et al., DistBlockBuilding: A Distributed Blockchain-Based SDN-IoT Network for Smart Building Management (2020) IEEE Access, 8, art. no. 9151145, pp. 140008-140018.

Shamshirband, S., et al., Comparative analysis of hybrid models of firefly optimization algorithm with support vector machines and multilayer perceptron for predicting soil temperature at different depths (2020) Engineering Applications of Computational Fluid Mechanics, 14 (1), pp. 939-953.

Bemani, A., et al., Estimating CO2-Brine diffusivity using hybrid models of ANFIS and evolutionary algorithms (2020) Engineering Applications of Computational Fluid Mechanics, 14 (1), pp. 818-834.

Shamshirband, S., et al., Prediction of significant wave height; comparison between nested grid numerical model, and machine learning models of artificial neural networks, extreme learning and support vector machines (2020) Engineering Applications of Computational Fluid Mechanics, 14 (1), pp. 805-817.

Khorampoor, N., et al., Modeling the efficiency and emissions of a hybrid solar-gas power plant (2020) Engineering Applications of Computational Fluid Mechanics, 14 (1), pp. 790-804.

Pinter, G., COVID-19 pandemic prediction for Hungary; A hybrid machine learning approach (2020) Mathematics, 8 (6), art. no. 890.

Khozani, Z.S., et al., Forecasting shear stress parameters in rectangular channels using new soft computing methods (2020) PLoS ONE, 15 (4), art. no. e0229731.

Karballaeezadeh, N., et al., Intelligent road inspection with advanced machine learning; Hybrid prediction models for smart mobility and transportation maintenance systems (2020) Energies, 13 (7), art. no. en13071718, .

Ahmadi, M.H., et al., Evaluation of electrical efficiency of photovoltaic thermal solar collector (2020) Engineering Applications of Computational Fluid Mechanics, 14 (1), pp. 545-565.

Nabipour, N., et al., Modeling climate change impact on wind power resources using adaptive neuro-fuzzy inference system (2020) Engineering Applications of Computational Fluid Mechanics, 14 (1), pp. 491-506.

Shamshirband, S., et al., FCS-MBFLEACH: Designing an energy-aware fault detection system for mobile wireless sensor networks (2020) Mathematics, 8 (1), art. no. 28.

Homaei, M.H., et al., An Enhanced Distributed Congestion Control Method for Classical 6LowPAN Protocols Using Fuzzy Decision System (2020) IEEE Access, 8, art. no. 8967114, pp. 20628-20645.

Asadi, E., et al., Groundwater quality assessment for sustainable drinking and irrigation (2020) Sustainability (Switzerland), 12 (1), art. no. 177.

Shamshirband, S., et al., Predicting Standardized Streamflow index for hydrological drought using machine learning models (2020) Engineering Applications of Computational Fluid Mechanics, 14 (1), pp. 339-350.

Nabipour, N., et al., Short-Term Hydrological Drought Forecasting Based on Different Nature-Inspired Optimization Algorithms Hybridized with Artificial Neural Networks (2020) IEEE Access, 8, art. no. 8951168, pp. 15210-15222.

Kargar, K., et al., Estimating longitudinal dispersion coefficient in natural streams using empirical models and machine learning algorithms (2020) Engineering Applications of Computational Fluid Mechanics, 14 (1), pp. 311-322.

Shamshirband, S., et al., Prediction of flow characteristics in the bubble column reactor by the artificial pheromone-based communication of biological ants (2020) Engineering Applications of Computational Fluid Mechanics, 14 (1), pp. 367-378.

Shabani, S., et al., Modeling pan evaporation using Gaussian Process Regression K-Nearest Neighbors Random Forest and support vector machines; comparative analysis (2020) Atmosphere, 11 (1), art. no. 66.

Nabipour, N., et al., Extreme learning machine-based model for solubility estimation of hydrocarbon gases in electrolyte solutions (2020) Processes, 8 (1), art. no. 92.

Ouaer, H., et al., Rigorous connectionist models to predict carbon dioxide solubility in various ionic liquids (2020) Applied Sciences (Switzerland), 10 (1), art. no. 304.

Dehghani, M., et al., Spatial analysis of seasonal precipitation over Iran: Co-variation with climate indices (2020) ISPRS International Journal of Geo-Information, 9 (2), art. no. 1479.

Ardabili, S., et al., Building Energy Information: Demand and Consumption Prediction with Machine Learning Models for Sustainable and Smart Cities (2020) Lecture Notes in Networks and Systems, 101, pp. 191-201.

Mohammadzadeh, D., et al., Urban Train Soil-Structure Interaction Modeling and Analysis (2020) Lecture Notes in Networks and Systems, 101, pp. 361-381.

Gundoshmian, T.M., et al., Prediction of Combine Harvester Performance Using Hybrid Machine Learning Modeling and Response Surface Methodology (2020) Lecture Notes in Networks and Systems, 101, pp. 345-360.

Mosavi, A., et al., List of Deep Learning Models (2020) Lecture Notes in Networks and Systems, 101, pp. 202-214.

Ardabili, S., et al., Advances in Machine Learning Modeling Reviewing Hybrid and Ensemble Methods (2020) Lecture Notes in Networks and Systems, 101, pp. 215-227.

Ardabili, S., Systematic Review of Deep Learning and Machine Learning Models in Biofuels Research (2020) Lecture Notes in Networks and Systems, 101, pp. 19-32.

Ardabili, S., Deep Learning and Machine Learning in Hydrological Processes Climate Change and Earth Systems a Systematic Review (2020) Lecture Notes in Networks and Systems, 101, pp. 52-62.

Karami, M., Experimental estimation of temporal and spatial resolution of coefficient of heat transfer in a channel using inverse heat transfer method (2020) Engineering Applications of Computational Fluid Mechanics, 14 (1), pp. 271-283.

Faroughi, M., Computational modeling of land surface temperature using remote sensing data to investigate the spatial arrangement of buildings and energy consumption relationship (2020) Engineering Applications of Computational Fluid Mechanics, 14 (1), pp. 254-270.

Mosavi, A., et al., Modeling the temperature distribution during laser hardening process (2020) Results in Physics, 16, art. no. 102883.

