

No.	Co-authors	Article title	Keywords	Vol., No., pp.	DOI	Citation
1	Khudair, R.A., Abdullah, E.Y., Albukhattar, A.N.	Theoretical Analysis of Squeeze Lubrication Using Double ZZ Transform: Application of Non-Newtonian Fluids	non-Newtonian fluids, mathematical model, double ZZ transform synovial joint, squeeze pressure	11, 4, 845-853	https://doi.org/10.18280/mmep.110401	Khudair, R.A., Abdullah, E.Y., Albukhattar, A.N. (2024). Theoretical analysis of squeeze lubrication using double ZZ Transform: Application of non-Newtonian fluids. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 845-853. https://doi.org/10.18280/mmep.110401
2	Nang, D.V.	Optimum First Model Shape Frequency of a New Gripper Employing an Artificial Neural Network	gripper mechanism, bridge-type mechanism, artificial neural network, first modal shape frequency	11, 4, 854-862	https://doi.org/10.18280/mmep.110402	Nang, D.V. (2024). Optimum first model shape frequency of a new gripper employing an artificial neural network. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 854-862. https://doi.org/10.18280/mmep.110402
3	Kuppusamy, V., Gowrishankar, L.	Performance Evaluation of a M/G/1 Queue Model for Patient Flow in a Health Care System	matrix-geometric method, patient flow, relative measures, hidden Markov model, Baum-Welch algorithm	11, 4, 863-871	https://doi.org/10.18280/mmep.110403	Kuppusamy, V., Gowrishankar, L. (2024). Performance evaluation of a M/G/1 queue model for patient flow in a health care system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 863-871. https://doi.org/10.18280/mmep.110403
4	Mahdi, A.F., Asker, H.K., Al-Saiq, I.R.	A Deterministic Mathematical Dynamic System Based on the PSITPS Model for Modeling the COVID-19 Epidemic	basic reproduction number R0, COVID-19, deterministic model, equilibrium points, numerical simulation, stability	11, 4, 872-882	https://doi.org/10.18280/mmep.110404	Mahdi, A.F., Asker, H.K., Al-Saiq, I.R. (2024). A deterministic mathematical dynamic system based on the PSITPS model for modeling the COVID-19 epidemic. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 872-882. https://doi.org/10.18280/mmep.110404
5	ElFeky, K., Hanafi, A., Abbas, W., AlKady, M.A.	Optimisation of Thermal Efficiency in Parabolic Trough Solar Collectors: A Numerical Simulation Study Across Seasonal Variations	solar collector, parabolic trough collector, heat loss, optimum efficiency	11, 4, 883-892	https://doi.org/10.18280/mmep.110405	ElFeky, K., Hanafi, A., Abbas, W., AlKady, M.A. (2024). Optimisation of thermal efficiency in parabolic trough solar collectors: A numerical simulation study across seasonal variations. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 883-892. https://doi.org/10.18280/mmep.110405
6	Reda, S.M.A.M., Mutasher, D.G., Hasan, W.K., Majdi, H.S., Alderoubi, N.	Enhancing Thermal Efficiency in Solar Water Heaters: The Role of Reflective Walls	solar water heater, integrated pressure, thermal efficiency, reflective wall, renewable energy, sustainable heating	11, 4, 893-902	https://doi.org/10.18280/mmep.110406	Reda, S.M.A.M., Mutasher, D.G., Hasan, W.K., Majdi, H.S., Alderoubi, N. (2024). Enhancing thermal efficiency in solar water heaters: The role of reflective walls. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 893-902. https://doi.org/10.18280/mmep.110406
7	Hassan, W.H., Fadhe, Z.M., Thiab, R.F., Mahdi, K.	Numerical Investigation of the Local Scour for Tripod Pile Foundation	local scour, tripod foundation, Flow-3D, waves	11, 4, 903-910	https://doi.org/10.18280/mmep.110407	Hassan, W.H., Fadhe, Z.M., Thiab, R.F., Mahdi, K. (2024). Numerical investigation of the local scour for tripod pile foundation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 903-910. https://doi.org/10.18280/mmep.110407
8	AlEssa, A.H.M., Hussien, A.A., Al-Tahaieh, H., Qasem, I., Janvekar, A.A.	Enhancement of Natural Convection Heat Dissipation Using Longitudinal Elliptic Perforations Fins	perforated fin, longitudinal elliptic perforation, finite element technique, heat dissipation, heat transfer enhancement	11, 4, 911-918	https://doi.org/10.18280/mmep.110408	AlEssa, A.H.M., Hussien, A.A., Al-Tahaieh, H., Qasem, I., Janvekar, A.A. (2024). Enhancement of natural convection heat dissipation using longitudinal elliptic perforations fins. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 911-918. https://doi.org/10.18280/mmep.110408
9	Alghammi, A.	An Accurate Disease Classification of COVID-19 and Pneumonia from Chest X-Ray Images Utilizing Mathematical Algorithm-Based Deep Learning Model	COVID-19, fractional partial differential algorithms, image classification, image normalization, pneumonia infection, VGG-16	11, 4, 919-930	https://doi.org/10.18280/mmep.110409	Alghammi, A. (2024). An accurate disease classification of COVID-19 and pneumonia from chest X-ray images utilizing mathematical algorithm-based deep learning model. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 919-930. https://doi.org/10.18280/mmep.110409
10	Kumar, A., Prakash, O.	Designing a PID Pitch Controller with HIL Solution for Maintaining Stability and Controllability of a Hybrid Airship	hybrid airship, transportation, payload, longitudinal dynamics, controller design, Proportional-Integral-Derivative, Internal Model Control	11, 4, 931-942	https://doi.org/10.18280/mmep.110410	Kumar, A., Prakash, O. (2024). Designing a PID pitch controller with HIL solution for maintaining stability and controllability of a hybrid airship. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 931-942. https://doi.org/10.18280/mmep.110410
11	Hussen, H.M., Rahman, M.H., Majdi, H.S., Saleh, K.	Simulation of an Ammonia-Carbon Dioxide Transcritical Cascade Refrigeration System	R717/R744, natural refrigerants, transcritical, coefficient of performance, cascade refrigeration system, transcritical cascade system, ammonia-carbon dioxide refrigeration, heating and cooling performance	11, 4, 943-952	https://doi.org/10.18280/mmep.110411	Hussen, H.M., Rahman, M.H., Majdi, H.S., Saleh, K. (2024). Simulation of an ammonia-carbon dioxide transcritical cascade refrigeration system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 943-952. https://doi.org/10.18280/mmep.110411
12	Loganathan, A., Elamparithi, S.	Soret Effect on Magneto Hydrodynamic Free Convective Heat and Mass Transfer Effects Flow over an Inclined Plate Embedded in a Porous Medium	heat and mass transfer, magneto hydrodynamic, Soret effect, radiation parameter, inclined porous plate	11, 4, 953-964	https://doi.org/10.18280/mmep.110412	Loganathan, A., Elamparithi, S. (2024). Soret effect on magneto hydrodynamic free convective heat and mass transfer effects flow over an inclined plate embedded in a porous medium. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 953-964. https://doi.org/10.18280/mmep.110412
13	Mohammed, A., Alhamdany, A.A., Khenyab, A.Y.	Effect of the Material of Oil Pipelines with 90° Elbows on the Degree of Erosion Using Computational Fluid Dynamics	erosion modeling, Computational Fluid Dynamics (CFD), pipeline integrity, material selection, erosion resistance, elbow region vulnerability	11, 4, 965-975	https://doi.org/10.18280/mmep.110413	Mohammed, A., Alhamdany, A.A., Khenyab, A.Y. (2024). Effect of the material of oil pipelines with 90° elbows on the degree of erosion using Computational Fluid Dynamics. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 965-975. https://doi.org/10.18280/mmep.110413
14	Dubaish, A.A., Jaber, A.A.	Comparative Analysis of SVM and ANN for Machine Condition Monitoring and Fault Diagnosis in Gearboxes	fault detection, health monitoring, time domain signal analysis, LabVIEW, machine learning	11, 4, 976-986	https://doi.org/10.18280/mmep.110414	Dubaish, A.A., Jaber, A.A. (2024). Comparative analysis of SVM and ANN for machine condition monitoring and fault diagnosis in gearboxes. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 976-986. https://doi.org/10.18280/mmep.110414
15	Neamah, N.M., Kalaf, B.A., Mansoor, W.	Solving Tri-criteria: Total Completion Time, Total Earliness, and Maximum Tardiness Using Exact and Heuristic Methods on Single-Machine Scheduling Problems	multi-criteria (MC), multi-objective function (MOF), exact methods (EMs), heuristic methods (HMs)	11, 4, 987-995	https://doi.org/10.18280/mmep.110415	Neamah, N.M., Kalaf, B.A., Mansoor, W. (2024). Solving tri-criteria: Total completion time, total earliness, and maximum tardiness using exact and heuristic methods on single-machine scheduling problems. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 987-995. https://doi.org/10.18280/mmep.110415
16	Hoshi, H.A., Abed, A.H., Al-Salih, H.A., Rashid, F.L., Hussain, A.A.	Heat Transfer Enhancement in a Circular Tube with Novel Geometric Turbulator Inserts	heat exchanger, heat transfer, thermal performance factor, geometric turbulator inserts, turbulator geometry	11, 4, 996-1004	https://doi.org/10.18280/mmep.110416	Hoshi, H.A., Abed, A.H., Al-Salih, H.A., Rashid, F.L., Hussain, A.A. (2024). Heat transfer enhancement in a circular tube with novel geometric turbulator inserts. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 996-1004. https://doi.org/10.18280/mmep.110416
17	Rochman, E.M.S., Setiawan, W., Hardi, S., Permana, K.E., Husni, Asmara, Y.P., Rachmad, A.	Classification of Salt Quality Based on the Content of Several Elements in the Salt Using Machine Learning	salt quality, consumption, classification, support vector machine, naive Bayes, K-Nearest Neighbor	11, 4, 1005-1012	https://doi.org/10.18280/mmep.110417	Rochman, E.M.S., Setiawan, W., Hardi, S., Permana, K.E., Husni, Asmara, Y.P., Rachmad, A. (2024). Classification of salt quality based on the content of several elements in the salt using machine learning. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 1005-1012. https://doi.org/10.18280/mmep.110417
18	Abed, B.R., Beddu, S., Itam, Z., Khudhair, M.A.A.	Increasing the Punching Shear Capacity of Flat Plate Reinforced Concrete Utilizing CFRP Warp and Bar	carbon fiber reinforced polymer, composite structures, composite, punching shear, structures, reinforced concrete	11, 4, 1013-1020	https://doi.org/10.18280/mmep.110418	Abed, B.R., Beddu, S., Itam, Z., Khudhair, M.A.A. (2024). Increasing the punching shear capacity of flat plate reinforced concrete utilizing CFRP warp and bar. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 1013-1020. https://doi.org/10.18280/mmep.110418
19	Kalaichelvan, R., Jayaraman, U.	Generalized Hyers-Ulam-Rassias Stability of an Euler-Lagrange Type Cubic Functional Equation in Non-Archimedean Quasi-Banach Spaces	generalized Hyers-Ulam-Rassias stability, stability results, cubic functional equation, Euler-Lagrange type cubic functional equation, illustrative example, non-Archimedean Banach spaces	11, 4, 1021-1028	https://doi.org/10.18280/mmep.110419	Kalaichelvan, R., Jayaraman, U. (2024). Generalized Hyers-Ulam-Rassias stability of an Euler-Lagrange type cubic functional equation in non-Archimedean quasi-Banach spaces. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 1021-1028. https://doi.org/10.18280/mmep.110419

20	Guechi, S.	Numerical Solution of Volterra-Hammerstein Integral Equation of the First Kind by Finite Difference Method Decomposition with Nyström Method	Volterra-Hammerstein integral equation, finite difference method, ill-posed problems, Nyström method	11, 4, 1029-1036	https://doi.org/10.18280/mmep.110420	Guechi, S. (2024). Numerical solution of Volterra-Hammerstein integral equation of the first kind by finite difference method decomposition with Nyström method. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 1029-1036. https://doi.org/10.18280/mmep.110420
21	Ramsankar, A.D., Krishnamoorthy, A.	Exploring Metric Dimensions for Dimensionality Reduction and Navigation in Rough Graphs	rough graph, rough membership function, reduct, rough metric dimension	11, 4, 1037-1043	https://doi.org/10.18280/mmep.110421	Ramsankar, A.D., Krishnamoorthy, A. (2024). Exploring metric dimensions for dimensionality reduction and navigation in rough graphs. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 1037-1043. https://doi.org/10.18280/mmep.110421
22	Musleh, D.A.	Rule-Based Information Extraction from Multi-format Resumes for Automated Classification	information extraction, text and data mining, document classification, PDF resume, rule based system, Python language, NLP	11, 4, 1044-1052	https://doi.org/10.18280/mmep.110422	Musleh, D.A. (2024). Rule-based information extraction from multi-format resumes for automated classification. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 1044-1052. https://doi.org/10.18280/mmep.110422
23	Kerkarine, F., Nedjar, M.	Hydrolytic Aging of Wire Enameled with Polyesterimide and Polyamide Imide Used in Electrical Machines	hydrolytic aging, polyesterimide, polyamide imide, breakdown voltage, TGA, FTIR, Weibull statistic	11, 4, 1053-1059	https://doi.org/10.18280/mmep.110423	Kerkarine, F., Nedjar, M. (2024). Hydrolytic aging of wire enameled with polyesterimide and polyamide imide used in electrical machines. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 1053-1059. https://doi.org/10.18280/mmep.110423
24	Kelagadi, H.M., Prasad, M.R., Ramesh, B.T., Bongale, A.K., Kumar, S.	Key Agreement Scheme for Authorization and Authentication of WSN in IoT-5G Using Elliptic Curve Cryptography	Geography and Energy Aware Routing (GEAR), Internet of Things (IoT), One Sample Median Vigenere Cipher based Diffie Hellman (OSMVC-DH), Public Private and Session-based Elliptic Curve cryptography (PPSECC), Separate Chaining based Secure Hash Algorithm 512 (SC-SHA-512), Triangle walk	11, 4, 1060-1070	https://doi.org/10.18280/mmep.110424	Kelagadi, H.M., Prasad, M.R., Ramesh, B.T., Bongale, A.K., Kumar, S. (2024). Key agreement scheme for authorization and authentication of WSN in IoT-5G using Elliptic Curve cryptography. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 1060-1070. https://doi.org/10.18280/mmep.110424
25	Enaleeva-Bandura, I., Kolesnikov, P., Kunicakaya, O., Baranov, A., Brovkin, S., Nikitin, V., Dolmatova, L.	A Comprehensive Assessment of Forest Transport Network Planning Taking into Account the Project's Technical, Economic, Environmental, and Social Aspects	forest categories, forest land, forest transportation network, integrated efficiency, mathematical model, resource potential, system approach	11, 4, 1071-1078	https://doi.org/10.18280/mmep.110425	Enaleeva-Bandura, I., Kolesnikov, P., Kunicakaya, O., Baranov, A., Brovkin, S., Nikitin, V., Dolmatova, L. (2024). A comprehensive assessment of forest transport network planning taking into account the project's technical, economic, environmental, and social aspects. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 1071-1078. https://doi.org/10.18280/mmep.110425
26	Gangadharan, S., Khanam, R., Thangasamy, V.	Design, Implementation and Performance Analysis of RF Power Amplifier for 5G Mobile Communication in the Sub-6 GHz Band Using Advanced Node 18nm FinFET Technology	radio frequency power amplifier, gain, output power, 5G, 3.5 GHz, bandwidth, Sub-6 GHz, 18nm FinFET technology	11, 4, 1079-1089	https://doi.org/10.18280/mmep.110426	Gangadharan, S., Khanam, R., Thangasamy, V. (2024). Design, implementation and performance analysis of RF power amplifier for 5G mobile communication in the Sub-6 GHz band using advanced node 18nm FinFET technology. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 1079-1089. https://doi.org/10.18280/mmep.110426
27	Babu, M.N., Dhal, P.K.	Comparison of Crow Search and Practice Swarm Algorithm for Minimization of Losses in Unbalanced Radial Distribution System	unbalanced system, distributed generation, crow search algorithm, IEEE 19 & 25 buses	11, 4, 1090-1098	https://doi.org/10.18280/mmep.110427	Babu, M.N., Dhal, P.K. (2024). Comparison of crow search and practice swarm algorithm for minimization of losses in unbalanced radial distribution system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 1090-1098. https://doi.org/10.18280/mmep.110427
28	Khaji, R., Hameed, S.K.	Application of Laplace Transform Method for Solving Weakly-Singular Integro-Differential Equations	Weakly-Singular, integro-differential equations, stability Laplace transform method	11, 4, 1099-1106	https://doi.org/10.18280/mmep.110428	Khaji, R., Hameed, S.K. (2024). Application of Laplace transform method for solving Weakly-Singular integro-differential equations. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 1099-1106. https://doi.org/10.18280/mmep.110428
29	Korneev, A., Niu, Y.T., Lenevsky, G., Al-Barazanchi, I.I., Sekhar, R., Shah, P., Solke, N.	Experimental Research in Frequency and Time Domain for Electromechanical System with Distributed Parameters in Mechanical Part	experimental stand, System with Distributed Parameters, resonant frequency, relative error	11, 4, 1107-1114	https://doi.org/10.18280/mmep.110429	Korneev, A., Niu, Y.T., Lenevsky, G., Al-Barazanchi, I.I., Sekhar, R., Shah, P., Solke, N. (2024). Experimental research in frequency and time domain for electromechanical system with distributed parameters in mechanical part. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 1107-1114. https://doi.org/10.18280/mmep.110429
30	Abdulrahman, S.M., Al-Kareem, K.W.A., Ihsan E.A.	Enhancing Soil with Low-Cost Pozzolanic Materials: Rice Husk Ash and Groundnut Shell Ash Compared to Cement	pozzolanic, expensive soil, rice husk ash, groundnut shell ash, cement	11, 4, 1115-1122	https://doi.org/10.18280/mmep.110430	Abdulrahman, S.M., Al-Kareem, K.W.A., Ihsan E.A. (2024). Enhancing soil with low-cost pozzolanic materials: Rice husk ash and groundnut shell ash compared to cement. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 4, pp. 1115-1122. https://doi.org/10.18280/mmep.110430
31	Vadivel, S., Venugopal, P., Pakkirisamy, G.	Unreliable Multi Server Retrial Queueing System with Reneging and Diverse Outgoing Services	retrial queue, unreliable server, two way communication, two types of outgoing service, matrix geometric method, quasi-birth-death process	11, 3, 571-587	https://doi.org/10.18280/mmep.110301	Vadivel, S., Venugopal, P., Pakkirisamy, G. (2024). Unreliable multi server retrial queueing system with reneging and diverse outgoing services. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 571-587. https://doi.org/10.18280/mmep.110301
32	Ouafia, B., Yamina, B., Attouya, B., Redouane, M., Khalid, T., Mohammed, K.	New Simplified Model of Back Surface Field Polycrystalline Silicon Solar Cells	back surface field, non-uniform, solar cells, polycrystalline silicon, grain boundary	11, 3, 588-598	https://doi.org/10.18280/mmep.110302	Ouafia, B., Yamina, B., Attouya, B., Redouane, M., Khalid, T., Mohammed, K. (2024). New simplified model of back surface field polycrystalline silicon solar cells. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 588-598. https://doi.org/10.18280/mmep.110302
33	Sheltag, D., Kadhim, S.K.	Enhancing Artificial Ventilator Systems: A Comparative Analysis of Traditional and Nonlinear PID Controllers	ventilator, closed-loop feedback, mechanical ventilation, Corona Virus Disease 2019, proportional-integral-derivative control, nonlinear proportional-integral-derivative control	11, 3, 599-610	https://doi.org/10.18280/mmep.110303	Sheltag, D., Kadhim, S.K. (2024). Enhancing artificial ventilator systems: A comparative analysis of traditional and nonlinear PID controllers. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 599-610. https://doi.org/10.18280/mmep.110303
34	Jaber, H.J., Mousa Al-Musawi, S.T., Abdullah, A.R., Ayed, S.K., Majdi, H.S., Alderoubi, N.	Increasing Photovoltaic Panel Thermal Efficiency Using Phase Change Materials and Heatsinks: A Numerical and Analytical Study	photovoltaic panels, phase change material, heat sink, Stimulink, CFD, thermal efficiency	11, 3, 611-618	https://doi.org/10.18280/mmep.110304	Jaber, H.J., Mousa Al-Musawi, S.T., Abdullah, A.R., Ayed, S.K., Majdi, H.S., Alderoubi, N. (2024). Increasing photovoltaic panel thermal efficiency using phase change materials and heatsinks: A numerical and analytical study. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 611-618. https://doi.org/10.18280/mmep.110304
35	Al-Sultan, M.J., Al-Rifaie, A.	Numerical Study on the Impact Response of Steel Beams with Large Web Openings: Investigating Key Parameters	dynamic response, finite element method, impact load, parametric analysis, large web openings	11, 3, 619-630	https://doi.org/10.18280/mmep.110305	Al-Sultan, M.J., Al-Rifaie, A. (2024). Numerical study on the impact response of steel beams with large web openings: Investigating key parameters. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 619-630. https://doi.org/10.18280/mmep.110305
36	Bommagani, N.J., Venkataramana, A., Vemulapalli, R., Singasani, T.R., Pani, A.K., Challageri, M.B., Kayam, S.	Artificial Butterfly Optimizer Based Two-Layer Convolutional Neural Network with Polarized Attention Mechanism for Human Activity Recognition	convolutional neural networks, artificial butterfly optimization, human activity recognition, polarized full attention mechanism, one-shot learning	11, 3, 631-640	https://doi.org/10.18280/mmep.110306	Bommagani, N.J., Venkataramana, A., Vemulapalli, R., Singasani, T.R., Pani, A.K., Challageri, M.B., Kayam, S. (2024). Artificial butterfly optimizer based two-layer convolutional neural network with polarized attention mechanism for human activity recognition. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 631-640. https://doi.org/10.18280/mmep.110306
37	Ali, A.J., Abbas, A.F., Abdelhakem, M.A.	Comparative Analysis of Adams-Bashforth-Moulton and Runge-Kutta Methods for Solving Ordinary Differential Equations Using MATLAB	Adams-Bashforth-Moulton, Runge-Kutta 4th, ordinary differential equations, approximation, MATLAB	11, 3, 641-647	https://doi.org/10.18280/mmep.110307	Ali, A.J., Abbas, A.F., Abdelhakem, M.A. (2024). Comparative analysis of Adams-Bashforth-Moulton and Runge-Kutta methods for solving ordinary differential equations using MATLAB. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 641-647. https://doi.org/10.18280/mmep.110307
38	Devarayasamudram, V., Chandrashekar, R., Chetla, C.M., Depa Ramachandriah, K.R., Nimmala, P., Arumugam, S.	An Energy-Aware Cluster Head Selection and Optimal Route Selection Algorithm for Maximizing Network Lifetime in MANETs	Ad Hoc networks, optimal route selection, binary waterwheel plant algorithm, cluster head selection, network lifetime, failure of nodes	11, 3, 648-656	https://doi.org/10.18280/mmep.110308	Devarayasamudram, V., Chandrashekar, R., Chetla, C.M., Depa Ramachandriah, K.R., Nimmala, P., Arumugam, S. (2024). An energy-aware cluster head selection and optimal route selection algorithm for maximizing network lifetime in MANETs. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 648-656. https://doi.org/10.18280/mmep.110308

39	Vega-Zuhiga, S., Rueda-Bayona, J.G., Ospino-Castro, A.	DOE-ANOVA Analysis to Estimate the Effect of Ambient Temperature, Pressure and Humidity on Surface Wind Speed	Design of Experiments-Analysis of Variance, wind speed, temperature, pressure, humidity, multiple regression	11, 3, 657-663	https://doi.org/10.18280/mmep.110309	Vega-Zuhiga, S., Rueda-Bayona, J.G., Ospino-Castro, A. (2024). DOE-ANOVA analysis to estimate the effect of ambient temperature, pressure and humidity on surface wind speed. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 657-663. https://doi.org/10.18280/mmep.110309
40	Abdulrazzaq, T.K., Ali, Y.H., Sultan, J.N., Waddullah, H.M.	Effect of the Cross-Sectional Shape on the Dynamic Response of a Cantilever Steel Beam Using Three Modal Analysis Methods	modal analysis, cantilever beam, torsional natural frequency, transverse natural frequency	11, 3, 664-672	https://doi.org/10.18280/mmep.110310	Abdulrazzaq, T.K., Ali, Y.H., Sultan, J.N., Waddullah, H.M. (2024). Effect of the cross-sectional shape on the dynamic response of a cantilever steel beam using three modal analysis methods. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 664-672. https://doi.org/10.18280/mmep.110310
41	Putra, A.P., Syahananta, L.H.D., Rahmatillah, A., Pujiyanto, Rahma, O.N., Pawana, I.P.A., Qulub, F., Andarini, E.	Finite Element Analysis of Ventral Ankle-Foot Orthosis Under Cuff and Ground Reaction Force Loading	Ankle Foot Orthosis, spinal tuberculosis, finite element analysis, rehabilitation, healthcare	11, 3, 673-679	https://doi.org/10.18280/mmep.110311	Putra, A.P., Syahananta, L.H.D., Rahmatillah, A., Pujiyanto, Rahma, O.N., Pawana, I.P.A., Qulub, F., Andarini, E. (2024). Finite element analysis of ventral Ankle-Foot Orthosis under cuff and ground reaction force loading. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 673-679. https://doi.org/10.18280/mmep.110311
42	Vu, M.H., Do, T.V., Hue, P.T.M., Huynh, N.T., Nguyen, Q.M.	Multi-objective Optimization for Enhanced Material Removal Rate and Reduced Machining Roughness in Hard Turning of SKD61 Alloy Steel	surface roughness, hard turning, hardened SKD61 tool steel, SiO2 nanoparticles, minimum quantity lubrication, response surface methodology	11, 3, 680-688	https://doi.org/10.18280/mmep.110312	Vu, M.H., Do, T.V., Hue, P.T.M., Huynh, N.T., Nguyen, Q.M. (2024). Multi-objective optimization for enhanced material removal rate and reduced machining roughness in hard turning of SKD61 alloy steel. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 680-688. https://doi.org/10.18280/mmep.110312
43	Abdullah, A.K., Almashhadi, S.	Enhancing Compressive Strength of Sulfate-Rich Concrete Using Electromagnetic Fields	electromagnetic field intensity, sulfate-rich concrete, compressive strength, magnetized water, tap water	11, 3, 689-695	https://doi.org/10.18280/mmep.110313	Abdullah, A.K., Almashhadi, S. (2024). Enhancing compressive strength of sulfate-rich concrete using electromagnetic fields. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 689-695. https://doi.org/10.18280/mmep.110313
44	Kristianto, K., Firdausy, C.M., Najid, N., Bagio, T.H.	Modeling of the Effect of Toll Road Characteristics on Accident Rate	accident rate, binomial distribution, fatality rate, Poisson distribution, toll road, traffic accident	11, 3, 696-704	https://doi.org/10.18280/mmep.110314	Kristianto, K., Firdausy, C.M., Najid, N., Bagio, T.H. (2024). Modeling of the effect of toll road characteristics on accident rate. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 696-704. https://doi.org/10.18280/mmep.110314
45	Tiwari, K.S., Kadam, R.S., Dudhedia, M.A., Pansare, J.R., Khedkar, S.P., Gawande, S.H.	Reversible Logic Gates and Applications – A Low Power Solution to VLSI Chips	reversible logic gates, Toffoli gate, Fredkin gate, power dissipation, quantum computing, quantum cost, reversible logic application, low power design, cryptography	11, 3, 705-720	https://doi.org/10.18280/mmep.110315	Tiwari, K.S., Kadam, R.S., Dudhedia, M.A., Pansare, J.R., Khedkar, S.P., Gawande, S.H. (2024). Reversible logic gates and applications – A low power solution to VLSI chips. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 705-720. https://doi.org/10.18280/mmep.110315
46	Dahi, S.O., Al-Shawk, A.A.A., Al-Gburi, H.	Effect of Friction Stir Spot Welding with a Rotating Anvil on the Microstructure of Aluminum AA6061-T4 Alloy	spot welding, rotation anvil tool, pin less tool, micro hardness, Al-Alloy AA6061-T4	11, 3, 721-726	https://doi.org/10.18280/mmep.110316	Dahi, S.O., Al-Shawk, A.A.A., Al-Gburi, H. (2024). Effect of friction stir spot welding with a rotating anvil on the microstructure of aluminum AA6061-T4 alloy. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 721-726. https://doi.org/10.18280/mmep.110316
47	Hatmi, A.S., Dawahdeh, T.	Dynamic Performance of Load Frequency Control of Three Area System Using FOPID Controller with Transit Search Optimization	Load Frequency Control, Fractional Order Proportional-Integral-Derivative controller, transit search optimization algorithm, tie-line power	11, 3, 727-736	https://doi.org/10.18280/mmep.110317	Hatmi, A.S., Dawahdeh, T. (2024). Dynamic performance of Load Frequency Control of three area system using FOPID controller with transit search optimization. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 727-736. https://doi.org/10.18280/mmep.110317
48	Ibrahim, Z.I., Al-Jamali, N.A.S.	A Visual Landforms Classification Methodology for Mobile Robot Navigation by Intelligent Double Spike Neural Network Acceleration	Intelligent Double Spike Neural Network, Semi-Recurrent Spike Neural Network, Multi-Spike Neural Network, terrain classification, mobile robot navigation	11, 3, 737-744	https://doi.org/10.18280/mmep.110318	Ibrahim, Z.I., Al-Jamali, N.A.S. (2024). A visual landforms classification methodology for mobile robot navigation by Intelligent Double Spike Neural Network acceleration. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 737-744. https://doi.org/10.18280/mmep.110318
49	Kunickaya, O., Zyryanov, M., Medvedev, S., Mokhirev, A., Spiridonova, A., Perfilov, P., Teppoov, A.	Efficient Technologies for Harvesting and Reutilizing Logging Residues in Russia: A Sustainable Forestry Approach	biofuel production, fire risk reduction, forest protection methods, logging, mechanised harvesting of logging residues, recycling, waste, soil fertilization	11, 3, 745-753	https://doi.org/10.18280/mmep.110319	Kunickaya, O., Zyryanov, M., Medvedev, S., Mokhirev, A., Spiridonova, A., Perfilov, P., Teppoov, A. (2024). Efficient technologies for harvesting and reutilizing logging residues in Russia: A sustainable forestry approach. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 745-753. https://doi.org/10.18280/mmep.110319
50	Sumaryanti, L., Nurcholis, Muchlis, D.	Analysis of Regional Potential in Merauke Regency Based on Superior Livestock Population Using a Hybrid Algorithm	clustering, livestock population, Location Quotient (LQ), complete linkage, hierarchical algorithm	11, 3, 754-764	https://doi.org/10.18280/mmep.110320	Sumaryanti, L., Nurcholis, Muchlis, D. (2024). Analysis of regional potential in Merauke Regency based on superior livestock population using a hybrid algorithm. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 754-764. https://doi.org/10.18280/mmep.110320
51	Talib, M.M., Croock, M.S.	Optimizing Energy Consumption in Buildings: Intelligent Power Management Through Machine Learning	energy management systems, energy efficiency, smart buildings, machine learning models, classification, feature reduction methods, feature selection	11, 3, 765-772	https://doi.org/10.18280/mmep.110321	Talib, M.M., Croock, M.S. (2024). Optimizing energy consumption in buildings: Intelligent power management through machine learning. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 765-772. https://doi.org/10.18280/mmep.110321
52	Lakshmi, K.J., Sreenivasulu, G.	Enhance Speed Low Area FPGA Design Using S-Box GF and Pipeline Approach on Logic for AES	security, cryptography, Advanced Encryption Standard, S-Box, Galois field, Look-Up Table, logic gates, three stage pipelines, area, speed XILINX, Verilog, FPGA-Vertex-5	11, 3, 773-782	https://doi.org/10.18280/mmep.110322	Lakshmi, K.J., Sreenivasulu, G. (2024). Enhance speed low area FPGA design using S-Box GF and pipeline approach on logic for AES. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 773-782. https://doi.org/10.18280/mmep.110322
53	Mauludin, M.S., Prasetyo, S.D., Alfaiz, N.F., Arifin, Z.	Techno-Economic Modeling of Hybrid PV-Hydroelectric Generator Systems in Semarang	PV-hydroelectric generator, feasibility analysis, Hybrid Optimization Model for Electric Renewable, investment prospects	11, 3, 783-791	https://doi.org/10.18280/mmep.110323	Mauludin, M.S., Prasetyo, S.D., Alfaiz, N.F., Arifin, Z. (2024). Techno-economic modeling of hybrid PV-hydroelectric generator systems in Semarang. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 783-791. https://doi.org/10.18280/mmep.110323
54	Anusha, S.M., Athithan, S.	Dynamical Behaviour of a Stochastic Mathematical Model and Optimal Control for Type 2 Diabetes	type 2 diabetes, stochastic mathematical model, optimal control analysis, white noise	11, 3, 792-798	https://doi.org/10.18280/mmep.110324	Anusha, S.M., Athithan, S. (2024). Dynamical behaviour of a stochastic mathematical model and optimal control for type 2 diabetes. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 792-798. https://doi.org/10.18280/mmep.110324
55	Salam, F.B., Utari, D.T.	Schizophrenia Patient Classification with Long Short-Term Memory Analysis of Electroencephalography Signals	schizophrenia, electroencephalography, band pass filtering, neural network, Long Short-Term Memory	11, 3, 799-806	https://doi.org/10.18280/mmep.110325	Salam, F.B., Utari, D.T. (2024). Schizophrenia patient classification with Long Short-Term Memory analysis of electroencephalography signals. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 799-806. https://doi.org/10.18280/mmep.110325
56	Kusuma, P.D., Novianty, A.	A New Metaheuristic Algorithm Called Treble Opposite Algorithm and Its Application to Solve Portfolio Selection	metaheuristic optimization, swarm intelligence, portfolio optimization, IDX30, banking sector	11, 3, 807-816	https://doi.org/10.18280/mmep.110326	Kusuma, P.D., Novianty, A. (2024). A new metaheuristic algorithm called treble opposite algorithm and its application to solve portfolio selection. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 807-816. https://doi.org/10.18280/mmep.110326
57	Djaidja, N., Khirani, A.	Approximate Solution of Linear Fredholm Integral Equation of the Second Kind Using Modified Simpson's Rule	linear Fredholm integral equation, modified Simpson's quadrature rule, error approximation	11, 3, 817-823	https://doi.org/10.18280/mmep.110327	Djaidja, N., Khirani, A. (2024). Approximate solution of Linear Fredholm integral equation of the second kind using modified Simpson's Rule. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 817-823. https://doi.org/10.18280/mmep.110327

58	Sivakumar, S., Sathish, S.	Enhanced Characterization of Rough Semigroup Ideals: Extension and Analysis	rough semigroup, rough semigroups ideal, rough h-ideal, rough semilattices, rough quotient semigroup	11, 3, 824-830	https://doi.org/10.18280/mmep.110328	Sivakumar, S., Sathish, S. (2024). Enhanced characterization of rough semigroup ideals: Extension and analysis. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 824-830. https://doi.org/10.18280/mmep.110328
59	Raviselvan, S., Krishnamurthy, S.	Statistical Summability for Triple Sequences over Non-Archimedean Fields	statistical convergence, summability method, $(M, \lambda, (t,u,v))$ -summability method, $A_{(t,u,v)}$ -summability method, triple sequence, non-archimedean field	11, 3, 831-836	https://doi.org/10.18280/mmep.110329	Raviselvan, S., Krishnamurthy, S. (2024). Statistical summability for triple sequences over non-Archimedean fields. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 3, pp. 831-836. https://doi.org/10.18280/mmep.110329
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61	Nia, N.G., Bahrami, F., Kaplanoglu, E., Nasab, A.	Unified Neuromechanical Control Model for Rhythmic and Discrete Hand Movements	rhythmic and discrete movements, CPG, neural oscillator, Hodgkin-Huxley equations, movement control, neuromechanical model	11, 2, 279-289	https://doi.org/10.18280/mmep.110201	Nia, N.G., Bahrami, F., Kaplanoglu, E., Nasab, A. (2024). Unified neuromechanical control model for rhythmic and discrete hand movements. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 279-289. https://doi.org/10.18280/mmep.110201
62	Al-Saedi, M.S., Naimi, S., Al-Sharif, Z.T.	The Environmental Impact of Pollutants and Heavy Materials on the Water Quality in the Tigris River	environment, pollution, heavy materials, fluid flow, water treatment, Tigris River, water quality index	11, 2, 290-300	https://doi.org/10.18280/mmep.110202	Al-Saedi, M.S., Naimi, S., Al-Sharif, Z.T. (2024). The environmental impact of pollutants and heavy materials on the water quality in the Tigris River. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 290-300. https://doi.org/10.18280/mmep.110202
63	Mylapalli, M.S.K., Kakarlapudi, N., Singh, P., Sekhar, A.C., Chaganti, P.	Complex Dynamics of a Novel Iterative Scheme Using Finite Difference Technique	nonlinear equations, iterative method, functional evaluations, efficiency index, order of convergence, basins of attraction	11, 2, 301-315	https://doi.org/10.18280/mmep.110203	Mylapalli, M.S.K., Kakarlapudi, N., Singh, P., Sekhar, A.C., Chaganti, P. (2024). Complex dynamics of a novel iterative scheme using finite difference technique. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 301-315. https://doi.org/10.18280/mmep.110203
64	Al-Musawi, S.T.M., Elmifi, M., Abdulrazig, O.D.H., Abdullah, A.R., Jassim, L., Majdi, H.S., Habeeb, L.J.	Water Heating Rate as a Function of Magnetic Field and Electrical Induction Using Solar Energy	magnetic fields, water heating, solar electric induction, CFD	11, 2, 316-324	https://doi.org/10.18280/mmep.110204	Al-Musawi, S.T.M., Elmifi, M., Abdulrazig, O.D.H., Abdullah, A.R., Jassim, L., Majdi, H.S., Habeeb, L.J. (2024). Water heating rate as a function of magnetic field and electrical induction using solar energy. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 316-324. https://doi.org/10.18280/mmep.110204
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66	Issa, I., Orazbayev, B., Tuleuova, R., Makhatova, V.	Mathematical Models for Oil Production Optimization in Fuzzy Environments: Well Stock Forecasting and Regulation	Markov chain theory, fuzzy sets theory, membership function, oil wells, production technology	11, 2, 340-348	https://doi.org/10.18280/mmep.110206	Issa, I., Orazbayev, B., Tuleuova, R., Makhatova, V. (2024). Mathematical models for oil production optimization in fuzzy environments: Well stock forecasting and regulation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 340-348. https://doi.org/10.18280/mmep.110206
67	Dall'Agnol, C., Marchi, C.H., Moro, D.F.	An Enhanced Hybrid Methodology for Iteration Error Estimation and Reduction in Heat Transfer Modeling	iteration error estimation, iteration error reduction, verification, advection and diffusion models	11, 2, 349-366	https://doi.org/10.18280/mmep.110207	Dall'Agnol, C., Marchi, C.H., Moro, D.F. (2024). An enhanced hybrid methodology for iteration error estimation and reduction in heat transfer modeling. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 349-366. https://doi.org/10.18280/mmep.110207
68	Qasim, R.M., Abdullhusein, I.A., Naeem, S.M., Maatooq, Q.A.	Experimental Investigation of Emerged Dike Influence on Combined Discharge Structures in Open Channel Flow	combined discharge structure, dike, flow measurement, open channel flow	11, 2, 367-374	https://doi.org/10.18280/mmep.110208	Qasim, R.M., Abdullhusein, I.A., Naeem, S.M., Maatooq, Q.A. (2024). Experimental investigation of emerged dike influence on combined discharge structures in open channel flow. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 367-374. https://doi.org/10.18280/mmep.110208
69	Sutriawan, Muljono, Khairunnisa, Alamin, Z., Lorose, T.A., Ramadhan, S.	Improving Performance Sentiment Movie Review Classification Using Hybrid Feature TFIDF, N-Gram, Information Gain and Support Vector Machine	text mining, sentiment analysis, TFIDF+N-Gram, Information Gain, Support Vector Machine	11, 2, 375-384	https://doi.org/10.18280/mmep.110209	Sutriawan, Muljono, Khairunnisa, Alamin, Z., Lorose, T.A., Ramadhan, S. (2024). Improving performance sentiment movie review classification using hybrid feature TFIDF, N-Gram, information gain and support vector machine. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 375-384. https://doi.org/10.18280/mmep.110209
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71	Kamaraju, V., Bhaskara Reddy, C.V.V.S.	A Novel Control Application for Robust and Optimal Energy Management in a Grid-Interfaced Hybrid Renewable Energy System: AGOA-GBDT Control Approach	photovoltaic system, Wind Energy Conversion System, hybrid renewable energy systems, optimal energy management, microgrid, converter, Maximum Power Point Tracking, controller	11, 2, 393-403	https://doi.org/10.18280/mmep.110211	Kamaraju, V., Bhaskara Reddy, C.V.V.S. (2024). A novel control application for robust and optimal energy management in a grid-interfaced hybrid renewable energy system: AGOA-GBDT control approach. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 393-403. https://doi.org/10.18280/mmep.110211
72	Al-Mafrachi, A., Naimi, S.	Losses Resulting from Exceeding the Specified Time for Completion and Its Impact on the Status of the Project and Delay in Utilizing Services	losses resulting, specified time, project management, completion, project management, schedule monitoring	11, 2, 404-412	https://doi.org/10.18280/mmep.110212	Al-Mafrachi, A., Naimi, S. (2024). Losses resulting from exceeding the specified time for completion and its impact on the status of the project and delay in utilizing services. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 404-412. https://doi.org/10.18280/mmep.110212
73	Oleivi, Z.C., AlShemmary, E.A., Al-Augby, S.	Developing Hybrid CNN-GRU Arrhythmia Prediction Models Using Fast Fourier Transform on Imbalanced ECG Datasets	deep learning, arrhythmia prediction, heart disease diagnosis, Bi-GRU, Convolution Neural Network, electrocardiogram, Fast Fourier Transform based feature extraction, Gated Recurrent Unit	11, 2, 413-429	https://doi.org/10.18280/mmep.110213	Oleivi, Z.C., AlShemmary, E.A., Al-Augby, S. (2022). Developing hybrid CNN-GRU arrhythmia prediction models using Fast Fourier Transform on imbalanced ECG datasets. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 413-429. https://doi.org/10.18280/mmep.110213
74	Situmorang, N., Alisjhabana, S.W., Riyanto, H., Najid.	Effect of Data Division on Classification Performance Model Prediction of Specified Compressive Strength Core Concrete Using Ultrasonic Pulse Velocity in Tandem with Machine Learning	classification, concrete strength, machine learning, Ultrasonic Pulse Velocity	11, 2, 430-438	https://doi.org/10.18280/mmep.110214	Situmorang, N., Alisjhabana, S.W., Riyanto, H., Najid. (2024). Effect of data division on classification performance model prediction of specified compressive strength core concrete using Ultrasonic Pulse Velocity in tandem with machine learning. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 430-438. https://doi.org/10.18280/mmep.110214
75	Mohammed Ali, H.N., Tomah, N.A., Nwehil, A.M.	Optimization of 5-Locations LDs for VLC Systems Illumination	visible light communication, laser diode, LED, illumination, optical power	11, 2, 439-445	https://doi.org/10.18280/mmep.110215	Mohammed Ali, H.N., Tomah, N.A., Nwehil, A.M. (2024). Optimization of 5-locations LDs for VLC systems illumination. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 439-445. https://doi.org/10.18280/mmep.110215
76	Pathak, K., Yadav, A.S., Agarwal, P.	Optimizing Two-Warehouse Inventory for Shelf-Life Stock with Time-Varying Bi-Quadratic Demand Under Shortages and Inflation	shelf-life stock, deterioration, inflation, biquadratic time-dependent demand, partial backlogging	11, 2, 446-456	https://doi.org/10.18280/mmep.110216	Pathak, K., Yadav, A.S., Agarwal, P. (2024). Optimizing two-warehouse inventory for shelf-life stock with time-varying bi-quadratic demand under shortages and inflation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 446-456. https://doi.org/10.18280/mmep.110216