Hemmati-Sarapardeh, A., Modeling natural gas compressibility factor using a hybrid group method of data handling (2020) Engineering Applications of Computational Fluid Mechanics, 14 (1), pp. 27-37.

Nabipour, N., et al., Comparative analysis of machine learning models for prediction of remaining service life of flexible pavement (2019) Mathematics, 7 (12), art. no. 1198.

Dineva, A., et al., Fault diagnosis of rotating electrical machines using multi-label classification (2019) Applied Sciences (Switzerland), 9 (23), art. no. 5086.

Choubin, B., et al., Earth fissure hazard prediction using machine learning models (2019) Environmental Research, 179, art. no. 108770.

Mansoor, K., Securing IoT-based RFID systems: A robust authentication protocol using symmetric cryptography (2019) Sensors (Switzerland), 19 (21), art. no. 4752.

Choubin, B., et al., Spatiotemporal dynamics assessment of snow cover to infer snowline elevation mobility in the mountainous regions (2019) Cold Regions Science and Technology, 167, art. no. 102870.

Abedinnezhad, S., et al., Thermodynamic assessment and multi-objective optimization of performance of irreversible dual-miller cycle (2019) Energies, 12 (20), art. no. 4000.

Mosavi, A., et al., Industrial applications of big data: State of the art survey (2018) Advances in Intelligent Systems and Computing, 660, pp. 225-232.

Mosavi, A., et al., Predicting the future using web knowledge: State of the art survey (2018) Advances in Intelligent Systems and Computing, 660, pp. 341-349.

Mousavi, S., et al., A load balancing algorithm for resource allocation in cloud computing (2018) Advances in Intelligent Systems and Computing, 660, pp. 289-296.

Mosavi, A., Rabczuk, T. Learning and intelligent optimization for material design innovation (2017) Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 10556 LNCS, pp. 358-363.

Mousavi, S., et al., Dynamic resource allocation in cloud computing (2017) Acta Polytechnica Hungarica, 14 (4), pp. 83-104.

Mosavi, A., Varkonyi-Koczy, A.R. Integration of machine learning and optimization for robot learning (2017) Advances in Intelligent Systems and Computing, 519, pp. 349-355.

Mosavi, A., et al., Multiple criteria decision making integrated with mechanical modeling of draping for material selection of textile composites (2012) ECCM 2012 - Composites at Venice, Proceedings of the 15th European Conference on Composite Materials, .

Esmaeili, M., Mosavi, A. Variable reduction for multi-objective optimization using data mining techniques; application to aerospace structures (2010) ICCET 2010 - 2010 International Conference on Computer Engineering and Technology, Proceedings, 5, art. no. 5486051, pp. V5333-V5337.

Mosavi, A. Application of multi-objective optimization packages in design of an evaporator coil (2010) World Academy of Science, Engineering and Technology, 61, pp. 25-29.

Mahmoudi, M.R., et al., A Statistical Approach to Model the H -Index Based on the Total Number of Citations and the Duration from the Publishing of the First Article (2021) Complexity, 2021, art. no. 6351836.

Karimmaslak, H., et al., Optimization of performance and emission of compression ignition engine fueled with propylene glycol and biodiesel–diesel blends using artificial intelligence method of ANN-GA-RSM (2021) Engineering Applications of Computational Fluid Mechanics, 15 (1), pp. 413-425.

Rahman, A., et al., SmartBlock-SDN: An Optimized Blockchain-SDN Framework for Resource Management in IoT (2021) IEEE Access, 9, art. no. 9350593, pp. 28361-28376.

Sun, X., et al., Hybrid model of support vector regression and fruitfly optimization algorithm for predicting ski-jump spillway scour geometry (2021) Engineering Applications of Computational Fluid Mechanics, 15 (1), pp. 272-291.

Najafi, B., et al., Effects of low-level hydroxy as a gaseous additive on performance and emission characteristics of a dual fuel diesel engine fueled by diesel/biodiesel blends (2021) Engineering Applications of Computational Fluid Mechanics, 15 (1), pp. 236-250.

Sun, K., et al., An integrated machine learning, noise suppression, and population-based algorithm to improve total dissolved solids prediction (2021) Engineering Applications of Computational Fluid Mechanics, 15 (1), pp. 251-271.

Liu, Z., et al., A new online learned interval type-3 fuzzy control system for solar energy management systems (2021) IEEE Access, 9, art. no. 9314138, pp. 10498-10508.

Kekha Javan, A.A., et al., Design of adaptive-robust controller for multi-state synchronization of chaotic systems with unknown and time-varying delays and its application in secure communication (2021) Sensors (Switzerland), 21 (1), art. no. 254, pp. 1-21.

Moosanezhad-Kermani, H., et al., Modeling of carbon dioxide solubility in ionic liquids based on group method of data handling (2021) Engineering Applications of Computational Fluid Mechanics, 15 (1), pp. 23-42.

Mosavi, A., et al., Ensemble Boosting and Bagging Based Machine Learning Models for Groundwater Potential Prediction (2021) Water Resources Management, 35 (1), pp. 23-37.

Nguyen, Q., et al., Nonlinear model identification of dissimilar laser joining of S.S 304 and ABS using the Hammerstein–Wiener method (2021) Optik, 225, art. no. 165649.

Mosavi, A., et al., Boiling of Argon flow in a microchannel by considering the spherical geometry for roughness barriers using molecular dynamics simulation (2021) Journal of Molecular Liquids, 321, art. no. 114462.

Mosavi, A., et al., Predicting soil electrical conductivity using multi-layer perceptron integrated with grey wolf optimizer (2021) Journal of Geochemical Exploration, 220, art. no. 106639.

Bonakdari, H., et al., Prediction of Discharge Capacity of Labyrinth Weir with Gene Expression Programming (2021) Advances in Intelligent Systems and Computing, 1250 AISC, pp. 202-217.

Mousavi, S.P., et al., Viscosity of Ionic Liquids: Application of the Eyring's Theory and a Committee Machine Intelligent System (2020) Molecules (Basel, Switzerland), 26 (1).

Zare, A., et al., Robust adaptive synchronization of a class of uncertain chaotic systems with unknown time-delay (2020) Applied Sciences (Switzerland), 10 (24), art. no. 8875, pp. 1-14.