77	Abbas, N.Y., Alshimmeri, A.J.H.	Numerical Study of Performance of Alternate Closed Opening Castellated Beam Using Double Steel Channel Shapes	castellated beam, noncomposite beam, composite beam, double steel channel, ultimate load, deflection, stiffness, ABAQUS software	11, 2, 457-463	https://doi.org/10.18280/mmep.110217	Abbas, N.Y., Alshimmeri, A.J.H. (2024). Numerical study of performance of Alternate Closed Opening Castellated Beam using double steel channel shapes. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 457-463. https://doi.org/10.18280/mmep.110217
78	Kulandhaivel, H., Kumar, S.	SH-Wave Propagation in Functionally Graded Magneto-Electro-Elastic Substrate at Irregular Boundaries	functional gradient, magneto-electro-elastic material, irregular interface, point source, wave number, phase velocity, inhomogeneity, perturbation	11, 2, 464-476	https://doi.org/10.18280/mmep.110218	Kulandhaivel, H., Kumar, S. (2024). SH-wave propagation in functionally graded magneto-electro-elastic substrate at irregular boundaries. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 464-476. https://doi.org/10.18280/mmep.110218
79	Mahdi, W.A., Al-Nassir, S.	Dynamics of a Fractional-Order Prey-Predator Model with Fear Effect and Harvesting	fear effect, Monod-Haldane functional response, harvesting, Caputo fractional derivative, Pontryagin's maximal principle	11, 2, 477-485	https://doi.org/10.18280/mmep.110219	Mahdi, W.A., Al-Nassir, S. (2024). Dynamics of a fractional-order prey-predator model with fear effect and harvesting. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 477-485. https://doi.org/10.18280/mmep.110219
80	Ramachandran, A., Sangeetha, S.	Generalized Quadratic Functional Equation and Its Stability over Non-Archimedean Normed Space	Quadratic functional (Q.F) equation, Non-Archimedean Normed (NAN) space, Hyers-Ulam stability	11, 2, 486-492	https://doi.org/10.18280/mmep.110220	Ramachandran, A., Sangeetha, S. (2024). Generalized quadratic functional equation and its stability over Non-Archimedean normed space. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 486-492. https://doi.org/10.18280/mmep.110220
81	Owaid, M.A., Hammoodi, A.S.	Evaluating Machine Learning and Deep Learning Models for Enhanced DDoS Attack Detection	distributed denial of service, machine learning, deep learning, network traffic, support vector machine	11, 2, 493-499	https://doi.org/10.18280/mmep.110221	Owaid, M.A., Hammoodi, A.S. (2024). Evaluating machine learning and deep learning models for enhanced DDoS attack detection. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 493-499. https://doi.org/10.18280/mmep.110221
82	Selvarasu, S., Murugan, S.S.	Fuzzy Anti-Magic Labeling on Comb and Twing Graphs	Fuzzy Edge Anti-Magic labeling, Fuzzy Vertex Anti-Magic labeling, Fuzzy Edge Anti-Magic Comb, Fuzzy Vertex Anti-Magic comb, Fuzzy Edge Anti-Magic twing, Fuzzy Vertex Anti-Magic twing	11, 2, 500-506	https://doi.org/10.18280/mmep.110222	Selvarasu, S., Murugan, S.S. (2024). Fuzzy anti-magic labeling on comb and twing graphs. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 500-506. https://doi.org/10.18280/mmep.110222
83	Alwan, A.H., Ali, S.A., Hashim, A.T.	Medical Image Segmentation Using Enhanced Residual U-Net Architecture	medical imaging, magnetic resonance imaging, deep learning, U-Net, residual U-Net, segmentation, brain tumour	11, 2, 507-516	https://doi.org/10.18280/mmep.110223	Alwan, A.H., Ali, S.A., Hashim, A.T. (2024). Medical image segmentation using enhanced residual U-Net architecture. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 507-516. https://doi.org/10.18280/mmep.110223
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85	Jaya Kumar, R.K., Arumugam, A., Anandhan, B.	Pell Labeling in Special Graph Classes: An Exploration of Cycles, Stars, and Related Structures	Pell labelling, triangle graph, ladder graph, bistar graph, subdivision graph	11, 2, 523-530	https://doi.org/10.18280/mmep.110225	Jaya Kumar, R.K., Arumugam, A., Anandhan, B. (2024). Pell labeling in special graph classes: An exploration of cycles, stars, and related structures. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 523-530. https://doi.org/10.18280/mmep.110225
86	Hashim, A.M., Al-Shathir, B.S.	Experimental Evaluation of Slurry Infiltrated Fibrous Concrete with Waste Tire Rubber Fine Aggregate	sustainable concrete, waste tire rubber, slurry infiltrated fibrous concrete, compressive strength, flexural strength	11, 2, 531-538	https://doi.org/10.18280/mmep.110226	Hashim, A.M., Al-Shathir, B.S. (2024). Experimental evaluation of slurry infiltrated fibrous concrete with waste tire rubber fine aggregate. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 531-538. https://doi.org/10.18280/mmep.110226
87	Triyanto, W.A., Adi, K., Suseno, J.E.	Indoor Location Mapping of Lameness Chickens with Multi Cameras and Perspective Transform Using Convolutional Neural Networks	indoor location mapping, lameness chickens, multicamera, perspective transform, Faster Regions with Convolutional Neural Network, Single Shot MultiBox Detector, You Only Look Once, Adam optimizer	11, 2, 539-548	https://doi.org/10.18280/mmep.110227	Triyanto, W.A., Adi, K., Suseno, J.E. (2024). Indoor location mapping of lameness chickens with multi cameras and perspective transform using convolutional neural networks. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 539-548. https://doi.org/10.18280/mmep.110227
88	Gunasekaran, K., Samson, M.V.E., Murugesan, B., Kandaswamy, G.	Transportation of Materials Under Fuzzy Environment Using Expected Monetary Value Strategy	triangular fuzzy number, fuzzy transportation problem, Expected Monetary Value analysis, ranking function, arithmetic operation	11, 2, 549-554	https://doi.org/10.18280/mmep.110228	Gunasekaran, K., Samson, M.V.E., Murugesan, B., Kandaswamy, G. (2024). Transportation of materials under fuzzy environment using expected monetary value strategy. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 549-554. https://doi.org/10.18280/mmep.110228
89	Purnomo, M.R.A.	Optimisation of Supply Chain with Reactive Lateral Transshipment Under Imperfect Production System	single-vendor multi-buyers, reactive lateral transshipment, imperfect production system, genetic algorithm, optimisation in-the-loop simulation, batik supply chain	11, 2, 555-564	https://doi.org/10.18280/mmep.110229	Purnomo, M.R.A. (2024). Optimisation of supply chain with reactive lateral transshipment under imperfect production system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 555-564. https://doi.org/10.18280/mmep.110229
90	Prakasam, S.K., Gnanaprakasam, A.J.	A Triple Fixed-Point Theorem for Orthogonal ℓ -Compatible Maps in Orthogonal Complete Metric Space	triple fixed point, coupled fixed point, fixed point, orthogonal hybrid pair of maps, orthogonal ℓ -compatible maps, orthogonal complete metric space	11, 2, 565-570	https://doi.org/10.18280/mmep.110230	Prakasam, S.K., Gnanaprakasam, A.J. (2024). A triple fixed-point theorem for orthogonal ℓ -compatible maps in orthogonal complete metric space. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 2, pp. 565-570. https://doi.org/10.18280/mmep.110230
91	Kadhon, H.K., Mohammed, A.J., Sillanpää, M.	The Influence of Thickness and Interference Fit Ratio on Fatigue Phenomenon: An Empirical Study	interference fit, fatigue phenomenon, fit ratio, deformation	11, 1, 1-17	https://doi.org/10.18280/mmep.110101	Kadhon, H.K., Mohammed, A.J., Sillanpää, M. (2024). The influence of thickness and interference fit ratio on fatigue phenomenon: An empirical study. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 1-17. https://doi.org/10.18280/mmep.110101
92	Akindadelo, A.T., Shodiya, F.A., Salau, A.O., Olaluyi, O.J., Bandle, J.O., Braide, S.L.	Power Flow Analysis Using Numerical Computational Methods on a Standard IEEE 9-Bus Test System	power flow, bus, load flow analysis, loss minimization, gauss-seidel, Newton-Raphson, voltage magnitude, phase angle, real power, reactive power, convergence	11, 1, 18-26	https://doi.org/10.18280/mmep.110102	Akindadelo, A.T., Shodiya, F.A., Salau, A.O., Olaluyi, O.J., Bandle, J.O., Braide, S.L. (2024). Power flow analysis using numerical computational methods on a standard IEEE 9-bus test system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 18-26. https://doi.org/10.18280/mmep.110102
93	Al-Azzawi, F.F., Kamal, K.Y., Ibrahim, M.S., Abed, S.D.	Nonlinear Amplifier Effect on High Bit Rate Modulation Techniques Used in WiFi Generation with MATLAB Simulink	high bit rate modulation, M-QAM, nonlinear amplifier, WiFi	11, 1, 27-33	https://doi.org/10.18280/mmep.110103	Al-Azzawi, F.F., Kamal, K.Y., Ibrahim, M.S., Abed, S.D. (2024). Nonlinear amplifier effect on high bit rate modulation techniques used in WiFi generation with MATLAB Simulink. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 27-33. https://doi.org/10.18280/mmep.110103
94	Nainggolan, J., Ansori, M.F.	Mathematical Modeling and Sensitivity Analysis of COVID-19 and Tuberculosis Coinfection with Vaccination	infectious disease, COVID-19, tuberculosis, coinfection, mathematical modeling, sensitivity	11, 1, 34-46	https://doi.org/10.18280/mmep.110104	Nainggolan, J., Ansori, M.F. (2024). Mathematical modeling and sensitivity analysis of COVID-19 and tuberculosis coinfection with vaccination. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 34-46. https://doi.org/10.18280/mmep.110104
95	Ismael, M., Zaman, S., Elahi, K., Koam, A.N.A., Bashir, A.	Analytical Expressions and Structural Characterization of Some Molecular Models Through Degree Based Topological Indices	nanostructures, oxide network, silicate network, honeycomb network, topological indices, irregularity indices, 3D comparisons	11, 1, 47-62	https://doi.org/10.18280/mmep.110105	Ismael, M., Zaman, S., Elahi, K., Koam, A.N.A., Bashir, A. (2024). Analytical expressions and structural characterization of some molecular models through degree based topological indices. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 47-62. https://doi.org/10.18280/mmep.110105

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97	Macherla, H., Muvva, V.R., Lella, K.K., Paliseti, J.R., Pulugu, D., Vatambeti, R.	A Deep Reinforcement Learning-Based RNN Model in a Traffic Control System for 5G-Envisioned Internet of Vehicles	reinforcement learning, traffic congestion, deep recurrent neural network, imputation methods, loop detectors, missing data	11, 1, 75-83	https://doi.org/10.18280/mmep.110107	Macherla, H., Muvva, V.R., Lella, K.K., Paliseti, J.R., Pulugu, D., Vatambeti, R. (2024). A deep reinforcement learning-based RNN model in a traffic control system for 5G-envisioned internet of vehicles. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 75-83. https://doi.org/10.18280/mmep.110107
98	Kadhim, M.A., Cherati, A.Y., Mechee, M.S.	Generalized RKM Method for Solving Sixth-Order Fractional Ordinary Differential Equations	Runge Kutta (RK), Runge Kutta Direct (RKD), Runge Kutta Mechee (RKM), fractional, ordinary, sixth-order, differential equations (DEs), ordinary differential equations (ODEs), partial differential equations (PDEs), fractional differential equations (FDEs)	11, 1, 84-90	https://doi.org/10.18280/mmep.110108	Kadhim, M.A., Cherati, A.Y., Mechee, M.S. (2024). Generalized RKM method for solving sixth-order fractional ordinary differential equations. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 84-90. https://doi.org/10.18280/mmep.110108
99	Elmnifi, M., Mhmood, A.H., Saieed, A.N.A., Alturaihi, M.H., Ayed, S.K., Majdi, H.S.	A Technical and Economic Feasibility Study for on-Grid Solar PV in Libya	photovoltaic systems, on-grid solar photovoltaic, HOMER, Libyan cities	11, 1, 91-97	https://doi.org/10.18280/mmep.110109	Elmnifi, M., Mhmood, A.H., Saieed, A.N.A., Alturaihi, M.H., Ayed, S.K., Majdi, H.S. (2024). A technical and economic feasibility study for on-grid solar PV in Libya. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 91-97. https://doi.org/10.18280/mmep.110109
100	Akande, S.	Normalization of Regular Scheduling Criteria with Dynamic Constraint	normalization, linear composite objective function, min-max, dynamic constraints, cost and benefit orientation	11, 1, 98-106	https://doi.org/10.18280/mmep.110110	Akande, S. (2024). Normalization of regular scheduling criteria with dynamic constraint. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 98-106. https://doi.org/10.18280/mmep.110110
101	Rashed, N., Jeribi, A.	Enhancing Image Quality Through a Novel Multiscale Fractal Dimension Formulated by the Characteristic Function	fractal dimension, fractional calculus, characteristic function (CF), image enhancement, mask	11, 1, 107-113	https://doi.org/10.18280/mmep.110111	Rashed, N., Jeribi, A. (2024). Enhancing image quality through a novel multiscale fractal dimension formulated by the characteristic function. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 107-113. https://doi.org/10.18280/mmep.110111
102	Rajagopal, A., Narayan, P.	Dominance Parameters in Prism Graphs: A Comparative Study of Minimum Dominating Sets	girth, domination, independent domination, connected domination, total domination, secure domination	11, 1, 114-122	https://doi.org/10.18280/mmep.110112	Rajagopal, A., Narayan, P. (2024). Dominance parameters in prism graphs: A comparative study of minimum dominating sets. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 114-122. https://doi.org/10.18280/mmep.110112
103	Merzah, B.M., Croock, M.S., Rashid, A.N.	Football Player Tracking and Performance Analysis Using the OpenCV Library	dataset building, feature extraction, OpenCV, optical tracking, performance analysis, player tracking, sport analytics	11, 1, 123-132	https://doi.org/10.18280/mmep.110113	Merzah, B.M., Croock, M.S., Rashid, A.N. (2024). Football player tracking and performance analysis using the OpenCV library. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 123-132. https://doi.org/10.18280/mmep.110113
104	Hertz, E., Guriev, A., Druzyanova, V., Revyako, S., Markov, O., Perfiliev, P., Grigorev, I.	Impact Assessment of Different Propulsion Systems in Forestry Machinery on Soil Properties	logging, penetration resistance, semi-tracked propulsion unit, slope angle, soil compaction, soil porosity	11, 1, 133-140	https://doi.org/10.18280/mmep.110114	Hertz, E., Guriev, A., Druzyanova, V., Revyako, S., Markov, O., Perfiliev, P., Grigorev, I. (2024). Impact assessment of different propulsion systems in forestry machinery on soil properties. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 133-140. https://doi.org/10.18280/mmep.110114
105	Ahmed, R.T., Al-Thahab, O.Q.J.	Enhancement of BER of LTE System by Using DCT-Neural Network in Different Channel Models	LTE, discrete cosine transform, feed-forward neural network, doppler frequency, adaptive equalizer, bit error rate	11, 1, 141-150	https://doi.org/10.18280/mmep.110115	Ahmed, R.T., Al-Thahab, O.Q.J. (2024). Enhancement of BER of LTE system by using DCT-neural network in different channel models. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 141-150. https://doi.org/10.18280/mmep.110115
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107	Samson, T.K., Aweda, F.O.	Seasonal Autoregressive Integrated Moving Average Modelling and Forecasting of Monthly Rainfall in Selected African Stations	rainfall, Seasonal Integrated Moving Average (SARIMA), Africa, modelling, forecasting, RMSE	11, 1, 159-168	https://doi.org/10.18280/mmep.110117	Samson, T.K., Aweda, F.O. (2024). Seasonal autoregressive integrated moving average modelling and forecasting of monthly rainfall in selected African stations. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 159-168. https://doi.org/10.18280/mmep.110117
108	Mane, S.T., Lodhi, R.K.	Hybrid Difference Scheme for Singularly Perturbed Differential Equation with Discontinuous Source Term	singularly perturbed problem, reaction-diffusion, discontinuous source term, hybrid difference scheme, cubic spline method, central finite difference approach, Shishkin mesh, interior layer, truncation error	11, 1, 169-176	https://doi.org/10.18280/mmep.110118	Mane, S.T., Lodhi, R.K. (2024). Hybrid difference scheme for singularly perturbed differential equation with discontinuous source term. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 169-176. https://doi.org/10.18280/mmep.110118
109	Abd Al Satarr, S.M., Ali, K.H.	A Novel Design for Enhancing Speed and Reducing Vibration in Railway Wheel-Track Profiles	wheel profile, stability, speed improvement, lateral displacement, and acceleration	11, 1, 177-184	https://doi.org/10.18280/mmep.110119	Abd Al Satarr, S.M., Ali, K.H. (2024). A novel design for enhancing speed and reducing vibration in railway wheel-track profiles. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 177-184. https://doi.org/10.18280/mmep.110119
110	Ibrahim, I.A., Taha, W.M., Alobaidi, M., Jameel, A.F., Bashier, E., Alshirawi, N.H.	Oblique Closed Form Solution for Some Type Fractional Evolution Equations in Physical Problem by Using the Homogeneous Balance Method	fractional differential equation, boundary value problems, homogeneous balance method (HBM), space-time fractional coupled Burger's equation, Gerdjikov-Lvanov equations (GL)	11, 1, 185-191	https://doi.org/10.18280/mmep.110120	Ibrahim, I.A., Taha, W.M., Alobaidi, M., Jameel, A.F., Bashier, E., Alshirawi, N.H. (2024). Oblique closed form solution for some type fractional evolution equations in physical problem by using the homogeneous balance method. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 185-191. https://doi.org/10.18280/mmep.110120
111	Abushilah, S.F., Khalf, A.M.	Computing the Modified Bessel Function Ratio for Sine-Model Circular Distributions	circular statistics, bivariate circular data, sine-model circular distribution, nonlinear optimization, modified Bessel function of the first kind	11, 1, 192-198	https://doi.org/10.18280/mmep.110121	Abushilah, S.F., Khalf, A.M. (2024). Computing the modified Bessel function ratio for sine-model circular distributions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 192-198. https://doi.org/10.18280/mmep.110121
112	Shukur, F., Moss, S.J., Raheem, K.M.H.	Optimization of Fuzzy-PD Control for a 3-DOF Robotics Manipulator Using a Back-Propagation Neural Network	3-DOF robotics arm, Fuzzy-PD, membership function, neural network	11, 1, 199-209	https://doi.org/10.18280/mmep.110122	Shukur, F., Moss, S.J., Raheem, K.M.H. (2024). Optimization of Fuzzy-PD control for a 3-DOF robotics manipulator using a Back-Propagation Neural Network. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 199-209. https://doi.org/10.18280/mmep.110122
113	Alsaedi, A., Naimi, S.	A Novel Time Management Approach for the Construction Industry: A Mathematical Analysis	project management, time management, critical projects, project timeline, jobs scheduling	11, 1, 210-216	https://doi.org/10.18280/mmep.110123	Alsaedi, A., Naimi, S. (2024). A novel time management approach for the construction industry: A mathematical analysis. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 210-216. https://doi.org/10.18280/mmep.110123
114	Ghadi, D.M.	Improving the Robustness of RSA Encryption Through Input-Based Key Generation	decryption, encryption, hexadecimal values, input-based cryptography, variable-length input, key generation method, NIST randomness tests, Rivest-Shamir-Adleman (RSA)	11, 1, 217-223	https://doi.org/10.18280/mmep.110124	Ghadi, D.M. (2024). Improving the robustness of RSA encryption through input-based key generation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 217-223. https://doi.org/10.18280/mmep.110124

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116	Ali, M.H., Al-Shukur, A.H.K.	Physical Modeling of Seismic Response of Makhool Dam Subjected to the Halabja Earthquake	earth dam, seismic waves, sensors, scaled model, vibration	11, 1, 231-238	https://doi.org/10.18280/mmep.110126	Ali, M.H., Al-Shukur, A.H.K. (2024). Physical modeling of seismic response of Makhool dam subjected to the Halabja earthquake. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 231-238. https://doi.org/10.18280/mmep.110126
117	Ali, H., Naimi, S., Al-Janabi, A.	Numerical and Experimental Analysis of Deformation in Cantilever and Anchorage Sheet Piles	deformations, sheet piles, Plaxis 2D, variables	11, 1, 239-254	https://doi.org/10.18280/mmep.110127	Ali, H., Naimi, S., Al-Janabi, A. (2024). Numerical and experimental analysis of deformation in cantilever and anchorage sheet piles. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 239-254. https://doi.org/10.18280/mmep.110127
118	Sivakumar, K., Appasamy, S.	Fuzzy Mathematical Approach for Solving Multi-Objective Fuzzy Linear Fractional Programming Problem with Trapezoidal Fuzzy Numbers	trapezoidal fuzzy number, fuzzy mathematical approach, fractional programming, optimal solution, multi objective problem, uncertainty, optimization software	11, 1, 255-262	https://doi.org/10.18280/mmep.110128	Sivakumar, K., Appasamy, S. (2024). Fuzzy mathematical approach for solving multi-objective fuzzy linear fractional programming problem with trapezoidal fuzzy numbers. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 255-262. https://doi.org/10.18280/mmep.110128
119	Jasim, D.F., Shareef, W.F.	Ullulate: A Non-Intrusive, Wearable Tongue Gesture Detection System for Human-Computer Interaction	human-computer interaction, microgestures, tongue gestures, wearable computing, hands-free computer interaction, non-intrusive human-computer interaction, wearable human-computer interaction	11, 1, 263-272	https://doi.org/10.18280/mmep.110129	Jasim, D.F., Shareef, W.F. (2024). Ullulate: A non-intrusive, wearable tongue gesture detection system for human-computer interaction. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 263-272. https://doi.org/10.18280/mmep.110129
120	Mohammed Fawze, A.A., Fthee, A.A.	A Convergent Series Approximation Method for Solving Wave-Like Problems: Introducing a Novel Control Convergence Parameter	wave equations, Fredholm integral equation, Homotopy Perturbation Method (HPM)	11, 1, 273-278	https://doi.org/10.18280/mmep.110130	Mohammed Fawze, A.A., Fthee, A.A. (2024). A convergent series approximation method for solving wave-like problems: Introducing a novel control convergence parameter. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 11, No. 1, pp. 273-278. https://doi.org/10.18280/mmep.110130
121	Wahyuadnyana, K.D., Indriawati, K., Darwito, P.A., Aufa, A.N., Tnunay, H.	Comparative Numerical Analysis of Torpedo-Shaped and Cubic Symmetrical Autonomous Underwater Vehicles in the Context of Indonesian Marine Environments	comparative numerical analysis, cubic symmetrical AUV, torpedo-like AUV, Indonesian marine characteristics, hydrodynamics	10, 6, 1917-1926	https://doi.org/10.18280/mmep.100601	Wahyuadnyana, K.D., Indriawati, K., Darwito, P.A., Aufa, A.N., Tnunay, H. (2023). Comparative numerical analysis of torpedo-shaped and cubic symmetrical autonomous underwater vehicles in the context of Indonesian marine environments. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 1917-1926. https://doi.org/10.18280/mmep.100601
122	Gkoutakou, F.I., Konguetsof, A., Souliotis, G., Papadopoulos, B.K.	A Novel Approach to Fuzzy Implication Through Fuzzy Linear Regression	Fuzzy Linear Regression (FLR), triangular fuzzy numbers, fuzzy implications, sustainable rice husk ash concrete, mathematical modelling, fuzzy rule-based system, fuzzy modelling	10, 6, 1927-1936	https://doi.org/10.18280/mmep.100602	Gkoutakou, F.I., Konguetsof, A., Souliotis, G., Papadopoulos, B.K. (2023). A novel approach to fuzzy implication through fuzzy linear regression. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 1927-1936. https://doi.org/10.18280/mmep.100602
123	Mohandoss, A., Chandrasekar, G., Jan, R.	Modelling and Analysis of Vaccination Effects on Hand, Foot, and Mouth Disease Transmission Dynamics	dynamical behaviour, hand, foot, and mouth disease vaccination, Numerical results, stability analysis, sensitivity analysis, threshold parameter	10, 6, 1937-1949	https://doi.org/10.18280/mmep.100603	Mohandoss, A., Chandrasekar, G., Jan, R. (2023). Modelling and analysis of vaccination effects on hand, foot, and mouth disease transmission dynamics. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 1937-1949. https://doi.org/10.18280/mmep.100603
124	dos Reis, J.K., Lemmert, C.K., Centeno, F.R.	Mathematical Modelling of Smoke-Filling Dynamics in Compartment Fires: A Two-Zone Approach	computational simulation, compartment fire, mathematical modelling, smoke layer height, two-zone model	10, 6, 1950-1960	https://doi.org/10.18280/mmep.100604	dos Reis, J.K., Lemmert, C.K., Centeno, F.R. (2023). Mathematical modelling of smoke-filling dynamics in compartment fires: A two-zone approach. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 1950-1960. https://doi.org/10.18280/mmep.100604
125	Mahdi, H.H., Nama, S.A., Khazaal, S.M.	Experimental and Numerical Investigation on the Free Vibration Characteristics of 3D Printed Springs with Square Cross Sections	3D printed, rectangular spring, machined spring, free vibration, SolidWorks	10, 6, 1961-1966	https://doi.org/10.18280/mmep.100605	Mahdi, H.H., Nama, S.A., Khazaal, S.M. (2023). Experimental and numerical investigation on the free vibration characteristics of 3D printed springs with square cross sections. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 1961-1966. https://doi.org/10.18280/mmep.100605
126	Qahtan, J.A., Hussein, M.S., Ahsan, M., Alwuthaynani, M.	Recovering Time-Dependent Coefficients in a Two-Dimensional Parabolic Equation Using Nonlocal Overspecified Conditions via ADE Finite Difference Schemes	inverse problem, two-dimensional parabolic equation, nonlocal initial conditions, overdetermination condition, (ADE) finite difference schemes, MATLAB, lsqnonlin, Tikhonov technique	10, 6, 1967-1976	https://doi.org/10.18280/mmep.100606	Qahtan, J.A., Hussein, M.S., Ahsan, M., Alwuthaynani, M. (2023). Recovering time-dependent coefficients in a two-dimensional parabolic equation using nonlocal overspecified conditions via ADE finite difference schemes. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 1967-1976. https://doi.org/10.18280/mmep.100606
127	Tulus, Rahman, M.M., Sutarnan, Syahputra, M.R., Marpaung, T.J., Marpaung, J.L.	Computational Assessment of Wave Stability Against Submerged Permeable Breakwaters: A Hybrid Finite Element Method Approach	breakwater, simulation, fluid dynamics, h-fem, partial differential equations	10, 6, 1977-1986	https://doi.org/10.18280/mmep.100607	Tulus, Rahman, M.M., Sutarnan, Syahputra, M.R., Marpaung, T.J., Marpaung, J.L. (2023). Computational assessment of wave stability against submerged permeable breakwaters: A hybrid finite element method approach. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 1977-1986. https://doi.org/10.18280/mmep.100607
128	Arega, K.L., Alasadi, M.K., Yaseen, A.J., Salau, A.O., Braide, S.L., Bandede, J.O.	Machine Learning Based Detection of Fake Facebook Profiles in Afan Oromo Language	Afan Oromo, machine learning, Facebook, fake accounts, feature selection, classification	10, 6, 1987-1993	https://doi.org/10.18280/mmep.100608	Arega, K.L., Alasadi, M.K., Yaseen, A.J., Salau, A.O., Braide, S.L., Bandede, J.O. (2023). Machine learning based detection of fake Facebook profiles in Afan Oromo language. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 1987-1993. https://doi.org/10.18280/mmep.100608
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131	Husein, I., Kareem, A.K., Ali, M.Z., Khutar, N.M., Yasin, Y.	An Innovative Approach to Optimizing Factory Cutoff Grades: A Revision of Lane's Theory	optimization, cutoff grade, open pit mines, Lane algorithm	10, 6, 2014-2022	https://doi.org/10.18280/mmep.100611	Husein, I., Kareem, A.K., Ali, M.Z., Khutar, N.M., Yasin, Y. (2023). An innovative approach to optimizing factory cutoff grades: A revision of Lane's theory. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2014-2022. https://doi.org/10.18280/mmep.100611
132	Al-Khafaji, S.A., Saleh, A.H., Shaheed, S.M.	Optimisation of PID Controllers in Active Suspension Systems: A Comparative Study of the Firefly Algorithm and the Particle Swarm Optimisation	ride comfort, active suspension system, proportional-integral-derivative controller, optimisation, Particle Swarm Optimisation, Firefly Algorithm	10, 6, 2023-2030	https://doi.org/10.18280/mmep.100612	Al-Khafaji, S.A., Saleh, A.H., Shaheed, S.M. (2023). Optimisation of PID controllers in active suspension systems: A comparative study of the firefly algorithm and the Particle Swarm Optimisation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2023-2030. https://doi.org/10.18280/mmep.100612
133	Zhang, Q., Abisado, M.	A Novel Context-Aware Deep Learning Algorithm for Enhanced Movie Recommendation Systems	deep learning, recommendation system optimization, behavioral modeling, tensor factorization, weighted high-order factorization, machine learning in media, pattern recognition, context-sensitive analysis, context-aware, collaborative filtering	10, 6, 2031-2038	https://doi.org/10.18280/mmep.100613	Zhang, Q., Abisado, M. (2023). A novel context-aware deep learning algorithm for enhanced movie recommendation systems. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2031-2038. https://doi.org/10.18280/mmep.100613

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136	Sahib, H.R., Al-Kutubi, H.S.	Evaluating Parameters and Survival Function in the Exponential Distribution Model: A Contrast Between Complete and Censored Data	bayes estimation method, maximum likelihood estimation methods, complete data, Type I censored data, Type II censored data	10, 6, 2063-2068	https://doi.org/10.18280/mmep.100616	Sahib, H.R., Al-Kutubi, H.S. (2023). Evaluating parameters and survival function in the exponential distribution model: A contrast between complete and censored data. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2063-2068. https://doi.org/10.18280/mmep.100616
137	El Arabi, I., Chafi, A., Alami, S.K.	Simulating the COVID-19 Epidemic: A Numerical Examination of SIR, SIRID, and SIRVI Models	numerical simulation, susceptible, infected, recovered, susceptible, infected, recovered, infected, dead, susceptible, infected, recovered, vaccinated, infected, COVID-19	10, 6, 2069-2078	https://doi.org/10.18280/mmep.100617	El Arabi, I., Chafi, A., Alami, S.K. (2023). Simulating the COVID-19 epidemic: A numerical examination of SIR, SIRID, and SIRVI models. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2069-2078. https://doi.org/10.18280/mmep.100617
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139	Basheer Ahmed, M.I.	Early Detection of Diabetic Retinopathy Utilizing Advanced Fuzzy Logic Techniques	Diabetic Retinopathy (DR), extended fuzzy logic (FLE), micro-aneurysms (MA), exudates, hemorrhages, ordered weighted averaging (OWA), early diagnosis, computational diagnosis	10, 6, 2086-2094	https://doi.org/10.18280/mmep.100619	Basheer Ahmed, M.I. (2023). Early detection of Diabetic Retinopathy utilizing advanced fuzzy logic techniques. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2086-2094. https://doi.org/10.18280/mmep.100619
140	Norasias, Y., Ghani, M.	Exploring Micromagnetorotation in Maxwell Viscous Fluid Flow Within a Porous Cylinder	Maxwell Fluid, viscous, magnetomicrorotation, Gauss-Seidel method, Stuart number, Prandtl number, material parameter, porosity parameter	10, 6, 2095-2101	https://doi.org/10.18280/mmep.100620	Norasias, Y., Ghani, M. (2023). Exploring micromagnetorotation in Maxwell viscous fluid flow within a porous cylinder. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2095-2101. https://doi.org/10.18280/mmep.100620
141	Saminathan, R., Narayan, P.	Computing Generalized Zagreb Indices of Dendrimers for Drug Delivery Applications	topological indices, nanotechnology, generalized Zagreb index, dendrimers, drug delivery systems	10, 6, 2102-2110	https://doi.org/10.18280/mmep.100621	Saminathan, R., Narayan, P. (2023). Computing generalized zagreb indices of dendrimers for drug delivery applications. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2102-2110. https://doi.org/10.18280/mmep.100621
142	Mhammi, Y., Lagmich, Y.	Enhanced Obstacle Avoidance and Intelligent Navigation for Mobile Robots: An Integrated Approach Using Fuzzy Logic and an Optimized APF Method	robot navigation, artificial potential field, fuzzy logic control, intelligent controller, robotics operating system (ROS), obstacle avoidance, gazebo simulator robot	10, 6, 2111-2120	https://doi.org/10.18280/mmep.100622	Mhammi, Y., Lagmich, Y. (2023). Enhanced obstacle avoidance and intelligent navigation for mobile robots: An integrated approach using fuzzy logic and an optimized APF method. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2111-2120. https://doi.org/10.18280/mmep.100622
143	Kukaram, G., Ramasamy, V.	A Novel Approach of 1-D Cellular Automata in Cryptosystem	cellular automata, cryptography, encryption, decryption, attacks	10, 6, 2121-2126	https://doi.org/10.18280/mmep.100623	Kukaram, G., Ramasamy, V. (2023). A novel approach of 1-D cellular automata in cryptosystem. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2121-2126. https://doi.org/10.18280/mmep.100623
144	Alhafid, A.K., Mohammed Ali, Y.E., Younis, S.	Performance Investigation of RIS Aided Localization with TDoA in the Near-Field	wireless device localization, reconfigurable intelligent surface (RIS), RIS phase profile, time difference of arrival, orthogonal frequency division multiplexing, Near-Field propagation, multipath channels, time of arrival estimation, positioning system	10, 6, 2127-2134	https://doi.org/10.18280/mmep.100624	Alhafid, A.K., Mohammed Ali, Y.E., Younis, S. (2023). Performance investigation of RIS aided localization with TDoA in the near-field. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2127-2134. https://doi.org/10.18280/mmep.100624
145	Baskaran, S., Sathish, S.	An Innovative Method for Attribute Reduction: Weighted Attribute Concepts for Probabilistic Analysis of Decision Attributes	indiscernibility matrix, attribute reduction, core, entropy, weighted attribute concepts	10, 6, 2135-2141	https://doi.org/10.18280/mmep.100625	Baskaran, S., Sathish, S. (2023). An innovative method for attribute reduction: Weighted attribute concepts for probabilistic analysis of decision attributes. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2135-2141. https://doi.org/10.18280/mmep.100625
146	Falih, Z.F.M., Dakhi, A.J., Saleh, S.M.	Numerical Solution for Masonry Wall Using General Static Step with ABAQUS/Standard	URM walls, in-plane loading, ABAQUS, continuum, general non-linear static procedure	10, 6, 2142-2148	https://doi.org/10.18280/mmep.100626	Falih, Z.F.M., Dakhi, A.J., Saleh, S.M. (2023). Numerical solution for masonry wall using general static step with ABAQUS/Standard. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2142-2148. https://doi.org/10.18280/mmep.100626
147	Yadav, A., Ahmed, M., Ambudkar, B., Kumar, D.	An Energy-Efficient Routing Protocol for a Modified Fat-Tree Topology in System-on-Chip Design	Fat-Tree topology, power consumption, power efficiency, routing protocol, system-on-chip, sniper simulator	10, 6, 2149-2157	https://doi.org/10.18280/mmep.100627	Yadav, A., Ahmed, M., Ambudkar, B., Kumar, D. (2023). An energy-efficient routing protocol for a modified Fat-Tree topology in system-on-chip design. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2149-2157. https://doi.org/10.18280/mmep.100627
148	Albukhattar, A.N., Alshamkhwai, J.A., Kadhim, H.N.	Optimizing Budget Allocation Through First-Order Linear Differential Equations and Innovative Transform Techniques	differential equations, novel transform, activity-based costing, budget optimization, financial planning	10, 6, 2158-2164	https://doi.org/10.18280/mmep.100628	Albukhattar, A.N., Alshamkhwai, J.A., Kadhim, H.N. (2023). Optimizing budget allocation through first-order linear differential equations and innovative transform techniques. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2158-2164. https://doi.org/10.18280/mmep.100628
149	Elezaj, S., Ramaj, V., Elezaj, R.	Optimizing Expenditure Functions Through Economic Cybernetics: Analyzing Linear and Non-Linear Programming Approaches	total costs, average costs, marginal costs, coefficient of elasticity, linear and non-linear programming, economic cybernetics	10, 6, 2165-2170	https://doi.org/10.18280/mmep.100629	Elezaj, S., Ramaj, V., Elezaj, R. (2023). Optimizing expenditure functions through economic cybernetics: Analyzing linear and non-linear programming approaches. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2165-2170. https://doi.org/10.18280/mmep.100629
150	Al-Bakri, M.	Enhancing Spatial Accuracy of OpenStreetMap Data: A Geometric Approach	OSM, volunteered geographic information, Baghdad, Iraq, polynomial transformation, affine transformation, conformal transformation, spatial accuracy	10, 6, 2171-2178	https://doi.org/10.18280/mmep.100630	Al-Bakri, M. (2023). Enhancing spatial accuracy of OpenStreetMap data: A geometric approach. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2171-2178. https://doi.org/10.18280/mmep.100630
151	Abdurakhman.	Accelerating Convergence in Trinomial Option Pricing: Recursive Incremental Value Ordering with Repeated Richardson Extrapolation	Richardson extrapolation, repeated Richardson extrapolation, trinomial model, European option, stocks	10, 6, 2179-2184	https://doi.org/10.18280/mmep.100631	Abdurakhman. (2023). Accelerating convergence in trinomial option pricing: Recursive incremental value ordering with repeated Richardson extrapolation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2179-2184. https://doi.org/10.18280/mmep.100631
152	Anthony, J., Elamparithi, S.	Effect of Double Porous Layer on Rough Step Slider Bearing Lubricated with Couple Stress Fluid	couple stress fluid, Rayleigh step slider bearing, surface roughness, double porous	10, 6, 2185-2192	https://doi.org/10.18280/mmep.100632	Anthony, J., Elamparithi, S. (2023). Effect of double porous layer on rough step slider bearing lubricated with couple stress fluid. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2185-2192. https://doi.org/10.18280/mmep.100632

153	Abd Al Satarr, S.M., Ali, K.H.	A Numerical Investigation into Wheel-Track Profile Optimization for Minimizing Stress and Mitigating Hunting Phenomena	wheel profile, stability, speed improvement, deformation, stress, numerical analysis and hunting phenomena	10, 6, 2193-2202	https://doi.org/10.18280/mmep.100633	Abd Al Satarr, S.M., Ali, K.H. (2023). A numerical investigation into wheel-track profile optimization for minimizing stress and mitigating hunting phenomena. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2193-2202. https://doi.org/10.18280/mmep.100633
154	Masood, F.A., Elamparithi, S.	Impacts of Magnetic Fields on Ferrofluid Squeeze Films Between Infinitely Long Rectangular Plates	ferro-couple stress fluid, infinitely long rectangular plate, ferrofluid rheology, magneto hydrodynamic field, squeeze film lubrication, hydrodynamic lubrication	10, 6, 2203-2209	https://doi.org/10.18280/mmep.100634	Masood, F.A., Elamparithi, S. (2023). Impacts of magnetic fields on ferrofluid squeeze films between infinitely long rectangular plates. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2203-2209. https://doi.org/10.18280/mmep.100634
155	Widodo, C.E., Adi, K., Priyono, P., Setiawan, A.	An Evaluation of Pre-Trained Convolutional Neural Network Models for the Detection of COVID-19 and Pneumonia from Chest X-Ray Imagery	COVID-19, pneumonia, chest X-ray images, deep learning, convolutional neural networks, pre-trained models, image classification	10, 6, 2210-2216	https://doi.org/10.18280/mmep.100635	Widodo, C.E., Adi, K., Priyono, P., Setiawan, A. (2023). An evaluation of pre-trained convolutional neural network models for the detection of COVID-19 and pneumonia from chest X-ray imagery. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2210-2216. https://doi.org/10.18280/mmep.100635
156	Subramanian, H.S., Thamaraiselvan, N., Kandasamy, G.	Implementing Interval Linear Equations Systems for Enhanced Circuit Analysis	uncertainty, interval, circuit theory, Kirchhoff's voltage law, numerical analysis, system of interval linear equations	10, 6, 2217-2222	https://doi.org/10.18280/mmep.100636	Subramanian, H.S., Thamaraiselvan, N., Kandasamy, G. (2023). Implementing interval linear equations systems for enhanced circuit analysis. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2217-2222. https://doi.org/10.18280/mmep.100636
157	Al-Sadi, R.O., Al-Saif, A.S.J.	A Novel Hybrid Approach Leveraging Shehu Transformation, Akbari-Ganji's Method, and Padé Approximant for the Resolution of Diffusive Prey-Predator Systems	Shehu transformation, Akbari -Ganji's method, Padé approximant, diffusive prey-predator systems, convergence, stability	10, 6, 2223-2232	https://doi.org/10.18280/mmep.100637	Al-Sadi, R.O., Al-Saif, A.S.J. (2023). A novel hybrid approach leveraging Shehu transformation, Akbari-Ganji's method, and Padé approximant for the resolution of diffusive prey-predator systems. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2223-2232. https://doi.org/10.18280/mmep.100637
158	Ahmed, A.B.I., Labeeb, M.A.	Investigating Korteweg-de Vries Dynamics via Laplace Transform Methodology	Korteweg-de vries equation, Laplace transform, green's function, nonlinear PDEs, integrable systems, solitons, evolution equations	10, 6, 2233-2238	https://doi.org/10.18280/mmep.100638	Ahmed, A.B.I., Labeeb, M.A. (2023). Investigating Korteweg-de vries dynamics via laplace transform methodology. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2233-2238. https://doi.org/10.18280/mmep.100638
159	Patil, H., Bhosale, S.	Enhancing Few-Shot Learning for Tropical Cyclone Severity Prediction: A Deep Learning Approach	tropical cyclone, remote satellite images, few-shot learning, deep learning, image classification	10, 6, 2239-2248	https://doi.org/10.18280/mmep.100639	Patil, H., Bhosale, S. (2023). Enhancing few-shot learning for tropical cyclone severity prediction: A deep learning approach. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2239-2248. https://doi.org/10.18280/mmep.100639
160	Borodulin, D.M., Oreshina, M.N., Sukhorukov, D.V., Kazakov, I.B.	Enhancing Mixture Homogeneity in Centrifugal Mixers: A LabVIEW-Based and Numerical Simulation of Bulk Material Particle Dynamics	centrifugal mixer, differential equations, mixing, numerical methods, particle velocity	10, 6, 2249-2254	https://doi.org/10.18280/mmep.100640	Borodulin, D.M., Oreshina, M.N., Sukhorukov, D.V., Kazakov, I.B. (2023). Enhancing mixture homogeneity in centrifugal mixers: A LabVIEW-based and numerical simulation of bulk material particle dynamics. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2249-2254. https://doi.org/10.18280/mmep.100640
161	Gollapalli, M., Rahman, A., Hakami, O., Alhashim, M., Arab, B., Almasharwai, F., Youldash, M., Saadelddeen, A., Alturkey, A., Alkhulaifi, D.	Predictive Modeling of NEAR Cryptocurrency Pricing Using Deep Learning: Influence of Bitcoin Market Movements	cryptocurrency, Long Short-Term Memory, Gated Recurrent Unit, NEAR, Bitcoin, cybersecurity, deep learning	10, 6, 2255-2264	https://doi.org/10.18280/mmep.100641	Gollapalli, M., Rahman, A., Hakami, O., Alhashim, M., Arab, B., Almasharwai, F., Youldash, M., Saadelddeen, A., Alturkey, A., Alkhulaifi, D. (2023). Predictive modeling of NEAR cryptocurrency pricing using deep learning: Influence of Bitcoin market movements. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2255-2264. https://doi.org/10.18280/mmep.100641
162	Thatha, V.N., Mantena, S.V., LingaReddy, C.S.R., Chintamani, P., Pulugu, R., Desnanakula, V.S.	Enhancing Privacy Protection in Online Federated Learning: A Method for Secure Face Image De-Identification Using a Modified Diffie-Hellman Algorithm	face images, federated learning, genetic algorithm, extended version of Diffie-Hellman procedure, deep learning, data leakage, privacy	10, 6, 2265-2273	https://doi.org/10.18280/mmep.100642	Thatha, V.N., Mantena, S.V., LingaReddy, C.S.R., Chintamani, P., Pulugu, R., Desnanakula, V.S. (2023). Enhancing privacy protection in online federated learning: A method for secure face image de-identification using a modified Diffie-Hellman algorithm. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2265-2273. https://doi.org/10.18280/mmep.100642
163	Mahmood, H.A., Mohammad, M.T., Saeed, A.T., Abbas, M.M.	A Novel Multifunctional Assistive Device for Enhancing Mobility and Social Distancing Compliance among Visually Impaired Individuals	Arduino board, coronavirus, sensors, smart gloves, shoes and a hat, social distancing, visually impaired	10, 6, 2274-2280	https://doi.org/10.18280/mmep.100643	Mahmood, H.A., Mohammad, M.T., Saeed, A.T., Abbas, M.M. (2023). A novel multifunctional assistive device for enhancing mobility and social distancing compliance among visually impaired individuals. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2274-2280. https://doi.org/10.18280/mmep.100643
164	Rashid, F.L., Basem, A., Khalaf, A.F., Al-Obaidi, M.A., Hussein, A.K., Ali, B., Younis, O.	Air Bubble Position Effect on Phase Change Material Melting in a Semi-Cylindrical Container: A Thermal Analysis	paraffin wax, melting, semi-cylinder, simulation, phase change materials	10, 6, 2281-2290	https://doi.org/10.18280/mmep.100644	Rashid, F.L., Basem, A., Khalaf, A.F., Al-Obaidi, M.A., Hussein, A.K., Ali, B., Younis, O. (2023). Air bubble position effect on phase change material melting in a semi-cylindrical container: A thermal analysis. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2281-2290. https://doi.org/10.18280/mmep.100644
165	Habeeb, E.Y., Hanzah, S.H.	Quotient and Product of Center Topological Groups	proximity space, center set, center continuous functions, topological group	10, 6, 2291-2296	https://doi.org/10.18280/mmep.100645	Habeeb, E.Y., Hanzah, S.H. (2023). Quotient and product of center topological groups. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 6, pp. 2291-2296. https://doi.org/10.18280/mmep.100645
166	Diatmaja, H., Prabowo, A.R., Adiputra, R., Muhayat, N., Baek, S.J., Huda, N., Tuswan, T., Zubaydi, A., Nubli, H.	Comparative Evaluation of Design Variations in Prototype Fast Boats: A Hydrodynamic Characteristic-Based Approach	patrol boat, design method, resistance, stability, seakeeping	10, 5, 1487-1507	https://doi.org/10.18280/mmep.100501	Diatmaja, H., Prabowo, A.R., Adiputra, R., Muhayat, N., Baek, S.J., Huda, N., Tuswan, T., Zubaydi, A., Nubli, H. (2023). Comparative evaluation of design variations in prototype fast boats: A hydrodynamic characteristic-based approach. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1487-1507. https://doi.org/10.18280/mmep.100501
167	Fatman, A.N., Ahmad, T., Jean De La Croix, N., Hossen, M.S.	Enhancing Data Hiding Methods for Improved Cyber Security Through Histogram Shifting Direction Optimization	data hiding, cyber security, histogram shifting, steganography, Peak Signal to Noise Ratio (PSNR), information security, network infrastructure	10, 5, 1508-1514	https://doi.org/10.18280/mmep.100502	Fatman, A.N., Ahmad, T., Jean De La Croix, N., Hossen, M.S. (2023). Enhancing data hiding methods for improved cyber security through histogram shifting direction optimization. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1508-1514. https://doi.org/10.18280/mmep.100502
168	Abdelhamid, I.R., Abdel Halim, I.T., Ibrahim, I.A., Amin Ali, A.E.M.	Redefining Governmental Services Through Blockchain and Smart Contracts	blockchain, Ethereum, smart contract, e-government, MetaMask, Interplanetary File System, solidity	10, 5, 1515-1528	https://doi.org/10.18280/mmep.100503	Abdelhamid, I.R., Abdel Halim, I.T., Ibrahim, I.A., Amin Ali, A.E.M. (2023). Redefining governmental services through blockchain and smart contracts. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1515-1528. https://doi.org/10.18280/mmep.100503
169	Majdi, H.S., Benameur, A., Elmifi, M., Benkrima, Y., Al Saker, M.	Modeling and Analysis of Desalination in A Solar Dome Using CFD	desalination, solar energy, evaporation, dome, CFD	10, 5, 1529-1536	https://doi.org/10.18280/mmep.100504	Majdi, H.S., Benameur, A., Elmifi, M., Benkrima, Y., Al Saker, M. (2023). Modeling and analysis of desalination in a solar dome using CFD. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1529-1536. https://doi.org/10.18280/mmep.100504
170	Gómez-Luna, E., Marlés-Sáenz, E., Candeló-Becerra, J.E.	A Comprehensive Review of Distributed Control Techniques for the Operation of Modern Electrical Distribution Networks	distribution networks, smart grid, microgrid, distributed generation, intelligent electronic devices, advanced distribution automation, distributed control techniques	10, 5, 1537-1547	https://doi.org/10.18280/mmep.100505	Gómez-Luna, E., Marlés-Sáenz, E., Candeló-Becerra, J.E. (2023). A comprehensive review of distributed control techniques for the operation of modern electrical distribution networks. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1537-1547. https://doi.org/10.18280/mmep.100505
171	Hammoodi, K.A., Dhahad, H.A., Alawee, W.H., Omara, Z.M.	Enhancement of Pyramid Solar Still Productivity Through Wick Material and Reflective Applications in Iraqi Conditions	pyramid solar still, solar distillation, wick materials, potable water productivity	10, 5, 1548-1556	https://doi.org/10.18280/mmep.100506	Hammoodi, K.A., Dhahad, H.A., Alawee, W.H., Omara, Z.M. (2023). Enhancement of pyramid solar still productivity through wick material and reflective applications in Iraqi conditions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1548-1556. https://doi.org/10.18280/mmep.100506

172	Al-Obaidi, A., Ibrahim, A.A., Khaleel, A.M.	The Effectiveness of Deploying Machine Learning Techniques in Information Security to Detect Nine Attacks: UNSW-NB15 Dataset as a Case Study	information security, machine learning, UNSW-NB15, detection process	10, 5, 1557-1565	https://doi.org/10.18280/mmep.100507	Al-Obaidi, A., Ibrahim, A.A., Khaleel, A.M. (2023). The effectiveness of deploying machine learning techniques in information security to detect nine attacks: UNSW-NB15 dataset as a case study. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1557-1565. https://doi.org/10.18280/mmep.100507
173	Hameed, M.I., Al-Dulaimi, S.J., Joshua, H.	Higher-Order Derivatives of Differential Subordination of Multivalent Functions	differential subordination, differential superordination, multivalent function, convex function, Starlike function, higher-order derivatives, Hadamard product	10, 5, 1566-1572	https://doi.org/10.18280/mmep.100508	Hameed, M.I., Al-Dulaimi, S.J., Joshua, H. (2023). Higher-order derivatives of differential subordination of multivalent functions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1566-1572. https://doi.org/10.18280/mmep.100508
174	Hussein, T.S., Faisal, A.A.H.	Composite Sorbent Prepared from Layered Double Hydroxide Nanoparticles to Remediate Simulated Groundwater Polluted with Lead and Cadmium Ions	breakthrough time, transport, layered double hydroxide, plaster kiln dust, alum	10, 5, 1573-1586	https://doi.org/10.18280/mmep.100509	Hussein, T.S., Faisal, A.A.H. (2023). Composite sorbent prepared from layered double hydroxide nanoparticles to remediate simulated groundwater polluted with lead and cadmium ions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1573-1586. https://doi.org/10.18280/mmep.100509
175	Ngo, T.Q., Toan, N.D., Le, L.H., Nguyen, T.D., Nguyen, H.	An Examination of Advances in Multistage Object Detection Techniques Utilizing Deep Learning	anchor box-based object detection methods, deep learning, multi-stage object detection methods, object detection, point-based object detection methods	10, 5, 1587-1610	https://doi.org/10.18280/mmep.100510	Ngo, T.Q., Toan, N.D., Le, L.H., Nguyen, T.D., Nguyen, H. (2023). An examination of advances in multistage object detection techniques utilizing deep learning. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1587-1610. https://doi.org/10.18280/mmep.100510
176	Prakash, Y., Appasamy, S.	Optimal Solution for Fully Spherical Fuzzy Linear Programming Problem	spherical fuzzy number, Spherical Fuzzy Linear Programming Problem, γ -cut, interval linear programming, Best Worst Cases method	10, 5, 1611-1618	https://doi.org/10.18280/mmep.100511	Prakash, Y., Appasamy, S. (2023). Optimal solution for fully Spherical Fuzzy Linear Programming Problem. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1611-1618. https://doi.org/10.18280/mmep.100511
177	Gollapalli, M., Rahman, A., Youldash, M., Alomari, D., Alismail, S., Khawaher, F., Alkhadair, A., Aljbran, F., Alzannan, R., Alkhulaifi, D., Mahmud, M.	Machine Learning Approach to Users' Age Prediction: A Telecom Company Case Study in Saudi Arabia	machine learning, Saudi Telecommunication Company, age prediction, smart devices, quality of service	10, 5, 1619-1629	https://doi.org/10.18280/mmep.100512	Gollapalli, M., Rahman, A., Youldash, M., Alomari, D., Alismail, S., Khawaher, F., Alkhadair, A., Aljbran, F., Alzannan, R., Alkhulaifi, D., Mahmud, M. (2023). Machine learning approach to users' age prediction: A telecom company case study in Saudi Arabia. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1619-1629. https://doi.org/10.18280/mmep.100512
178	Jebur, M.A., Alansari, L.S.	Free Vibration Analysis of Non-Prismatic Beam under Clamped and Simply Supported Boundary Conditions	free vibration, non-prismatic beam, ANSYS software, natural frequency, finite element method	10, 5, 1630-1642	https://doi.org/10.18280/mmep.100513	Jebur, M.A., Alansari, L.S. (2023). Free vibration analysis of non-prismatic beam under clamped and simply supported boundary conditions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1630-1642. https://doi.org/10.18280/mmep.100513
179	Hamdi, M., Inan, T.	Enhanced Emotion Recognition Through the Integration of Gated Recurrent Unit and Convolutional Neural Networks Using MindWave Mobile EEG Device	emotion classification, EEG Signals, MindWave Mobile, emotion recognition, deep learning methods neural networks algorithms for EEG, GRU method, CNN algorithm	10, 5, 1643-1656	https://doi.org/10.18280/mmep.100514	Hamdi, M., Inan, T. (2023). Enhanced emotion recognition through the integration of gated recurrent unit and convolutional neural networks using MindWave mobile EEG device. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1643-1656. https://doi.org/10.18280/mmep.100514
180	Afrianto, Y., Mardiansyah, V., Ritzkal, Ramadhan, F.S., Batistuta, A.D., Wulandari, B., Atmojo, W.T.	Enhanced π Approximation Through MIMD Parallel Computing: An Efficiency Analysis Utilizing Raspberry Pi	algorithm, efficiency, Gregory-Leibniz, Multiple Instruction Multiple Data, parallel computing, performance analysis, Raspberry Pi, speedup	10, 5, 1657-1664	https://doi.org/10.18280/mmep.100515	Afrianto, Y., Mardiansyah, V., Ritzkal, Ramadhan, F.S., Batistuta, A.D., Wulandari, B., Atmojo, W.T. (2023). Enhanced π approximation through MIMD parallel computing: An efficiency analysis utilizing raspberry Pi. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1657-1664. https://doi.org/10.18280/mmep.100515
181	Ccatamayo-Barrios, J.H., Huamán-Romani, Y.L., Seminario-Morales, M.V., Flores-Castillo, M.M., Gutiérrez-Gómez, E., Carrillo-De la cruz, L.K., de la Cruz-Girón, K.A.	Comparative Analysis of AHP and TOPSIS Multi-Criteria Decision-Making Methods for Mining Method Selection	selection, extraction method, numerical scoring, multi-criteria decision making	10, 5, 1665-1674	https://doi.org/10.18280/mmep.100516	Ccatamayo-Barrios, J.H., Huamán-Romani, Y.L., Seminario-Morales, M.V., Flores-Castillo, M.M., Gutiérrez-Gómez, E., Carrillo-De la cruz, L.K., de la Cruz-Girón, K.A. (2023). Comparative analysis of AHP and TOPSIS multi-criteria decision-making methods for mining method selection. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1665-1674. https://doi.org/10.18280/mmep.100516
182	Hussain, K.H.	Mathematical Model by Using Logistic Regression to Investigate the COVID-19 Pandemic's Impact on Humans	consumer behavior, COVID-19, regression analysis, psychological impact, Iraq	10, 5, 1675-1682	https://doi.org/10.18280/mmep.100517	Hussain, K.H. (2023). Mathematical model by using logistic regression to investigate the COVID-19 pandemic's impact on humans. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1675-1682. https://doi.org/10.18280/mmep.100517
183	Hashim, A.N., Jassim, M.F., Hashim, A.T.	Storage Space Reduction of Biometric Iris Databases by Successive Images Differences and Quadtree Decomposition	biometric, iris database, iris compression, quadtree, Huffman coding	10, 5, 1683-1689	https://doi.org/10.18280/mmep.100518	Hashim, A.N., Jassim, M.F., Hashim, A.T. (2023). Storage space reduction of biometric iris databases by successive images differences and quadtree decomposition. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1683-1689. https://doi.org/10.18280/mmep.100518
184	Khalife, D., Yammine, J., Rahal, S., Freiha, S.	Pricing Asian and Barrier Options Using a Combined Heston Model and Monte Carlo Simulation Approach with Artificial Intelligence	exotic options, artificial intelligence, Heston model, Monte Carlo simulation, calibration, strike price, vanilla options, implied volatility	10, 5, 1690-1698	https://doi.org/10.18280/mmep.100519	Khalife, D., Yammine, J., Rahal, S., Freiha, S. (2023). Pricing Asian and barrier options using a combined Heston model and Monte Carlo simulation approach with artificial intelligence. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1690-1698. https://doi.org/10.18280/mmep.100519
185	Temirbekov, N., Malgazhdarov, Y., Tamabay, D., Temirbekov, A.	Atmospheric Modelling of Photochemical Transformations of Pollutants: Impact of Weather Conditions and Diurnal Cycle (Case Study: Ust-Kamenogorsk, Kazakhstan)	atmospheric boundary layer equation, transformation of harmful substances, mathematical modeling, differential equation, difference scheme, stability, computational algorithm, numerical experiment	10, 5, 1699-1705	https://doi.org/10.18280/mmep.100520	Temirbekov, N., Malgazhdarov, Y., Tamabay, D., Temirbekov, A. (2023). Atmospheric modelling of photochemical transformations of pollutants: Impact of weather conditions and diurnal cycle (Case study: Ust-Kamenogorsk, Kazakhstan). <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1699-1705. https://doi.org/10.18280/mmep.100520
186	Syahrudin, Fatmawati, Suprajitno, H., Ibrahim.	Hybrid Algorithm of Backpropagation and Relevance Vector Machine with Radial Basis Function Kernel for Hydro-Climatological Data Prediction	backpropagation, relevance vector machine, radial basis function, hydro-climatological data, climate changes	10, 5, 1706-1716	https://doi.org/10.18280/mmep.100521	Syahrudin, Fatmawati, Suprajitno, H., Ibrahim. (2023). Hybrid algorithm of backpropagation and relevance vector machine with radial basis function kernel for hydro-climatological data prediction. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1706-1716. https://doi.org/10.18280/mmep.100521
187	Karam, S.S., Ibrahim, S.H., Alesbe, I., Aljabair, S.	Numerical Simulation of Thermal Storage Tank with Middle Baffles Distributions	thermal stratification, thermocline temperature, thermocline thickness, storage tank, CFD	10, 5, 1717-1726	https://doi.org/10.18280/mmep.100522	Karam, S.S., Ibrahim, S.H., Alesbe, I., Aljabair, S. (2023). Numerical simulation of thermal storage tank with middle baffles distributions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1717-1726. https://doi.org/10.18280/mmep.100522
188	Badr, B.E.A., Altawil, I., Almomani, M., Al-Saadi, M., Alkhurainej, M.	Fault Diagnosis of Three-Phase Induction Motors Using Convolutional Neural Networks	three-phase induction motor, deep learning, artificial intelligence, fault diagnosis, wavelet signal processing, conventional neural network, google net algorithm, convolutional neural networks	10, 5, 1727-1736	https://doi.org/10.18280/mmep.100523	Badr, B.E.A., Altawil, I., Almomani, M., Al-Saadi, M., Alkhurainej, M. (2023). Fault diagnosis of three-phase induction motors using convolutional neural networks. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1727-1736. https://doi.org/10.18280/mmep.100523
189	Hussein, N.S., Shukur, A.H., Majeed, Z.H.	Clear Water Scour at Varied Pile-Cap Elevation and Skewed Bridge Piers	scour, skewness, complex piers, clear water, pile-cap, pile group	10, 5, 1737-1742	https://doi.org/10.18280/mmep.100524	Hussein, N.S., Shukur, A.H., Majeed, Z.H. (2023). Clear water scour at varied pile-cap elevation and skewed bridge piers. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1737-1742. https://doi.org/10.18280/mmep.100524
190	Adiwibowo, P.H., Zohri, M.	Mathematical Modeling of a Novel PVT-Fin System for Maximum Energy Yield	photovoltaic thermal system, fin collector, exergy optimization	10, 5, 1743-1750	https://doi.org/10.18280/mmep.100525	Adiwibowo, P.H., Zohri, M. (2023). Mathematical modeling of a novel PVT-fin system for maximum energy yield. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1743-1750. https://doi.org/10.18280/mmep.100525

191	Al-Mothafar, M.R.D.	Peak Current Mode Control of a Two-Module Independent-Input Series-Output Boost Converter with Mismatched Inductors	small-signal modelling, current-mode control, state-space averaged model, independent-input series-output, modular boost DC-DC converter, inductor mismatch	10, 5, 1751-1762	https://doi.org/10.18280/mmep.100526	Al-Mothafar, M.R.D. (2023). Peak current mode control of a two-module independent-input series-output boost converter with mismatched inductors. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1751-1762. https://doi.org/10.18280/mmep.100526
192	Alrikabi, Z.Y., Omran, A.A.	Examining Captive and Inverse Captive Domination in Selected Graphs and Their Complements	captive domination number, inverse captive domination number, complements captive domination number, some graphs	10, 5, 1763-1769	https://doi.org/10.18280/mmep.100527	Alrikabi, Z.Y., Omran, A.A. (2023). Examining captive and inverse captive domination in selected graphs and their complements. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1763-1769. https://doi.org/10.18280/mmep.100527
193	Al-Gharbawi, A.S.A., Al-Kareem, K.W. A., Hameedi, M.K., Shakir, Z.H.	Experimental and Theoretical Study to Evaluate the Previous Studies for Expansive Soils	expansive soil, bentonite, empirical equations, free swelling, swelling pressure	10, 5, 1770-1776	https://doi.org/10.18280/mmep.100528	Al-Gharbawi, A.S.A., Al-Kareem, K.W. A., Hameedi, M.K., Shakir, Z.H. (2023). Experimental and theoretical study to evaluate the previous studies for expansive soils. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1770-1776. https://doi.org/10.18280/mmep.100528
194	Krishnan, V.L., Narayan, P.	Analysis of Sombor and Harmonic Indices of Thorn Cog-Graphs	chemical graph theory, topological descriptor, graph invariant, molecular structure, thorn-cog graph	10, 5, 1777-1784	https://doi.org/10.18280/mmep.100529	Krishnan, V.L., Narayan, P. (2023). Analysis of Sombor and harmonic indices of thorn cog-graphs. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1777-1784. https://doi.org/10.18280/mmep.100529
195	Elezaj, S., Ramaj, V., Elezaj, R., Ukaj, F.	A Mathematical Approach to Evaluating Managerial Skills: Economic Cybernetics and the Convex Operational Field	management, operational management, strategic management, economic cybernetics, forecasting, convex operational area/field, coefficient of elasticity	10, 5, 1785-1790	https://doi.org/10.18280/mmep.100530	Elezaj, S., Ramaj, V., Elezaj, R., Ukaj, F. (2023). A mathematical approach to evaluating managerial skills: Economic cybernetics and the convex operational field. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1785-1790. https://doi.org/10.18280/mmep.100530
196	Pappala, V.K., Kasibhatla, R.S., Chennapragada, V.K.B., Akkapeddi, C.S.	Design of a Stand-Alone PV System for Irrigation in Rural India Using SAM Software	SAM (System Advisor Model) software, energy production, solar plant, simulation, energy technologies	10, 5, 1791-1802	https://doi.org/10.18280/mmep.100531	Pappala, V.K., Kasibhatla, R.S., Chennapragada, V.K.B., Akkapeddi, C.S. (2023). Design of a stand-alone PV system for irrigation in rural India using SAM software. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1791-1802. https://doi.org/10.18280/mmep.100531
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198	Muniasamy, K., Venugopal, P., Pakkirisamy, G.	Genetic Algorithm-Driven Optimization of Scheduling and Preventive Measures in Parallel Machines	parallel machine, Makespan, protection, genetic algorithm, CPLEX algorithm	10, 5, 1811-1816	https://doi.org/10.18280/mmep.100533	Muniasamy, K., Venugopal, P., Pakkirisamy, G. (2023). Genetic algorithm-driven optimization of scheduling and preventive measures in parallel machines. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1811-1816. https://doi.org/10.18280/mmep.100533
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200	Jayanti, S., Kandikatla, C., Chaganti, P., Akkapeddi, C.S.	A Novel Secure Session Key Agreement Protocol Based on Multivariate Polynomials	telemedicine, multivariate polynomials, affine cipher, key agreement protocols, session key	10, 5, 1824-1832	https://doi.org/10.18280/mmep.100535	Jayanti, S., Kandikatla, C., Chaganti, P., Akkapeddi, C.S. (2023). A novel secure session key agreement protocol based on multivariate polynomials. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1824-1832. https://doi.org/10.18280/mmep.100535
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206	Mahmood, H.A., Attia, O.H., Al-Sulttani, A.O., Mosa, A.I.	Impacts of Varied Injection Timing on Emission Levels, Combustion Efficiency, and Performance of Biodiesel Engines	biodiesel, CFD, diesel engine, injection time, combustion	10, 5, 1873-1883	https://doi.org/10.18280/mmep.100541	Mahmood, H.A., Attia, O.H., Al-Sulttani, A.O., Mosa, A.I. (2023). Impacts of varied injection timing on emission levels, combustion efficiency, and performance of biodiesel engines. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1873-1883. https://doi.org/10.18280/mmep.100541
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208	Al-Hashmi, H., Al-Hussein, A., Al-Abboodi, I.	A Parametric Study of Bridge Approach Slabs under Vehicle Loads Using SAP2000	approach slab, bridge, soil-structure interaction, SAP2000, settlement	10, 5, 1893-1900	https://doi.org/10.18280/mmep.100543	Al-Hashmi, H., Al-Hussein, A., Al-Abboodi, I. (2023). A parametric study of bridge approach slabs under vehicle loads using SAP2000. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 5, pp. 1893-1900. https://doi.org/10.18280/mmep.100543
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212	Ali, A.H., Al-Hussein, A., Majeed, F.H.	SAP2000 Analysis of Seismic Reinforcement Using Carbon Fiber Reinforced Polymer and Textile Reinforced Mortar Jacketing	strengthening, Textile Reinforced Mortar jacketing, Fiber Reinforced Polymer wrapping, seismic, SAP2000	10, 4, 1105-1113	https://doi.org/10.18280/mmep.100402	Ali, A.H., Al-Hussein, A., Majeed, F.H. (2023). SAP2000 analysis of seismic reinforcement using Carbon Fiber Reinforced Polymer and Textile Reinforced Mortar jacketing. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1105-1113. https://doi.org/10.18280/mmep.100402
213	Rochman, E.M.S., Miswanto, Suprajitno, H., Rachmad, A., Mula'ab, Santosa, I.	Utilizing LSTM and K-NN for Anatomical Localization of Tuberculosis: A Solution for Incomplete Data	tuberculosis, missing value, KNN, classification, Naive Bayes, LSTM, Backpropagation, SVM	10, 4, 1114-1124	https://doi.org/10.18280/mmep.100403	Rochman, E.M.S., Miswanto, Suprajitno, H., Rachmad, A., Mula'ab, Santosa, I. (2023). Utilizing LSTM and K-NN for anatomical localization of tuberculosis: A solution for incomplete data. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1114-1124. https://doi.org/10.18280/mmep.100403
214	Ahmed, A.S., Kurnaz, S., Khaleel, A.M.	Evaluation DDoS Attack Detection Through the Application of Machine Learning Techniques on the CICIDS2017 Dataset in the Field of Information Security	IDS threats, Python environment, DoS attacks, algorithms	10, 4, 1125-1134	https://doi.org/10.18280/mmep.100404	Ahmed, A.S., Kurnaz, S., Khaleel, A.M. (2023). Evaluation DDoS attack detection through the application of machine learning techniques on the CICIDS2017 dataset in the field of information security. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1125-1134. https://doi.org/10.18280/mmep.100404
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216	Abbas, A.A., Hussein, M.A., Hussein T.N.	Experimental and Numerical Study of Sudden Stop Case for Twist Drill Tool and Treated by Lubricant	experimental study, twist drill, torsional shear stress, sudden stop, lubricant	10, 4, 1142-1148	https://doi.org/10.18280/mmep.100406	Abbas, A.A., Hussein, M.A., Hussein T.N. (2023). Experimental and numerical study of sudden stop case for twist drill tool and treated by lubricant. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1142-1148. https://doi.org/10.18280/mmep.100406
217	Kosova, R., Xhafaj, E., Qendraj, D.H., Prifti, I.	Forecasting Fossil Fuel Production Through Curve-Fitting Models: An Evaluation of the Hubbert Model	Hubbert, curve, math modelling, oil production, Albania	10, 4, 1149-1156	https://doi.org/10.18280/mmep.100407	Kosova, R., Xhafaj, E., Qendraj, D.H., Prifti, I. (2023). Forecasting fossil fuel production through curve-fitting models: An evaluation of the Hubbert model. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1149-1156. https://doi.org/10.18280/mmep.100407
218	Al Zerkani, S., Alaiwi, Y.	Heat Transfer Enhancement Using Ferro-Nanofluid with Magnetic Field in Tube Having Inserted Twisted Tube	ferro-nanofluid, magnetic field, twisted tube, heat transfer	10, 4, 1157-1168	https://doi.org/10.18280/mmep.100408	Al Zerkani, S., Alaiwi, Y. (2023). Heat transfer enhancement using ferro-nanofluid with magnetic field in tube having inserted twisted tube. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1157-1168. https://doi.org/10.18280/mmep.100408
219	Hassan, H.M., Ismaeel, A.J., Ethaib, S., Al-Zaidi, B.M.	Developing Spatial Models of Groundwater Quality in the Southwestern Desert of Iraq Using GIS, Inverse Distance Weighting, and Kriging Interpolation Techniques	groundwater, wells, geographic information systems (GIS), desert, water quality, wet and dry seasons	10, 4, 1169-1179	https://doi.org/10.18280/mmep.100409	Hassan, H.M., Ismaeel, A.J., Ethaib, S., Al-Zaidi, B.M. (2023). Developing spatial models of groundwater quality in the southwestern desert of Iraq using GIS, inverse distance weighting, and Kriging interpolation techniques. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1169-1179. https://doi.org/10.18280/mmep.100409
220	Adali, S.	A Variational Formulation for Coupled Single-Walled Carbon Nanotubes Undergoing Vibrations in the Presence of an Axial Magnetic Field	carbon nanotubes, magnetic field, Winkler-Pasternak interlayer, variational formulation, variationally consistent boundary conditions, vibrations	10, 4, 1180-1188	https://doi.org/10.18280/mmep.100410	Adali, S. (2023). A variational formulation for coupled single-walled carbon nanotubes undergoing vibrations in the presence of an axial magnetic field. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1180-1188. https://doi.org/10.18280/mmep.100410
221	Hassan, A.R., Hawas, M.N., Abdullah, A.R., Majdi, H.S., Habeeb, L.J.	High-Speed Helical Gear Design Parameters Effect on the Dynamic Stress	FEM, helical gear, pressure angle, helix angle, stress analysis, simulation	10, 4, 1189-1198	https://doi.org/10.18280/mmep.100411	Hassan, A.R., Hawas, M.N., Abdullah, A.R., Majdi, H.S., Habeeb, L.J. (2023). High-speed helical gear design parameters effect on the dynamic stress. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1189-1198. https://doi.org/10.18280/mmep.100411
222	Johnson, U.V., Adesina, O.S., Agboola, O.O., Adedotun, A.F.	A Lotka-Volterra Non-linear Differential Equation Model for Evaluating Tick Parasitism in Canine Populations	non-linear differential equation, Lotka-Volterra, system stability, species, dynamical system	10, 4, 1199-1206	https://doi.org/10.18280/mmep.100412	Johnson, U.V., Adesina, O.S., Agboola, O.O., Adedotun, A.F. (2023). A Lotka-Volterra non-linear differential equation model for evaluating tick parasitism in canine populations. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1199-1206. https://doi.org/10.18280/mmep.100412
223	Aljameel, S.S., Rahman, A.	Enhancing Multi-User Detection in Multicarrier 5G and Beyond: A Space-Time Spreading Approach with Parallel Interference Cancellation	multiple access, Parallel Interference Cancellation (PIC), De-correlating Detector (DD), Code Division Multiple Access (CDMA), 5G, Non-Orthogonal Multiple Access	10, 4, 1207-1215	https://doi.org/10.18280/mmep.100413	Aljameel, S.S., Rahman, A. (2023). Enhancing multi-user detection in multicarrier 5G and beyond: A space-time spreading approach with parallel interference cancellation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1207-1215. https://doi.org/10.18280/mmep.100413
224	Ghane, R.G., Hassan, M.Y.	Advanced Hybrid Nonlinear Control for Morphing Quadrotors	nonlinear PID control, sliding mode control, foldable quadrotor	10, 4, 1216-1224	https://doi.org/10.18280/mmep.100414	Ghane, R.G., Hassan, M.Y. (2023). Advanced hybrid nonlinear control for morphing quadrotors. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1216-1224. https://doi.org/10.18280/mmep.100414
225	Fadhil, M.A., Shareef, W.F.	Loose Garments Effects on Wearable Sensors in Human Activity Tracking Applications	wearable sensors, human activity, smart clothes, tight clothes, loose-fitting clothes	10, 4, 1225-1234	https://doi.org/10.18280/mmep.100415	Fadhil, M.A., Shareef, W.F. (2023). Loose garments effects on wearable sensors in human activity tracking applications. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1225-1234. https://doi.org/10.18280/mmep.100415
226	Prasetyo, S.D., Arifin, Z., Prabowo, A.R., Budiana, E.P., Mohd Rosli, M.A., Alfaiz, N.F., Bangun, W.B.	Optimization of Photovoltaic Thermal Collectors Using Fins: A Review of Strategies for Enhanced Solar Energy Harvesting	photovoltaic, solar energy, thermal collectors, designed fins	10, 4, 1235-1248	https://doi.org/10.18280/mmep.100416	Prasetyo, S.D., Arifin, Z., Prabowo, A.R., Budiana, E.P., Mohd Rosli, M.A., Alfaiz, N.F., Bangun, W.B. (2023). Optimization of photovoltaic thermal collectors using fins: A review of strategies for enhanced solar energy harvesting. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1235-1248. https://doi.org/10.18280/mmep.100416
227	Ahmad, I.A., Al-Nayar, M.M.J., Mahmood, A.M.	Dynamic Low Power Clustering Strategy in MWSN	clustering algorithm, energy efficiency, K-means algorithm, mobile wireless sensor network	10, 4, 1249-1256	https://doi.org/10.18280/mmep.100417	Ahmad, I.A., Al-Nayar, M.M.J., Mahmood, A.M. (2023). Dynamic low power clustering strategy in MWSN. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1249-1256. https://doi.org/10.18280/mmep.100417
228	Bouaissi, I., Rezig, A., Touati, S.	The Fast Prognosis of Inter-Turn Faults in an Induction Motor	induction motors, forward and backward currents, detection	10, 4, 1257-1264	https://doi.org/10.18280/mmep.100418	Bouaissi, I., Rezig, A., Touati, S. (2023). The fast prognosis of inter-turn faults in an induction motor. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1257-1264. https://doi.org/10.18280/mmep.100418