Pinter, G., et al., Artificial intelligence for modeling real estate price using call detail records and hybrid machine learning approach (2020) Entropy, 22 (12), art. no. 1421, pp. 1-14.

Choubin, B., et al., Mass wasting susceptibility assessment of snow avalanches using machine learning models (2020) Scientific Reports, 10 (1), art. no. 18363.

Mosavi, A., et al., Investigating the effect of process parameters on the mechanical properties and temperature distribution in fiber laser welding of AISI304 and AISI 420 sheet using response surface methodology (2020) Infrared Physics and Technology, 111, art. no. 103478.

Aram, F., et al., Urban heat resilience at the time of global warming: evaluating the impact of the urban parks on outdoor thermal comfort (2020) Environmental Sciences Europe, 32 (1), art. no. 117.

Mosavi, A., et al., The molecular dynamics simulation of thermal manner of Ar/Cu nanofluid flow: The effects of spherical barriers size (2020) Journal of Molecular Liquids, 319, art. no. 114183.

Gorji, N.E., et al., Modeling Film Conductivity for Ion Migration Analysis in Perovskite Solar Cells (2020) Journal of Electronic Materials, 49 (12), pp. 7018-7023.

Baghban, A., Mosavi, A. Insight into the antiviral activity of synthesized schizonepetin derivatives: A theoretical investigation (2020) Scientific Reports, 10 (1), art. no. 8599.

Choubin, B., et al., Application of Bayesian Regularized Neural Networks for Groundwater Level Modeling (2020) CANDO-EPE 2020 - Proceedings, IEEE 3rd International Conference and Workshop in Obuda on Electrical and Power Engineering, art. no. 9337753, pp. 209-212.

Sedaghat, A., et al., Predicting COVID-19 (Coronavirus Disease) Outbreak Dynamics Using SIR-based Models: Comparative Analysis of SIRD and Weibull-SIRD(2020) CANDO-EPE 2020 - Proceedings, IEEE 3rd International Conference and Workshop in Obuda on Electrical and Power Engineering, art. no. 9337791, pp. 283-288.

Sedaghat, A., et al., Coronavirus (COVID-19) Outbreak Prediction Using Epidemiological Models of Richards Gompertz Logistic Ratkowsky and SIRD (2020) CANDO-EPE 2020 - Proceedings, IEEE 3rd International Conference and Workshop in Obuda on Electrical and Power Engineering, art. no. 9337799, pp. 289-298.

Ardabili, S., et al., Coronavirus Disease (COVID-19) Global Prediction Using Hybrid Artificial Intelligence Method of ANN Trained with Grey Wolf Optimizer (2020) CANDO-EPE 2020 - Proceedings, IEEE 3rd International Conference and Workshop in Obuda on Electrical and Power Engineering, art. no. 9337757, pp. 251-254.

Sedaghat, A., et al., COVID-19 (Coronavirus Disease) Outbreak Prediction Using a Susceptible-Exposed-Symptomatic Infected-Recovered-Super Spreaders-Asymptomatic Infected-Deceased-Critical (SEIR-PADC) Dynamic Model (2020) CANDO-EPE 2020 - Proceedings, IEEE 3rd International Conference and Workshop in Obuda on Electrical and Power Engineering, art. no. 9337775, pp. 275-282.

Sedaghat, A., et al., Modeling and Sensitivity Analysis of Coronavirus Disease (COVID-19) Outbreak Prediction (2020) CANDO-EPE 2020 - Proceedings, IEEE 3rd International Conference and Workshop in Obuda on Electrical and Power Engineering, art. no. 9337772, pp. 261-266.

Sedaghat, A., et al., Predicting Trends of Coronavirus Disease (COVID-19) Using SIRD and Gaussian-SIRD Models (2020) CANDO-EPE 2020 - Proceedings, IEEE 3rd International Conference and Workshop in Obuda on Electrical and Power Engineering, art. no. 9337783, pp. 267-274.

Tabrizchi, H., et al., Rapid COVID-19 Diagnosis Using Deep Learning of the Computerized Tomography Scans (2020) CANDO-EPE 2020 - Proceedings, IEEE 3rd International Conference and Workshop in Obuda on Electrical and Power Engineering, art. no. 9337794, pp. 173-178.

Salimi, N., et al., Fuzzy Genetic Algorithm Approach for Verification of Reachability and Detection of Deadlock in Graph Transformation Systems (2020) CANDO-EPE 2020 - Proceedings, IEEE 3rd International Conference and Workshop in Obuda on Electrical and Power Engineering, art. no. 9337781, pp. 241-250.

Karballaeezadeh, N., et al., Smart structural health monitoring of flexible pavements using machine learning methods (2020) Coatings, 10 (11), art. no. 1100, pp. 1-18.

D'Orazio, A., et al., Develop lattice Boltzmann method and its related boundary conditions models for the benchmark oscillating walls by modifying hydrodynamic and thermal distribution functions (2020) European Physical Journal Plus, 135 (11), art. no. 915, .

Band, S.S., et al., Flash flood susceptibility modeling using new approaches of hybrid and ensemble tree-based machine learning algorithms (2020) Remote Sensing, 12 (21), art. no. 3568, pp. 1-23.

Ecer, F., et al., Training multilayer perceptron with genetic algorithms and particle swarm optimization for modeling stock price index prediction (2020) Entropy, 22 (11), art. no. 1239, pp. 1-20.

Mostafaeipour, A., et al., Machine learning for prediction of energy in wheat production (2020) Agriculture (Switzerland), 10 (11), art. no. 517, pp. 1-18.

Band, S.S., et al., Combination of group method of data handling (GMDH) and computational fluid dynamics (CFD) for prediction of velocity in channel intake (2020) Applied Sciences (Switzerland), 10 (21), art. no. 7521, pp. 1-15.

Zandi, P., et al., Agricultural risk management using fuzzy topsis analytical hierarchy process (Ahp) and failure mode and effects analysis (fmea) (2020) Agriculture (Switzerland), 10 (11), art. no. 504, pp. 1-28.

Bonakdari, H., et al., A novel comprehensive evaluation method for estimating the bank profile shape and dimensions of stable channels using the maximum entropy principle (2020) Entropy, 22 (11), art. no. 1218, pp. 1-23.