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230	Abushilah, S.F., Abbas, R.H.	Performance Evaluation of Some Clustering Algorithms under Different Validity Indices	clusters, linkage clustering methods, internal indices, external scores	10, 4, 1271-1280	https://doi.org/10.18280/mmep.100420	Abushilah, S.F., Abbas, R.H. (2023). Performance evaluation of some clustering algorithms under different validity indices. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1271-1280. https://doi.org/10.18280/mmep.100420
231	Saeed, S.R., Kareem, A.R., Hameed, A.Q.	An Enhanced Design of Cascaded Single-Stage Distributed Amplifiers Utilizing Quasi-Differential Amplifier Cells	microwave amplifier, quasi-differential cascade distributed amplifier, differential amplifier gain bandwidth	10, 4, 1281-1287	https://doi.org/10.18280/mmep.100421	Saeed, S.R., Kareem, A.R., Hameed, A.Q. (2023). An enhanced design of cascaded single-stage distributed amplifiers utilizing quasi-differential amplifier cells. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1281-1287. https://doi.org/10.18280/mmep.100421
232	Al-Nabulsi, J., Turab, N., Owida, H.A.	Enhanced Facial Recognition Techniques for Masked Individuals Amid the COVID-19 Pandemic	convolutional neural networks, facial recognition, InceptionV3, MobileNet, VGG16, VGG19, ResNet50	10, 4, 1288-1296	https://doi.org/10.18280/mmep.100422	Al-Nabulsi, J., Turab, N., Owida, H.A. (2023). Enhanced facial recognition techniques for masked individuals amid the COVID-19 pandemic. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1288-1296. https://doi.org/10.18280/mmep.100422
233	Samson, T.K., Onwukwe, C.E., Lawal, A.I.	An Examination of Cryptocurrency Volatility: Insights from Skewed Error Innovation Distributions Within GARCH Model Frameworks	cryptocurrencies, distribution, GARCH, volatility	10, 4, 1297-1306	https://doi.org/10.18280/mmep.100423	Samson, T.K., Onwukwe, C.E., Lawal, A.I. (2023). An examination of cryptocurrency volatility: Insights from skewed error innovation distributions within GARCH model frameworks. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1297-1306. https://doi.org/10.18280/mmep.100423
234	Mostafa, O., Zidan, N.A., Abbas, W., Issa, H.H., Gamal, N., Fedawy, M.	Design and Performance Optimization of Lead-Free Perovskite Solar Cells with Enhanced Efficiency	optimization, toxic-free perovskite, solar cell, lead-free	10, 4, 1307-1316	https://doi.org/10.18280/mmep.100424	Mostafa, O., Zidan, N.A., Abbas, W., Issa, H.H., Gamal, N., Fedawy, M. (2023). Design and performance optimization of lead-free perovskite solar cells with enhanced efficiency. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1307-1316. https://doi.org/10.18280/mmep.100424
235	Ramdass, P., Ganesan, G.	Leveraging Neighbourhood Component Analysis for Optimizing Multilayer Feed-Forward Neural Networks in Heart Disease Prediction	neighbourhood component analysis, multilayer feed forward neural network, backpropagation, Cleveland dataset	10, 4, 1317-1323	https://doi.org/10.18280/mmep.100425	Ramdass, P., Ganesan, G. (2023). Leveraging neighbourhood component analysis for optimizing multilayer feed-forward neural networks in heart disease prediction. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1317-1323. https://doi.org/10.18280/mmep.100425
236	Al-Saffar, D.M., Al-Shathr, B.S., Abed, S.K.	Evaluating Fresh Properties of Non-Dispersive Reactive Powder Concrete: A Novel Approach	viscosity-modifying additives, fluidizing, underwater construction, viscosity, non-dispersive concrete	10, 4, 1324-1332	https://doi.org/10.18280/mmep.100426	Al-Saffar, D.M., Al-Shathr, B.S., Abed, S.K. (2023). Evaluating fresh properties of non-dispersive reactive powder concrete: A novel approach. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1324-1332. https://doi.org/10.18280/mmep.100426
237	Khalaf, M.S., Wahab, A.A.A.	Minimum Mean Square Error Algorithm for Improving Spectral Efficiency by Reducing Power Consumption of Beamforming in 5G Networks	power consumption (PC), MMSE, fifth generation (5G), spectral efficiency	10, 4, 1333-1344	https://doi.org/10.18280/mmep.100427	Khalaf, M.S., Wahab, A.A.A. (2023). Minimum mean square error algorithm for improving spectral efficiency by reducing power consumption of beamforming in 5G networks. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1333-1344. https://doi.org/10.18280/mmep.100427
238	Mahdi, H.A., Shujaa, M.I., Zghair, E.M.	Diagnosis of Medical Images Using Fuzzy Convolutional Neural Networks	Fuzzy Convolutional Neural Network, Deep Learning, MRI images, fuzzy logic, medical image processing, brain tumor	10, 4, 1345-1351	https://doi.org/10.18280/mmep.100428	Mahdi, H.A., Shujaa, M.I., Zghair, E.M. (2023). Diagnosis of medical images using Fuzzy Convolutional Neural Networks. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1345-1351. https://doi.org/10.18280/mmep.100428
239	Alhuseinat, A.Y., Owida, H.A., Rababah, H.A., Al-Nabulsi, J.I., Abuowaida, S.	A Secured Multi-Stages Authentication Protocol for IoT Devices	Internet of Things (IoT), authentication protocol, dynamic key exchange, real-time application, One-Time Pad (OTP)	10, 4, 1352-1358	https://doi.org/10.18280/mmep.100429	Alhuseinat, A.Y., Owida, H.A., Rababah, H.A., Al-Nabulsi, J.I., Abuowaida, S. (2023). A secured multi-stages authentication protocol for IoT devices. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1352-1358. https://doi.org/10.18280/mmep.100429
240	Benchiheb, A., Dib, S., Benchiheb, N., Saidi, Y., Lidjici, H.	Optimization of Doping Levels and Emitter Thickness in Silicon Solar Cells to Minimize Auger Recombination Effects	silicon solar cells, auger recombination, doping optimization, emitter thickness, simulation, COMSOL software	10, 4, 1359-1368	https://doi.org/10.18280/mmep.100430	Benchiheb, A., Dib, S., Benchiheb, N., Saidi, Y., Lidjici, H. (2023). Optimization of doping levels and emitter thickness in silicon solar cells to minimize auger recombination effects. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1359-1368. https://doi.org/10.18280/mmep.100430
241	Sultan, H.K., Abbas, B.J., Al Khuziaie, H.M.A., Alshekayree, T.K.Q.	Designing High Strength Concrete Grade T-Beams at the Lowest Possible Cost	high strength concrete (HSC) T-beams, ACI 318-08 code, cost optimum design, nonlinear programming	10, 4, 1369-1376	https://doi.org/10.18280/mmep.100431	Sultan, H.K., Abbas, B.J., Al Khuziaie, H.M.A., Alshekayree, T.K.Q. (2023). Designing high strength concrete grade T-beams at the lowest possible cost. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1369-1376. https://doi.org/10.18280/mmep.100431
242	Hassan, H.J., Mahmood, A.M.	Optimization of Wildfire Localization Using a Trilateration-Based Nelder-Mead Algorithm in a Wireless Sensor Network	wildfire, forest fire, localization, WSN, trilateration, Nelder-Mead algorithm, anchor node, cloud computing, IoT protocol	10, 4, 1377-1384	https://doi.org/10.18280/mmep.100432	Hassan, H.J., Mahmood, A.M. (2023). Optimization of wildfire localization using a trilateration-based Nelder-Mead algorithm in a wireless sensor network. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1377-1384. https://doi.org/10.18280/mmep.100432
243	Sebbar, D., Boudjema, B., Boukaoud, A., Chiba, Y.	Effects of the Magnetic Field and Thickness of Layers on Intersubband Absorption in Asymmetric Double Parabolic Quantum Wells	quantum wells, thickness of layers, magnetic field, absorption coefficient, refractive index changes	10, 4, 1385-1390	https://doi.org/10.18280/mmep.100433	Sebbar, D., Boudjema, B., Boukaoud, A., Chiba, Y. (2023). Effects of the magnetic field and thickness of layers on intersubband absorption in asymmetric double parabolic quantum wells. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1385-1390. https://doi.org/10.18280/mmep.100433
244	Obais, A.M.	An Innovative Linear Susceptance Model Deploying a Thyristor Controlled Reactor with Harmonic Suppression Circuitry and Advanced Current Controller	harmonic reduction, linear susceptance, power quality, Thyristor Controlled Reactor (TCR), static var compensator	10, 4, 1391-1400	https://doi.org/10.18280/mmep.100434	Obais, A.M. (2023). An innovative linear susceptance model deploying a Thyristor Controlled Reactor with harmonic suppression circuitry and advanced current controller. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1391-1400. https://doi.org/10.18280/mmep.100434
245	Risnanto, S., Mohd, O., Hafeizah, N., Mardiana, N., Abdurrohman, Hersusetiyati.	Constructing and Optimizing an Evaluation Model for the Implementation of Electronic Voting: An Indonesian Case Study	E-Voting, election, construction, optimization, success factors, framework	10, 4, 1401-1408	https://doi.org/10.18280/mmep.100435	Risnanto, S., Mohd, O., Hafeizah, N., Mardiana, N., Abdurrohman, Hersusetiyati. (2023). Constructing and optimizing an evaluation model for the implementation of electronic voting: An Indonesian case study. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1401-1408. https://doi.org/10.18280/mmep.100435
246	Ibraheem, R.H., Esa, R.I., Jameel, A.F.	The New Runge-Kutta Fehlberg Method for the Numerical Solution of Second-Order Fuzzy Initial Value Problems	fuzzy sets theory, fuzzy differential equation, second order FIVPs, fifth order Runge-Kutta Fehlberg method (RKF5)	10, 4, 1409-1418	https://doi.org/10.18280/mmep.100436	Ibraheem, R.H., Esa, R.I., Jameel, A.F. (2023). The new Runge-Kutta Fehlberg method for the numerical solution of second-order fuzzy initial value problems. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1409-1418. https://doi.org/10.18280/mmep.100436
247	Almusaibi, H., Naimi, S.	Total Quality Management's Critical Role in Resolving Delay Issue of Construction Projects Submission	construction projects, BIM technology, total quality management, professionals' opinion, submission, delay issue	10, 4, 1419-1426	https://doi.org/10.18280/mmep.100437	Almusaibi, H., Naimi, S. (2023). Total quality management's critical role in resolving delay issue of construction projects submission. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1419-1426. https://doi.org/10.18280/mmep.100437

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249	Jadhav, R., Mahajan, A.	Smart Grid Data Denoising and Compression Using Wavelet Packet Transform	complexity, compression ratio, reconstruction, signal to noise ratio, wavelet transform	10, 4, 1433-1440	https://doi.org/10.18280/mmep.100439	Jadhav, R., Mahajan, A. (2023). Smart grid data denoising and compression using wavelet packet transform. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1433-1440. https://doi.org/10.18280/mmep.100439
250	Rasheed, M.A., Saeed, M.A.	Numerical Finite Difference Scheme for a Two-Dimensional Time-Fractional Semilinear Diffusion Equation	time fractional equation, Caputo fractional formula, finite difference schemes, Semilinear diffusion equation, Crank-Nicolson method	10, 4, 1441-1449	https://doi.org/10.18280/mmep.100440	Rasheed, M.A., Saeed, M.A. (2023). Numerical finite difference scheme for a two-dimensional time-fractional semilinear diffusion equation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1441-1449. https://doi.org/10.18280/mmep.100440
251	Lin, M.H., Sivaraman, R., Nan, Z., Rahardja, U., Muda, I., Fahim, F.S., Bashar, B.S., Li, L.G., Husein, I.	Capacity Optimization Design of Hybrid Energy Power Generation System	hybrid system, soft computing, energy management strategy	10, 4, 1450-1456	https://doi.org/10.18280/mmep.100441	Lin, M.H., Sivaraman, R., Nan, Z., Rahardja, U., Muda, I., Fahim, F.S., Bashar, B.S., Li, L.G., Husein, I. (2023). Capacity optimization design of hybrid energy power generation system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1450-1456. https://doi.org/10.18280/mmep.100441
252	Atyia, O.M., Fadhel, F.S., Mizal H. Alobaidi, M.H.	Using Variational Iteration Method for Solving Linear Fuzzy Random Ordinary Differential Equations	random differential equations, fuzzy differential equations, variational iteration method, Weiner process, fuzzy number	10, 4, 1457-1466	https://doi.org/10.18280/mmep.100442	Atyia, O.M., Fadhel, F.S., Mizal H. Alobaidi, M.H. (2023). Using variational iteration method for solving linear fuzzy random ordinary differential equations. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1457-1466. https://doi.org/10.18280/mmep.100442
253	Widodo, C.E., Adi, K., Gernowo, R., Setiawan, A.	Pleural Effusion Measurement Method on Thoracic Image of Dengue Fever Patient Using Image Processing Technique	Dengue Hemorrhagic Fever (DHF), Pleural Effusion Index (PEI), chest image, image processing, automatic measurement, portable system	10, 4, 1467-1472	https://doi.org/10.18280/mmep.100443	Widodo, C.E., Adi, K., Gernowo, R., Setiawan, A. (2023). Pleural effusion measurement method on thoracic image of dengue fever patient using image processing technique. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1467-1472. https://doi.org/10.18280/mmep.100443
254	Belabbes, K., Hachloufi, M.E., Guennoun, Z.E.A.	Diversified Mean-Value at Risk Models with Transaction Costs for International Portfolio Optimization Using Uncertainty Theory	diversification, international portfolio optimization, value at risk, uncertainty theory, transaction cost	10, 4, 1473-1480	https://doi.org/10.18280/mmep.100444	Belabbes, K., Hachloufi, M.E., Guennoun, Z.E.A. (2023). Diversified mean-value at risk models with transaction costs for international portfolio optimization using uncertainty theory. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1473-1480. https://doi.org/10.18280/mmep.100444
255	Dharmaraj, B., Appasamy, S.	Application of a Modified Gauss Elimination Technique for Separable Fuzzy Nonlinear Programming Problems	breaking points, gauss elimination method, parametric form, separable nonlinear programming	10, 4, 1481-1486	https://doi.org/10.18280/mmep.100445	Dharmaraj, B., Appasamy, S. (2023). Application of a modified gauss elimination technique for separable fuzzy nonlinear programming problems. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 4, pp. 1481-1486. https://doi.org/10.18280/mmep.100445
256	Hasan, H.A., Hacheem, Z.A., Almurshedi, A.D., Khabbaz, H.	The Influence of Styrene Butadiene Latex on Sandy Soil Reinforced by Soil Mixed Columns under Raft Foundation	soil stabilization, styrene butadiene latex, cement, soil mixed columns, Plaxis 3D	10, 3, 733-739	https://doi.org/10.18280/mmep.100301	Hasan, H.A., Hacheem, Z.A., Almurshedi, A.D., Khabbaz, H. (2023). The influence of styrene butadiene latex on sandy soil reinforced by soil mixed columns under raft foundation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 733-739. https://doi.org/10.18280/mmep.100301
257	Okokpujie, K., Okokpujie, I.P., Ogunlode, A.T., Anike, C.D., Asaboro, O.B., Vincent, A.A.	Development of a Sustainable Internet of Things-Based System for Monitoring Cattle Health and Location with Web and Mobile Application Feedback	cattle, health status, location tracking system, web application, mobile application	10, 3, 740-748	https://doi.org/10.18280/mmep.100302	Okokpujie, K., Okokpujie, I.P., Ogunlode, A.T., Anike, C.D., Asaboro, O.B., Vincent, A.A. (2023). Development of a sustainable Internet of Things-based system for monitoring cattle health and location with web and mobile application feedback. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 740-748. https://doi.org/10.18280/mmep.100302
258	Maheshwaran, T., Pullepu, B., Pinelas, S.	Group Method of Uniform Surface Heat Flux from a Vertical Cone Using Laminar Free Convection	group method, heat transfer, natural convection, ordinary differential equations, partial differential equations, vertical cone	10, 3, 749-756	https://doi.org/10.18280/mmep.100303	Maheshwaran, T., Pullepu, B., Pinelas, S. (2023). Group method of uniform surface heat flux from a vertical cone using laminar free convection. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 749-756. https://doi.org/10.18280/mmep.100303
259	Onokwai, A.O., Okokpujie, I.P., Ajisejiri, E.S.A., Oki, M., Onokpite, E., Babaremu, K., Jen, T.C.	Optimization of Pyrolysis Operating Parameters for Biochar Production from Palm Kernel Shell Using Response Surface Methodology	energy, biomass, pyrolysis, palm kernel shell, response surface method	10, 3, 757-766	https://doi.org/10.18280/mmep.100304	Onokwai, A.O., Okokpujie, I.P., Ajisejiri, E.S.A., Oki, M., Onokpite, E., Babaremu, K., Jen, T.C. (2023). Optimization of pyrolysis operating parameters for biochar production from palm kernel shell using response surface methodology. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 757-766. https://doi.org/10.18280/mmep.100304
260	Hasan, H., Naimi, S., Hameed, M.M.	A Comprehensive Analysis of BIM Technology's Critical Role in Assessing Cost for Complex Dam Construction Projects	BIM technology, accuracy, cost estimation, construction projects, questionnaire	10, 3, 767-773	https://doi.org/10.18280/mmep.100305	Hasan, H., Naimi, S., Hameed, M.M. (2023). A comprehensive analysis of BIM technology's critical role in assessing cost for complex dam construction projects. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 767-773. https://doi.org/10.18280/mmep.100305
261	Nguyen, T.T.N.	Computational Optimization of Cam Knife-Edge Follower Design Using Potential Energy Analysis	cam curve, cam knife-edge follower, curvilinear coordinate, potential energy, finite element discretization, newton-Raphson method, pressure angle	10, 3, 774-780	https://doi.org/10.18280/mmep.100306	Nguyen, T.T.N. (2023). Computational optimization of cam knife-edge follower design using potential energy analysis. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 774-780. https://doi.org/10.18280/mmep.100306
262	Iswarya, G., Matcha, B.	Mathematical Modeling for Evaluating the Mechanical Properties of High Strength Concrete with Natural Zeolite and Additives	regression analysis, high strength concrete, natural zeolite, metakaolin, fly ash, silica fume	10, 3, 781-789	https://doi.org/10.18280/mmep.100307	Iswarya, G., Matcha, B. (2023). Mathematical modeling for evaluating the mechanical properties of high strength concrete with natural zeolite and additives. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 781-789. https://doi.org/10.18280/mmep.100307
263	Hicham, N., Karim, S., Habbat, N.	Enhancing Arabic Sentiment Analysis in E-Commerce Reviews on Social Media Through a Stacked Ensemble Deep Learning Approach	AraBERT, deep learning, sentiment analysis, stacked model	10, 3, 790-798	https://doi.org/10.18280/mmep.100308	Hicham, N., Karim, S., Habbat, N. (2023). Enhancing Arabic sentiment analysis in E-commerce reviews on social media through a stacked ensemble deep learning approach. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 790-798. https://doi.org/10.18280/mmep.100308
264	Abd Alhussain, Z.F., Hassan, A.F.	A Binary Relation Fuzzy Soft Matrix-Theoretic Approach to Image Quality Measurement: Comparison with Statistical Similarity Metrics	binary relation fuzzy soft set, binary relation fuzzy soft matrix, image structural similarity, image-quality assessment, image-processing	10, 3, 799-804	https://doi.org/10.18280/mmep.100309	Abd Alhussain, Z.F., Hassan, A.F. (2023). A binary relation fuzzy soft matrix-theoretic approach to image quality measurement: Comparison with statistical similarity metrics. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 799-804. https://doi.org/10.18280/mmep.100309
265	Berabek, K., Hamoudi, F., Idjdarene, K., Hacini, I.	Advanced Terminal Voltage Control of Self-Excited Induction Generators in Variable-Speed Wind Turbines Using a Three-Level NPC Converter	DTC control, 3L_NPC converter, induction generator, saturation, autonomous	10, 3, 805-814	https://doi.org/10.18280/mmep.100310	Berabek, K., Hamoudi, F., Idjdarene, K., Hacini, I. (2023). Advanced terminal voltage control of self-excited induction generators in variable-speed wind turbines using a three-level NPC converter. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 805-814. https://doi.org/10.18280/mmep.100310
266	Yaseen, A.A., Khalaf, M.A., Majeed, F.H.	Parametric Analysis of the Static Behavior of Long Cylindrical Concrete Thin Shells under Self-Weight Loading	ANSYS, concrete, finite element, thin shells, static analysis	10, 3, 815-820	https://doi.org/10.18280/mmep.100311	Yaseen, A.A., Khalaf, M.A., Majeed, F.H. (2023). Parametric analysis of the static behavior of long cylindrical concrete thin shells under self-weight loading. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 815-820. https://doi.org/10.18280/mmep.100311

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268	Shlash, M.A., Obead, I.H.	Supervised Classification of Groundwater Potential Mapping Using Integrated Machine Learning and GIS-Based Techniques	machine learning, supervised classification, Artificial Neural Networks (ANN), Groundwater Potential Mapping (GPM)	10, 3, 829-842	https://doi.org/10.18280/mmep.100313	Shlash, M.A., Obead, I.H. (2023). Supervised classification of groundwater potential mapping using integrated machine learning and GIS-based techniques. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 829-842. https://doi.org/10.18280/mmep.100313
269	Jabri, A., Ansari, M.R., Marefat, M.	3-D FSI Simulation and Practical Experiments of Thermal Performance Enhancement on PVT in Tehran, Abadan, Baghdad, and Basra	photovoltaic thermal system (PVT), CFD analysis, electrical power, transient thermal	10, 3, 843-851	https://doi.org/10.18280/mmep.100314	Jabri, A., Ansari, M.R., Marefat, M. (2023). 3-D FSI simulation and practical experiments of thermal performance enhancement on PVT in Tehran, Abadan, Baghdad, and Basra. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 843-851. https://doi.org/10.18280/mmep.100314
270	Saieed, A.N.A., Alturahi, M.H., Jassim, L., Majdi, H.S.	Nanomaterials and Phase-Changing Materials in a U Vacuum Tube Solar Collector	phase change materials, solar collector, U vacuum tube, melting and solidification	10, 3, 852-860	https://doi.org/10.18280/mmep.100315	Saieed, A.N.A., Alturahi, M.H., Jassim, L., Majdi, H.S. (2023). Nanomaterials and phase-changing materials in a U vacuum tube solar collector. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 852-860. https://doi.org/10.18280/mmep.100315
271	Radha, H.M., Hassan, A.K.A., Al-Timemy, A.H.	Enhanced Prosthesis Control Through Improved Shoulder Girdle Motion Recognition Using Time-Dependent Power Spectrum Descriptors and Long Short-Term Memory	TD-PSD, LDA, LSTM, bio-signals analysis	10, 3, 861-870	https://doi.org/10.18280/mmep.100316	Radha, H.M., Hassan, A.K.A., Al-Timemy, A.H. (2023). Enhanced prosthesis control through improved shoulder girdle motion recognition using Time-Dependent Power Spectrum Descriptors and Long Short-Term Memory. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 861-870. https://doi.org/10.18280/mmep.100316
272	Hai, B.H.	Enhanced ECG Record Quality: Integrated Artifact Suppression Using Soft Threshold on Wavelet Coefficients and Adaptive Filter Model	biomedical signals, electrocardiogram (ECG), independent component analysis (ICA), wavelet transform, adaptive filter, wICA, wICA AF	10, 3, 871-878	https://doi.org/10.18280/mmep.100317	Hai, B.H. (2023). Enhanced ECG record quality: Integrated artifact suppression using soft threshold on wavelet coefficients and adaptive filter model. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 871-878. https://doi.org/10.18280/mmep.100317
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274	Abdulameer, Y.A., Al-Saif, A.J.A.	Analytical Simulation of Natural Convection Between Two Concentric Horizontal Circular Cylinders: A Hybrid Fourier Transform-Homotopy Perturbation Approach	fourier transform, homotopy perturbation method, convolution theory, natural convection, cylindrical annuli	10, 3, 886-896	https://doi.org/10.18280/mmep.100319	Abdulameer, Y.A., Al-Saif, A.J.A. (2023). Analytical simulation of natural convection between two concentric horizontal circular cylinders: A hybrid fourier transform-homotopy perturbation approach. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 886-896. https://doi.org/10.18280/mmep.100319
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278	Thong, L.W., Kok, S.L., Ramlan, R.	Enhanced Piezoelectric Energy Harvesting System Model Leveraging Phase Shifting Effects for Optimization	broadband energy harvesting, equivalent circuit model, multi-mode system, phase shift, piezoelectric cantilevers, single-degree-of-freedom	10, 3, 921-929	https://doi.org/10.18280/mmep.100323	Thong, L.W., Kok, S.L., Ramlan, R. (2023). Enhanced piezoelectric energy harvesting system model leveraging phase shifting effects for optimization. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 921-929. https://doi.org/10.18280/mmep.100323
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281	Hamzah, M.N., Merza, A.S.	Geometric Optimization of Spur Gears for Stress Reduction and Enhanced Performance	gears, geometric optimization, root stress, stress relief, symmetric teeth	10, 3, 943-950	https://doi.org/10.18280/mmep.100326	Hamzah, M.N., Merza, A.S. (2023). Geometric optimization of spur gears for stress reduction and enhanced performance. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 943-950. https://doi.org/10.18280/mmep.100326
282	Khan, I.A., Shahid, M., Keshari, J.P., Rai, A.	A Power-Efficient Error Detection and Correction Circuit Design Using Hamming Codes for Portable Electronic Devices	data transmission, power density, faster rate, carbon nano-tubes, parity, nano-scaled device	10, 3, 951-956	https://doi.org/10.18280/mmep.100327	Khan, I.A., Shahid, M., Keshari, J.P., Rai, A. (2023). A power-efficient error detection and correction circuit design using Hamming Codes for portable electronic devices. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 951-956. https://doi.org/10.18280/mmep.100327
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284	Pillutla, S.H., Gopinathan, S.	Pseudospectral Method for Free Vibration Analysis of Vertically Standing Plates	free vibration, gravity, pseudospectral, standing plate, Winkler	10, 3, 963-967	https://doi.org/10.18280/mmep.100329	Pillutla, S.H., Gopinathan, S. (2023). Pseudospectral method for free vibration analysis of vertically standing plates. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 963-967. https://doi.org/10.18280/mmep.100329
285	Hamad, A.J., Hussein, F.M., Tarish, A.L.	Evaluating the Effects of Air Cooling on Photovoltaic Module Performance in Hot Climates: A Comprehensive Numerical and Experimental Investigation	PV module temperature, electrical efficiency, output power, air-cooling, simulation model, numerical solution	10, 3, 968-978	https://doi.org/10.18280/mmep.100330	Hamad, A.J., Hussein, F.M., Tarish, A.L. (2023). Evaluating the effects of air cooling on photovoltaic module performance in hot climates: A comprehensive numerical and experimental investigation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 968-978. https://doi.org/10.18280/mmep.100330

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287	Oudah, M.H., Ajlan, W.A., Hussien, W.Q., Yasser, Z.K.	Effect of Notched Pin Fin Heat Sink on the Heat Transfer Performance: Numerical Study	convection heat transfer, heat sink, heat transfer performance, notched pin fin	10, 3, 985-992	https://doi.org/10.18280/mmep.100332	Oudah, M.H., Ajlan, W.A., Hussien, W.Q., Yasser, Z.K. (2023). Effect of notched pin fin heat sink on the heat transfer performance: Numerical study. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 985-992. https://doi.org/10.18280/mmep.100332
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291	Farooqui, M., Rahman, A., Alorefan, R., Alqusser, M., Alzaid, L., Alnajim, S., Althobaiti, A., Ahmed, M.S.	Food Classification Using Deep Learning: Presenting a New Food Segmentation Dataset	image processing, deep learning, image classification, image segmentation dataset	10, 3, 1017-1024	https://doi.org/10.18280/mmep.100336	Farooqui, M., Rahman, A., Alorefan, R., Alqusser, M., Alzaid, L., Alnajim, S., Althobaiti, A., Ahmed, M.S. (2023). Food classification using deep learning: Presenting a new food segmentation dataset. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 1017-1024. https://doi.org/10.18280/mmep.100336
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293	Majidi, H.S., Merzah, B.N., Al-Musawi, S.T.M., Abdullah, A.R.	Numerical Simulation of Heat Transfer and Flow Enhancement Through Multi-Row Film Holes for Gas Turbine Blade Cooling	cooling turbine edge, CFD, cooling techniques, FEM, gas turbine, outer cooling, sharp edge tip heat moves, thermal hydraulic performance	10, 3, 1031-1038	https://doi.org/10.18280/mmep.100338	Majidi, H.S., Merzah, B.N., Al-Musawi, S.T.M., Abdullah, A.R. (2023). Numerical simulation of heat transfer and flow enhancement through multi-row film holes for gas turbine blade cooling. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 1031-1038. https://doi.org/10.18280/mmep.100338
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295	Atemimi, Y.K., Al-Waily, M.J.M., Ameri, A.A.K.	Evaluating the Efficacy of Calcined Waste Products as Soil Stabilizers	fly ash, pozzolanic, west materials, recycled materials	10, 3, 1047-1052	https://doi.org/10.18280/mmep.100340	Atemimi, Y.K., Al-Waily, M.J.M., Ameri, A.A.K. (2023). Evaluating the efficacy of calcined waste products as soil stabilizers. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 1047-1052. https://doi.org/10.18280/mmep.100340
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297	Omar, I., Saleh, A.A.M.	A Comprehensive Review of Design and Operational Parameters Influencing Airlift Pump Performance	airlift pump, airlift system, air-liquid flow, flow patterns, air injection, review	10, 3, 1063-1073	https://doi.org/10.18280/mmep.100342	Omar, I., Saleh, A.A.M. (2023). A comprehensive review of design and operational parameters influencing airlift pump performance. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 1063-1073. https://doi.org/10.18280/mmep.100342
298	Munawar, A.A., Hizir, H., Muhammad, S., Yusmanizar, Y.	Rapid Detection of Patchouli Oil Adulteration Using Support Vector Machine Classification and Discriminant Analysis with Near-Infrared Spectroscopy	models, NIRS, mathematical, agriculture, PCA, LDA, classification	10, 3, 1074-1080	https://doi.org/10.18280/mmep.100343	Munawar, A.A., Hizir, H., Muhammad, S., Yusmanizar, Y. (2023). Rapid detection of patchouli oil adulteration using support vector machine classification and discriminant analysis with near-infrared spectroscopy. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 1074-1080. https://doi.org/10.18280/mmep.100343
299	Mozaan, A.M., Al-Azzawi, F.F., Abid, F.A., Hammoodi, K.A.	Performance of Downlink Channel Equalization in Various Modulation Mappings for Long Term Evolution Systems	LTE equalizer, MMSE, RMS EVM	10, 3, 1081-1086	https://doi.org/10.18280/mmep.100344	Mozaan, A.M., Al-Azzawi, F.F., Abid, F.A., Hammoodi, K.A. (2023). Performance of downlink channel equalization in various modulation mappings for long term evolution systems. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 1081-1086. https://doi.org/10.18280/mmep.100344
300	Darweesh, A.M., Atshan, W.G., Battor, A.H., Mahdi, M.S.	On the Third Hankel Determinant of Certain Subclass of Bi-Univalent Functions	bi-univalent functions, Chebyshev polynomials, subordination, third Hankel	10, 3, 1087-1095	https://doi.org/10.18280/mmep.100345	Darweesh, A.M., Atshan, W.G., Battor, A.H., Mahdi, M.S. (2023). On the third Hankel determinant of certain subclass of bi-univalent functions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 3, pp. 1087-1095. https://doi.org/10.18280/mmep.100345
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302	Yalaoui, N., Trouzine, H., Meghachou, M., Miranda, T.	Geotextile Reinforced Strip Footing: Numerical Modeling and Analysis	bearing capacity, geotextile, numerical model, reinforced sand	10, 2, 398-404	https://doi.org/10.18280/mmep.100202	Yalaoui, N., Trouzine, H., Meghachou, M., Miranda, T. (2023). Geotextile reinforced strip footing: Numerical modeling and analysis. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 398-404. https://doi.org/10.18280/mmep.100202
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306	Chenna, K., Ghedamsi, K.	Fault Analysis of Three Level VSC-HVDC Connected Offshore Wind	offshore wind farm, VSC, high voltage direct current, AC and DC faults, stability, power quality	10, 2, 425-432	https://doi.org/10.18280/mmep.100206	Chenna, K., Ghedamsi, K. (2023). Fault analysis of three level VSC-HVDC connected offshore wind. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 425-432. https://doi.org/10.18280/mmep.100206
307	Mansor, K.H., Adeyeye, O., Omar, Z.	Two-Step Hybrid Block Method with Generalized Two Off-Step Points Within Each Step for Solving Second Order Initial Value Problems	two-step, hybrid block method, generalized off-step points, second order initial value problems	10, 2, 433-441	https://doi.org/10.18280/mmep.100207	Mansor, K.H., Adeyeye, O., Omar, Z. (2023). Two-step hybrid block method with generalized two off-step points within each step for solving second order initial value problems. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 433-441. https://doi.org/10.18280/mmep.100207
308	Ibrahim, I.K., Elmorsy, S.A., Kashef, N.M., Al-Borai, M.M.M.	Securing E-Governance Services Based on Two Level Classification Algorithms	E-governance services, classification algorithms, SVM, attack types, multi-class	10, 2, 442-450	https://doi.org/10.18280/mmep.100208	Ibrahim, I.K., Elmorsy, S.A., Kashef, N.M., Al-Borai, M.M.M. (2023). Securing E-governance services based on two level classification algorithms. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 442-450. https://doi.org/10.18280/mmep.100208
309	Hasan, R.H., Alkiffai, A.N.	An Investigation of Generalized Fuzzy Integral Ro-Transform	fuzzy Ro-transform, fuzzy Ro-transform about third order, fuzzy Ro-transform about generalization order, Ro-transform, liquid tank system	10, 2, 451-457	https://doi.org/10.18280/mmep.100209	Hasan, R.H., Alkiffai, A.N. (2023). An investigation of generalized fuzzy integral Ro-transform. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 451-457. https://doi.org/10.18280/mmep.100209
310	Guechi, S., Guechi, M.	Effective Technique for Converting Ill-Posed Volterra Equation to Integro-Differential Equation and Solving It	Volterra integral equation of the first kind, Volterra integro-differential equation, Taylor series, modified Simpson method, ill-posed problem, regularization method	10, 2, 458-462	https://doi.org/10.18280/mmep.100210	Guechi, S., Guechi, M. (2023). Effective technique for converting ill-posed volterra equation to integro-differential equation and solving it. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 458-462. https://doi.org/10.18280/mmep.100210
311	Mukhambetzhonov, S.T., Mussina, A.A., Aman, K.P.	Construction and Study of a Model of Oil Displacement by Water from the Reservoir	two-phase model, capillary pressure, oil displacement, free (unknown) boundaries	10, 2, 463-468	https://doi.org/10.18280/mmep.100211	Mukhambetzhonov, S.T., Mussina, A.A., Aman, K.P. (2023). Construction and study of a model of oil displacement by water from the reservoir. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 463-468. https://doi.org/10.18280/mmep.100211
312	Al-Musawi, R., Naimi, S.	Evaluation of Construction Project's Cost Using BIM Technology	cost estimation, BIM technology, construction project, quantity surveying, REVIT software, budget management	10, 2, 469-476	https://doi.org/10.18280/mmep.100212	Al-Musawi, R., Naimi, S. (2023). Evaluation of construction project's cost using BIM technology. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 469-476. https://doi.org/10.18280/mmep.100212
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315	Majdi, H.S., Hasan, W.K., Hussein, M.A.M., Habeeb, L.J.	Numerical Implementation of Direct and Reverse Flow for Plate Heat Exchanger	ANSYS simulation, CFD, solid works program, FEM, flow distribution, numerical study, plate heat exchanger, pressure drops	10, 2, 491-500	https://doi.org/10.18280/mmep.100215	Majdi, H.S., Hasan, W.K., Hussein, M.A.M., Habeeb, L.J. (2023). Numerical implementation of direct and reverse flow for plate heat exchanger. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 491-500. https://doi.org/10.18280/mmep.100215
316	Ramli, I., Rusdiana, S., Achmad, A., Azizah, Yolanda, M.E.	Forecasting of Rainfall Using Seasonal Autoregressive Integrated Moving Average (SARIMA) Aceh, Indonesia	rainfall, forecasting, Seasonal Autoregressive Integrated Moving Average (SARIMA), TIME series	10, 2, 501-508	https://doi.org/10.18280/mmep.100216	Ramli, I., Rusdiana, S., Achmad, A., Azizah, Yolanda, M.E. (2023). Forecasting of rainfall using Seasonal Autoregressive Integrated Moving Average (SARIMA) Aceh, Indonesia. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 501-508. https://doi.org/10.18280/mmep.100216
317	Mohammed, H.N., Abboud, M.H., Atiyah, B.S.	Performance of Solar Pond Integrated with Thermoelectric Generator: A Theoretical Study	solar pond, magnesium sulphate, reflectors, TEG	10, 2, 509-514	https://doi.org/10.18280/mmep.100217	Mohammed, H.N., Abboud, M.H., Atiyah, B.S. (2023). Performance of solar pond integrated with thermoelectric generator: A theoretical study. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 509-514. https://doi.org/10.18280/mmep.100217
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319	Hussein, N., Shukur, A.H., Majeed, Z.H.	Influence of Pile-Cap Elevation and Skewness on Clear Water Scour at Complex Bridge Piers	local scour, equilibrium scour depth, skewness, complex bridge pier, pile-cap elevation	10, 2, 523-529	https://doi.org/10.18280/mmep.100219	Hussein, N., Shukur, A.H., Majeed, Z.H. (2023). Influence of pile-cap elevation and skewness on clear water scour at complex bridge piers. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 523-529. https://doi.org/10.18280/mmep.100219
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321	Samir, A., Hammoodi, K.A., Omar, I., Basem, A., Flayyih, M.A.	Hybrid Flame Combustion Burner	hybrid burner, flame temperature, stability of flam	10, 2, 537-545	https://doi.org/10.18280/mmep.100221	Samir, A., Hammoodi, K.A., Omar, I., Basem, A., Flayyih, M.A. (2023). Hybrid flame combustion burner. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 537-545. https://doi.org/10.18280/mmep.100221
322	Saibavani, T.N.P., Parvathi, N.	Power Domination in Different Graphs with Applications	Power Domination Number (PDN), Complete Graph, Strong Graph	10, 2, 546-550	https://doi.org/10.18280/mmep.100222	Saibavani, T.N.P., Parvathi, N. (2023). Power domination in different graphs with applications. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 546-550. https://doi.org/10.18280/mmep.100222
323	Zohri, M., Yuliadi, Ghazali, M., Idham.	Performance of Photovoltaic Thermal Technology Using V-Absorber with Exergy, Improvement Potential and Sustainability Index Analysis	PVT technology, V-Absorber, exergy analysis, sustainability index, improvement potential	10, 2, 551-557	https://doi.org/10.18280/mmep.100223	Zohri, M., Yuliadi, Ghazali, M., Idham. (2023). Performance of photovoltaic thermal technology using V-Absorber with exergy, improvement potential and sustainability index analysis. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 551-557. https://doi.org/10.18280/mmep.100223

324	Abdullah, M., Owida, H.A.	Transient MHD Flow Between Parallel Plates with Influence of Periodic Magnetic Field and Periodic Heat Flux	magneto hydro dynamics (MHD), porous medium, periodic magnetic field, periodic heat flux, parallel plates	10, 2, 558-564	https://doi.org/10.18280/mmep.100224	Abdullah, M., Owida, H.A. (2023). Transient MHD flow between parallel plates with influence of periodic magnetic field and periodic heat flux. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 558-564. https://doi.org/10.18280/mmep.100224
325	Ali, M.H., Tawfiq, L.N.M.	Design Optimal Neural Network for Solving Unsteady State Confined Aquifer Problem	anisotropic confined aquifers model, BP-training algorithm, FFNNs, neural networks, unsteady state problems	10, 2, 565-571	https://doi.org/10.18280/mmep.100225	Ali, M.H., Tawfiq, L.N.M. (2023). Design optimal neural network for solving unsteady state confined aquifer problem. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 565-571. https://doi.org/10.18280/mmep.100225
326	Setiawan, A., Adi, K., Widodo, C.E.	Rice Foreign Object Classification Based on Integrated Color and Textural Feature Using Machine Learning	foreign object detection, GLCM, HSV, image processing, support vector machine, quality of rice	10, 2, 572-580	https://doi.org/10.18280/mmep.100226	Setiawan, A., Adi, K., Widodo, C.E. (2023). Rice foreign object classification based on integrated color and textural feature using machine learning. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 572-580. https://doi.org/10.18280/mmep.100226
327	Tayyeh, I.F., Ali, H.I.	Design of Robust Controller for Nonlinear Systems	nonlinear systems, robust control, H-infinity, optimal control	10, 2, 581-589	https://doi.org/10.18280/mmep.100227	Tayyeh, I.F., Ali, H.I. (2023). Design of robust controller for nonlinear systems. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 581-589. https://doi.org/10.18280/mmep.100227
328	Ahmed, A.D., Al-Taie, E.	Strengthening of Concrete-Filled Double Skinned Circular Steel Tubular (CFDST) Column: A Review Study	CFDST, stub columns, CFDST interface, confinement effect, load bearing capacity	10, 2, 590-596	https://doi.org/10.18280/mmep.100228	Ahmed, A.D., Al-Taie, E. (2023). Strengthening of concrete-filled double skinned circular steel tubular (CFDST) column: A review study. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 590-596. https://doi.org/10.18280/mmep.100228
329	Sylvia, N., Dewi, R., Aprilia, B., Husin, H., Muslim, A., Yunardi, Bindar, Y.	Simultaneous Fine Particulate Matter Separation and CO2 Adsorption in a Cyclone Separator with a Fixed Bed Bottom Ash from a Palm Oil Mill Boiler: A Simulation Study	cyclone, CO2 adsorbent, simulation, bottom ash	10, 2, 597-604	https://doi.org/10.18280/mmep.100229	Sylvia, N., Dewi, R., Aprilia, B., Husin, H., Muslim, A., Yunardi, Bindar, Y. (2023). Simultaneous fine particulate matter separation and CO2 adsorption in a cyclone separator with a fixed bed bottom ash from a palm oil mill boiler: A simulation study. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 597-604. https://doi.org/10.18280/mmep.100229
330	Kadhim, H.J., Abbas, A.K., Kadhim, T.J., Rashid, F.L.	Evaluation of Gas Turbine Performance in Power Plant with High-Pressure Fogging System	gas turbine, efficiency, fogging system, ambient temperature, simulation	10, 2, 605-612	https://doi.org/10.18280/mmep.100230	Kadhim, H.J., Abbas, A.K., Kadhim, T.J., Rashid, F.L. (2023). Evaluation of gas turbine performance in power plant with high-pressure fogging system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 605-612. https://doi.org/10.18280/mmep.100230
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332	Hussein, M.A., Abbas, A.A., Mohammad, M.M.	Experimental and Simulation Study to Reduce Required Bending Force in Air Bending Die by Using Annealing and Rectangular Hole	sheet metal, air bending die, annealing process, bending force	10, 2, 621-626	https://doi.org/10.18280/mmep.100232	Hussein, M.A., Abbas, A.A., Mohammad, M.M. (2023). Experimental and simulation study to reduce required bending force in air bending die by using annealing and rectangular hole. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 621-626. https://doi.org/10.18280/mmep.100232
333	Mishra, N.K., Sharma, S.	Effect of Variable Inflation on Supply Chain Management in FMCG Sector with Single Supplier-Multiple Retailers and Trade Credit	equipoise, trade credit, FMCG, single supplier, multiple retailers, variable inflation rate	10, 2, 627-638	https://doi.org/10.18280/mmep.100233	Mishra, N.K., Sharma, S. (2023). Effect of variable inflation on supply chain management in FMCG sector with single supplier-multiple retailers and trade credit. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 627-638. https://doi.org/10.18280/mmep.100233
334	Zaroor, A.R., Al-Jamali, N.A.S., Al-Saedi, I.R.K.	Traffic Classification of IoT Devices by Utilizing Spike Neural Network Learning Approach	Spike Neural Network (SNN), Internet of Things (IoTs), Support Vector Machine (SVM), Deep Neural Network (DNN)	10, 2, 639-646	https://doi.org/10.18280/mmep.100234	Zaroor, A.R., Al-Jamali, N.A.S., Al-Saedi, I.R.K. (2023). Traffic classification of IoT devices by utilizing spike neural network learning approach. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 639-646. https://doi.org/10.18280/mmep.100234
335	Al-Tahaine, H.A.	Exergy Analysis of a Simple Solar Still Augmented with a Flat-Plate Solar Collector	exergy, exergy analysis, solar still, solar collector, distilled water, solar collector augmented still	10, 2, 647-652	https://doi.org/10.18280/mmep.100235	Al-Tahaine, H.A. (2023). Exergy analysis of a simple solar still augmented with a flat-plate solar collector. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 647-652. https://doi.org/10.18280/mmep.100235
336	Ahmed, A.S., Kadhim, S.K.	Non-Leaner Control on the Pneumatic Artificial Muscles: A Comparative Study Between Adaptive Backstepping and Conventional Backstepping Algorithms	pneumatic artificial muscles, non leaner systems, backstepping control, adaptive backstepping control	10, 2, 653-662	https://doi.org/10.18280/mmep.100236	Ahmed, A.S., Kadhim, S.K. (2023). Non-leaner control on the pneumatic artificial muscles: A comparative study between adaptive backstepping and conventional backstepping algorithms. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 653-662. https://doi.org/10.18280/mmep.100236
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338	Kumar, A., Prakash, O.	Longitudinal Trim and Stability Analysis of Hybrid Airship with Suspended Payload for Single Body and Two Body Dynamics Using Bifurcation Method	bifurcation analysis, dynamic simulation, hybrid airship with suspended payload, stability, trim analysis, 3DOF and 4 DOF longitudinal	10, 2, 671-680	https://doi.org/10.18280/mmep.100238	Kumar, A., Prakash, O. (2023). Longitudinal trim and stability analysis of hybrid airship with suspended payload for single body and two body dynamics using bifurcation method. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 671-680. https://doi.org/10.18280/mmep.100238
339	Hussain, K.H.	Stability Results for a Class of Nonlinear Caputo Volterra-Fredholm System: Physics and Engineering Application	Caputo fractional derivative, Volterra-Fredholm system, stability, Mittag-Leffler kernel	10, 2, 681-686	https://doi.org/10.18280/mmep.100239	Hussain, K.H. (2023). Stability results for a class of nonlinear Caputo Volterra-Fredholm system: Physics and engineering application. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 681-686. https://doi.org/10.18280/mmep.100239
340	Ganesan, S., Kandasamy, G.	Using Interval Parameters for Latest Start Time and Mission Floats Operation Networks	Critical Path Method (CPM), interval numbers, interval ranking, interval arithmetic, decision making	10, 2, 687-694	https://doi.org/10.18280/mmep.100240	Ganesan, S., Kandasamy, G. (2023). Using interval parameters for latest start time and mission floats operation networks. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 687-694. https://doi.org/10.18280/mmep.100240
341	Khaleel, H.H.	Structural Analysis of Compressor Blades Using Finite Elements Method	axial compressor, blades, stress, carbon fiber, titanium, stainless steel	10, 2, 695-700	https://doi.org/10.18280/mmep.100241	Khaleel, H.H. (2023). Structural analysis of compressor blades using finite elements method. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 695-700. https://doi.org/10.18280/mmep.100241
342	Abed, H.R., Rashid, H.A.	Assessment of Construction Risk Management Maturity Using Hybrid Fuzzy Analytical Hierarchy Process and Fuzzy Synthetic Approach: Iraq as Case Study	construction organization, RM maturity, developing countries, FAHP, fuzzy synthetic approach, RMM after COVID-19, Mahalanobis distance	10, 2, 701-714	https://doi.org/10.18280/mmep.100242	Abed, H.R., Rashid, H.A. (2023). Assessment of construction risk management maturity using hybrid fuzzy analytical hierarchy process and fuzzy synthetic approach: Iraq as case study. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 2, pp. 701-714. https://doi.org/10.18280/mmep.100242

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346	Kazem, R.A., Petinrin, M.O., Akhigbe, P.O., Jen, T.C., Akinlabi, E.T., Akinlabi, S.A., Ikumapayi, O.M.	Forecast of the Trend in Sales Data of a Confectionery Baking Industry Using Exponential Smoothing and Moving Average Models	forecasting model, moving average model, exponential smoothing model, mean absolute percentage error	10, 1, 1-13	https://doi.org/10.18280/mmep.100101	Kazem, R.A., Petinrin, M.O., Akhigbe, P.O., Jen, T.C., Akinlabi, E.T., Akinlabi, S.A., Ikumapayi, O.M. (2023). Forecast of the trend in sales data of a confectionery baking industry using exponential smoothing and moving average models. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 1, pp. 1-13. https://doi.org/10.18280/mmep.100101
347	Nazar, N., Al-Doori, Q., Alani, O.	Low Power Low-Density Parity Check Encoder Using Dynamic Voltage and Frequency Scaling Approach	Forward Error Correction (FEC), Automatic Repeat Request (ARQ), Low-Density Parity Checks Code (LDPC), Dynamic Voltage and Frequency Scaling (DVFS), Fuzzy Logic Controller	10, 1, 14-22	https://doi.org/10.18280/mmep.100102	Nazar, N., Al-Doori, Q., Alani, O. (2023). Low power low-density parity check encoder using dynamic voltage and frequency scaling approach. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 1, pp. 14-22. https://doi.org/10.18280/mmep.100102
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350	Adiyeloja, I., Kehinde, O., Babaremu, K., Jen, T.C., Okokpujie, I.	Performance Evaluation of Production Lines in a Manufacturing Company Using Data Envelopment Analysis (DEA)	data envelopment analysis, benchmark, efficiency, manpower utilisation	10, 1, 39-47	https://doi.org/10.18280/mmep.100105	Adiyeloja, I., Kehinde, O., Babaremu, K., Jen, T.C., Okokpujie, I. (2023). Performance evaluation of production lines in a manufacturing company using data envelopment analysis (DEA). <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 1, pp. 39-47. https://doi.org/10.18280/mmep.100105
351	Salau, A.O., Markus, E.D., Assegie, T.A., Omeje, C.O., Eneh, J.N.	Influence of Class Imbalance and Resampling on Classification Accuracy of Chronic Kidney Disease Detection	diagnosis, feature selection, oversampling, synthetic minority oversampling	10, 1, 48-54	https://doi.org/10.18280/mmep.100106	Salau, A.O., Markus, E.D., Assegie, T.A., Omeje, C.O., Eneh, J.N. (2023). Influence of class imbalance and resampling on classification accuracy of chronic kidney disease detection. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 1, pp. 48-54. https://doi.org/10.18280/mmep.100106
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357	Boushi, A., Naimi, S.	Optimization of Hollow Core Slab Strength Based on SFRC Orientation	SFRC, SFRC Orientation, hollow core, structural response, hollow core slab, finite element analysis	10, 1, 109-118	https://doi.org/10.18280/mmep.100112	Boushi, A., Naimi, S. (2023). Optimization of hollow core slab strength based on SFRC Orientation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 1, pp. 109-118. https://doi.org/10.18280/mmep.100112
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368	Arianti, N.D., Muslih, M., Irawan, C., Saputra, E., Sariyusda, Bulan, R.	Classification of Harvesting Age of Mango Based on NIR Spectra Using Machine Learning Algorithms	artificial intelligent, classification, decision tree, near-infrared, postharvest attributes	10, 1, 204-211	https://doi.org/10.18280/mmep.100123	Arianti, N.D., Muslih, M., Irawan, C., Saputra, E., Sariyusda, Bulan, R. (2023). Classification of harvesting age of mango based on NIR spectra using machine learning algorithms. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 1, pp. 204-211. https://doi.org/10.18280/mmep.100123
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371	Ranu, Mishra, N.K.	A Collaborating Supply Chain Inventory Model Including Linear Time-Dependent, Inventory, and Advertisement-Dependent Demand Considering Carbon Regulations	collaboration, advertising demand, and carbon emission	10, 1, 227-235	https://doi.org/10.18280/mmep.100126	Ranu, Mishra, N.K. (2023). A collaborating supply chain inventory model including linear time-dependent, inventory, and advertisement-dependent demand considering carbon regulations. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 1, pp. 227-235. https://doi.org/10.18280/mmep.100126
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385	Saleh, A.H., Al-khafaji, S.A.	Anti-Swing Rejection Based on PID Controller Optimized by Firefly Algorithm	gantry crane system (GCS), firefly algorithm (FA), PID controller, genetic algorithms (GA), Optimization	10, 1, 347-351	https://doi.org/10.18280/mmep.100140	Saleh, A.H., Al-khafaji, S.A. (2023). Anti-swing rejection based on PID controller optimized by firefly algorithm. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 1, pp. 347-351. https://doi.org/10.18280/mmep.100140
386	Chinnadurai, K., Athithan, S.	Poverty and the Effects of Drug Addiction in a Deterministic and Stochastic Model	poverty, drug addiction, stability, stochastic model, numerical simulation, intervention	10, 1, 352-359	https://doi.org/10.18280/mmep.100141	Chinnadurai, K., Athithan, S. (2023). Poverty and the effects of drug addiction in a deterministic and stochastic model. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 1, pp. 352-359. https://doi.org/10.18280/mmep.100141
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389	Pal, S., Shukla, A.K., Sanyal, S.	Modified Secant Method for Reduction in Number of Iterations	non-linear equation, secant method, modified secant method, numerical solution	10, 1, 376-382	https://doi.org/10.18280/mmep.100144	Pal, S., Shukla, A.K., Sanyal, S. (2023). Modified secant method for reduction in number of iterations. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 1, pp. 376-382. https://doi.org/10.18280/mmep.100144
390	Kumar, A.S., Reddy, V.U.	Performance Evaluation of Spider Web Tie (S-B-T) PV Panel Configuration to Reduce PV Mismatch Losses	BL, PV, PSC, S-B-T, S-P, T-C-T, T-T, configurations, photovoltaic	10, 1, 383-387	https://doi.org/10.18280/mmep.100145	Kumar, A.S., Reddy, V.U. (2023). Performance evaluation of Spider Web Tie (S-B-T) PV panel configuration to reduce PV mismatch losses. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 10, No. 1, pp. 383-387. https://doi.org/10.18280/mmep.100145
391	Kolidakis, S.Z., Kotoula, K.M.A., Botzorris, G.N.	School Mode Choice Classification Model Exploitation Through Artificial Intelligence Classification Application	artificial intelligence, artificial neural networks, school transportation, mode choice, mode choice forecasting	9, 6, 1441-1450	https://doi.org/10.18280/mmep.090601	Kolidakis, S.Z., Kotoula, K.M.A., Botzorris, G.N. (2022). School mode choice classification model exploitation through artificial intelligence classification application. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1441-1450. https://doi.org/10.18280/mmep.090601
392	Storez, T., Kistelegdi, I., Horváth, K.R., Ercsey, Z.	Applicability of Multivariate Linear Regression in Building Energy Demand Estimation	building, energy, linear, regression	9, 6, 1451-1458	https://doi.org/10.18280/mmep.090602	Storez, T., Kistelegdi, I., Horváth, K.R., Ercsey, Z. (2022). Applicability of multivariate linear regression in building energy demand estimation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1451-1458. https://doi.org/10.18280/mmep.090602
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397	Altalabani, W., Alaiwi, Y.	Optimized Adaptive PID Controller Design for Trajectory Tracking of a Quadcopter	adaptive, PID controller, unmanned aerial vehicle, quadrotor	9, 6, 1490-1496	https://doi.org/10.18280/mmep.090607	Altalabani, W., Alaiwi, Y. (2022). Optimized adaptive PID controller design for trajectory tracking of a quadcopter. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1490-1496. https://doi.org/10.18280/mmep.090607
398	Zaretskaya, M.	Assessment of Geo-Environmental Consequences of Oil and Gas Complex Enterprises' Extraction Activities on the Shelf	oil and gas complex, seismogenic structure, differential factorization method, model of solution, contact stresses	9, 6, 1497-1502	https://doi.org/10.18280/mmep.090608	Zaretskaya, M. (2022). Assessment of geo-environmental consequences of oil and gas complex enterprises' extraction activities on the shelf. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1497-1502. https://doi.org/10.18280/mmep.090608
399	Nurmaganbetova, Z., Ashirbayev, N., Shomanbayeva, M., Bekmoldaeva, R.	Analysis of Kinematic Processes in Physics Based on Functional-Graphical Lines in Mathematics	function graph, intersubject communication, kinematic process	9, 6, 1503-1507	https://doi.org/10.18280/mmep.090609	Nurmaganbetova, Z., Ashirbayev, N., Shomanbayeva, M., Bekmoldaeva, R. (2022). Analysis of kinematic processes in physics based on functional-graphical lines in mathematics. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1503-1507. https://doi.org/10.18280/mmep.090609

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401	Abdulwahhab, R., Naimi, S., Abdullah, R.	Managing Cost and Schedule Evaluation of a Construction Project via BIM Technology and Experts' Points of View	construction projects, BIM technology, project management, experts' points of view, cost management, schedule monitoring	9, 6, 1515-1522	https://doi.org/10.18280/mmep.090611	Abdulwahhab, R., Naimi, S., Abdullah, R. (2022). Managing cost and schedule evaluation of a construction project via BIM technology and experts' points of view. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1515-1522. https://doi.org/10.18280/mmep.090611
402	Abedulabbas, G.W., Yaseen, F.R.	Sensorless Speed Control of a Brushless DC Motor Using Particle Filter (PF)	brushless direct current (BLDC) motor, Particle Filter (PF), Extended Kalman Filter (EKF)	9, 6, 1523-1531	https://doi.org/10.18280/mmep.090612	Abedulabbas, G.W., Yaseen, F.R. (2022). Sensorless speed control of a brushless DC motor using Particle Filter (PF). <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1523-1531. https://doi.org/10.18280/mmep.090612
403	Mosa, F.O., Abbas, A.M.	A Study of the Structural Behavior of Recycled-Concrete Haunched Beams with Web Opening	haunched beam, recycled concrete aggregate (RCA), square openings, circle openings, finite element analysis, Abaqus software	9, 6, 1532-1544	https://doi.org/10.18280/mmep.090613	Mosa, F.O., Abbas, A.M. (2022). A study of the structural behavior of recycled-concrete Haunched Beams with web opening. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1532-1544. https://doi.org/10.18280/mmep.090613
404	Widowati, Sutrisno, Sasongko, P.S., Brilliant, M., Triyana, E.	Mathematical Modeling and Stability Analysis of the COVID-19 Spread by Considering Quarantine and Hospitalize	mathematical modeling, stability analysis, Lyapunov method, endemic, quarantine, hospitalize, COVID-19	9, 6, 1545-1556	https://doi.org/10.18280/mmep.090614	Widowati, Sutrisno, Sasongko, P.S., Brilliant, M., Triyana, E. (2022). Mathematical modeling and stability analysis of the COVID-19 spread by considering quarantine and hospitalize. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1545-1556. https://doi.org/10.18280/mmep.090614
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411	Alkhalidi, A.A.H., Ali, M.Z., Yasser, M.N.	Some New Properties on Block Matrices Using MATLAB Code	block matrices, permutation matrices, MATLAB code	9, 6, 1603-1612	https://doi.org/10.18280/mmep.090621	Alkhalidi, A.A.H., Ali, M.Z., Yasser, M.N. (2022). Some new properties on block matrices using MATLAB code. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1603-1612. https://doi.org/10.18280/mmep.090621
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413	Boonyaprasorn, A., Kuntanapreeda, S., Ngainsunthorn, P.S., Kumsaen, T., Sethapat, T.	Fractional Order Sliding Mode Controller for HBV Epidemic System	Hepatitis B, epidemic disease, fractional order calculus, sliding mode control, feedback control	9, 6, 1622-1630	https://doi.org/10.18280/mmep.090623	Boonyaprasorn, A., Kuntanapreeda, S., Ngainsunthorn, P.S., Kumsaen, T., Sethapat, T. (2022). Fractional order sliding mode controller for HBV epidemic system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1622-1630. https://doi.org/10.18280/mmep.090623
414	Sekar, S., Nathan, S.L., Saravanathan, L.P.	Velocity Slip with Viscosity Variation for Rough Porous Circular Stepped Plates Using Couple Stress Fluid	viscosity variation, couple stress fluid, velocity slip, surface roughness, porous	9, 6, 1631-1638	https://doi.org/10.18280/mmep.090624	Sekar, S., Nathan, S.L., Saravanathan, L.P. (2022). Velocity slip with viscosity variation for rough porous circular stepped plates using couple stress fluid. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1631-1638. https://doi.org/10.18280/mmep.090624
415	Khalaf, A.F., Rashid, F.L., Basem, A., Abbas, M.H.	Numerical Analysis in a Lid-Driven Square Cavity with Hemispherical Obstacle in the Bottom	lid-driven cavity, square cavity, separation, attachment with walls, moving or stationary walls	9, 6, 1639-1647	https://doi.org/10.18280/mmep.090625	Khalaf, A.F., Rashid, F.L., Basem, A., Abbas, M.H. (2022). Numerical analysis in a lid-driven square cavity with hemispherical obstacle in the bottom. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1639-1647. https://doi.org/10.18280/mmep.090625
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418	El Chaal, R., Hamdane, K., Aboutafail, M.O.	Application of Multidimensional Statistical Methods to the Hydrochemical Study with R Software	Eigenvalue, correlations, covariance matrix, multivariate statistical methods, Principal Component Analysis (PCA), statistical processing, water quality, hydrochemical	9, 6, 1669-1678	https://doi.org/10.18280/mmep.090628	El Chaal, R., Hamdane, K., Aboutafail, M.O. (2022). Application of multidimensional statistical methods to the hydrochemical study with R software. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1669-1678. https://doi.org/10.18280/mmep.090628

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420	Al-Hajja, Q.A.	Analytical Study for Cyber Dynamic Continuous Time Vehicle Model with Networked PID Controller	Cyber-Physical System (CPS), dynamic vehicle model, continuous-time model, PID controller, Transceiver, SimEvents, Simulink	9, 6, 1685-1692	https://doi.org/10.18280/mmep.090630	Al-Hajja, Q.A. (2022). Analytical study for cyber dynamic continuous time vehicle model with networked PID controller. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1685-1692. https://doi.org/10.18280/mmep.090630
421	Ahmad, I.A., Al-Nayar, M.M.J., Mahmood, A.M.	Investigation of Energy Efficient Clustering Algorithms in WSNs: A Review	clustering algorithm, energy efficient, optimization algorithms, routing protocols, wireless sensor networks	9, 6, 1693-1703	https://doi.org/10.18280/mmep.090631	Ahmad, I.A., Al-Nayar, M.M.J., Mahmood, A.M. (2022). Investigation of energy efficient clustering algorithms in WSNs: A review. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1693-1703. https://doi.org/10.18280/mmep.090631
422	N., N., B., V.	MHD Nanoliquid Flow Along a Stretched Surface with Thermal Radiation and Chemical Reaction Effects	magneticfield, eckart number, thermal radiation, schmidt number, solet number	9, 6, 1704-1710	https://doi.org/10.18280/mmep.090632	N., N., B., V. (2022). MHD nanoliquid flow along a stretched surface with thermal radiation and chemical reaction effects. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1704-1710. https://doi.org/10.18280/mmep.090632
423	Ritzkal, R., Rachmawati, F., Widhyaestoei, D., Fatimah, F.	Implementation of Data Analytics for the Accuracy of Service Time Prediction Models	accuracy, decision tree J48, classification, prediction, weka	9, 6, 1711-1716	https://doi.org/10.18280/mmep.090633	Ritzkal, R., Rachmawati, F., Widhyaestoei, D., Fatimah, F. (2022). Implementation of data analytics for the accuracy of service time prediction models. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1711-1716. https://doi.org/10.18280/mmep.090633
424	M. M., S., Basarkod, P.I.	Improving the Reliability of RPL Using Hybrid Deep Learning and Objective Function-Based DODAG Structure for AMI	AMI, ARR, HDL-IDS, MOR-RPL, multi-objective function, multi based reliable rank estimation, machine learning and Cooja based traffic analysis, reliability	9, 6, 1717-1729	https://doi.org/10.18280/mmep.090634	M. M., S., Basarkod, P.I. (2022). Improving the reliability of RPL using hybrid deep learning and objective function-based DODAG structure for AMI. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1717-1729. https://doi.org/10.18280/mmep.090634
425	Bharadwaj, D., Dutt, D.	Mathematical Modeling and Control Architecture of the Autonomous Lower Body of a Humanoid Robot	control architecture, computed control torque, gain	9, 6, 1730-1740	https://doi.org/10.18280/mmep.090635	Bharadwaj, D., Dutt, D. (2022). Mathematical modeling and control architecture of the autonomous lower body of a humanoid robot. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 6, pp. 1730-1740. https://doi.org/10.18280/mmep.090635
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427	Alshaiikhli, Z.S., Wang, H.	Low Temperature Sensor Based on Etched LPFG with Different Materials Coating	LPFG, low temperature sensor, temperature sensitivity, metal coated LPFG	9, 5, 1172-1178	https://doi.org/10.18280/mmep.090502	Alshaiikhli, Z.S., Wang, H. (2022). Low temperature sensor based on etched LPFG with different materials coating. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1172-1178. https://doi.org/10.18280/mmep.090502
428	Boutiba, M., Baghli-Bendimerad, S., Benaïssa, A.	Three Approximations of Numerical Solution's by Finite Element Method for Resolving Space-Time Partial Differential Equations Involving Fractional Derivative's Order	partial differential equations, Riemann-Liouville fractional derivative, finite element method, Lax-Milgram Lemma, Hilbert spaces, numerical analysis	9, 5, 1179-1186	https://doi.org/10.18280/mmep.090503	Boutiba, M., Baghli-Bendimerad, S., Benaïssa, A. (2022). Three approximations of numerical solution's by finite element method for resolving space-time partial differential equations involving fractional derivative's order. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1179-1186. https://doi.org/10.18280/mmep.090503
429	Sultanova, R., Martynova, M., Odintsov, G., Mukhamadiev, D.	Optical Parameters of the Tilia Cordata Mill. Assimilation Apparatus	leaf area index, leaf optical properties, satellite imagery, remote sensing, vegetation index	9, 5, 1187-1191	https://doi.org/10.18280/mmep.090504	Sultanova, R., Martynova, M., Odintsov, G., Mukhamadiev, D. (2022). Optical parameters of the Tilia Cordata Mill. assimilation apparatus. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1187-1191. https://doi.org/10.18280/mmep.090504
430	Chetthamrongchai, P., Opuencia, M.J.C., Mironov S., Aleynikova, M.Y., Kostyrin, E.V.	Hotel Capacity Planning Using Queuing Systems and Meta-Heuristic Algorithms	optimal hotel capacity, backpack problem, queuing theory, genetic algorithm, non-Markov queuing models	9, 5, 1192-1200	https://doi.org/10.18280/mmep.090505	Chetthamrongchai, P., Opuencia, M.J.C., Mironov S., Aleynikova, M.Y., Kostyrin, E.V. (2022). Hotel capacity planning using queuing systems and meta-heuristic algorithms. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1192-1200. https://doi.org/10.18280/mmep.090505
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433	Gzar, D.A., Mahmood, A.M., Abbas, M.K.	A Comparative Study of Regression Machine Learning Algorithms: Tradeoff Between Accuracy and Computational Complexity	artificial intelligent, machine learning, support vector regression, random forest, linear regression, neural network	9, 5, 1217-1224	https://doi.org/10.18280/mmep.090508	Gzar, D.A., Mahmood, A.M., Abbas, M.K. (2022). A comparative study of regression machine learning algorithms: Tradeoff between accuracy and computational complexity. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1217-1224. https://doi.org/10.18280/mmep.090508
434	Al-Fareed, H., Alghamdi, O., Alshuraya, A., Alqahtani, M., Alwasfer, S., Aljomea, A., Rahman, A., Aljameel, S., Krishnasamy, G.	Simulator for Scheduling Real-Time Systems with Reduced Power Consumption	EDF, LJF, RPC, RTS, SRT, slack time, CPU scheduling	9, 5, 1225-1232	https://doi.org/10.18280/mmep.090509	Al-Fareed, H., Alghamdi, O., Alshuraya, A., Alqahtani, M., Alwasfer, S., Aljomea, A., Rahman, A., Aljameel, S., Krishnasamy, G. (2022). Simulator for scheduling real-time systems with reduced power consumption. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1225-1232. https://doi.org/10.18280/mmep.090509
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436	Atiyah, Q.A., Abdulsahib, I.A.	The Behavior of the Synchronous and Asynchronous Natural Frequencies for Asymmetric Double Beams	double beam, vibration of asymmetric beam, synchronous and asynchronous mode	9, 5, 1243-1250	https://doi.org/10.18280/mmep.090511	Atiyah, Q.A., Abdulsahib, I.A. (2022). The behavior of the synchronous and asynchronous natural frequencies for asymmetric double beams. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1243-1250. https://doi.org/10.18280/mmep.090511
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438	Mohammed, A.S., Almawla, A.S., Thameel, S.S.	Prediction of Monthly Evaporation Model Using Artificial Intelligent Techniques in the Western Desert of Iraq-Al-Ghadaf Valley	artificial intelligent, evaporation, MLP, RBF, SVM model	9, 5, 1261-1270	https://doi.org/10.18280/mmep.090513	Mohammed, A.S., Almawla, A.S., Thameel, S.S. (2022). Prediction of monthly evaporation model using artificial intelligent techniques in the western desert of Iraq-Al-Ghadaf valley. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1261-1270. https://doi.org/10.18280/mmep.090513
439	Nasution, I.S., Delima, D.P., Zaidiyah, Z., Fadhil, R.	A Low Cost Electronic Nose System for Classification of Gayo Arabica Coffee Roasting Levels Using Stepwise Linear Discriminant and K-Nearest Neighbor	coffee roasting degree, Gayo arabica coffee, MOS sensors, stepwise linear discriminant, k-nearest neighbor	9, 5, 1271-1276	https://doi.org/10.18280/mmep.090514	Nasution, I.S., Delima, D.P., Zaidiyah, Z., Fadhil, R. (2022). A low cost electronic nose system for classification of Gayo arabica coffee roasting levels using stepwise linear discriminant and K-nearest neighbor. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1271-1276. https://doi.org/10.18280/mmep.090514
440	Majeed, H.Q., Abed, B.S., Ibrahim, A.K.	Countermeasure of Riverbanks Local Scour and Deposition Using Different Shapes of Multiple Groynes with Different Spacing	groynes, scour depth, CFD, parabola shape, fluent software	9, 5, 1277-1281	https://doi.org/10.18280/mmep.090515	Majeed, H.Q., Abed, B.S., Ibrahim, A.K. (2022). Countermeasure of riverbanks local scour and deposition using different shapes of multiple groynes with different spacing. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1277-1281. https://doi.org/10.18280/mmep.090515
441	Omodero, C.O., Alege, P.O.	Mathematical Modelling of Public Health Expenditure and Carbon Footprint in Nigeria	public health, air pollution, green environment, government investment, social welfare	9, 5, 1282-1288	https://doi.org/10.18280/mmep.090516	Omodero, C.O., Alege, P.O. (2022). Mathematical modelling of public health expenditure and carbon footprint in Nigeria. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1282-1288. https://doi.org/10.18280/mmep.090516
442	Albayati, R.S., Zehawi, R.N.	System Dynamic Model for Simulating Aviation Demand: Baghdad International Airport as a Case Study	air travel demand simulating, departing and arriving passengers, modeling, socio-economic factors	9, 5, 1289-1297	https://doi.org/10.18280/mmep.090517	Albayati, R.S., Zehawi, R.N. (2022). System dynamic model for simulating aviation demand: Baghdad International Airport as a case study. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1289-1297. https://doi.org/10.18280/mmep.090517
443	Okokpujie, K., Mughole, D., Badejo, J.A., Adetiba, E.	Congestion Intrusion Detection-Based Method for Controller Area Network Bus: A Case for KIA SOUL Vehicle	attacks, Controller Area Network (CAN) bus, deep feedforward neural network, long short-term memory, intrusion detection, in-vehicle network	9, 5, 1298-1304	https://doi.org/10.18280/mmep.090518	Okokpujie, K., Mughole, D., Badejo, J.A., Adetiba, E. (2022). Congestion intrusion detection-based method for controller area network bus: A case for KIA SOUL vehicle. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1298-1304. https://doi.org/10.18280/mmep.090518
444	Rasol, D.M., Al-Zaidee, S.R.	Effects of Pavement Roughness and Dynamic Tank Load on the Bridge Response	dynamic tank load, pavement roughness, dynamic load allowance, bridge, modal analysis, dynamic response of a bridge	9, 5, 1305-1312	https://doi.org/10.18280/mmep.090519	Rasol, D.M., Al-Zaidee, S.R. (2022). Effects of pavement roughness and dynamic tank load on the bridge response. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1305-1312. https://doi.org/10.18280/mmep.090519
445	Alissa, K.A.	Blockchain for Secure Healthcare: Opportunities, Challenges and Solutions	blockchain, cloud computing, healthcare, information security, privacy	9, 5, 1313-1320	https://doi.org/10.18280/mmep.090520	Alissa, K.A. (2022). Blockchain for secure healthcare: Opportunities, challenges and solutions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1313-1320. https://doi.org/10.18280/mmep.090520
446	Abood, L.H., Haitham, R.	Design an Optimal Fractional Order PI Controller for Congestion Avoidance in Internet Routers	congestion, active queue management, GWO, FOPI	9, 5, 1321-1326	https://doi.org/10.18280/mmep.090521	Abood, L.H., Haitham, R. (2022). Design an optimal fractional order PI controller for congestion avoidance in internet routers. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1321-1326. https://doi.org/10.18280/mmep.090521
447	Wahyudi, B., Wicaksono, H.	Validating the Reliability Simulation Using Bohlamp Circuit with Accelerated Life Test Method	accelerated life test (ALT), reliability, bohlamp, learning media, Weibull distribution	9, 5, 1327-1334	https://doi.org/10.18280/mmep.090522	Wahyudi, B., Wicaksono, H. (2022). Validating the reliability simulation using bohlamp circuit with accelerated life test method. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1327-1334. https://doi.org/10.18280/mmep.090522
448	Noori, M.S.M., Abbas, R.M.	Dynamic Response and Reliability Analysis of Stochastic Multi-Story Frame Structures under Random Excitation	reliability, Monte Carlo simulation, uncertain system, random excitation, stochastic, finite element	9, 5, 1335-1342	https://doi.org/10.18280/mmep.090523	Noori, M.S.M., Abbas, R.M. (2022). Dynamic response and reliability analysis of stochastic multi-story frame structures under random excitation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1335-1342. https://doi.org/10.18280/mmep.090523
449	Purnomo, M.R.A., Wahab, D.A., Anugerah, A.R.	Optimisation of the Single-Vendor Single-Buyer Supply Chain System under Fuzzy Demand Using Optimisation-Simulation Closed Loop Technique	single-vendor single-buyer, supply chain optimisation, fuzzy demand, optimisation-simulation closed loop, joint total cost	9, 5, 1343-1351	https://doi.org/10.18280/mmep.090524	Purnomo, M.R.A., Wahab, D.A., Anugerah, A.R. (2022). Optimisation of the single-vendor single-buyer supply chain system under fuzzy demand using optimisation-simulation closed loop technique. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1343-1351. https://doi.org/10.18280/mmep.090524
450	Ali, A.J., Abbas, A.F.	Applications of Numerical Integrations on the Trapezoidal and Simpson's Methods to Analytical and MATLAB Solutions	trapezoidal, Simpson 1/3, Simpson 3/8, MATLAB, exacting	9, 5, 1352-1358	https://doi.org/10.18280/mmep.090525	Ali, A.J., Abbas, A.F. (2022). Applications of numerical integrations on the trapezoidal and Simpson's methods to analytical and MATLAB solutions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1352-1358. https://doi.org/10.18280/mmep.090525
451	El Kot, M.A.	Analytical Procedure for the Flow of a Carreau-Yasuda Fluid Through the Diseased Tapered Inclined Artery Subject to Heat Transfer and Chemical Reactions	blood flow, Carreau-Yasuda fluid, diseased artery, heat transfer, chemical reactions	9, 5, 1359-1368	https://doi.org/10.18280/mmep.090526	El Kot, M.A. (2022). Analytical procedure for the flow of a Carreau-Yasuda fluid through the diseased tapered inclined artery subject to heat transfer and chemical reactions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1359-1368. https://doi.org/10.18280/mmep.090526
452	Relangi, N.D.S.S.K., Chaparala, A., Sajja, R.	Identification of Potential Quality of Groundwater Using Improved Fuzzy C Means Clustering Method	artificial neural networks clustering analysis, Davies Bouldin index, silhouette score, weighted arithmetic water quality index	9, 5, 1369-1377	https://doi.org/10.18280/mmep.090527	Relangi, N.D.S.S.K., Chaparala, A., Sajja, R. (2022). Identification of potential quality of groundwater using improved Fuzzy C Means clustering method. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1369-1377. https://doi.org/10.18280/mmep.090527
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454	Nancy, M., Stephen, E.A.	Modelling and Analysis of the Cone Coupling Problem Using Optimization	cone coupling, optimization analysis, mathematical modelling, torque, axial force, flanges	9, 5, 1385-1392	https://doi.org/10.18280/mmep.090529	Nancy, M., Stephen, E.A. (2022). Modelling and analysis of the cone coupling problem using optimization. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1385-1392. https://doi.org/10.18280/mmep.090529
455	Al-Tajer, A.M., Basem, A., Khalaf, A.F., Jasim, A.K., Hammoodi, K.A., Hussein, H.Q.	A Numerical Simulation to Select the Optimal Thermal Agents for Building Parts	thermal insulation, buildings, double glass, cement, bricks	9, 5, 1393-1398	https://doi.org/10.18280/mmep.090530	Al-Tajer, A.M., Basem, A., Khalaf, A.F., Jasim, A.K., Hammoodi, K.A., Hussein, H.Q. (2022). A numerical simulation to select the optimal thermal agents for building parts. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1393-1398. https://doi.org/10.18280/mmep.090530
456	Arifin, Z., Nurachim, Z., Hadi, S., Rachmanto, R.A., Prasetyo, S.D.	The Effect of Additional Air Deflector at Air Concentrator on Photovoltaic Performance	air concentrator, air deflector, cooling method, photovoltaic	9, 5, 1399-1405	https://doi.org/10.18280/mmep.090531	Arifin, Z., Nurachim, Z., Hadi, S., Rachmanto, R.A., Prasetyo, S.D. (2022). The effect of additional air deflector at air concentrator on photovoltaic performance. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1399-1405. https://doi.org/10.18280/mmep.090531