Claywell, R., et al., Adaptive neuro-fuzzy inference system and a multilayer perceptron model trained with grey wolf optimizer for predicting solar diffuse fraction (2020) Entropy, 22 (11), art. no. 1192, pp. 1-14.

Salcedo-Sanz, S., et al., Machine learning information fusion in Earth observation: A comprehensive review of methods, applications and data sources (2020) Information Fusion, 63, pp. 256-272.

Samadianfard, S., et al., Wind speed prediction using a hybrid model of the multi-layer perceptron and whale optimization algorithm (2020) Energy Reports, 6, pp. 1147-1159.

Akhoundi, B., et al., Calculating filament feed in the fused deposition modeling process to correctly print continuous fiber composites in curved paths (2020) Materials, 13 (20), art. no. 4480, pp. 1-11.

Band, S.S., et al., Comparative analysis of artificial intelligence models for accurate estimation of groundwater nitrate concentration (2020) Sensors (Switzerland), 20 (20), art. no. 5763, pp. 1-23.

Melesse, A.M., et al., River water salinity prediction using hybrid machine learning models (2020) Water (Switzerland), 12 (10), art. no. 2951, pp. 1-21.

Band, S.S., et al., Evaluating the efficiency of different regression, decision tree, and bayesian machine learning algorithms in spatial piping erosion susceptibility using alos/palsar data (2020) Land, 9 (10), art. no. 346, pp. 1-22.

Mosavi, A., et al., Susceptibility prediction of groundwater hardness using ensemble machine learning models (2020) Water (Switzerland), 12 (10), art. no. 2770.

Mosavi, A., et al., Comprehensive review of deep reinforcement learning methods and applications in economics (2020) Mathematics, 8 (10), art. no. 1640.

Nabiollahi, K., et al., Assessing the influence of soil quality on rainfedwheat yield (2020) Agriculture (Switzerland), 10 (10), art. no. 469, pp. 1-18.

Karimimoshaver, M., et al., Urban views and their impacts on citizens: A grounded theory study of Sanandaj city (2020) Heliyon, 6 (10), art. no. e05157.

Band, S.S., et al., Novel ensemble approach of deep learning neural network (Dlnn) model and particle swarm optimization (pso) algorithm for prediction of gully erosion susceptibility (2020) Sensors (Switzerland), 20 (19), art. no. 5609, pp. 1-28.

Mojrian, S., et al., Hybrid Machine Learning Model of Extreme Learning Machine Radial basis function for Breast Cancer Detection and Diagnosis; A Multilayer Fuzzy Expert System (2020) Proceedings - 2020 RIVF International Conference on Computing and Communication Technologies, RIVF 2020, art. no. 9140744.

Ardabili, S., et al., Comparative Analysis of Single and Hybrid Neuro-Fuzzy-Based Models for an Industrial Heating Ventilation and Air Conditioning Control System (2020) Proceedings - 2020 RIVF International Conference on Computing and Communication Technologies, RIVF 2020, art. no. 9140753.

Mohamadi, S., et al., Zoning map for drought prediction using integrated machine learning models with a nomadic people optimization algorithm (2020) Natural Hazards, 104 (1), pp. 537-579.

Nadai, L., et al., Performance Analysis of Combine Harvester using Hybrid Model of Artificial Neural Networks Particle Swarm Optimization (2020) Proceedings - 2020 RIVF International Conference on Computing and Communication Technologies, RIVF 2020, art. no. 9140748, .

Mosavi, A., et al., Machine learning for modeling the singular multi-pantograph equations (2020) Entropy, 22 (9), art. no. 1041, .

Mosavi, A., et al., Incorporation of horizontal fins into a PCM-Based heat sink to enhance the safe operation time: Applicable in electronic device cooling (2020) Applied Sciences (Switzerland), 10 (18), art. no. 6308, .

Abbasi, S., et al., The effect of incorporating silica stone waste on the mechanical properties of sustainable concretes (2020) Materials, 13 (17), art. no. 3832.

Shateri, M., et al., Comparative analysis of machine learning models for nanofluids viscosity assessment (2020) Nanomaterials, 10 (9), art. no. 1767, pp. 1-22.

Mosavi, A., et al., Fractional-order fuzzy control approach for photovoltaic/battery systems under unknown dynamics, variable irradiation and temperature (2020) Electronics (Switzerland), 9 (9), art. no. 1455, pp. 1-19.

Yousefi, Y., et al., Improving aviation safety through modeling accident risk assessment of runway (2020) International Journal of Environmental Research and Public Health, 17 (17), art. no. 6085, pp. 1-36.

Dodangeh, E., et al., Flood Frequency Analysis of Interconnected Rivers by Copulas (2020) Water Resources Management, 34 (11), pp. 3533-3549.

Mosavi, A., Gorji, N.E. Brief review on thin films, perovskite solar cells and nanostructure's applications (2020) Modern Physics Letters B, 34 (24), art. no. 2030003.

Ameli, A., et al., Performance evaluation of binders and Stone Matrix Asphalt (SMA) mixtures modified by Ground Tire Rubber (GTR), waste Polyethylene Terephthalate (PET) and Anti Stripping Agents (ASAs)(2020) Construction and Building Materials, 251, art. no. 118932, .

Nasiri, A.S.A., et al., Evaluation of safety in horizontal curves of roads using a multi-body dynamic simulation process (2020) International Journal of Environmental Research and Public Health, 17 (16), art. no. 5975, pp. 1-20.

Habibi, K., et al., The impact of natural elements on environmental comfort in the iranian-islamic historical city of Isfahan (2020) International Journal of Environmental Research and Public Health, 17 (16), art. no. 5776, pp. 1-18.

Sheikh Khozani, Z., et al., Shear stress distribution prediction in symmetric compound channels using data mining and machine learning models (2020) Frontiers of Structural and Civil Engineering, 14 (5), pp. 1097-1109.

Nabipour, et al., Deep learning for stock market prediction (2020) Entropy, 22 (8), art. no. 840, .

Lei, X., et al., GIS-based machine learning algorithms for gully erosion susceptibility mapping in a semi-arid region of Iran (2020) Remote Sensing, 12 (15), art. no. 2478.

Mosavi, A., Benkreif, R., Varkonyi-Koczy, A.R. Comparison of Euler-Bernoulli and Timoshenko beam equations for railway system dynamics (2018) Advances in Intelligent Systems and Computing, 660, pp. 32-40.

Mosavi, A., et al., Reviewing the novel machine learning tools for materials design (2018) Advances in Intelligent Systems and Computing, 660, pp. 50-58.

Mosavi, A., et al., Review on the usage of the multiobjective optimization package of modeFrontier in the energy sector (2018) Advances in Intelligent Systems and Computing, 660, pp. 217-224.

Shamshirband, S., et al., Particle swarm optimization model to predict scour depth around a bridge pier (2020) Frontiers of Structural and Civil Engineering, 14 (4), pp. 855-866.

Mosavi, A., et al., Susceptibility mapping of soil water erosion using machine learning models (2020) Water (Switzerland), 12 (7), art. no. 1995, .

Emadi, M., et al., Predicting and mapping of soil organic carbon using machine learning algorithms in Northern Iran (2020) Remote Sensing, 12 (14), art. no. 2234

Sahragard, A., et al., Generation expansion planning in the presence of wind power plants using a genetic algorithm model (2020) Electronics (Switzerland), 9 (7), art. no. 1143, pp. 1-23.

Ahmad, Z., et al., Machine learning modeling of aerobic biodegradation for azo dyes and hexavalent chromium (2020) Mathematics, 8 (6), art. no. 913.

Ashrafian, A., et al., Classification-based regression models for prediction of the mechanical properties of roller-compacted concrete pavement (2020) Applied Sciences (Switzerland), 10 (11), art. no. 3707.

Chahardowli, M., et al., Survey of sustainable regeneration of historic and cultural cores of cities (2020) Energies, 13 (11), art. no. 2708

Zhang, D., et al., Dynamic modeling and adaptive controlling in GPS-intelligent buoy (GIB) systems based on neural-fuzzy networks (2020) Ad Hoc Networks, 103, art. no. 102149.

Khakian, R., et al., Modeling nearly zero energy buildings for sustainable development in rural areas (2020) Energies, 13 (10), art. no. 2593.

Seifi, A., et al., Modeling and uncertainty analysis of groundwater level using six evolutionary optimization algorithms hybridized with ANFIS, SVM, and ANN (2020) Sustainability (Switzerland), 12 (10), art. no. 4023.

Rezaei, A., et al., Insights into the effects of pore size distribution on the flowing behavior of carbonate rocks: Linking a nano-based enhanced oil recovery method to rock typing (2020) Nanomaterials, 10 (5), art. no. 972.

Mosavi, A., et al., Electrical characterization of CIGS thin-film solar cells by two- and four-wire probe technique (2020) Modern Physics Letters B, 34 (11), art. no. 2050102.

Bemani, A., et al., Applying ANN, ANFIS and LSSVM models for estimation of acid solvent solubility in supercritical CO2 (2020) Computers, Materials and Continua, 63 (3), pp. 1175-1204.

Asghar, M.Z., et al., Performance evaluation of supervised machine learning techniques for efficient detection of emotions from online content (2020) Computers, Materials and Continua, 63 (3), pp. 1093-1118.

Sadeghzadeh, M., et al., Prediction of Thermo-Physical Properties of TiO2-Al2O3/Water Nanoparticles by Using Artificial Neural Network (2020) Nanomaterials, 10 (4), art. no. 697, .

Jilte, R., et al., Cooling performance of a novel circulatory flow concentric multi-channel heat sink with nanofluids (2020) Nanomaterials, 10 (4), art. no. 647.

Fathi, S., et al., The role of urban morphology design on enhancing physical activity and public health (2020) International Journal of Environmental Research and Public Health, 17 (7), art. no. 2359.

Hosseini, F.S., et al., Flash-flood hazard assessment using ensembles and Bayesian-based machine learning models: Application of the simulated annealing feature selection method (2020) Science of the Total Environment, 711, art. no. 135161.

Liu, Y., et al., A Mobile Cloud-Based eHealth Scheme (2020) Computers, Materials and Continua, 63 (1), pp. 31-39.

Harirchian, E., et al., Earthquake safety assessment of buildings through rapid visual screening (2020) Buildings, 10 (3), art. no. 51.

Mousavi, S.N., et al., Predictive modeling the free hydraulic jumps pressure through advanced statistical methods (2020) Mathematics, 8 (3), art. no. 323.

Dodangeh, E., et al., Integrated machine learning methods with resampling algorithms for flood susceptibility prediction (2020) Science of the Total Environment, 705, art. no. 135983.

Saadatfar, H., et al., A new k-nearest neighbors classifier for big data based on efficient data pruning (2020) Mathematics, 8 (2), art. no. 286.

Amirinasab, M., et al., Energy-efficient method for wireless sensor networks low-power radio operation in internet of things (2020) Electronics (Switzerland), 9 (2), art. no. 320.

Joloudari, J.H., et al., Coronary artery disease diagnosis; ranking the significant features using a random trees model (2020) International Journal of Environmental Research and Public Health, 17 (3), art. no. 731.

Choubin, B., et al., Spatial hazard assessment of the PM10 using machine learning models in Barcelona, Spain (2020) Science of the Total Environment, 701, art. no. 134474.

Abbaspour-Gilandeh, Y., et al., A combined method of image processing and artificial neural network for the identification of 13 Iranian rice cultivars (2020) Agronomy, 10 (1), art. no. 117.

Joloudari, J.H., et al., Early detection of the advanced persistent threat attack using performance analysis of deep learning (2020) IEEE Access, 8, pp. 186125-186137.

Jabeen, T., et al., A lightweight genetic based algorithm for data security in wireless body area networks (2020) IEEE Access, 8, pp. 183460-183469.

Ardabili, S.F., et al., COVID-19 outbreak prediction with machine learning (2020) Algorithms, 13 (10), art. no. 249.

Ma, C., et al., Optimal Type-3 Fuzzy System for Solving Singular Multi-Pantograph Equations (2020) IEEE Access, 8, art. no. 9292666, pp. 225692-225702.

Band, S.S., et al., Voltage Regulation for Photovoltaics-Battery-Fuel Systems Using Adaptive Group Method of Data Handling Neural Networks (GMDH-NN) (2020) IEEE Access, 8, art. no. 9253540, pp. 213748-213757.