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458	Singh, A.K., Sahana, B.C.	Improved Dynamic Power Allocation Scheme for Massive Connectivity in NOMA System	fair power allocation, outage rate, non-orthogonal multiple access (NOMA), orthogonal multiple access (OMA), SIC, sum rate	9, 5, 1415-1422	https://doi.org/10.18280/mmep.090533	Singh, A.K., Sahana, B.C. (2022). Improved dynamic power allocation scheme for massive connectivity in NOMA system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1415-1422. https://doi.org/10.18280/mmep.090533
459	Karigowda, R., Nagaraj, P.K.	Off-Grid Based DOA Estimation Algorithm Using Auto-Regression (1) Sparse Bayesian Learning with Linear Interpolation Model	direction of arrival estimation, sparse Bayesian learning, auto-regression model, linear interpolation	9, 5, 1423-1431	https://doi.org/10.18280/mmep.090534	Karigowda, R., Nagaraj, P.K. (2022). Off-grid based DOA estimation algorithm using auto-regression (1) sparse Bayesian learning with linear interpolation model. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1423-1431. https://doi.org/10.18280/mmep.090534
460	Gharaibeh, M.A.	Numerical Solution for the Mechanical Bending of Two Elastically Coupled Plates Problem	elastically coupled plates, finite difference methods, mathematical representation, electronic assemblies, solder joints, mechanical bending	9, 5, 1432-1439	https://doi.org/10.18280/mmep.090535	Gharaibeh, M.A. (2022). Numerical solution for the mechanical bending of two elastically coupled plates problem. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 5, pp. 1432-1439. https://doi.org/10.18280/mmep.090535
461	Malavasi, M., Cattani, L., Bozzoli, F., Rainieri, S.	Model Development of a Thermosyphon Heat Pipe for the Temperature Management in a Wine Fermenter Tank	thermosyphon heat pipe, fermentation oenological production, food industry	9, 4, 857-861	https://doi.org/10.18280/mmep.090401	Malavasi, M., Cattani, L., Bozzoli, F., Rainieri, S. (2022). Model development of a thermosyphon heat pipe for the temperature management in a wine fermenter tank. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 857-861. https://doi.org/10.18280/mmep.090401
462	Gutierrez, A.D., Alvarez, L.F.	Simulation of Plasma Assisted Supersonic Combustion over a Flat Wall	supersonic combustion, plasma-assisted combustion, nanosecond pulsed discharge, scramjet	9, 4, 862-872	https://doi.org/10.18280/mmep.090402	Gutierrez, A.D., Alvarez, L.F. (2022). Simulation of plasma assisted supersonic combustion over a flat wall. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 862-872. https://doi.org/10.18280/mmep.090402
463	Sorooshian, S., Azizan, N.A., Ebrahim, N.A.	Weighted Aggregated Sum Product Assessment	multiple criteria decision-making (MCDM), weighted aggregated sum product assessment (WASPAS), literature analysis	9, 4, 873-878	https://doi.org/10.18280/mmep.090403	Sorooshian, S., Azizan, N.A., Ebrahim, N.A. (2022). Weighted aggregated sum product assessment. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 873-878. https://doi.org/10.18280/mmep.090403
464	Boudjoghra, M.E.A., Daimellah, S.A.S., Zioui, N., Mahmoudi, Y., Tadjine, M.	State-Domain Equations and Their Quantum Computing Solution Based HHL Algorithm	quantum computing, qubits, HHL algorithm, dynamical systems, quantum state-domain equations	9, 4, 879-886	https://doi.org/10.18280/mmep.090404	Boudjoghra, M.E.A., Daimellah, S.A.S., Zioui, N., Mahmoudi, Y., Tadjine, M. (2022). State-domain equations and their quantum computing solution based HHL algorithm. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 879-886. https://doi.org/10.18280/mmep.090404
465	Awwad, A.E., Al-Soud, M., Al-Quteimat, A., Ushkarenko, O.	Simulation-Based Analysis of Dynamics of Autonomous Electric Power Systems	fault currents, induction motors, power system simulation, power system transients, short-circuit currents	9, 4, 887-896	https://doi.org/10.18280/mmep.090405	Awwad, A.E., Al-Soud, M., Al-Quteimat, A., Ushkarenko, O. (2022). Simulation-based analysis of dynamics of autonomous electric power systems. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 887-896. https://doi.org/10.18280/mmep.090405
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467	Ubayeva, Z., Tasmambetov, Z., Rajabov, N.	Features of Constructing a Solution Heterogeneous Equation and Clausen-Type Systems	Clausen equations, Clausen-type system, regular, special points, features, system	9, 4, 906-918	https://doi.org/10.18280/mmep.090407	Ubayeva, Z., Tasmambetov, Z., Rajabov, N. (2022). Features of constructing a solution heterogeneous equation and Clausen-type systems. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 906-918. https://doi.org/10.18280/mmep.090407
468	Reddy, A.P., Uddagatta, N.	Effectiveness of Low-Numerical Rank Approximation to Image Compression in Wavelet Domain	image compression, TSVD, numerical rank, discrete wavelet transform, PSNR, CR	9, 4, 919-927	https://doi.org/10.18280/mmep.090408	Reddy, A.P., Uddagatta, N. (2022). Effectiveness of low-numerical rank approximation to image compression in wavelet domain. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 919-927. https://doi.org/10.18280/mmep.090408
469	Kareem, A.R., Mahmood, A.M., Al-Falahy, N.	Performance Evaluation of IPTV Zapping Time Reduction Using Edge Processing of Fog RAN	edge computing, fog-ran, internet protocol television, radio access networks, zapping delay	9, 4, 928-936	https://doi.org/10.18280/mmep.090409	Kareem, A.R., Mahmood, A.M., Al-Falahy, N. (2022). Performance evaluation of IPTV zapping time reduction using edge processing of fog ran. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 928-936. https://doi.org/10.18280/mmep.090409
470	Harsito, C., Permata, A.N.S., Arifin, Z.	Numerical Investigation Effect of Velocity Inlet on Central Air Conditioning	air distribution, inlet velocity, CFD, effective draft temperature	9, 4, 937-943	https://doi.org/10.18280/mmep.090410	Harsito, C., Permata, A.N.S., Arifin, Z. (2022). Numerical investigation effect of velocity inlet on central air conditioning. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 937-943. https://doi.org/10.18280/mmep.090410
471	Mahmood, T.S., Lutfy, O.F.	An Intelligent Feedforward Controller Utilizing a Modified Gorilla Troops Optimization for Nonlinear Systems	artificial gorilla troops optimization (GTO) algorithm, modified GTO, NARMA-L2, feedback linearization, inverse feedforward controller (IFC), mother wavelet functions	9, 4, 944-954	https://doi.org/10.18280/mmep.090411	Mahmood, T.S., Lutfy, O.F. (2022). An intelligent feedforward controller utilizing a modified gorilla troops optimization for nonlinear systems. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 944-954. https://doi.org/10.18280/mmep.090411
472	Al-Hababeh, O.M., Al-Adwan, R.S.	Dynamic Modelling of Docking Autonomous PODs in Tandem Configuration	autonomous PODs, autonomous transportation, FEA simulation, merging speed, POD vehicles, tandem docking, transportation design	9, 4, 955-963	https://doi.org/10.18280/mmep.090412	Al-Hababeh, O.M., Al-Adwan, R.S. (2022). Dynamic modelling of docking autonomous PODs in tandem configuration. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 955-963. https://doi.org/10.18280/mmep.090412
473	Hameed, A.H.S., Al-Thamiry, H.A.	Evaluation of Al-Ishaqi Irrigation Project: A Case Study Eastern Canal of the Project	irrigation, application, efficiency, storage, distribution, moisture content	9, 4, 964-970	https://doi.org/10.18280/mmep.090413	Hameed, A.H.S., Al-Thamiry, H.A. (2022). Evaluation of Al-Ishaqi irrigation project: A case study eastern canal of the project. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 964-970. https://doi.org/10.18280/mmep.090413
474	Khan, I.U.	Explainable Artificial Intelligence (XAI) Model for the Diagnosis of Urinary Tract Infections in Emergency Care Patients	deep learning, machine learning, urinary tract infection, explainable artificial intelligence	9, 4, 971-978	https://doi.org/10.18280/mmep.090414	Khan, I.U. (2022). Explainable Artificial Intelligence (XAI) model for the diagnosis of urinary tract infections in emergency care patients. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 971-978. https://doi.org/10.18280/mmep.090414
475	Rueda-Bayona, J.G., Paez, N., Eras, J.J.C., Gutiérrez, A.S.	DOE-ANOVA to Optimize Hydrokinetic Turbines for Low Velocity Conditions	CFD, DOE-ANOVA, hydrokinetic microturbine, multiple regression, optimization	9, 4, 979-988	https://doi.org/10.18280/mmep.090415	Rueda-Bayona, J.G., Paez, N., Eras, J.J.C., Gutiérrez, A.S. (2022). DOE-ANOVA to optimize hydrokinetic turbines for low velocity conditions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 979-988. https://doi.org/10.18280/mmep.090415

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477	Syahrudin, Fatmawati, Suprajitno, H.	Experimental Analysis of Training Parameters Combination of ANN Backpropagation for Climate Classification	neural network, backpropagation, three hidden layers, non-linear activation function, hydrological data, climate change	9, 4, 994-1004	https://doi.org/10.18280/mmep.090417	Syahrudin, Fatmawati, Suprajitno, H. (2022). Experimental analysis of training parameters combination of ANN backpropagation for climate classification. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 994-1004. https://doi.org/10.18280/mmep.090417
478	Jasim, N.A., Muhammed, M.A.	The Design of Reynolds Number Apparatus with Demonstration	Reynolds number, friction factor, laminar flow, turbulent flow, transition flow, linear regression, discharge, velocity	9, 4, 1005-1016	https://doi.org/10.18280/mmep.090418	Jasim, N.A., Muhammed, M.A. (2022). The design of Reynolds number apparatus with demonstration. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 1005-1016. https://doi.org/10.18280/mmep.090418
479	AlKhulaifi, D., AlQahtani, M., AlSadeq, Z., Rahman, A., Musleh, D.	An Overview of Self-Adaptive Differential Evolution Algorithms with Mutation Strategy	differential evolution, self-adaptive differential evolution, mutation strategy, optimization	9, 4, 1017-1024	https://doi.org/10.18280/mmep.090419	AlKhulaifi, D., AlQahtani, M., AlSadeq, Z., Rahman, A., Musleh, D. (2022). An overview of self-adaptive differential evolution algorithms with mutation strategy. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 1017-1024. https://doi.org/10.18280/mmep.090419
480	Shehab, S.N.	Study of Baffles Arrangement Influence on the Natural Convection into a Heated Square Channel	square channel, natural convection, heat characteristics, perforated baffles, staggered	9, 4, 1025-1030	https://doi.org/10.18280/mmep.090420	Shehab, S.N. (2022). Study of baffles arrangement influence on the natural convection into a heated square channel. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 1025-1030. https://doi.org/10.18280/mmep.090420
481	Siva, K., Athithan, S.	Analysis of Solution for the Stochastic Model Representing Water Scarcity in the Society	stochastic model, boundedness, permanence, pth-moment exponential stability, persistence	9, 4, 1031-1042	https://doi.org/10.18280/mmep.090421	Siva, K., Athithan, S. (2022). Analysis of solution for the stochastic model representing water scarcity in the society. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 1031-1042. https://doi.org/10.18280/mmep.090421
482	Deva, K., Mohanaselvi, S.	Picture Fuzzy Choquet Integral Based Geometric Aggregation Operators and Its Application to Multi Attribute Decision-Making	aggregation operators, Choquet integral, fuzzy measure, multi attribute decision-making problem, picture fuzzy set	9, 4, 1043-1052	https://doi.org/10.18280/mmep.090422	Deva, K., Mohanaselvi, S. (2022). Picture fuzzy Choquet integral based geometric aggregation operators and its application to multi attribute decision-making. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 1043-1052. https://doi.org/10.18280/mmep.090422
483	Salau, A.O., Pooja, M.R., Hasani, N.F., Braide, S.L.	Model Based Risk Assessment to Evaluate Lung Functionality for Early Prognosis of Asthma Using Neural Network Approach	spirometry, reference equations, longitudinal data, sigmoidal, Tiffeneau-Pinelli index	9, 4, 1053-1060	https://doi.org/10.18280/mmep.090423	Salau, A.O., Pooja, M.R., Hasani, N.F., Braide, S.L. (2022). Model based risk assessment to evaluate lung functionality for early prognosis of asthma using neural network approach. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 1053-1060. https://doi.org/10.18280/mmep.090423
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485	Hussein, H.Q., Khalaf, A.F., Al-Tajer, A.M., Hammoodi, K.A., Basem, A.	Numerical Investigated to Improve Heat Transfer in a Pipe Using Nanofluid	heat transfer, nanofluid, pipe, copper, carbon nanotubes	9, 4, 1073-1078	https://doi.org/10.18280/mmep.090425	Hussein, H.Q., Khalaf, A.F., Al-Tajer, A.M., Hammoodi, K.A., Basem, A. (2022). Numerical investigated to improve heat transfer in a pipe using nanofluid. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 1073-1078. https://doi.org/10.18280/mmep.090425
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487	Kusmiyati, K., Fudholi, A.	Performance Analysis and Kinetic Modeling of Coffee Beans in Microwave Convective Dryer Integrated Photovoltaic System	solar energy, microwave, drying kinetic, drying model, effective diffusivity	9, 4, 1089-1094	https://doi.org/10.18280/mmep.090427	Kusmiyati, K., Fudholi, A. (2022). Performance analysis and kinetic modeling of coffee beans in microwave convective dryer integrated photovoltaic system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 1089-1094. https://doi.org/10.18280/mmep.090427
488	Abdair, D.A., Abbas, A.M., Hussain, H.K.	Punching Shear Behavior of Flat Slab Strengthen with Y-Type Perforated Shear	flat slab, punching shear, steel fiber, shear reinforcement, Y-type perforated, ABAQUS, finite element analysis	9, 4, 1095-1106	https://doi.org/10.18280/mmep.090428	Abdair, D.A., Abbas, A.M., Hussain, H.K. (2022). Punching shear behavior of flat slab strengthened with Y-type perforated shear. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 1095-1106. https://doi.org/10.18280/mmep.090428
489	Baidabekov, A.K., Kemelbekova, E.A., Kusebayev, U.K., Sadykova, Z.M., Tuleuova, G.K.	Development and Definition of Biquadratic Transformations Using Spheres and Two-Way Hyperboloids	quadratic transformations, Cremona transformations, binary surface models, non-linear surfaces	9, 4, 1107-1112	https://doi.org/10.18280/mmep.090429	Baidabekov, A.K., Kemelbekova, E.A., Kusebayev, U.K., Sadykova, Z.M., Tuleuova, G.K. (2022). Development and definition of biquadratic transformations using spheres and two-way hyperboloids. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 1107-1112. https://doi.org/10.18280/mmep.090429
490	Ghith, E.S., Tolba, F.A.	Real-Time Implementation of an Enhanced PID Controller Based on Ant Lion Optimizer for Micro-Robotics System	PID controller, micro-particles robotics, grey wolf optimization (GWO), harmony search algorithm (HS), ant lion optimizer (ALO), minimally invasive surgery (MIS)	9, 4, 1113-1122	https://doi.org/10.18280/mmep.090430	Ghith, E.S., Tolba, F.A. (2022). Real-time implementation of an enhanced PID controller based on ant lion optimizer for micro-robotics system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 1113-1122. https://doi.org/10.18280/mmep.090430
491	Husain, S.S., MohammadRidha, T.	Design of Integral Sliding Mode Control for Seismic Effect Regulation on Buildings with Unmatched Disturbance	sliding mode control, integral sliding mode control, unmatched disturbance, magnetorheological damper, MRD, seismic effect, regulation buildings, earthquakes, structural building	9, 4, 1123-1130	https://doi.org/10.18280/mmep.090431	Husain, S.S., MohammadRidha, T. (2022). Design of integral sliding mode control for seismic effect regulation on buildings with unmatched disturbance. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 1123-1130. https://doi.org/10.18280/mmep.090431
492	Alturaihi, M.H., Mashkour, M.A., AL-Musawi, S.T.M.	Effects of Hydrogen and Nitrogen Concentration on Laminar Burning Velocities and NO, CO Formation of Propane-Air Mixtures	CHEMKIN, burning velocity, laminar, propane-air mixture, NO ppm, Co ppm	9, 4, 1131-1135	https://doi.org/10.18280/mmep.090432	Alturaihi, M.H., Mashkour, M.A., AL-Musawi, S.T.M. (2022). Effects of hydrogen and nitrogen concentration on laminar burning velocities and NO, CO formation of propane-air mixtures. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 1131-1135. https://doi.org/10.18280/mmep.090432
493	Abdulsahib, I.A., Atiyah, Q.A.	Vibration Analysis of a Symmetric Double-Beam with an Elastic Middle Layer at Arbitrary Boundary Conditions	double beam, natural frequencies of beam, vibration of beam	9, 4, 1136-1142	https://doi.org/10.18280/mmep.090433	Abdulsahib, I.A., Atiyah, Q.A. (2022). Vibration analysis of a symmetric double-beam with an elastic middle layer at arbitrary boundary conditions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 1136-1142. https://doi.org/10.18280/mmep.090433
494	Poojeera, S., Srichat, A., Naphon, N., Naphon, P.	Study on Thermal Performance of the Small-Scale Air Conditioning with Thermoelectric Cooling Module	thermoelectric cooling module, thermal performance improvement, air conditioning system	9, 4, 1143-1151	https://doi.org/10.18280/mmep.090434	Poojeera, S., Srichat, A., Naphon, N., Naphon, P. (2022). Study on thermal performance of the small-scale air conditioning with thermoelectric cooling module. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 4, pp. 1143-1151. https://doi.org/10.18280/mmep.090434

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497	Umbricht, G.F., Tarzia, D.A., Rubio, D.	Determination of Two Homogeneous Materials in a Bar with Solid-Solid Interface	elasticity analysis, heat transfer, interface problem, mathematical modeling, numerical simulation, parameter estimation	9, 3, 568-576	https://doi.org/10.18280/mmep.090302	Umbricht, G.F., Tarzia, D.A., Rubio, D. (2022). Determination of two homogeneous materials in a bar with solid-solid interface. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 568-576. https://doi.org/10.18280/mmep.090302
498	Kunickaya, O., Shvetsova, V., Tikhonov, E., Kolominova, M., Borisov, V., Levushkin, D., Lavrov, M., Dmitrieva, N.	The Mathematical Modeling of Mechanical Group Debarking in a Barking Drum	simulation, barking drum, debarking duration, knife sharpening angle	9, 3, 577-582	https://doi.org/10.18280/mmep.090303	Kunickaya, O., Shvetsova, V., Tikhonov, E., Kolominova, M., Borisov, V., Levushkin, D., Lavrov, M., Dmitrieva, N. (2022). The mathematical modeling of mechanical group debarking in a barking drum. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 577-582. https://doi.org/10.18280/mmep.090303
499	Al-Hilfi, H.I.M., Al-Nayar, M.M.J.	Increase the WSN-Lifespan Used in Monitoring Forest Fires by PSO	cluster head, forest fire, PSO, wireless sensor fire detection (WSFD), WSNs	9, 3, 583-590	https://doi.org/10.18280/mmep.090304	Al-Hilfi, H.I.M., Al-Nayar, M.M.J. (2022). Increase the WSN-lifespan used in monitoring forest fires by PSO. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 583-590. https://doi.org/10.18280/mmep.090304
500	Gharaibeh, M.A.	A High-Accuracy Empirical Formula for the Strain Concentration Factor in Countersunk Holes	countersunk hole, strain concentration factor, strain concentration, mechanical design, finite element analysis, tensile loading	9, 3, 591-600	https://doi.org/10.18280/mmep.090305	Gharaibeh, M.A. (2022). A high-accuracy empirical formula for the strain concentration factor in countersunk holes. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 591-600. https://doi.org/10.18280/mmep.090305
501	Noori, S.M., Ahmad, A.G.	New Class of M-Polar Fuzzy Measure Ideals Algebra in BCK2/BCK1/BCI2	BCK2 ideals, BCK1 ideals, M-Polar fuzzy measure algebra	9, 3, 601-605	https://doi.org/10.18280/mmep.090306	Noori, S.M., Ahmad, A.G. (2022). New class of M-polar fuzzy measure ideals algebra in BCK2/BCK1/BCI2. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 601-605. https://doi.org/10.18280/mmep.090306
502	Al-Subhi, A.	Dynamic Economic Load Dispatch Using Linear Programming and Mathematical-Based Models	economic dispatch, TuringBot, linear programming, mathematical models	9, 3, 606-614	https://doi.org/10.18280/mmep.090307	Al-Subhi, A. (2022). Dynamic economic load dispatch using linear programming and mathematical-based models. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 606-614. https://doi.org/10.18280/mmep.090307
503	Mishra, N.K., Ranu.	A Supply Chain Inventory Model for Deteriorating Products with Carbon Emission-Dependent Demand, Advanced Payment, Carbon Tax and Cap Policy	deterioration, carbon-dependent demand, preliminary payment, cash payment, post-payment, supply chain, finite planning horizon	9, 3, 615-627	https://doi.org/10.18280/mmep.090308	Mishra, N.K., Ranu. (2022). A supply chain inventory model for deteriorating products with carbon emission-dependent demand, advanced payment, carbon tax and cap policy. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 615-627. https://doi.org/10.18280/mmep.090308
504	Nguyen, D.N., Nguyen, T.A., Dang, N.D., Tran, T.T.H., Hoang, T.B.	LQR Control with the New Triple In-Loops Algorithm for Optimization of the Tuning Parameters	active suspension system, LQR controller, triple in-loops algorithm	9, 3, 628-636	https://doi.org/10.18280/mmep.090309	Nguyen, D.N., Nguyen, T.A., Dang, N.D., Tran, T.T.H., Hoang, T.B. (2022). LQR control with the new triple in-loops algorithm for optimization of the tuning parameters. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 628-636. https://doi.org/10.18280/mmep.090309
505	Arifin, Z., Prasetyo, S.D., Ubaidillah, U., Suyitno, S., Tjahjana, D.D.D.P., Juwana, W.E., Rachmanto, R.A., Prabowo, A.R., Apribowo C.H.B.	Helmet Stick Design for BC3 Paralympic Boccia Games	boccia BC3 helmet, design, static stimulation, HOQ	9, 3, 637-644	https://doi.org/10.18280/mmep.090310	Arifin, Z., Prasetyo, S.D., Ubaidillah, U., Suyitno, S., Tjahjana, D.D.D.P., Juwana, W.E., Rachmanto, R.A., Prabowo, A.R., Apribowo C.H.B. (2022). Helmet stick design for BC3 Paralympic Boccia games. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 637-644. https://doi.org/10.18280/mmep.090310
506	Kazeem, R.A., Amakor, J.U., Ikumapayi, O.M., Afolalu, S.A., OkeJW.A.	Modelling the Effect of Temperature on Power Generation at a Nigerian Agricultural Institute	artificial neural network, climate change, energy consumption, Multivariate Linear Regression	9, 3, 645-654	https://doi.org/10.18280/mmep.090311	Kazeem, R.A., Amakor, J.U., Ikumapayi, O.M., Afolalu, S.A., OkeJW.A. (2022). Modelling the effect of temperature on power generation at a Nigerian agricultural institute. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 645-654. https://doi.org/10.18280/mmep.090311
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508	Tunga, H., Kar, S., Giri, D.	Intrinsic Profit Maximization of the Offloading Tasks for Mobile Edge Computing with Fixed Memory Capacities and Low Latency Constraints Using Ant Colony Optimization	Ant Colony Optimization, efficiency tasks offloading, mobile edge computing servers, Multiple Knapsack, user equipment	9, 3, 668-674	https://doi.org/10.18280/mmep.090313	Tunga, H., Kar, S., Giri, D. (2022). Intrinsic profit maximization of the offloading tasks for mobile edge computing with fixed memory capacities and low latency constraints using Ant Colony Optimization. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 668-674. https://doi.org/10.18280/mmep.090313
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510	Rahman, A., Musleh, D., Nabil, M., Alubaidan, H., Gollapalli, M., Krishnasamy, G., Almoqbil, D., Khan, M.A.A., Farooqui, M., Ahmed, M.I.B., Ahmed, M.S., Mahmud, M.	Assessment of Information Extraction Techniques, Models and Systems	information extraction (IE), digital libraries, ontologies, NLP, ML, HMM, CRF, WSD	9, 3, 683-696	https://doi.org/10.18280/mmep.090315	Rahman, A., Musleh, D., Nabil, M., Alubaidan, H., Gollapalli, M., Krishnasamy, G., Almoqbil, D., Khan, M.A.A., Farooqui, M., Ahmed, M.I.B., Ahmed, M.S., Mahmud, M. (2022). Assessment of information extraction techniques, models and systems. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 683-696. https://doi.org/10.18280/mmep.090315
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513	Joshi, P., Pathak, M.	Numerical Approximation of Nonlinear Duffing Oscillator Using a Coupled Approach	duffing oscillator, quasilinearization, collocation method	9, 3, 715-720	https://doi.org/10.18280/mmep.090318	Joshi, P., Pathak, M. (2022). Numerical approximation of nonlinear duffing oscillator using a coupled approach. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 715-720. https://doi.org/10.18280/mmep.090318

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515	Mousa, N.A., Attia, O.H., Mahmood, H.A., Adam, N.M.	Optimization Efficiency of the Aircraft Wing of Cessna 172 Skyhawk by Absorbent Adverse Pressure Using Tangential Suction Slot Without Vacuum Device	aerodynamic, tangential suction slot channel, flow control, computational fluid dynamics (CFD), aircraft half wing Cessna 172 Skyhawk	9, 3, 731-738	https://doi.org/10.18280/mmep.090320	Mousa, N.A., Attia, O.H., Mahmood, H.A., Adam, N.M. (2022). Optimization efficiency of the aircraft wing of Cessna 172 Skyhawk by absorbent adverse pressure using tangential suction slot without vacuum device. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 731-738. https://doi.org/10.18280/mmep.090320
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517	Kaushal, P., Pravin, B.	Analytical Study of Instability Phenomenon Using Laplace Transform	fingering method, instability, saturation of water, Laplace method, analytic	9, 3, 752-756	https://doi.org/10.18280/mmep.090322	Kaushal, P., Pravin, B. (2022). Analytical study of instability phenomenon using Laplace transform. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 752-756. https://doi.org/10.18280/mmep.090322
518	Rahman, M.H., Aljibory, M.W., Rashid, F.L., Hussein, E.Q.	Sweep Angles Influence on the Aerodynamic Characteristics of NACA 2412 Wing with Supersonic Flow	sweep angle, supersonic speed, aerodynamics characteristics, CFD	9, 3, 757-761	https://doi.org/10.18280/mmep.090323	Rahman, M.H., Aljibory, M.W., Rashid, F.L., Hussein, E.Q. (2022). Sweep angles influence on the aerodynamic characteristics of NACA 2412 wing with supersonic flow. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 757-761. https://doi.org/10.18280/mmep.090323
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520	Lahouaoui, L., Abdelhak, D., Abderrahmane, B., Toufik, M.	Image Classification Using a Fully Convolutional Neural Network CNN	images classification, convolution neural networks, deep learning, evaluation criteria	9, 3, 771-778	https://doi.org/10.18280/mmep.090325	Lahouaoui, L., Abdelhak, D., Abderrahmane, B., Toufik, M. (2022). Image classification using a fully convolutional neural network CNN. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 771-778. https://doi.org/10.18280/mmep.090325
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526	Mahmood, N.S., Alboresha, R., Sulaiman, S.O., Al Ansari, N.	Seepage Problem Through the Foundation of a Spillway with Selected Treatment Methods	dam safety, numerical modeling, seepage, cutoff wall, clay blanket, SEEP/W	9, 3, 819-824	https://doi.org/10.18280/mmep.090331	Mahmood, N.S., Alboresha, R., Sulaiman, S.O., Al Ansari, N. (2022). Seepage problem through the foundation of a spillway with selected treatment methods. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 819-824. https://doi.org/10.18280/mmep.090331
527	Razzaq, A.K., Shubber, K.H.H.	Effect of Waiting Time on Gap Acceptance Characteristics of Change Direction U-Turn Opening	change direction U-turn opening, critical gap, gap acceptance, waiting time	9, 3, 825-830	https://doi.org/10.18280/mmep.090332	Razzaq, A.K., Shubber, K.H.H. (2022). Effect of waiting time on gap acceptance characteristics of change direction U-turn opening. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 3, pp. 825-830. https://doi.org/10.18280/mmep.090332
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534	Karash, E.T., Sultan, J.N., Najem, M.K.	The Difference in the Wall Thickness of the Helicopter Structure Are Made of Composite Materials with Another Made of Steel	steel, helicopter, carbon fiber, fiber glass, composite materials, failure, structure	9, 2, 313-324	https://doi.org/10.18280/mmep.090204	Karash, E.T., Sultan, J.N., Najem, M.K. (2022). The difference in the wall thickness of the helicopter structure are made of composite materials with another made of steel. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 313-324. https://doi.org/10.18280/mmep.090204
535	Reddy, T.S., Roja, P., Ibrahim, S.M., Lorenzini, G.	Thermal Radiation and Viscous Dissipation Effects on (MHD) Bioconvection Stream of Maxwell Nanoliquid over a Permeable Vertical Plate Due to Gyrotactic Microorganisms	thermal radiation, viscous dissipation, MHD, bioconvection, Maxwell nanoliquid, microorganisms	9, 2, 325-335	https://doi.org/10.18280/mmep.090205	Reddy, T.S., Roja, P., Ibrahim, S.M., Lorenzini, G. (2022). Thermal radiation and viscous dissipation effects on (MHD) bioconvection stream of Maxwell nanoliquid over a permeable vertical plate due to gyrotactic microorganisms. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 325-335. https://doi.org/10.18280/mmep.090205
536	Tukhvatullin, M., Arkhangelsky, Y., Aipov, R., Khasanov, E.	Materials and Economic Aspects of Designing Microwave Electrical Installations	design, dielectric, economics, materials science, polymer, thermal and non-thermal microwave modifications	9, 2, 336-342	https://doi.org/10.18280/mmep.090206	Tukhvatullin, M., Arkhangelsky, Y., Aipov, R., Khasanov, E. (2022). Materials and economic aspects of designing microwave electrical installations. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 336-342. https://doi.org/10.18280/mmep.090206
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539	Hashim, A.M., Ali, A.Y.	Restoring Strength of Reinforced Concrete Horizontally Curved Box Beam with Opening Using Reactive Powder Concrete (RPC) and FRP Techniques	circular box beam, opening, deformation response, ductility, stiffness, CFRP laminates, Reactive Powder Concrete (RPC)	9, 2, 359-370	https://doi.org/10.18280/mmep.090209	Hashim, A.M., Ali, A.Y. (2022). Restoring strength of reinforced concrete horizontally curved box beam with opening using Reactive Powder Concrete (RPC) and FRP techniques. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 359-370. https://doi.org/10.18280/mmep.090209
540	Badretdinov, I.D., Mudarisov, S.G., Khaliullin, D.T.	Examination of the Airflow Uneven Distribution over the Combine Harvester Cleaning System	airflow, cleaning system, combine harvester, digital twin, modelling of the technological process, radial fan	9, 2, 371-378	https://doi.org/10.18280/mmep.090210	Badretdinov, I.D., Mudarisov, S.G., Khaliullin, D.T. (2022). Examination of the airflow uneven distribution over the combine harvester cleaning system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 371-378. https://doi.org/10.18280/mmep.090210
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544	Tutkusheva, Z.S., Kazbekova, G.N., Seilkhanova, R.B., Kairakbaev, A.K.	Wegstein's Method for Calculating the Global Extremum	auxiliary function, deterministic methods, global extremum, multiextremality, optimization methods, static problems	9, 2, 405-410	https://doi.org/10.18280/mmep.090214	Tutkusheva, Z.S., Kazbekova, G.N., Seilkhanova, R.B., Kairakbaev, A.K. (2022). Wegstein's method for calculating the global extremum. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 405-410. https://doi.org/10.18280/mmep.090214
545	Zinkaah, O.H., Sultan, H.K., Al-Rifaie, A., Alridha, Z.	Influence of Strut Geometry on the Size Effect of FRP Reinforced Simply Supported Deep Beams: A Theoretical Analysis	deep beams, fibre reinforced polymer bars, size effect, strut and tie method, bearing plates	9, 2, 411-417	https://doi.org/10.18280/mmep.090215	Zinkaah, O.H., Sultan, H.K., Al-Rifaie, A., Alridha, Z. (2022). Influence of strut geometry on the size effect of FRP reinforced simply supported deep beams: A theoretical analysis. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 411-417. https://doi.org/10.18280/mmep.090215
546	Sugito, S., Alisjahbana, S.W., Riyanto, H.	Modeling of Mechanical Performance from Concrete Made by Combining Iron Sand and Glass Powder Filler under Hot Water Curing Condition	compressive strength, concrete mixture, glass powder filler, iron sand	9, 2, 418-424	https://doi.org/10.18280/mmep.090216	Sugito, S., Alisjahbana, S.W., Riyanto, H. (2022). Modeling of mechanical performance from concrete made by combining iron sand and glass powder filler under hot water curing condition. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 418-424. https://doi.org/10.18280/mmep.090216
547	Voronova, A., Kunickaya, O., Burmistrova, D., Storodubtseva, T., Chzhan, S., Nikiforova, V., Shvetsova, V., Kalita, E.	Mobile Chipper Scheduling in the Production of Fuel Chips	mobile chipping machine, movement optimization model, movement schedule, Simplex algorithm, wood chip	9, 2, 425-430	https://doi.org/10.18280/mmep.090217	Voronova, A., Kunickaya, O., Burmistrova, D., Storodubtseva, T., Chzhan, S., Nikiforova, V., Shvetsova, V., Kalita, E. (2022). Mobile chipper scheduling in the production of fuel chips. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 425-430. https://doi.org/10.18280/mmep.090217
548	Al-Khafaji, T.K.M., Abdul-Rahman, A.K.	Derivative Operator of Order $\epsilon+p-1$ Associated with Differential Subordination and Superordination	analytic function, derivative operator, differential subordination, differentiation operator, sandwich theorem, second order, super ordination, univalent function	9, 2, 431-436	https://doi.org/10.18280/mmep.090218	Al-Khafaji, T.K.M., Abdul-Rahman, A.K. (2022). Derivative operator of order $\epsilon+p-1$ associated with differential subordination and superordination. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 431-436. https://doi.org/10.18280/mmep.090218
549	Al-Khazraji, H.	Optimal Design of a Proportional-Derivative State Feedback Controller Based on Meta-Heuristic Optimization for a Quarter Car Suspension System	proportional-derivative state feedback controller, suspension system, meta-heuristic optimization, bees algorithm, grey wolf optimization	9, 2, 437-442	https://doi.org/10.18280/mmep.090219	Al-Khazraji, H. (2022). Optimal design of a proportional-derivative state feedback controller based on meta-heuristic optimization for a quarter car suspension system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 437-442. https://doi.org/10.18280/mmep.090219
550	Hidayati, S., Sartika, D., Sutoyo, S., Fudholi, A.	Predict the Shelf Life of Instant Chocolate in Vacuum Packing by Using Accelerated Shelf Life Test (ASLT)	ASLT, instant chocolate, vacuum packing, shelf life	9, 2, 443-450	https://doi.org/10.18280/mmep.090220	Hidayati, S., Sartika, D., Sutoyo, S., Fudholi, A. (2022). Predict the shelf life of instant chocolate in vacuum packing by using accelerated shelf life test (ASLT). <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 443-450. https://doi.org/10.18280/mmep.090220
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553	Abidalla, W.A., Naser, A.S., Nasir, M.J.	Finding of Suitable Transportation Rate Formula by Using "Velocity - Height - Distance" for Bed Material Load	bed load, flume, formula, laboratory experimental, sediment transport rate	9, 2, 463-467	https://doi.org/10.18280/mmep.090223	Abidalla, W.A., Naser, A.S., Nasir, M.J. (2022). Finding of suitable transportation rate formula by using "velocity - height - distance" for bed material load. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 463-467. https://doi.org/10.18280/mmep.090223
554	Okokpujie, I.P., Tartibu, L.K.	Comparative Study of the Effect of Dry, Mineral Oil, and TiO2 Nano-Lubricant on Tool Wear During Face-Milling Machining of Ti-6Al-4V-Eli Using Carbide Tool Insert	titanium alloys, tool wear, cutting conditions, Taguchi L9 orthogonal design, machining factors	9, 2, 468-476	https://doi.org/10.18280/mmep.090224	Okokpujie, I.P., Tartibu, L.K. (2022). Comparative study of the effect of dry, mineral oil, and TiO2 nano-lubricant on tool wear during face-milling machining of Ti-6Al-4V-Eli using carbide tool insert. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 468-476. https://doi.org/10.18280/mmep.090224
555	Alawad, N.A., Humaidi, A.J., Al-Araji, A.S.	Improved Active Disturbance Rejection Control for the Knee Joint Motion Model	exoskeleton system, ADRC controller, PID controller, tracking performance, robustness	9, 2, 477-483	https://doi.org/10.18280/mmep.090225	Alawad, N.A., Humaidi, A.J., Al-Araji, A.S. (2022). Improved active disturbance rejection control for the knee joint motion model. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 477-483. https://doi.org/10.18280/mmep.090225
556	Bharadwaj, D., Mishra, N., Pathak, M.	Kinematic and Singularity Analysis of 10 DOF Lower Body of Humanoid Robot	kinematic configuration, Jacobian, singularity, work envelop	9, 2, 484-490	https://doi.org/10.18280/mmep.090226	Bharadwaj, D., Mishra, N., Pathak, M. (2022). Kinematic and singularity analysis of 10 DOF lower body of humanoid robot. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 484-490. https://doi.org/10.18280/mmep.090226
557	Eleiwi, M.A., Rashid, F.L., Khalaf, A.F., Tuama, S.A.	Numerical Investigation of Conjugate Heat Transfer Between Spherical Solid Body and Fluid	conjugate heat transfer, computational fluid dynamics, convection, finite volume method, sphere, thermal conduction	9, 2, 491-497	https://doi.org/10.18280/mmep.090227	Eleiwi, M.A., Rashid, F.L., Khalaf, A.F., Tuama, S.A. (2022). Numerical investigation of conjugate heat transfer between spherical solid body and fluid. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 491-497. https://doi.org/10.18280/mmep.090227
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559	Serrat, A., Djebbar, B.	Solving Symmetrical Drop Suspended Equilibrium Equation by Artificial Bee Colony Programming	artificial bee colony programming, differential equation, symbolic regression, suspended symmetric drop	9, 2, 507-514	https://doi.org/10.18280/mmep.090229	Serrat, A., Djebbar, B. (2022). Solving symmetrical drop suspended equilibrium equation by artificial bee colony programming. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 507-514. https://doi.org/10.18280/mmep.090229
560	Saadi, T.H., Al-Zaidee, S.R.	Finite Element Modeling of Partially Composite Light-Gage Steel Tube Beam with Lightweight Concrete Deck Slab	finite element modeling, light-gage steel, lightweight concrete, composite beams, concrete damage plasticity	9, 2, 515-522	https://doi.org/10.18280/mmep.090230	Saadi, T.H., Al-Zaidee, S.R. (2022). Finite element modeling of partially composite light-gage steel tube beam with lightweight concrete deck slab. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 515-522. https://doi.org/10.18280/mmep.090230
561	Yalavarthy, U.R.S., Gadi, V.S.K.R.	Modelling, Simulation and Analysis of Indirect Space Vector Control of Electric Vehicle Driven by Permanent Magnet Synchronous Motor with Fuzzy Controller	electric vehicle (EV), fuzzy logic controller (FLC), indirect space vector control (ISVC), permanent magnet synchronous motor (PMSM), space vector pulse width modulation (SVPWM)	9, 2, 523-532	https://doi.org/10.18280/mmep.090231	Yalavarthy, U.R.S., Gadi, V.S.K.R. (2022). Modelling, simulation and analysis of indirect space vector control of electric vehicle driven by permanent magnet synchronous motor with fuzzy controller. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 523-532. https://doi.org/10.18280/mmep.090231
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565	Hamzah, D.A., Al-Farhany, K.	Improved Thermal Performance of the Fully Developed Region in the Partially Spirally Grooved Pipe	fully developed, turbulent flow, helical grooved, numerical, secondary flow	9, 2, 554-558	https://doi.org/10.18280/mmep.090235	Hamzah, D.A., Al-Farhany, K. (2022). Improved thermal performance of the fully developed region in the partially spirally grooved pipe. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 2, pp. 554-558. https://doi.org/10.18280/mmep.090235
566	Gkoutakou, F.I., Papadopoulos, B.K.	The Use of Fuzzy Linear Regression with Trapezoidal Fuzzy Numbers to Predict the Compressive Strength of Lightweight Foamed Concrete	compressive strength, lightweight foamed concrete, modelling, fuzzy linear regression, trapezoidal fuzzy numbers	9, 1, 1-10	https://doi.org/10.18280/mmep.090101	Gkoutakou, F.I., Papadopoulos, B.K. (2022). The use of fuzzy linear regression with trapezoidal fuzzy numbers to predict the compressive strength of lightweight foamed concrete. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 1, pp. 1-10. https://doi.org/10.18280/mmep.090101
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568	Ghoumazi, M., Bella, M., Hameurlain, M.	Designing of a Novel Nanophotonic Structure Based on 2D Photonic Crystals for the Detection of Different Materials	photonic crystals, materials, FEM, power flow norm total energy density, sensors	9, 1, 19-26	https://doi.org/10.18280/mmep.090103	Ghoumazi, M., Bella, M., Hameurlain, M. (2022). Designing of a novel nanophotonic structure based on 2D photonic crystals for the detection of different materials. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 1, pp. 19-26. https://doi.org/10.18280/mmep.090103
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573	Golla, N.K., Sudabattula, S.K., Suresh, V.	Optimal Placement of Electric Vehicle Charging Station in Distribution System Using Meta-Heuristic Techniques	transportation system, electric vehicle charging station, optimal placement, loss sensitivity factor	9, 1, 60-66	https://doi.org/10.18280/mmep.090108	Golla, N.K., Sudabattula, S.K., Suresh, V. (2022). Optimal placement of electric vehicle charging station in distribution system using meta-heuristic techniques. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 1, pp. 60-66. https://doi.org/10.18280/mmep.090108
574	Ganeev, I., Karimov, K., Permyakov, V., Mudarisov, S., Khasanov, E.	Mathematical Model of the Rapeseed Drying Process with the Use of Electromagnetic Microwave Radiation Based on Heat Calculations	rapeseed drying, microwave drying, drying heat calculation, electromagnetic microwave radiation, drying unit	9, 1, 67-74	https://doi.org/10.18280/mmep.090109	Ganeev, I., Karimov, K., Permyakov, V., Mudarisov, S., Khasanov, E. (2022). Mathematical model of the rapeseed drying process with the use of electromagnetic microwave radiation based on heat calculations. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 1, pp. 67-74. https://doi.org/10.18280/mmep.090109
575	Mohsin, M.S., Alwash, N.A., Kadhum, M.M.	Nonlinear Finite Element Structural Analysis of Reinforced Concrete Beams with out of Plane Parts	concrete beams, out of plane parts, normal strength concrete, experimental, FEM	9, 1, 75-84	https://doi.org/10.18280/mmep.090110	Mohsin, M.S., Alwash, N.A., Kadhum, M.M. (2022). Nonlinear finite element structural analysis of reinforced concrete beams with out of plane parts. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 1, pp. 75-84. https://doi.org/10.18280/mmep.090110
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579	Devianti, Syahrul, Kamisna, D., Sitorus, A., Thamren, D.S.	Modeling of Surface Runoff Estimation in Tropical Palm Dates Plantations: A Case Study in Aceh Province, Indonesia	Aceh, appropriate technology, palm dates, surface runoff	9, 1, 111-116	https://doi.org/10.18280/mmep.090114	Devianti, Syahrul, Kamisna, D., Sitorus, A., Thamren, D.S. (2022). Modeling of surface runoff estimation in tropical palm dates plantations: A case study in Aceh province, Indonesia. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 1, pp. 111-116. https://doi.org/10.18280/mmep.090114
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583	Djelamda, I., Bouchareb, I.	Li-Ion Battery Fault Diagnosis Dedicated to Electric Vehicles by Neural Network Pattern Recognition	diagnostic, electric vehicle, Li-Ion battery, artificial neural networks	9, 1, 144-149	https://doi.org/10.18280/mmep.090118	Djelamda, I., Bouchareb, I. (2022). Li-Ion battery fault diagnosis dedicated to electric vehicles by neural network pattern recognition. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 1, pp. 144-149. https://doi.org/10.18280/mmep.090118
584	Almawla, A.S., Lateef, A.M., Kamel, A.H.	Modelling the Effects of Hydraulic Force on Strain in Hydraulic Structures Using ANN (Haditha Dam in Iraq as a Case Study)	artificial neural network, ANN, Haditha dam, hydraulic structures, prediction model, strain modelling	9, 1, 150-158	https://doi.org/10.18280/mmep.090119	Almawla, A.S., Lateef, A.M., Kamel, A.H. (2022). Modelling the effects of hydraulic force on strain in hydraulic structures using ANN (Haditha dam in Iraq as a case study). <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 1, pp. 150-158. https://doi.org/10.18280/mmep.090119
585	Goeritno, A.	Analytical and Numerical Simulations to Observe the Seawater Cooling Phenomena Through a Single Rectangular Plate-Fin	analytical method, numerical methods of Euler's and RK4's, ordinary differential equations, simulation on the seawater cooling phenomena, single rectangular plate-fin	9, 1, 159-167	https://doi.org/10.18280/mmep.090120	Goeritno, A. (2022). Analytical and numerical simulations to observe the seawater cooling phenomena through a single rectangular plate-fin. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 1, pp. 159-167. https://doi.org/10.18280/mmep.090120
586	Alzaareer, K., Salem, Q., El-Bayeh, C.Z., Harasis, S., Aldaoudeyeh, A.M.I., Malkawi, A.M.A., Al-Shetwi, A.Q.	Development of New Admittance Matrix for Newton-Raphson Power Flow in Distribution Networks	power flow, unbalanced system, three-phase networks, distribution networks, admittance matrix, component models	9, 1, 168-177	https://doi.org/10.18280/mmep.090121	Alzaareer, K., Salem, Q., El-Bayeh, C.Z., Harasis, S., Aldaoudeyeh, A.M.I., Malkawi, A.M.A., Al-Shetwi, A.Q. (2022). Development of new admittance matrix for Newton-Raphson power flow in distribution networks. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 1, pp. 168-177. https://doi.org/10.18280/mmep.090121
587	Rahman, F., Sugiono, S., Sonief, A.A., Novareza, O.	Availability Optimization of the Mobile Crane Using Approach Reliability Engineering at Oil and Gas Company	mobile crane, oil and gas company, preventive maintenance, reliability engineering	9, 1, 178-185	https://doi.org/10.18280/mmep.090122	Rahman, F., Sugiono, S., Sonief, A.A., Novareza, O. (2022). Availability optimization of the mobile crane using approach reliability engineering at oil and gas company. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 1, pp. 178-185. https://doi.org/10.18280/mmep.090122
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589	Vega-Zuñiga, S., Rueda-Bayona, J.G., Ospino-Castro, A.	Evaluation of Eleven Numerical Methods for Determining Weibull Parameters for Wind Energy Generation in the Caribbean Region of Colombia	Weibull parameters, PDF Weibull, wind speed, shape, scale parameters	9, 1, 194-199	https://doi.org/10.18280/mmep.090124	Vega-Zuñiga, S., Rueda-Bayona, J.G., Ospino-Castro, A. (2022). Evaluation of eleven numerical methods for determining Weibull parameters for wind energy generation in the Caribbean region of Colombia. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 1, pp. 194-199. https://doi.org/10.18280/mmep.090124