Anwar, F., A comparative analysis on diagnosis of diabetes mellitus using different approaches – A survey (2020) Informatics in Medicine Unlocked, 21, art. no. 100482.

Wang, Z., et al., Monthly streamflow prediction using a hybrid stochastic-deterministic approach for parsimonious non-linear time series modeling (2020) Engineering Applications of Computational Fluid Mechanics, 14 (1), pp. 1351-1372.

Aram, F., et al., How parks provide thermal comfort perception in the metropolitan cores; a case study in Madrid Mediterranean climatic zone (2020) Climate Risk Management, 30, art. no. 100245.

Madvar, H.R., et al., Derivation of optimized equations for estimation of dispersion coefficient in natural streams using hybridized ANN with PSO and CSO Algorithms (2020) IEEE Access, 8, art. no. 9177117, pp. 156582-156599.

Mosavi, A., et al., Groundwater Salinity Susceptibility Mapping Using Classifier Ensemble and Bayesian Machine Learning Models (2020) IEEE Access, 8, art. no. 9162111, pp. 145564-145576.

Mosavi, A., et al., Towards an Ensemble Machine Learning Model of Random Subspace Based Functional Tree Classifier for Snow Avalanche Susceptibility Mapping (2020) IEEE Access, 8, art. no. 9160950, pp. 145968-145983.

Mosavi, A. The large scale system of multiple criteria decision making; pre-processing (2010) IFAC Proceedings Volumes (IFAC-PapersOnline), 43 (8 PART 1), pp. 354-359.

Mosavi, A. Hydrodynamic design and optimization: Application to design a general case for extra equipments on the submarinés hull (2009) ICCTD 2009 - 2009 International Conference on Computer Technology and Development, 2, art. no. 5360124, pp. 139-143.

Mosavi, A. Computer design and simulation of built environment; Application to forest planning (2009) 2nd International Conference on Environmental and Computer Science, ICECS 2009, art. no. 5383549, pp. 81-85.

Aram, F., et al., The cooling effect of large-scale urban parks on surrounding area thermal comfort (2019) Energies, 12 (20), art. no. 3904.

Shamshirband, S., et al., Developing an ANFIS-PSO model to predict mercury emissions in combustion flue gases (2019) Mathematics, 7 (10), art. no. 965.

Choubin, B., et al., Snow avalanche hazard prediction using machine learning methods (2019) Journal of Hydrology, 577, art. no. 123929.

Samadianfard, S., et al., Support vector regression integrated with fruit fly optimization algorithm for river flow forecasting in lake urmia basin (2019) Water (Switzerland), 11 (9), art. no. 1934.

Perez, H., et al., Deep learning for detecting building defects using convolutional neural networks (2019) Sensors (Switzerland), 19 (16), art. no. 3556.

Danial Mohammadzadeh, S., et al., Prediction of compression index of fine-grained soils using a gene expression programming model (2019) Infrastructures, 4 (2), art. no. infrastructures4020026, .

Dineva, A., et al., Review of soft computing models in design and control of rotating electrical machines (2019) Energies, 12 (6), art. no. 1049.

Qasem, S.N., et al., Estimating daily dew point temperature using machine learning algorithms (2019) Water (Switzerland), 11 (3), art. no. 582.

Choubin, B., et al., An ensemble prediction of flood susceptibility using multivariate discriminant analysis, classification and regression trees, and support vector machines (2019) Science of the Total Environment, 651, pp. 2087-2096.

Dehghani, M., et al., Prediction of hydropower generation using Grey wolf optimization adaptive neuro-fuzzy inference system (2019) Energies, 12 (2), art. no. 289, .

Rezakazemi, M., et al., ANFIS pattern for molecular membranes separation optimization (2019) Journal of Molecular Liquids, 274, pp. 470-476.

Jafari-Sejahrood, et al., Limiting factors for biogas production from cow manure: energo-environmental approach (2019) Engineering Applications of Computational Fluid Mechanics, 13 (1), pp. 954-966.

Ghalandari, M., et al., Aeromechanical optimization of first row compressor test stand blades using a hybrid machine learning model of genetic algorithm, artificial neural networks and design of experiments (2019) Engineering Applications of Computational Fluid Mechanics, 13 (1), pp. 892-904.

Ghalandari, M., et al., Flutter speed estimation using presented differential quadrature method formulation (2019) Engineering Applications of Computational Fluid Mechanics, 13 (1), pp. 804-810.

Menad, N.A., et al., Modeling temperature dependency of oil - water relative permeability in thermal enhanced oil recovery processes using group method of data handling and gene expression programming (2019) Engineering Applications of Computational Fluid Mechanics, 13 (1), pp. 724-743.

Mosavi, A., et al., Prediction of multi-inputs bubble column reactor using a novel hybrid model of computational fluid dynamics and machine learning (2019) Engineering Applications of Computational Fluid Mechanics, 13 (1), pp. 482-492.

Riahi-Madvar, et al., Comparative analysis of soft computing techniques RBF, MLP, and ANFIS with MLR and MNLR for predicting grade-control scour hole geometry (2019) Engineering Applications of Computational Fluid Mechanics, 13 (1), pp. 529-550.

Ghalandari, M., et al., Investigation of submerged structures' flexibility on sloshing frequency using a boundary element method and finite element analysis (2019) Engineering Applications of Computational Fluid Mechanics, 13 (1), pp. 519-528.

Farzaneh-Gord, M., et al., Numerical simulation of pressure pulsation effects of a snubber in a CNG station for increasing measurement accuracy (2019) Engineering Applications of Computational Fluid Mechanics, 13 (1), pp. 642-663.

Aram, F., et al., Design and validation of a computational program for analysing mental maps: Aram mental map analyzer (2019) Sustainability (Switzerland), 11 (14), art. no. 3790.

Karballaeezadeh, N., et al., Prediction of remaining service life of pavement using an optimized support vector machine (case study of Semnan–Firuzkuh road) (2019) Engineering Applications of Computational Fluid Mechanics, 13 (1), pp. 188-198.

Khansari, N.M., et al., Orthotropic mode II shear test fixture: Iosipesque modification (2019) Engineering Solid Mechanics, 7 (2), pp. 93-108.

Mosavi, A., et al., State of the art of machine learning models in energy systems, a systematic review (2019) Energies, 12 (7), art. no. 1301.

Zhang, S., et al., Optimization algorithm for reduction the size of Dixon resultant matrix: A case study on mechanical application (2019) Computers, Materials and Continua, 58 (2), pp. 567-583.

Shamshirband, S., et al., Ensemble models with uncertainty analysis for multi-day ahead forecasting of chlorophyll a concentration in coastal waters (2019) Engineering Applications of Computational Fluid Mechanics, 13 (1), pp. 91-101.

Torabi, M., et al., A Hybrid clustering and classification technique for forecasting short-term energy consumption (2019) Environmental Progress and Sustainable Energy, 38 (1), pp. 66-76.

Torabi, M., et al., A Hybrid Machine Learning Approach for Daily Prediction of Solar Radiation (2019) Lecture Notes in Networks and Systems, 53, pp. 266-274.

Mosavi, A., Edalatifar, M. A Hybrid Neuro-Fuzzy Algorithm for Prediction of Reference Evapotranspiration (2019) Lecture Notes in Networks and Systems, 53, pp. 235-243.

Ardabili, S.F., et al., Using SVM-RSM and ELM-RSM approaches for optimizing the production process of methyl and ethyl esters (2018) Energies, 11 (11), art. no. 2889.

Mosavi, A., Ozturk, P., Chau, K.-W. Flood prediction using machine learning models: Literature review (2018) Water (Switzerland), 10 (11), art. no. 1536.

Moeini, I., et al., Modeling the detection efficiency in photodetectors with temperature-dependent mobility and carrier lifetime (2018) Superlattices and Microstructures, 122, pp. 557-562.

Darvishzadeh, A., et al., Modeling the strain impact on refractive index and optical transmission rate (2018) Physica B: Condensed Matter, 543, pp. 14-17.

Moeini, I., et al., Modeling the time-dependent characteristics of perovskite solar cells (2018) Solar Energy, 170, pp. 969-973.

Imani, M.H., Strategic Behavior of Retailers for Risk Reduction and Profit Increment via Distributed Generators and Demand Response Programs (2018) Energies, 11 (6), art. no. 1602.

Najafi, B., et al., An intelligent artificial neural network-response surface methodology method for accessing the optimum biodiesel and diesel fuel blending conditions in a diesel engine from the viewpoint of exergy and energy analysis (2018) Energies, 11 (4), art. no. 860.

Maghsoodi, A.I., et al., Renewable energy technology selection problem using integrated H-SWARA-MULTIMOORA approach (2018) Sustainability (Switzerland), 10 (12), art. no. 4481.

Taherei Ghazvinei, P., et al., Sugarcane growth prediction based on meteorological parameters using extreme learning machine and artificial neural network (2018) Engineering Applications of Computational Fluid Mechanics, 12 (1), pp. 738-749.

Fardad, K., et al., Biodegradation of medicinal plants waste in an anaerobic digestion reactor for biogas production (2018) Computers, Materials and Continua, 55 (3), pp. 318-392.

Baranyai, M., et al., Optimal design of electrical machines: State of the art survey (2018) Advances in Intelligent Systems and Computing, 660, pp. 209-216.

Janizadeh, S., et al., Potential impacts of future climate on the spatio-temporal variability of landslide susceptibility in Iran using machine learning algorithms and CMIP6 climate-change scenarios (2023) Gondwana Research, 124, pp. 1-17.

Gholami, M., et al., Predicting longitudinal dispersion coefficient using ensemble models and optimized multi-layer perceptron models (2023) Ain Shams Engineering Journal, 14 (12), art. no. 102223.

Tabrizchi, H., et al., Thermal prediction for energy management of clouds using a hybrid model based on CNN and stacking multi-layer bi-directional LSTM (2023) Energy Reports, 9, pp. 2253-2268.

Ahmed, A., et al., An improved hybrid approach for the simultaneous allocation of distributed generators and time varying loads in distribution systems (2023) Energy Reports, 9, pp. 1549-1560.

Karimimoshaver, M., et al., The effect of geometry and location of balconies on single-sided natural ventilation in high-rise buildings (2023) Energy Reports, 10, pp. 2174-2193.

Mangeli, M., et al., Assessing indoor thermal comfort of rock-cut architecture in Meymand world heritage site during winter and summer (2023) Energy Reports, 10, pp. 439-450.

Navabi, D., et al., Developing light transmitting concrete for energy saving in buildings (2023) Case Studies in Construction Materials, 18, art. no. e01969.

Rabiee, A.H., et al., Thermal and vibratory response of sprung square cylinder with four nature-inspired fin-shaped bumps (2023) Ain Shams Engineering Journal, 14 (7), art. no. 102010.

Safaie Ghamsary, E., et al., Locating pocket parks: Assessing the effects of land use and accessibility on the public presence (2023) Environmental and Sustainability Indicators, 18, art. no. 100253.

Hosseinzadeh, M., et al., Toward Designing a Secure Authentication Protocol for IoT Environments (2023) Sustainability (Switzerland), 15 (7), art. no. 5934.

Seifi, A., et al., Uncertainty Assessment of WinSRFR Furrow Irrigation Simulation Model Using the GLUE Framework under Variability in Geometry Cross Section, Infiltration, and Roughness Parameters (2023) Water (Switzerland), 15 (6), art. no. 1250.

Mirhashemi, H., et al., Modeling Climate Change Effects on the Distribution of Oak Forests with Machine Learning (2023) Forests, 14 (3), art. no. 469.

Karimi, S., et al., Assessment of Post-Fire Phenological Changes Using MODIS-Derived Vegetative Indices in the Semiarid Oak Forests (2023) Forests, 14 (3), art. no. 590.

Gao, G., et al., Application of GMDH model to predict pore pressure (2023) Frontiers in Earth Science, 10, art. no. 1043719.

Gao, G., et al., Prediction of fracture density in a gas reservoir using robust computational approaches (2023) Frontiers in Earth Science, 10, art. no. 1023578.

Kadir, M.A., et al., Evaluation Metrics for XAI: A Review, Taxonomy, and Practical Applications (2023) INES 2023 - 27th IEEE International Conference on Intelligent Engineering Systems 2023, Proceedings, pp. 111-124.