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596	Tho, Q.H., Phap, H.C., Phuong, P.A.	Motion Planning Solution with Constraints Based on Minimum Distance Model for Lane Change Problem of Autonomous Vehicles	autonomous vehicle, path planning, lane change, motion planning, intelligent transportation systems	9, 1, 251-260	https://doi.org/10.18280/mmep.090131	Tho, Q.H., Phap, H.C., Phuong, P.A. (2022). Motion planning solution with constraints based on minimum distance model for lane change problem of autonomous vehicles. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 1, pp. 251-260. https://doi.org/10.18280/mmep.090131
597	Kusrini, E., Prakoso, I., Hidayatulloh, S.	Improving Efficiency for Retail Warehouse Using Data Envelopment Analysis	Data Envelopment Analysis (DEA), warehouse, efficiency, benchmarking, Analytical Hierarchy Process (AHP)	9, 1, 261-267	https://doi.org/10.18280/mmep.090132	Kusrini, E., Prakoso, I., Hidayatulloh, S. (2022). Improving efficiency for retail warehouse using data envelopment analysis. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 1, pp. 261-267. https://doi.org/10.18280/mmep.090132
598	Abdoon, M.A., Hasan, F.L.	Advantages of the Differential Equations for Solving Problems in Mathematical Physics with Symbolic Computation	first integral method, Benjamin-Bona-Mahony equation, breaking soliton equation, symbolic computation	9, 1, 268-276	https://doi.org/10.18280/mmep.090133	Abdoon, M.A., Hasan, F.L. (2022). Advantages of the differential equations for solving problems in mathematical physics with symbolic computation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 9, No. 1, pp. 268-276. https://doi.org/10.18280/mmep.090133
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604	Prakash, S.V.J., Dhal, P.K.	Modelling and Analysis of Solar and Wind System Adequacy Assessment and Cost Optimization	reliability, cost optimization, loss of load expectation, Roy Billinton test system, solar and wind	8, 6, 861-870	https://doi.org/10.18280/mmep.080604	Prakash, S.V.J., Dhal, P.K. (2021). Modelling and analysis of solar and wind system adequacy assessment and cost optimization. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 6, pp. 861-870. https://doi.org/10.18280/mmep.080604
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606	Hamoodi, A.S.	Logistic Regression Model to Investigate the Risk Factors for Glaucoma	ethnicity, logistic regression model, risk factors, statistical analysis	8, 6, 881-887	https://doi.org/10.18280/mmep.080606	Hamoodi, A.S. (2021). Logistic regression model to investigate the risk factors for glaucoma. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 6, pp. 881-887. https://doi.org/10.18280/mmep.080606
607	Rueda-Bayona, J.G., Gil, L., Calderón, J.M.	CFD-FEM Modeling of a Floating Foundation under Extreme Hydrodynamic Forces Generated by Low Sea States	CFD, FEM, hydrodynamics, hydromechanics, offshore, TLP	8, 6, 888-896	https://doi.org/10.18280/mmep.080607	Rueda-Bayona, J.G., Gil, L., Calderón, J.M. (2021). CFD-FEM modeling of a floating foundation under extreme hydrodynamic forces generated by low sea states. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 6, pp. 888-896. https://doi.org/10.18280/mmep.080607
608	Thamer, L., Shaia, H.	The Effect of Geotextile Layers and Configuration on Soil Bearing Capacity	bearing capacity, woven geotextile, silty sand soil, plate load test, configuration effect, square footing, model tests, reinforcement	8, 6, 897-904	https://doi.org/10.18280/mmep.080608	Thamer, L., Shaia, H. (2021). The effect of geotextile layers and configuration on soil bearing capacity. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 6, pp. 897-904. https://doi.org/10.18280/mmep.080608

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610	Nasser, A.R., Mahmood, A.M.	Cloud-Based Parkinson's Disease Diagnosis Using Machine Learning	cloud computing, artificial intelligence, machine learning, deep learning, feature selection, Parkinson's disease	8, 6, 915-922	https://doi.org/10.18280/mmep.080610	Nasser, A.R., Mahmood, A.M. (2021). Cloud-based Parkinson's disease diagnosis using machine learning. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 6, pp. 915-922. https://doi.org/10.18280/mmep.080610
611	Mohammed, A.K., Irzooki, R.H., Jamel, A.A., Mohammed-Ali, W.S., Abbas, S.S.	Cloud-Based Parkinson's Disease Diagnosis Using Machine Learning	critical depth, normal depth, circular channel, dimensional analysis, statistical analysis	8, 6, 923-927	https://doi.org/10.18280/mmep.080611	Mohammed, A.K., Irzooki, R.H., Jamel, A.A., Mohammed-Ali, W.S., Abbas, S.S. (2021). Novel approach to computing critical and normal depth in circular channels. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 6, pp. 923-927. https://doi.org/10.18280/mmep.080611
612	Ezzidani, A., Ouammou, A., Hanini, M., Tahar, A.B.	A SMDP Approach to Evaluate the Performance of a Vehicular Cloud Computing System with Prioritize Requests	iterative approach, priority of service requests, semi-Markov decision policy, vehicular cloud, Vehicular Cloud Computing	8, 6, 928-936	https://doi.org/10.18280/mmep.080612	Ezzidani, A., Ouammou, A., Hanini, M., Tahar, A.B. (2021). A SMDP approach to evaluate the performance of a vehicular cloud computing system with prioritize requests. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 6, pp. 928-936. https://doi.org/10.18280/mmep.080612
613	Tuhvatullin, M., Arkhangelsky, Y., Aipov, R., Khasanov, E.	Ultra High-Frequency Electric Installation with a Hybrid-Type Working Chamber	electric installation, hybrid-type working chamber, non-thermal and thermal UHF modification, UHF electromagnetic field	8, 6, 937-944	https://doi.org/10.18280/mmep.080613	Tuhvatullin, M., Arkhangelsky, Y., Aipov, R., Khasanov, E. (2021). Ultra high-frequency electric installation with a hybrid-type working chamber. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 6, pp. 937-944. https://doi.org/10.18280/mmep.080613
614	Jaaz, H.A.G., Naser, A.F., Mohammed, H.A., Mohammed, A.A.	Ultra High-Frequency Electric Installation with a Hybrid-Type Working Chamber	optimization, evaluation, safety, pier form, earthquake, demand, capacity, yielding point	8, 6, 945-954	https://doi.org/10.18280/mmep.080614	Jaaz, H.A.G., Naser, A.F., Mohammed, H.A., Mohammed, A.A. (2021). Earthquake resistance optimization and evaluation of bridge piers structural form and dimensions based on demand to capacity ratio and yielding points of force-displacement. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 6, pp. 945-954. https://doi.org/10.18280/mmep.080614
615	Kemparaju, M.C., Lavanya, B., Nandeppanavar, M.M., Raveendra, N.	Heat Transfer Exploration of MHD Flow Stream with Changing Viscosity and Thermal Conductivity due to Expandable Surface	MHD, variable viscosity, variable thermal conductivity, stretching sheet	8, 6, 955-960	https://doi.org/10.18280/mmep.080615	Kemparaju, M.C., Lavanya, B., Nandeppanavar, M.M., Raveendra, N. (2021). Heat transfer exploration of MHD flow stream with changing viscosity and thermal conductivity due to expandable surface. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 6, pp. 955-960. https://doi.org/10.18280/mmep.080615
616	Aziz, H.Y., Sultan, H.K., Abbas, B.J.	Simulation and Style Design of Bridge Stability Supported on Large Diameter Piles	bridge engineering, AASHTO code, SAP analysis, piles	8, 6, 961-966	https://doi.org/10.18280/mmep.080616	Aziz, H.Y., Sultan, H.K., Abbas, B.J. (2021). Simulation and style design of bridge stability supported on large diameter piles. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 6, pp. 961-966. https://doi.org/10.18280/mmep.080616
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618	Naem, S.M., Faidh-Allah, M.H.	Forward Kinematic and Jacobian Matrix for the Prosthetic Human Finger Actuated by Links	Denvit-Hartenberg method, Jacobian method, kinematic, prosthetic finger, Solidwork program	8, 6, 974-978	https://doi.org/10.18280/mmep.080618	Naem, S.M., Faidh-Allah, M.H. (2021). Forward kinematic and Jacobian matrix for the prosthetic human finger actuated by links. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 6, pp. 974-978. https://doi.org/10.18280/mmep.080618
619	Odah, M.H.	Comparison of GARCH & ARMA Models to Forecasting Exchange Rate	GARCH, ARMA, financial time series, heteroskedasticity	8, 6, 979-983	https://doi.org/10.18280/mmep.080619	Odah, M.H. (2021). Comparison of GARCH & ARMA models to forecasting exchange rate. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 6, pp. 979-983. https://doi.org/10.18280/mmep.080619
620	Kumar, S., Dixit, A.S.	A Miniaturized CSRR Loaded 2-Element MIMO Antenna for LTE Band	Complimentary Split-Ring Resonator (CSRR), long term evolution (LTE) band, miniaturized, multiple-input multiple-output (MIMO)	8, 6, 984-988	https://doi.org/10.18280/mmep.080620	Kumar, S., Dixit, A.S. (2021). A miniaturized CSRR loaded 2-element MIMO antenna for LTE band. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 6, pp. 984-988. https://doi.org/10.18280/mmep.080620
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622	Youssef, A., Bayoumy, A.M., Atia, M.R.A.	Investigation of Using ANN and Stereovision in Delta Robot for Pick and Place Applications	parallel robot, delta robot, neural networks, artificial intelligence, pick and place, forward kinematics, inverse kinematics	8, 5, 682-688	https://doi.org/10.18280/mmep.080502	Youssef, A., Bayoumy, A.M., Atia, M.R.A. (2021). Investigation of using ANN and stereovision in delta robot for pick and place applications. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 5, pp. 682-688. https://doi.org/10.18280/mmep.080502
623	Kotb, M.S., Sharawy, A., Mohie El-Din, M.M.	E-Bayesian Estimation for Kumaraswamy Distribution Using Progressive First Failure Censoring	E-Bayesian estimation, Kumaraswamy distribution, progressive first failure censored, Monte Carlo simulation	8, 5, 689-702	https://doi.org/10.18280/mmep.080503	Kotb, M.S., Sharawy, A., Mohie El-Din, M.M. (2021). E-Bayesian estimation for Kumaraswamy distribution using progressive first failure censoring. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 5, pp. 689-702. https://doi.org/10.18280/mmep.080503
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625	Devianti, Jayanti, D.S., Amrida, N., Sitorus, A., Thamren, D.S.	Potential Hydroelectric Power Plant for a Remote Area Utilizing Subwatershed Lawe-Simpali	appropriate technology, electricity, energy, natural resources, rural communities, water	8, 5, 715-720	https://doi.org/10.18280/mmep.080505	Devianti, Jayanti, D.S., Amrida, N., Sitorus, A., Thamren, D.S. (2021). Potential Hydroelectric power plant for a remote area utilizing subwatershed Lawe-simpali. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 5, pp. 715-720. https://doi.org/10.18280/mmep.080505
626	Ershkov, S., Leshchenko, D.	Revisiting Glacier Dynamics for Stationary Approximation of Plane-Parallel Creeping Flow	basal slip, creeping flow, critical maximal level of stress, glacier dynamics, glacial ice, non-Newtonian fluid, viscous-plastic flow	8, 5, 721-726	https://doi.org/10.18280/mmep.080506	Ershkov, S., Leshchenko, D. (2021). Revisiting glacier dynamics for stationary approximation of plane-parallel creeping flow. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 5, pp. 721-726. https://doi.org/10.18280/mmep.080506
627	Escandón-Panchana, P., Morante-Carballo, F., Herrera-Franco, G., Pineda, E., Yagual, J.	Computer Application to Estimate PVT Conditions in Oil Wells in the Ecuadorian Amazon	computer application, mathematical correlations, physical properties of oil, PVT estimate	8, 5, 727-738	https://doi.org/10.18280/mmep.080507	Escandón-Panchana, P., Morante-Carballo, F., Herrera-Franco, G., Pineda, E., Yagual, J. (2021). Computer application to estimate PVT conditions in oil wells in the Ecuadorian Amazon. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 5, pp. 727-738. https://doi.org/10.18280/mmep.080507

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629	Kusrini, E., Miranda, S.	Determining Performance Metrics of Supply Chain Management in Make-to-Order Small-Medium Enterprise Using Supply Chain Operation Reference Model (SCOR Version 12.0)	performance measurement, performance metric, SCOR 12, supply chain management	8, 5, 750-756	https://doi.org/10.18280/mmep.080509	Kusrini, E., Miranda, S. (2021). Determining performance metrics of supply chain management in make-to-order small-medium enterprise using Supply Chain Operation Reference model (SCOR Version 12.0). <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 5, pp. 750-756. https://doi.org/10.18280/mmep.080509
630	Shubbar, M.M., Abdul-Rahaim, L.A., Hamad, A.A.	Cloud-Based Automated Power Factor Correction and Power Monitoring	cloud computing, power factor correction, APFC, IoT, neural networks, NodeMCU, Wi-Fi, computational	8, 5, 757-762	https://doi.org/10.18280/mmep.080510	Shubbar, M.M., Abdul-Rahaim, L.A., Hamad, A.A. (2021). Cloud-based automated power factor correction and power monitoring. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 5, pp. 757-762. https://doi.org/10.18280/mmep.080510
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633	Nguyen, D.N., Nguyen, T.A., Hoang, T.B., Dang, N.D.	Establishing the Method to Predict the Limited Roll Angle of the Vehicle Based on the Basic Dimensions	dynamic vehicle, rollover state function (RSF), roll angle, limit of rollover	8, 5, 775-779	https://doi.org/10.18280/mmep.080513	Nguyen, D.N., Nguyen, T.A., Hoang, T.B., Dang, N.D. (2021). Establishing the method to predict the limited roll angle of the vehicle based on the basic dimensions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 5, pp. 775-779. https://doi.org/10.18280/mmep.080513
634	Giuliano, A., Catizzone, E.	Modelling and Environmental Aspects of Direct or Indirect Dimethyl Ether Synthesis Using Digestate as Feedstock	digestate, gasification, dimethyl ether, process simulation, sustainability, carbon dioxide emission assessment, waste-to-chemicals	8, 5, 780-786	https://doi.org/10.18280/mmep.080514	Giuliano, A., Catizzone, E. (2021). Modelling and environmental aspects of direct or indirect dimethyl ether synthesis using digestate as feedstock. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 5, pp. 780-786. https://doi.org/10.18280/mmep.080514
635	Al-Awadi, A.T.	The Variation of Scour Depth near Vertical and Inclined Cylindrical Bridge Piers: An Experimental Study	scour depth, bridge piers, inclined piers, vertical piers, flow intensity, modified empirical formula	8, 5, 787-792	https://doi.org/10.18280/mmep.080515	Al-Awadi, A.T. (2021). The variation of scour depth near vertical and inclined cylindrical bridge piers: An experimental study. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 5, pp. 787-792. https://doi.org/10.18280/mmep.080515
636	Rizal, J., Gunawan, A.Y., Indratno, S.W., Meilano, I.	The Application of Copula Continuous Extension Technique for Bivariate Discrete Data: A Case Study on Dependence Modeling of Seismicity Data	continuous extension technique, dependence, copula model, Kendall's tau, random perturbation, earthquakes	8, 5, 793-804	https://doi.org/10.18280/mmep.080516	Rizal, J., Gunawan, A.Y., Indratno, S.W., Meilano, I. (2021). The application of copula continuous extension technique for bivariate discrete data: A case study on dependence modeling of seismicity data. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 5, pp. 793-804. https://doi.org/10.18280/mmep.080516
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642	Tarrad, A.H.	Borehole Thermal Analysis for a Closed Loop Vertical U-Tube DX Ground Heat Exchanger	borehole thermal resistance, sizing a U-Tube, equivalent diameter, geothermal energy source, R-410A	8, 4, 501-509	https://doi.org/10.18280/mmep.080402	Tarrad, A.H. (2021). Borehole thermal analysis for a closed loop vertical U-tube DX ground heat exchanger. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 4, pp. 501-509. https://doi.org/10.18280/mmep.080402
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645	Usharani, R., Rajendran, L., Abukhaled, M.	Approximations for the Concentration and Effectiveness Factor in Porous Catalysts of Arbitrary Shape: Taylor Series and Akbari-Ganjani's Methods	mathematical modeling, nonlinear diffusion, reaction equation, Michaelis-Menten kinetic, Taylor series, Akbari-Ganjani's method	8, 4, 527-537	https://doi.org/10.18280/mmep.080405	Usharani, R., Rajendran, L., Abukhaled, M. (2021). Approximations for the concentration and effectiveness factor in porous catalysts of arbitrary shape: Taylor Series and Akbari-Ganjani's methods. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 4, pp. 527-537. https://doi.org/10.18280/mmep.080405
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651	Murali, D., Annapurani, S.	Improvement of Static Voltage Gain of a Non-Isolated Positive Output Single-Switch DC-DC Converter Structure Using a Diode-Capacitor Cell	coupled inductor, diode-capacitor cell, high voltage conversion ratio, MATLAB/SIMULINK, non-isolated converter, reduced switch voltage stress	8, 4, 583-590	https://doi.org/10.18280/mmep.080411	Murali, D., Annapurani, S. (2021). Improvement of static voltage gain of a non-isolated positive output single-switch DC-DC converter structure using a diode-capacitor cell. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 4, pp. 583-590. https://doi.org/10.18280/mmep.080411
652	Kaidassov, Z., Tutkusheva, Z.S.	Algorithm for Calculating the Global Minimum of a Smooth Function of Several Variables	cubature formulas, absolute minimum, global minimum, extreme problem, optimisation problem	8, 4, 591-596	https://doi.org/10.18280/mmep.080412	Kaidassov, Z., Tutkusheva, Z.S. (2021). Algorithm for calculating the global minimum of a smooth function of several variables. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 4, pp. 591-596. https://doi.org/10.18280/mmep.080412
653	Abdulkarim, A.H., Eleiwi, M.A., Tahseen, T.A., Canli, E.	Numerical Forced Convection Heat Transfer of Nanofluids over Back Facing Step and Through Heated Circular Grooves	back facing step, CFD, heat transfer, laminar, nanofluid, temperature distribution	8, 4, 597-610	https://doi.org/10.18280/mmep.080413	Abdulkarim, A.H., Eleiwi, M.A., Tahseen, T.A., Canli, E. (2021). Numerical forced convection heat transfer of nanofluids over back facing step and through heated circular grooves. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 4, pp. 597-610. https://doi.org/10.18280/mmep.080413
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660	Al-Tajer, A.M., Kramallah, A.A., Mohsen, A.M., Mahmoud, N.S.	Experimental Investigation of Heat Transfer of Nanofluid in Elliptical and Circular Tubes	elliptical tube, Nusselt number, nanofluid, turbulent flow	8, 4, 665-671	https://doi.org/10.18280/mmep.080420	Al-Tajer, A.M., Kramallah, A.A., Mohsen, A.M., Mahmoud, N.S. (2021). Experimental investigation of heat transfer of nanofluid in elliptical and circular tubes. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 4, pp. 665-671. https://doi.org/10.18280/mmep.080420
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662	Ike, C.C.	Fourier Integral Transformation Method for Solving Two Dimensional Elasticity Problems in Plane Strain Using Love Stress Functions	Fourier integral method, two dimensional elasticity problem in plane strain, Love stress function, biharmonic stress compatibility equation	8, 3, 333-346	https://doi.org/10.18280/mmep.080302	Ike, C.C. (2021). Fourier integral transformation method for solving two dimensional elasticity problems in plane strain using love stress functions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 3, pp. 333-346. https://doi.org/10.18280/mmep.080302
663	Sharma, M., Soni, M.	A Finite Element Modeling and Simulation of Human Temporomandibular Joint with and Without TM Disorders: An Indian Experience	finite element analysis, TMJ, jaw joint, biomechanics, stress distribution, bruxism, clenching	8, 3, 347-355	https://doi.org/10.18280/mmep.080303	Sharma, M., Soni, M. (2021). A finite element modeling and simulation of human temporomandibular joint with and without TM disorders: An Indian experience. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 3, pp. 347-355. https://doi.org/10.18280/mmep.080303
664	Abdulsahib, A.D., Al-Farhany, K.	Review of the Effects of Stationary/Rotating Cylinder in a Cavity on the Convection Heat Transfer in Porous Media with/without Nanofluid	mixed convection, nanofluid, porous medium, two layers, circular cylinder, rotating cylinder	8, 3, 356-364	https://doi.org/10.18280/mmep.080304	Abdulsahib, A.D., Al-Farhany, K. (2021). Review of the effects of stationary/rotating cylinder in a cavity on the convection heat transfer in porous media with/without nanofluid. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 3, pp. 356-364. https://doi.org/10.18280/mmep.080304
665	Yendra, R., Hanaish, I.S., Fudholi, A.	Power Bayesian Markov Chain Monte Carlo (MCMC) for Modelling Extreme Temperatures in Sumatra Island Using Generalised Extreme Value (GEV) and Generalised Logistic (GLO) Distributions	MCMC, extreme value distribution, generalised logistic distribution, maximum temperature	8, 3, 365-376	https://doi.org/10.18280/mmep.080305	Yendra, R., Hanaish, I.S., Fudholi, A. (2021). Power Bayesian Markov Chain Monte Carlo (MCMC) for modelling extreme temperatures in Sumatra Island using generalised extreme value (GEV) and generalised logistic (GLO) distributions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 3, pp. 365-376. https://doi.org/10.18280/mmep.080305

666	Sakaliuk, O.Y., Trishyn, F.A.	Mathematical Model and Efficiency of Courses Timetable Creation Process	automation, automated control system, control object, identification, optimality criterion, Pareto compromise, scheduling	8, 3, 377-385	https://doi.org/10.18280/mmep.080306	Sakaliuk, O.Y., Trishyn, F.A. (2021). Mathematical model and efficiency of courses timetable creation process. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 3, pp. 377-385. https://doi.org/10.18280/mmep.080306
667	Yousif, A.H., Kadhim, H.T., Al-Chlaihawi, K.K.I.	2D Numerical Study of Heat Transfer Enhancement Using Fish-Tail Locomotion Vortex Generators	2D simulation, convection heat transfer, vortex generator, fish-tail locomotion	8, 3, 386-392	https://doi.org/10.18280/mmep.080307	Yousif, A.H., Kadhim, H.T., Al-Chlaihawi, K.K.I. (2021). 2D numerical study of heat transfer enhancement using fish-tail locomotion vortex generators. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 3, pp. 386-392. https://doi.org/10.18280/mmep.080307
668	Kolidakis, S.Z., Botzoriz, G.N.	Identifying the Optimum Forecasting Horizon to Apply the Singular Spectrum Analysis on Daily Road Traffic Volume Forecasts	transport demand, road traffic forecasting, singular spectrum analysis, forecasting ability, ex-post evaluation	8, 3, 393-402	https://doi.org/10.18280/mmep.080308	Kolidakis, S.Z., Botzoriz, G.N. (2021). Identifying the optimum forecasting horizon to apply the singular spectrum analysis on daily road traffic volume forecasts. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 3, pp. 393-402. https://doi.org/10.18280/mmep.080308
669	Nouar, F.S., Oukli, M., Khadraoui, M.	New Irregular Mesh Technique Used in Three-Dimensional Simulation of Relaxation Semiconductors	finite difference method, Gummel's algorithm, Newton's algorithm, geometric series transport equations, recombination rate, relaxation time, lifetime	8, 3, 403-408	https://doi.org/10.18280/mmep.080309	Nouar, F.S., Oukli, M., Khadraoui, M. (2021). New irregular mesh technique used in three-dimensional simulation of relaxation semiconductors. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 3, pp. 403-408. https://doi.org/10.18280/mmep.080309
670	Mohanty, M., Jena, S.R., Misra, S.K.	Mathematical Modelling in Engineering with Integral Transforms via Modified Adomian Decomposition Method	Elzaki transform, Mohand transform, Aboodh transform, Initial Value Problems (IVPs), Modified Adomian Decomposition Method (MADM)	8, 3, 409-417	https://doi.org/10.18280/mmep.080310	Mohanty, M., Jena, S.R., Misra, S.K. (2021). Mathematical modelling in engineering with integral transforms via modified adomian decomposition method. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 3, pp. 409-417. https://doi.org/10.18280/mmep.080310
671	Fazuruddin, S., Sreekanth, S., Raju, G.S.S.	Numerical Simulation of Slip effect on Lid-Driven Cavity Flow Problem for High Reynolds Number: Vorticity – Stream Function Approach	lid-driven cavity, square enclosure, partial slip conditions, finite difference scheme, Reynolds number	8, 3, 418-424	https://doi.org/10.18280/mmep.080311	Fazuruddin, S., Sreekanth, S., Raju, G.S.S. (2021). Numerical simulation of slip effect on lid-driven cavity flow problem for high Reynolds number: Vorticity – stream function approach. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 3, pp. 418-424. https://doi.org/10.18280/mmep.080311
672	Gorial, I.I.	Numerical Simulation for Fractional Percolation Equation	fractional derivative, explicit finite difference method (EFDM), fractional percolation equation (FPE), stability, convergence of numerical method	8, 3, 425-430	https://doi.org/10.18280/mmep.080312	Gorial, I.I. (2021). Numerical simulation for fractional percolation equation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 3, pp. 425-430. https://doi.org/10.18280/mmep.080312
673	Rueda-Bayona, J.G., Eras, J.J.C., Gutiérrez, A.S.	Modeling Wind Speed with a Long-Term Horizon and High-Time Interval with a Hybrid Fourier-Neural Network Model	Fourier analysis, nonlinear autoregressive network, wind potential, reanalysis, wind-speed	8, 3, 431-440	https://doi.org/10.18280/mmep.080313	Rueda-Bayona, J.G., Eras, J.J.C., Gutiérrez, A.S. (2021). Modeling wind speed with a long-term horizon and high-time interval with a hybrid Fourier-neural network model. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 3, pp. 431-440. https://doi.org/10.18280/mmep.080313
674	Khudair, R.A., Alkiffai, A.N., Sleibi, A.S.	Using T-Transformation for Solving Tank and Heating System Equations	fuzzy number, differential equation, Tarig transformation, fuzzy valued functions, fuzzy transformations	8, 3, 441-446	https://doi.org/10.18280/mmep.080314	Khudair, R.A., Alkiffai, A.N., Sleibi, A.S. (2021). Using T-transformation for solving tank and heating system equations. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 3, pp. 441-446. https://doi.org/10.18280/mmep.080314
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677	Naidu, G.G., Jajimoggala, S.	Distortion Control for Dissimilar Welding of SS321 to Hastelloy C-276 with CO2 Laser Beam Butt Joints Using Taguchi Methods	laser beam welding, dissimilar materials, orthogonal array, distortion, ANOVA	8, 3, 461-466	https://doi.org/10.18280/mmep.080317	Naidu, G.G., Jajimoggala, S. (2021). Distortion control for dissimilar welding of SS321 to Hastelloy C-276 with CO2 laser beam butt joints using Taguchi methods. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 3, pp. 461-466. https://doi.org/10.18280/mmep.080317
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679	Hamad, A.M., Salman, B.B.	Different Estimation Methods of the Stress-Strength Reliability Restricted Exponentiated Lomax Distribution	restricted exponentiated Lomax distribution, stress-strength series RS, moment method, shrinkage estimation	8, 3, 477-484	https://doi.org/10.18280/mmep.080319	Hamad, A.M., Salman, B.B. (2021). Different estimation methods of the stress-strength reliability restricted exponentiated lomax distribution. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 3, pp. 477-484. https://doi.org/10.18280/mmep.080319
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681	Lorenzini, G., Kamarposhti, M.A., Solyman, A.A.A.	Optimal Location of Sectionners and Distributed Generation Resources to Improve Reliability in Distribution Networks	switching devices, distribution network, reliability, distributed generation, micro-grid, sectionner	8, 2, 165-169	https://doi.org/10.18280/mmep.080201	Lorenzini, G., Kamarposhti, M.A., Solyman, A.A.A. (2021). Optimal location of sectionners and distributed generation resources to improve reliability in distribution networks. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 2, pp. 165-169. https://doi.org/10.18280/mmep.080201
682	Ezekwesili, O.J.I., Agunwamba, J.C.	Mechanistic Mathematical Modelling of Pothole Development from Loss of Roadway Subsurface-Materials	mechanistic mathematical model, pothole, internal-erosion, loss of roadway subsurface materials, traffic load pressure, excess pore-water pressure, pumping out of particles	8, 2, 170-178	https://doi.org/10.18280/mmep.080202	Ezekwesili, O.J.I., Agunwamba, J.C. (2021). Mechanistic mathematical modelling of pothole development from loss of roadway subsurface-materials. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 2, pp. 170-178. https://doi.org/10.18280/mmep.080202
683	Chaudhury, R., Islam, S.	A Multi-Objective Risk Return Trade off Models for Banks: Fuzzy Programming Approach	interest rate risk, liquidity risk, duration, convexity, fuzzy programming	8, 2, 179-188	https://doi.org/10.18280/mmep.080203	Chaudhury, R., Islam, S. (2021). A multi-objective risk return trade off models for banks: Fuzzy programming approach. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 2, pp. 179-188. https://doi.org/10.18280/mmep.080203
684	Jhodkar, D., Khan, A., Gupta, K.	Fuzzy-MOORA Based Optimization of Machining Parameters for Machinability Enhancement of Titanium	fuzzy, machining, hybrid optimization, surface roughness, tool wear	8, 2, 189-198	https://doi.org/10.18280/mmep.080204	Jhodkar, D., Khan, A., Gupta, K. (2021). Fuzzy-MOORA based optimization of machining parameters for machinability enhancement of titanium. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 2, pp. 189-198. https://doi.org/10.18280/mmep.080204

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686	Kamisan, N.A.B., Lee, M.H., Hassan, S.F., Norrulashikin, S.M., Nor, M.E., Rahman, N.H.A.	Forecasting Wind Speed Data by Using a Combination of ARIMA Model with Single Exponential Smoothing	ARIMA model, hybrid time series model, wind speed forecasting, wind energy	8, 2, 207-212	https://doi.org/10.18280/mmep.080206	Kamisan, N.A.B., Lee, M.H., Hassan, S.F., Norrulashikin, S.M., Nor, M.E., Rahman, N.H.A. (2021). Forecasting wind speed data by using a combination of ARIMA model with single exponential smoothing. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 2, pp. 207-212. https://doi.org/10.18280/mmep.080206
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688	Slamti, A., Mehdaoui, Y., Chenouni, D., Lakhliai, Z.	A Dual Frequency Compensation Technique to Improve Stability and Transient Response for a Three Stage Low-Drop-Out Linear Regulator	power management, system on a chip (SoC), Low-Drop-Out regulator (LDO), stability, minimum load current, transient load regulation, CMOS technology	8, 2, 219-229	https://doi.org/10.18280/mmep.080208	Slamti, A., Mehdaoui, Y., Chenouni, D., Lakhliai, Z. (2021). A dual frequency compensation technique to improve stability and transient response for a three stage Low-Drop-Out linear regulator. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 2, pp. 219-229. https://doi.org/10.18280/mmep.080208
689	Naser, I.H., Mahdi, M.B., Meqtoof, F.H., Etit, H.A.	Modelling Trip Distribution Using the Gravity Model and Fratar's Method	trip distribution, gravity model, Fratar's method, trip origin, trip destination	8, 2, 230-236	https://doi.org/10.18280/mmep.080209	Naser, I.H., Mahdi, M.B., Meqtoof, F.H., Etit, H.A. (2021). Modelling trip distribution using the gravity model and Fratar's method. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 2, pp. 230-236. https://doi.org/10.18280/mmep.080209
690	Albaghdadi, A.M., Baharom, M.B., Sualiman, S.A.	Balancing and Simulation of a Double Crank-Rocker Engine Model for Optimum Reduction of Shaking Forces and Shaking Moments	Crank-Rocker (CR) engine, Double Crank-Rocker (DCR), engine vibration, four-bar mechanism, balancing	8, 2, 237-245	https://doi.org/10.18280/mmep.080210	Albaghdadi, A.M., Baharom, M.B., Sualiman, S.A. (2021). Balancing and simulation of a double crank-rocker engine model for optimum reduction of shaking forces and shaking moments. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 2, pp. 237-245. https://doi.org/10.18280/mmep.080210
691	Brahimi, T., Smain, T.	A Nonstationary Mathematical Model for Acceleration Time Series	autoregressive, nonstationary, stochastic, ductility, hysteretic	8, 2, 246-252	https://doi.org/10.18280/mmep.080211	Brahimi, T., Smain, T. (2021). A nonstationary mathematical model for acceleration time series. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 2, pp. 246-252. https://doi.org/10.18280/mmep.080211
692	Zebbar, D., Zebbar, S., Kheris, S., Mostefa, K.	Inert Gas and Refrigerating Vapor Mass Flow Rates Ratio: A Much Promising Parameter for Diffusion-Absorption-Refrigeration Systems Performances Evaluation	absorption, ammoniac-water-hydrogen, diffusion, evaporator, propane-n-nonane-hydrogen, refrigerant	8, 2, 253-258	https://doi.org/10.18280/mmep.080212	Zebbar, D., Zebbar, S., Kheris, S., Mostefa, K. (2021). Inert gas and refrigerating vapor mass flow rates ratio: A much promising parameter for diffusion-absorption-refrigeration systems performances evaluation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 2, pp. 253-258. https://doi.org/10.18280/mmep.080212
693	Belfegas, B., Larbi, S., Tayebi, T.	Experimental and Theoretical Investigation on a Solar Chimney System for Ventilation of a Living Room	solar chimney, energy performances, passive ventilation, experimental study, numerical simulation	8, 2, 259-266	https://doi.org/10.18280/mmep.080213	Belfegas, B., Larbi, S., Tayebi, T. (2021). Experimental and theoretical investigation on a solar chimney system for ventilation of a living room. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 2, pp. 259-266. https://doi.org/10.18280/mmep.080213
694	Tahir, J.K.	Numerical Computations for One Class of Dynamical Mathematical Models in Quasi-Sobolev Space	dynamical mathematical models, quasi-Sobolev space, projection method, Hoff model, Barenblatt-Zhel'tov-Kochina model	8, 2, 267-272	https://doi.org/10.18280/mmep.080214	Tahir, J.K. (2021). Numerical computations for one class of dynamical mathematical models in quasi-Sobolev space. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 2, pp. 267-272. https://doi.org/10.18280/mmep.080214
695	Talaei, Y., Hosseinzadeh, H., Noeiaghdam, S.	A Finite Difference-Spectral Method for Solving the European Call Option Black-Scholes Equation	Black-Scholes equation, generalized Jacobi polynomials, backward-difference method, numerical solution	8, 2, 273-278	https://doi.org/10.18280/mmep.080215	Talaei, Y., Hosseinzadeh, H., Noeiaghdam, S. (2021). A finite difference-spectral method for solving the European call option Black-Scholes equation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 2, pp. 273-278. https://doi.org/10.18280/mmep.080215
696	Wikarta, A., Shiddiqy, R.H.A., Khosmin, Sidharta, I.	Finite Element Simulation for Electric-Car Chassis Development from Scratch	electric car chassis, development from scratch, finite element simulation, torsional stiffness, stress analysis	8, 2, 279-284	https://doi.org/10.18280/mmep.080216	Wikarta, A., Shiddiqy, R.H.A., Khosmin, Sidharta, I. (2021). Finite element simulation for electric-car chassis development from scratch. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 2, pp. 279-284. https://doi.org/10.18280/mmep.080216
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698	Elyazid, A., Koussaila, I., Djamal, A., Kaci, G.	Improved Control Strategy of DS-PMSG Based Standalone Tidal Turbine System Using Sensorless Field Oriented Control	dual star permanent magnet synchronous generator, extended Kalman filter, field oriented control, fuzzy logic controller, marine current turbine	8, 2, 293-301	https://doi.org/10.18280/mmep.080218	Elyazid, A., Koussaila, I., Djamal, A., Kaci, G. (2021). Improved control strategy of DS-PMSG based standalone tidal turbine system using sensorless field oriented control. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 2, pp. 293-301. https://doi.org/10.18280/mmep.080218
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700	Laamari, Y., Allaoui, S., Bendaikha, A., Saad, S.	Fault Detection Between Stator Windings Turns of Permanent Magnet Synchronous Motor Based on Torque and Stator-Current Analysis Using FFT and Discrete Wavelet Transform	PMSM, fault detection, modeling, interturn short circuit, fast Fourier transform, discrete wavelet transform	8, 2, 315-322	https://doi.org/10.18280/mmep.080220	Laamari, Y., Allaoui, S., Bendaikha, A., Saad, S. (2021). Fault detection between stator windings turns of permanent magnet synchronous motor based on torque and stator-current analysis using FFT and discrete wavelet transform. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 2, pp. 315-322. https://doi.org/10.18280/mmep.080220
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702	Kamarposhti, M.A., Lorenzini, G., Solyman, A.A.A.	Locating and Sizing of Distributed Generation Sources and Parallel Capacitors Using Multiple Objective Particle Swarm Optimization Algorithm	distributed generation, parallel capacitors, voltage profile, loss reduction, MOPSO algorithm	8, 1, 10-24	https://doi.org/10.18280/mmep.080102	Kamarposhti, M.A., Lorenzini, G., Solyman, A.A.A. (2021). Locating and sizing of distributed generation sources and parallel capacitors using multiple objective particle swarm optimization algorithm. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 1, pp. 10-24. https://doi.org/10.18280/mmep.080102
703	Sahoo, S., Prusty, K.K., Mishra, S.	MHD Flow of Micropolar Fluid via Porous Medium Within the Rotating Frame of Reference	MHD flow, micropolar fluid, rotating frame, chemical reaction, porous medium	8, 1, 25-32	https://doi.org/10.18280/mmep.080103	Sahoo, S., Prusty, K.K., Mishra, S. (2021). MHD flow of micropolar fluid via porous medium within the rotating frame of reference. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 1, pp. 25-32. https://doi.org/10.18280/mmep.080103