Hashemi-Nejhad, A., et al., The Effect of Biodiesel, Ethanol, and Water on the Performance and Emissions of a Dual-Fuel Diesel Engine with Natural Gas: Sustainable Energy Production through a Life Cycle Assessment Approach (2023) International Journal of Energy Research, 2023, art. no. 4630828.

Habibi, S.S., et al., Spatial preferences of small and medium knowledge based enterprises in Tehran new business area (2024) Journal of Urban Management, 13 (1), 16-32.

Masoomi, M., et al., Numerical study of a novel ventilation system added to the structure of a catamaran for different slamming conditions using OpenFOAM (2023) International Journal of Naval Architecture and Ocean Engineering, 15, art. no. 100512.

Taheri, M., et al., A Protection Methodology for Supporting Distributed Generations with Respect to Transient Instability (2023) SACI 2023 - IEEE 17th International Symposium on Applied Computational Intelligence and Informatics, Proceedings, pp. 545-550.

Taleb, M., et al., Maintaining Fuse in the Presence of Distributed Generation Sources in the Distribution Network to Improve Protection System (2023) SACI 2023 - IEEE 17th International Symposium on Applied Computational Intelligence and Informatics, Proceedings, pp. 455-459.

Dehghani, M., et al., Unified Power Flow Controller: Operation, Modelling and Applications (2023) SACI 2023 - IEEE 17th International Symposium on Applied Computational Intelligence and Informatics, Proceedings, pp. 699-704.

Shahgholian, G., et al., A Hydroelectric Power Plant Brief: Classification and Application of Artificial Intelligence (2023) SACI 2023 - IEEE 17th International Symposium on Applied Computational Intelligence and Informatics, Proceedings, pp. 141-146.

Ardabili, S., et al., Machine Learning in Heat Transfer: Taxonomy, Review and Evaluation (2023) SACI 2023 - IEEE 17th International Symposium on Applied Computational Intelligence and Informatics, Proceedings, pp. 433-441.

Zanjani, S.M.A., et al., Study and Simulation of Wind Farms Based on Squirrel Cage Induction Generator in Electrical Distribution System (2023) SACI 2023 - IEEE 17th International Symposium on Applied Computational Intelligence and Informatics, Proceedings, pp. 467-471.

Mudabbiruddin, M., Mosavi, A. Machine Learning and Mathematical Models for Prediction of Structural Aging Process (2023) SACI 2023 - IEEE 17th International Symposium on Applied Computational Intelligence and Informatics, Proceedings, pp. 405-414.

Manshadi, M.D., et al., Colorectal Polyp Localization: From Image Restoration to Real-time Detection with Deep Learning (2023) SACI 2023 - IEEE 17th International Symposium on Applied Computational Intelligence and Informatics, Proceedings, pp. 739-744.

Zeinali, M., et al., Torque Control in a Two-Mass Resonant System: Simulation and Dynamic Analysis (2023) SACI 2023 - IEEE 17th International Symposium on Applied Computational Intelligence and Informatics, Proceedings, pp. 551-555.

Ardabili, S., et al., Deep learning for 5G and 6G (2023) SACI 2023 - IEEE 17th International Symposium on Applied Computational Intelligence and Informatics, Proceedings, pp. 711-719.

Sharifi, S., et al., Translucent Concrete: Comprehensive Review of Concepts, Recent Technologies and Advances in Light Transmitting Concrete (2023) SACI 2023 - IEEE 17th International Symposium on Applied Computational Intelligence and Informatics, Proceedings, pp. 685-691.

Choubin, B., et al., Averaged Neural Network Integrated with Recursive Feature Elimination for Flood Hazard Assessment (2023) SACI 2023 - IEEE 17th International Symposium on Applied Computational Intelligence and Informatics, Proceedings, pp. 733-737.

Sheeraz, M., et al., Effective Security Monitoring Using Efficient SIEM Architecture (2023) Human-centric Computing and Information Sciences, 13, art. no. 23.

Naveed Akhtar, M., et al., Computationally efficient GPU based NS solver for two dimensional high-speed inviscid and viscous compressible flows (2023) Engineering Applications of Computational Fluid Mechanics, 17 (1), art. no. 2210196.

Shahfahad, Talukdar, S., et al., Comparative evaluation of operational land imager sensor on board landsat 8 and landsat 9 for land use land cover mapping over a heterogeneous landscape (2023) Geocarto International, 38 (1), art. no. 2152496.

Janizadeh, S., et al., Combination four different ensemble algorithms with the generalized linear model (GLM) for predicting forest fire susceptibility (2023) Geomatics, Natural Hazards and Risk, 14 (1), art. no. 2206512, .

Riaz, S., et al., Deep Bimodal Fusion Approach for Apparent Personality Analysis (2023) Computers, Materials and Continua, 75 (1), pp. 2301-2312.

Sabahi, K., et al., Input-output scaling factors tuning of type-2 fuzzy PID controller using multi-objective optimization technique (2023) AIMS Mathematics, 8 (4), pp. 7917-7932.

Hai, T., et al., An integrated GIS-based multivariate adaptive regression splines-cat swarm optimization for improving the accuracy of wildfire susceptibility mapping (2023) Geocarto International, art. no. 2167005.

Safkhani, M., et al., Improvement and Cryptanalysis of a Physically Unclonable Functions Based Authentication Scheme for Smart Grids (2023) Mathematics, 11 (1), art. no. 48, .

Ahmed, I.A., et al., A new framework to identify most suitable priority areas for soil-water conservation using coupling mechanism in Guwahati urban watershed, India, with future insight (2023) Journal of Cleaner Production, 382, art. no. 135363, .

Nadeem, M., et al., Preventing Cloud Network from Spamming Attacks Using Cloudflare and KNN (2023) Computers, Materials and Continua, 74 (2), pp. 2641-2659.

Qureshi, M.A., et al., Aspect Level Songs Rating Based Upon Reviews in English (2023) Computers, Materials and Continua, 74 (2), pp. 2589-2605.

Abbas, S., et al., Automated File Labeling for Heterogeneous Files Organization Using Machine Learning (2023) Computers, Materials and Continua, 74 (2), pp. 3263-3278.