704	Chaayra, T., Ben-azza, H., El Bouanani, F.	A Closed-Form Approximation to the Distribution for the Sum of Independent Non-identically Generalized Gamma Variates and Applications	average symbol error probability, average channel capacity, Fox's H-function, maximal-ratio combining, outage probability, probability density function, sum generalized gamma distribution	8, 1, 33-44	https://doi.org/10.18280/mmep.080104	Chaayra, T., Ben-azza, H., El Bouanani, F. (2021). A closed-form approximation to the distribution for the sum of independent non-identically generalized gamma variates and applications. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 1, pp. 33-44. https://doi.org/10.18280/mmep.080104
705	Kedar, S., Murali, G., Bewoor, A.K.	Mathematical Modelling and Analysis of Hybrid Solar Desalination System Using Evacuated Tube Collector (ETC) and Compound Parabolic Concentrator (CPC)	evacuated tube solar collector, compound parabolic concentrator, condenser, solar desalination system	8, 1, 45-51	https://doi.org/10.18280/mmep.080105	Kedar, S., Murali, G., Bewoor, A.K. (2021). Mathematical modelling and analysis of hybrid solar desalination system using evacuated tube collector (ETC) and compound parabolic concentrator (CPC). <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 1, pp. 45-51. https://doi.org/10.18280/mmep.080105
706	Gupta, M.K., Sharma, P., Sinha, N., Kumar, A., Verma, V.	Frequency Based Estimation of Angular Velocity in Triple Pendulum	decision tree, Euler Lagrange, triple link pendulum, time series analysis	8, 1, 52-58	https://doi.org/10.18280/mmep.080106	Gupta, M.K., Sharma, P., Sinha, N., Kumar, A., Verma, V. (2021). Frequency based estimation of angular velocity in triple pendulum. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 1, pp. 52-58. https://doi.org/10.18280/mmep.080106
707	Retnani W.E.Y., Bukhori, S.	Serious Game Relationship Between Socio-Economic and Territorial Condition	sustainable development, internal factor variables, external factor variables, supply, demand	8, 1, 59-63	https://doi.org/10.18280/mmep.080107	Retnani W.E.Y., Bukhori, S. (2021). Serious game relationship between socio-economic and territorial condition. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 1, pp. 59-63. https://doi.org/10.18280/mmep.080107
708	Fothe, T., Azeufack, U.G., Kenmeugne, B., Talla, P.K., Fogue, M.	Modeling of the Stress-Strain Relationship of Wood Material Beyond Its Elasticity Limit under Cyclic Compressive Loading: Comparative Study of Two Models	wood, cyclic compression, envelope curves, damage, mathematical models	8, 1, 64-70	https://doi.org/10.18280/mmep.080108	Fothe, T., Azeufack, U.G., Kenmeugne, B., Talla, P.K., Fogue, M. (2021). Modeling of the stress-strain relationship of wood material beyond its elasticity limit under cyclic compressive loading: comparative study of two models. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 1, pp. 64-70. https://doi.org/10.18280/mmep.080108
709	Senapati, M., Parida, S.K.	Influence of Buoyant Forces on Magnetohydrodynamics (MHD) Blood Flow with an Interaction of Thermal Radiation	thermal radiation, slip flow, permeability, thermal and mass buoyancy, Runge-Kutta method	8, 1, 71-80	https://doi.org/10.18280/mmep.080109	Senapati, M., Parida, S.K. (2021). Influence of buoyant forces on magnetohydrodynamics (MHD) blood flow with an interaction of thermal radiation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 1, pp. 71-80. https://doi.org/10.18280/mmep.080109
710	Griche, I., Messalti, S., Saoudi, K., Touafek, M.Y., Zitouni, F.	A New Controller for Voltage and Stability Improvement of Multi Machine Power System Tuned by Wind Turbine	power system, voltage improvement, wind turbine (WT), ANFIS controller	8, 1, 81-88	https://doi.org/10.18280/mmep.080110	Griche, I., Messalti, S., Saoudi, K., Touafek, M.Y., Zitouni, F. (2021). A new controller for voltage and stability improvement of multi machine power system tuned by wind turbine. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 1, pp. 81-88. https://doi.org/10.18280/mmep.080110
711	Goeritno, A.	Ordinary Differential Equations Models for Observing the Phenomena of Temperature Changes on a Single Rectangular Plate Fin	observing the phenomena of temperature changes, ordinary differential equations models, single rectangular plate fin	8, 1, 89-94	https://doi.org/10.18280/mmep.080111	Goeritno, A. (2021). Ordinary differential equations models for observing the phenomena of temperature changes on a single rectangular plate fin. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 1, pp. 89-94. https://doi.org/10.18280/mmep.080111
712	Abu-Nab, A.K., Abu-Bakr, A.F.	Effect of Heat Transfer on the Growing Bubble with the Nanoparticles/Water Nanofluids in Turbulent Flow	temperature distribution, bubble growth, nanoparticles/water nanofluids, turbulent flow, mathematical modeling	8, 1, 95-102	https://doi.org/10.18280/mmep.080112	Abu-Nab, A.K., Abu-Bakr, A.F. (2021). Effect of heat transfer on the growing bubble with the nanoparticles/water nanofluids in turbulent flow. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 1, pp. 95-102. https://doi.org/10.18280/mmep.080112
713	Okhrimenko, V., Zbitnieva, M.	Mathematical Model of Tubular Linear Induction Motor	coupled magnetization currents, electric field strength, geometric structure optimization, magnetic field induction, polar coordinate system, TLIM	8, 1, 103-109	https://doi.org/10.18280/mmep.080113	Okhrimenko, V., Zbitnieva, M. (2021). Mathematical model of tubular linear induction motor. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 1, pp. 103-109. https://doi.org/10.18280/mmep.080113
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716	Alabideen, L.Z., Al-Dakkak, O., Khorzom, K.	Hybrid Reweighted Optimization Method for Gridless Direction of Arrival Estimation in Heteroscedastic Noise Environment	Gridless DoA estimation, atomic norm, covariance fitting, co-prime array, heteroscedastic noise	8, 1, 125-133	https://doi.org/10.18280/mmep.080116	Alabideen, L.Z., Al-Dakkak, O., Khorzom, K. (2021). Hybrid reweighted optimization method for gridless direction of arrival estimation in heteroscedastic noise environment. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 1, pp. 125-133. https://doi.org/10.18280/mmep.080116
717	Parashar, P.J., Ahmed, N.	Mass Transfer Effect on a Rotating MHD Transient Flow of Liquid Lead Through a Porous Medium in Presence of Hall and Ion Slip Current with Radiation	hall current, ion slip current, heat and mass transfer	8, 1, 134-141	https://doi.org/10.18280/mmep.080117	Parashar, P.J., Ahmed, N. (2021). Mass transfer effect on a rotating MHD transient flow of liquid lead through a porous medium in presence of hall and ion slip current with radiation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 1, pp. 134-141. https://doi.org/10.18280/mmep.080117
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720	Majid, A.	Relaxing Method in the Evaluation of MPPT of Photovoltaic Cells Based on MIT Modeling	controlled voltage, irradiance, MIT, MPP, modeling, load resistance, relaxation	8, 1, 158-164	https://doi.org/10.18280/mmep.080120	Majid, A. (2021). Relaxing method in the evaluation of MPPT of photovoltaic cells based on MIT modeling. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 8, No. 1, pp. 158-164. https://doi.org/10.18280/mmep.080120
721	Chanda, R.K., Hasan, M.S., Alam, M.M., Mondal, R.N.	Hydrothermal behavior of transient fluid flow and heat transfer through a rotating curved rectangular duct with natural and forced convection	rotating curved duct, Taylor number, secondary flow, isotherm, time-progression	7, 4, 501-514	https://doi.org/10.18280/mmep.070401	Chanda, R.K., Hasan, M.S., Alam, M.M., Mondal, R.N. (2020). Hydrothermal behavior of transient fluid flow and heat transfer through a rotating curved rectangular duct with natural and forced convection. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 4, pp. 501-514. https://doi.org/10.18280/mmep.070401
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731	Seelam, A.B., Kumaran, M.S., Sachidananda, K.H.	Design and analysis of suspension strut in automobile vehicles	suspension strut, structural analysis, E-Glass, carbon fiber, structural steel	7, 4, 587-596	https://doi.org/10.18280/mmep.070411	Seelam, A.B., Kumaran, M.S., Sachidananda, K.H. (2020). Design and analysis of suspension strut in automobile vehicles. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 4, pp. 587-596. https://doi.org/10.18280/mmep.070411
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733	Umbrecht, G.F., Rubio, D., Tarzia, D.A.	Estimation technique for a contact point between two materials in a stationary heat transfer problem	elasticity analysis, heat transfer, interface problem, mathematical modeling, numerical simulation, parameter estimation	7, 4, 607-613	https://doi.org/10.18280/mmep.070413	Umbrecht, G.F., Rubio, D., Tarzia, D.A. (2020). Estimation technique for a contact point between two materials in a stationary heat transfer problem. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 4, pp. 607-613. https://doi.org/10.18280/mmep.070413
734	Menacer, B., Khatir, N., Bouchetara, M., Larbi, A.A., Belhout, C.	The heat transfer study in the diesel engine combustion chamber using a two-zone combustion model	convective heat transfer, radiation heat transfer, Wiebe function, modeling, GT-suite, diesel engine	7, 4, 614-620	https://doi.org/10.18280/mmep.070414	Menacer, B., Khatir, N., Bouchetara, M., Larbi, A.A., Belhout, C. (2020). The heat transfer study in the diesel engine combustion chamber using a two-zone combustion model. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 4, pp. 614-620. https://doi.org/10.18280/mmep.070414
735	Bouddou, R., Benhamida, F., Ziane, I., Zeggai, A., Belgacem, M.	Solving bid-based dynamic economic dispatch in competitive electricity market using improved simulated annealing algorithm	competitive electricity market, bid-based dynamic economic dispatch (BBDED), bidding strategy, improved simulated annealing algorithm (ISA)	7, 4, 621-630	https://doi.org/10.18280/mmep.070415	Bouddou, R., Benhamida, F., Ziane, I., Zeggai, A., Belgacem, M. (2020). Solving bid-based dynamic economic dispatch in competitive electricity market using improved simulated annealing algorithm. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 4, pp. 621-630. https://doi.org/10.18280/mmep.070415
736	Al-Saif, A.S.J., Al-Griffi, T.A.J.	A new technique to solve two-dimensional viscous fluid flow among slowly expand or contract walls	Yang transform, homotopy perturbation method, 2D viscous flow, convergence analysis	7, 4, 631-641	https://doi.org/10.18280/mmep.070416	Al-Saif, A.S.J., Al-Griffi, T.A.J. (2020). A new technique to solve two-dimensional viscous fluid flow among slowly expand or contract walls. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 4, pp. 631-641. https://doi.org/10.18280/mmep.070416
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738	Ullah, N.	Fractional order sliding mode control design for a buck converter feeding resistive power loads	DC-DC converters, DC nano grid, fractional order sliding mode controllers, fractional calculus, variable resistive loading	7, 4, 649-658	https://doi.org/10.18280/mmep.070418	Ullah, N. (2020). Fractional order sliding mode control design for a buck converter feeding resistive power loads. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 4, pp. 649-658. https://doi.org/10.18280/mmep.070418
739	Madan, H.T., Basarkod, P.I.	Throughput and outage probability analysis for cognitive radio-non-orthogonal multiple access in uplink and downlink scenarios	cognitive radio (CR), non orthogonal multiple access (NOMA), underlay sharing, overlay sharing, primary users (PU), secondary users (SU)	7, 4, 659-666	https://doi.org/10.18280/mmep.070419	Madan, H.T., Basarkod, P.I. (2020). Throughput and outage probability analysis for cognitive radio-non-orthogonal multiple access in uplink and downlink scenarios. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 4, pp. 659-666. https://doi.org/10.18280/mmep.070419
740	Rawash, Y.Z.	In depth analysis of stretch function resulting from solving the generalize fractional-order Bloch equations using fractional calculus	MRI, complex function, relaxation, Bloch equations, DWI, Anomalous diffusion, tensor, magnetization	7, 4, 669-676	https://doi.org/10.18280/mmep.070420	Rawash, Y.Z. (2020). In depth analysis of stretch function resulting from solving the generalize fractional-order Bloch equations using fractional calculus. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 4, pp. 667-676. https://doi.org/10.18280/mmep.070420
741	Nicoletti, F., Cucumo, M.A., Ferraro, V., Kaliakatsos, D., Settino, J.	Performance analysis of a double-sided PV plant oriented with backtracking system	performance analysis, solar thermal generator, dish collector, flat mirrors	7, 3, 325-334	https://doi.org/10.18280/mmep.070301	Nicoletti, F., Cucumo, M.A., Ferraro, V., Kaliakatsos, D., Settino, J. (2020). Performance analysis of a double-sided PV plant oriented with backtracking system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 3, pp. 325-334. https://doi.org/10.18280/mmep.070301

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743	Mackolil, J., Mahanthesh, B.	Logistic growth and SIR modelling of Coronavirus disease (COVID-19) outbreak in India: Models based on real-time data	COVID-19, epidemic, logistic growth model, mathematical modelling, novel Corona virus, SIR model	7, 3, 345-350	https://doi.org/10.18280/mmep.070303	Mackolil, J., Mahanthesh, B. (2020). Logistic growth and SIR modelling of Coronavirus disease (COVID-19) outbreak in India: Models based on real-time data. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 3, pp. 345-350. https://doi.org/10.18280/mmep.070303
744	Gangadhar, K., Bhargavi, D.N., Munagala, V.S.R.	Steady boundary layer flow of Casson fluid over a nonlinear stretched sheet in presence of viscous dissipation using the spectral relaxation method	SRM, exact solutions, Casson fluid, nonlinear stretching sheet, viscous dissipation	7, 3, 351-358	https://doi.org/10.18280/mmep.070304	Gangadhar, K., Bhargavi, D.N., Munagala, V.S.R. (2020). Steady boundary layer flow of Casson fluid over a nonlinear stretched sheet in presence of viscous dissipation using the spectral relaxation method. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 3, pp. 351-358. https://doi.org/10.18280/mmep.070304
745	Noeiaghdam, S., Sidorov, D.	Caputo-Fabrizio fractional derivative to solve the fractional model of energy supply-demand system	fractional differential equations, energy supply-demand system, caputo-fabrizio derivative	7, 3, 359-367	https://doi.org/10.18280/mmep.070305	Noeiaghdam, S., Sidorov, D. (2020). Caputo-Fabrizio fractional derivative to solve the fractional model of energy supply-demand system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 3, pp. 359-367. https://doi.org/10.18280/mmep.070305
746	Shanta, S.S., Biswas, M.H.A.	The impact of media awareness in controlling the spread of infectious diseases in terms of sir model	infectious disease, mathematical model, basic reproduction number, media awareness	7, 3, 368-376	https://doi.org/10.18280/mmep.070306	Shanta, S.S., Biswas, M.H.A. (2020). The impact of media awareness in controlling the spread of infectious diseases in terms of sir model. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 3, pp. 368-376. https://doi.org/10.18280/mmep.070306
747	Olonijou, S.D., Goqo, S.P., Sibanda, P.	A Chebyshev based spectral method for solving boundary layer flow of a fractional-order Oldroyd-B fluid	MHD fluid, non-isothermal flow, fractional calculus, Chebyshev – Gauss – Lobatto quadrature, fractional Oldroyd-B fluid	7, 3, 377-386	https://doi.org/10.18280/mmep.070307	Olonijou, S.D., Goqo, S.P., Sibanda, P. (2020). A Chebyshev based spectral method for solving boundary layer flow of a fractional-order Oldroyd-B fluid. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 3, pp. 377-386. https://doi.org/10.18280/mmep.070307
748	Parida, B.C., Swain, B.K., Senapati, N., Sahoo, S.	Viscous dissipation effect on MHD free convective flow in the presence of thermal radiation and chemical reaction	chemical reaction, MHD, nusselt number, porous medium, sherwood number, skin friction, thermal radiation, viscous dissipation	7, 3, 387-394	https://doi.org/10.18280/mmep.070308	Parida, B.C., Swain, B.K., Senapati, N., Sahoo, S. (2020). Viscous dissipation effect on MHD free convective flow in the presence of thermal radiation and chemical reaction. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 3, pp. 387-394. https://doi.org/10.18280/mmep.070308
749	Al-awad, N.A.	Optimal controller design for reduced-order model of rotational mechanical system	rotational mechanical system, model reduction, PID controller, LQR controller, G.A-PID	7, 3, 395-402	https://doi.org/10.18280/mmep.070309	Al-awad, N.A. (2020). Optimal controller design for reduced-order model of rotational mechanical system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 3, pp. 395-402. https://doi.org/10.18280/mmep.070309
750	Wu, L.M., Zheng, Y.F., Gao, X., Wang, Z.Q.	Progressive collapse resistance of formwork support system with couplers	progressive collapse (PC), formwork support system with couplers, horizontal tube, upright tube, node stiffness	7, 3, 403-410	https://doi.org/10.18280/mmep.070310	Wu, L.M., Zheng, Y.F., Gao, X., Wang, Z.Q. (2020). Progressive collapse resistance of formwork support system with couplers. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 3, pp. 403-410. https://doi.org/10.18280/mmep.070310
751	Majid, A.	Reliability and failure rate evaluation of lifetime extension analysis of ad hoc and wireless sensor networks	Ad hoc, failure rate, lifetime extension, probabilistic model, random lifetime variable, reliability, sensors-targets coverage, wireless sensor networks	7, 3, 411-420	https://doi.org/10.18280/mmep.070311	Majid, A. (2020). Reliability and failure rate evaluation of lifetime extension analysis of ad hoc and wireless sensor networks. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 3, pp. 411-420. https://doi.org/10.18280/mmep.070311
752	Chaabane, R., Jemmi, A.	On the numerical treatment of magneto-hydro dynamics free convection with mixed boundary conditions	mixed BC, convection, heat transfer, LBM linearly, MHD, open cavity, convection, linearly, heat transfer	7, 3, 421-426	https://doi.org/10.18280/mmep.070312	Chaabane, R., Jemmi, A. (2020). On the numerical treatment of magneto-hydro dynamics free convection with mixed boundary conditions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 3, pp. 421-426. https://doi.org/10.18280/mmep.070312
753	Giri, J.M., Nain, P.K.S.	Performance optimization of thermoelectric cooler using genetic algorithm	thermoelectric cooler, optimization, genetic algorithm, finite-element method, ANSYS workbench, cooling capacity, COP	7, 3, 427-435	https://doi.org/10.18280/mmep.070313	Giri, J.M., Nain, P.K.S. (2020). Performance optimization of thermoelectric cooler using genetic algorithm. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 3, pp. 427-435. https://doi.org/10.18280/mmep.070313
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755	Ghauri, S.A., Sarfraz, M., Muhammad, N.B., Munir, S.	Genetic algorithm assisted support vector machine for M-QAM classification	automatic modulation classification (AMC), higher order cumulants (HOC), genetic algorithm (GA), M-ARY quadrature amplitude modulated (M-QAM) signal, support vector machine (SVM)	7, 3, 441-449	https://doi.org/10.18280/mmep.070315	Ghauri, S.A., Sarfraz, M., Muhammad, N.B., Munir, S. (2020). Genetic algorithm assisted support vector machine for M-QAM classification. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 3, pp. 441-449. https://doi.org/10.18280/mmep.070315
756	Janamala, V., Pandrāju, T.K.S.	Static voltage stability of reconfigurable radial distribution system considering voltage dependent load models	voltage stability analysis, radial distribution system, network reconfiguration, voltage-dependent load modeling	7, 3, 450-458	https://doi.org/10.18280/mmep.070316	Janamala, V., Pandrāju, T.K.S. (2020). Static voltage stability of reconfigurable radial distribution system considering voltage dependent load models. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 3, pp. 450-458. https://doi.org/10.18280/mmep.070316
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758	Elsherbiny, A.M., Bayoumy, A.M., Elshabka, A.M., Abdelrahman, M.M.	Unrestricted general solution of 6DoF inverse dynamics problem of a 3D guided glider	inverse simulation, direct simulation, trajectory generation, guided glider	7, 3, 465-475	https://doi.org/10.18280/mmep.070318	Elsherbiny, A.M., Bayoumy, A.M., Elshabka, A.M., Abdelrahman, M.M. (2020). Unrestricted general solution of 6DoF inverse dynamics problem of a 3D guided glider. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 3, pp. 465-475. https://doi.org/10.18280/mmep.070318
759	Senapati, M., Parida, S.K., Swain, B.K., Dash, G.C.	MHD free convective flow in a composite medium between co-axial vertical cylinders with temperature dependent heat flux on inner cylinder	Brinkman extended Darcy model, free convection, heat flux, stress jump, magnetic field, composite medium	7, 3, 476-482	https://doi.org/10.18280/mmep.070319	Senapati, M., Parida, S.K., Swain, B.K., Dash, G.C. (2020). MHD free convective flow in a composite medium between co-axial vertical cylinders with temperature dependent heat flux on inner cylinder. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 3, pp. 476-482. https://doi.org/10.18280/mmep.070319
760	Nagaraju, M., Durga Sukumar, G., Marutheswar, G.V.	An indirect matrix converter fed linear induction motor drive by considering time-varying parameters	single-sided linear induction motor (SLIM), end-effect, saturation, indirect matrix converter (IMC), indirect vector control technique, space vector modulation (SVM) and total harmonics distraction (THD)	7, 3, 483-492	https://doi.org/10.18280/mmep.070320	Nagaraju, M., Durga Sukumar, G., Marutheswar, G.V. (2020). An indirect matrix converter fed linear induction motor drive by considering time-varying parameters. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 3, pp. 483-492. https://doi.org/10.18280/mmep.070320

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762	Doewes, R.I.	Biomechanical analysis of backstroke start movement in Indonesian swimming athletes in the 14-year age group	biomechanics, start, backstroke, swimming	7, 2, 173-177	https://doi.org/10.18280/mmep.070201	Doewes, R.I. (2020). Biomechanical analysis of backstroke start movement in Indonesian swimming athletes in the 14-year age group. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 2, pp. 173-177. https://doi.org/10.18280/mmep.070201
763	Chamkha, A.J., Menni, Y.	Hydrogen flow over a detached V-shaped rib in a rectangular channel	V-shaped rib, rectangular channel, turbulent flow, forced convection, hydrogen fluid	7, 2, 178-186	https://doi.org/10.18280/mmep.070202	Chamkha, A.J., Menni, Y. (2020). Hydrogen flow over a detached V-shaped rib in a rectangular channel. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 2, pp. 178-186. https://doi.org/10.18280/mmep.070202
764	Suneetha, K., Ibrahim, S.M., Reddy, G.V.R., Kumar, P.V.	Variable temperature and concentration impacts on radiative chemically magnetohydrodynamic viscoelastic fluid flow through porous moving plate	Visco-elastic, MHD, porous media, heat sink, radiation, chemical reaction	7, 2, 187-195	https://doi.org/10.18280/mmep.070203	Suneetha, K., Ibrahim, S.M., Reddy, G.V.R., Kumar, P.V. (2020). Variable temperature and concentration impacts on radiative chemically magnetohydrodynamic viscoelastic fluid flow through porous moving plate. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 2, pp. 187-195. https://doi.org/10.18280/mmep.070203
765	Abu-Bakr, A.F., Iskakova, L.Y., Zubarev, A.Y.	Heat exchange within the surrounding biological tissue during magnetic hyperthermia	bioheat transfer equation, mathematical modeling, biological tissue, hyperthermia	7, 2, 196-200	https://doi.org/10.18280/mmep.070204	Abu-Bakr, A.F., Iskakova, L.Y., Zubarev, A.Y. (2020). Heat exchange within the surrounding biological tissue during magnetic hyperthermia. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 2, pp. 196-200. https://doi.org/10.18280/mmep.070204
766	Sunarto, A., Sulaiman, J.	Performance numerical method Half-Sweep Preconditioned Gauss-Seidel for solving fractional diffusion equation	HSPGS, space-fractional, Caputo's, implicit finite difference	7, 2, 201-204	https://doi.org/10.18280/mmep.070205	Sunarto, A., Sulaiman, J. (2020). Performance numerical method Half-Sweep Preconditioned Gauss-Seidel for solving fractional diffusion equation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 2, pp. 201-204. https://doi.org/10.18280/mmep.070205
767	Taloub, D., Bouras, A., Driss, Z.	Numerical resolution of the heat equation in the square form Four-Part- II-	iterative methods, numerical methods, recurrence formula, thermal conduction	7, 2, 205-211	https://doi.org/10.18280/mmep.070206	Taloub, D., Bouras, A., Driss, Z. (2020). Numerical resolution of the heat equation in the square form Four-Part- II-. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 2, pp. 205-211. https://doi.org/10.18280/mmep.070206
768	Bose, A., Sathujoda, P.	Effect of thermal gradient on vibration characteristics of a functionally graded shaft system	functionally graded material, non-linear temperature distribution, exponential temperature distribution, finite element method, whirl frequencies	7, 2, 212-222	https://doi.org/10.18280/mmep.070207	Bose, A., Sathujoda, P. (2020). Effect of thermal gradient on vibration characteristics of a functionally graded shaft system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 2, pp. 212-222. https://doi.org/10.18280/mmep.070207
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773	Elmeiche, A., Bouamama, M., Elhannani, A.	Forced vibration analysis of functionally graded beams carrying moving harmonic loads under random boundary conditions	forced vibrations, FGM beams, moving harmonic loads, LSBT, fundamental frequencies, DAF, random boundary conditions	7, 2, 258-264	https://doi.org/10.18280/mmep.070212	Elmeiche, A., Bouamama, M., Elhannani, A. (2020). Forced vibration analysis of functionally graded beams carrying moving harmonic loads under random boundary conditions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 2, pp. 258-264. https://doi.org/10.18280/mmep.070212
774	Mukkamala, U., Gunji, S.R.	Comparison of regression model with multi-layer perceptron model while optimising cutting force using genetic algorithm	MQL, nano cutting fluids, modelling, optimization, genetic algorithm, artificial neural networks	7, 2, 265-272	https://doi.org/10.18280/mmep.070213	Mukkamala, U., Gunji, S.R. (2020). Comparison of regression model with multi-layer perceptron model while optimising cutting force using genetic algorithm. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 2, pp. 265-272. https://doi.org/10.18280/mmep.070213
775	Shanta, S.S., Islam, M.A.I., Mondol, K., Ahmed, S.F.	Numerical study on unsteady flow and mass transfer past a vertical porous plate with variable viscosity	explicit finite difference method, mass transfer, unsteady flow, variable viscosity, vertical porous plate	7, 2, 273-282	https://doi.org/10.18280/mmep.070214	Shanta, S.S., Islam, M.A.I., Mondol, K., Ahmed, S.F. (2020). Numerical study on unsteady flow and mass transfer past a vertical porous plate with variable viscosity. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 2, pp. 273-282. https://doi.org/10.18280/mmep.070214
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777	Goeritno, A.	Implementation of the coordination equation for determining the transport-related losses in economic dispatch phenomena	coordination equation, economic dispatch phenomena, the power loss on transmission line	7, 2, 293-298	https://doi.org/10.18280/mmep.070216	Goeritno, A. (2020). Implementation of the coordination equation for determining the transport-related losses in economic dispatch phenomena. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 2, pp. 293-298. https://doi.org/10.18280/mmep.070216
778	Kumar, K., Goswami, M., Arya, R.	Statistical analysis of optimization-based clustering scheme for multi-UAV networks	UAV, FANET, clustering, WCA, CSA, firefly, cuckoo search, network lifetime, energy consumption	7, 2, 299-308	https://doi.org/10.18280/mmep.070217	Kumar, K., Goswami, M., Arya, R. (2020). Statistical analysis of optimization-based clustering scheme for multi-UAV networks. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 2, pp. 299-308. https://doi.org/10.18280/mmep.070217
779	Shah, K., Gadade, A.M.	Comparative study of moving least square and point interpolation meshless technique for layered composite beam subjected to transverse loading	composite beam, meshless method, moving least square, point interpolation method, higher order beam theory, Timoshenko beam theory	7, 2, 309-314	https://doi.org/10.18280/mmep.070218	Shah, K., Gadade, A.M. (2020). Comparative study of moving least square and point interpolation meshless technique for layered composite beam subjected to transverse loading. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 2, pp. 309-314. https://doi.org/10.18280/mmep.070218

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781	Yusuf, T.A., Mabood, F.	Slip effects and entropy generation on inclined MHD flow of Williamson fluid through a permeable wall with chemical reaction via DTM	activation energy, Chemical reaction, MHD Williamson fluid, Bejan number, DTM	7, 1, 1-9	https://doi.org/10.18280/mmep.070101	Yusuf, T.A., Mabood, F. (2020). Slip effects and entropy generation on inclined MHD flow of Williamson fluid through a permeable wall with chemical reaction via DTM. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 1, pp. 1-9. https://doi.org/10.18280/mmep.070101
782	Menni, Y., Chamkha, A.J., Lorenzini, G., Ameur, H., Salmi, M., Fridja, D.	Numerical simulation of dynamic pressure and kinetic energy fields of turbulent oil flow in staggered baffled pipes	dynamic pressure, turbulent kinetic energy, turbulent viscosity, oil flow, baffled pipe	7, 1, 10-16	https://doi.org/10.18280/mmep.070102	Menni, Y., Chamkha, A.J., Lorenzini, G., Ameur, H., Salmi, M., Fridja, D. (2020). Numerical simulation of dynamic pressure and kinetic energy fields of turbulent oil flow in staggered baffled pipes. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 1, pp. 10-16. https://doi.org/10.18280/mmep.070102
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784	Salehzadeh, M.R., Nouri, H.	Circuit modelling by difference equation: Pedagogical advantages and perspectives	circuit, modelling, difference equation, dynamic response, non-linear circuits	7, 1, 26-30	https://doi.org/10.18280/mmep.070104	Salehzadeh, M.R., Nouri, H. (2020). Circuit modelling by difference equation: Pedagogical advantages and perspectives. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 1, pp. 26-30. https://doi.org/10.18280/mmep.070104
785	Ray, S.C., Hasan, M.S., Mondal, R.N.	On the onset of hydrodynamic instability with convective heat transfer through a rotating curved rectangular duct	rotating curved duct, steady solutions, time evolution calculation, Taylor number, secondary flow	7, 1, 31-44	https://doi.org/10.18280/mmep.070105	Ray, S.C., Hasan, M.S., Mondal, R.N. (2020). On the onset of hydrodynamic instability with convective heat transfer through a rotating curved rectangular duct. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 1, pp. 31-44. https://doi.org/10.18280/mmep.070105
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789	Belhadj, M., Atia, A., Benchatti, A.	Analysis of natural convection in porous media for thermal storage using Darcy-Brinkman-Forchheimer formulation	Darcy-Brinkman-Forchheimer, heat convection, porosity, porous media	7, 1, 73-78	https://doi.org/10.18280/mmep.070109	Belhadj, M., Atia, A., Benchatti, A. (2020). Analysis of natural convection in porous media for thermal storage using Darcy-Brinkman-Forchheimer formulation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 1, pp. 73-78. https://doi.org/10.18280/mmep.070109
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791	Baci, A.B., Salmi, M., Hima, A., Menni, Y.	Performance of angstrom model under Algerian climate	solar irradiation measurements, solar irradiation modelling, solar energy, Algerian climate, angstrom model	7, 1, 87-93	https://doi.org/10.18280/mmep.070111	Baci, A.B., Salmi, M., Hima, A., Menni, Y. (2020). Performance of angstrom model under Algerian climate. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 1, pp. 87-93. https://doi.org/10.18280/mmep.070111
792	Dharmappa, D., Mandi, M.V., Siddaiah, R.	Generation of binary sequences of length 10230 bits having better odd and even correlation with large linear complexity for use in global navigation satellites systems (GNSS) applications	global positioning system (GPS), global navigation satellites systems (GNSS), chaotic logistic map, auto correlation, cross correlation, linear complexity (LC)	7, 1, 94-102	https://doi.org/10.18280/mmep.070112	Dharmappa, D., Mandi, M.V., Siddaiah, R. (2020). Generation of binary sequences of length 10230 bits having better odd and even correlation with large linear complexity for use in global navigation satellites systems (GNSS) applications. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 1, pp. 94-102. https://doi.org/10.18280/mmep.070112
793	Abdallah, N., Kaddour, R., Mimmoun, Y., Mostefa, B.	Investigate the effect of damping parameters of the hydrodynamic bearings using the optimization method of design of experiments	hydrodynamic bearing, design of experiments, stability, damping coefficient, Plakett-Burman design, rotating machines, dynamic coefficients	7, 1, 103-112	https://doi.org/10.18280/mmep.070113	Abdallah, N., Kaddour, R., Mimmoun, Y., Mostefa, B. (2020). Investigate the effect of damping parameters of the hydrodynamic bearings using the optimization method of design of experiments. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 1, pp. 103-112. https://doi.org/10.18280/mmep.070113
794	Sreedhar, T., Ramana, N.V.	Impact of distribution network reconfiguration and optimal capacitor placement under wheeling transactions	differential search algorithm, distribution network reconfiguration, feeder reconfiguration, wheeling transactions	7, 1, 113-118	https://doi.org/10.18280/mmep.070114	Sreedhar, T., Ramana, N.V. (2020). Impact of distribution network reconfiguration and optimal capacitor placement under wheeling transactions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 1, pp. 113-118. https://doi.org/10.18280/mmep.070114
795	Sa'id, W.K., Al-Samarraie, S.A., Mshari, M.H.	Simple flatness condition for 2DOF underactuated mechanical systems with application to controller design	flatness condition, 2DOF mechanical systems, underactuated mechanical system, TORA system	7, 1, 119-126	https://doi.org/10.18280/mmep.070115	Sa'id, W.K., Al-Samarraie, S.A., Mshari, M.H. (2020). Simple flatness condition for 2DOF underactuated mechanical systems with application to controller design. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 1, pp. 119-126. https://doi.org/10.18280/mmep.070115
796	Kumar, M., Biswal, R., Gupta, A.K., Behera, S.K., Sahoo, R.K.	Effect of wall heat flux on fluid flow and thermal characteristics of a turbulent dual jet	offset dual jet, fluid flow and thermal characteristics, wall heat flux	7, 1, 127-134	https://doi.org/10.18280/mmep.070116	Kumar, M., Biswal, R., Gupta, A.K., Behera, S.K., Sahoo, R.K. (2020). Effect of wall heat flux on fluid flow and thermal characteristics of a turbulent dual jet. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 1, pp. 127-134. https://doi.org/10.18280/mmep.070116
797	Muiruri, P.I., Motsamai, O.S.	Computational effects of winglet tilted within range of -45° and +45° on the up-scale wind turbine blade using CFD	aerodynamic-torque, axial force, bending-load, CFD-simulation, tangential force, winglet	7, 1, 135-145	https://doi.org/10.18280/mmep.070117	Muiruri, P.I., Motsamai, O.S. (2020). Computational effects of winglet tilted within range of -45° and +45° on the up-scale wind turbine blade using CFD. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 7, No. 1, pp. 135-145. https://doi.org/10.18280/mmep.070117
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802	Mollah, M.T., Islam, M.M., Khatun, S., Alam, M.M.	MHD generalized couette flow and heat transfer on Bingham fluid through porous parallel plates	MHD flow, Bingham fluid, generalized Couette flow, heat transfer, Finite Difference Method (FDM)	6, 4, 483-490	https://doi.org/10.18280/mmep.060402	Mollah, M.T., Islam, M.M., Khatun, S., Alam, M.M. (2019). MHD generalized couette flow and heat transfer on Bingham fluid through porous parallel plates. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 4, pp. 483-490. https://doi.org/10.18280/mmep.060402
803	Kumar, P.V., Ibrahim, S.M., Jyothsna, K.	Numerical modeling on radiative dissipative MHD flow of a chemically casson fluid over an exponentially inclined stretching surface	casson Nanofluid, Inclined Stretching Sheet, Thermal Radiation, Viscous Dissipation, HAM	6, 4, 491-501	https://doi.org/10.18280/mmep.060403	Kumar, P.V., Ibrahim, S.M., Jyothsna, K. (2019). Numerical modeling on radiative dissipative MHD flow of a chemically casson fluid over an exponentially inclined stretching surface. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 4, pp. 491-501. https://doi.org/10.18280/mmep.060403
804	Mabood, F., Usman, H.	Multiple slips effects on MHD thermo-solutal flow in porous media saturated by nanofluid	HAM, heat transfer, mass transfer, MHD, multiple slip, nanofluid, porous media	6, 4, 502-510	https://doi.org/10.18280/mmep.060404	Mabood, F., Usman, H. (2019). Multiple slips effects on MHD thermo-solutal flow in porous media saturated by nanofluid. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 4, pp. 502-510. https://doi.org/10.18280/mmep.060404
805	Kurra, S.S., Naralasetty, V.	Decentralized key management scheme using alternating multilinear forms for cloud data sharing with dynamic multiprivileged groups	decentralized group key management-membership driven, alternating multilinear forms, CAMDH, cloud data, dynamic multiprivileged groups	6, 4, 511-518	https://doi.org/10.18280/mmep.060405	Kurra, S.S., Naralasetty, V. (2019). Decentralized key management scheme using alternating multilinear forms for cloud data sharing with dynamic multiprivileged groups. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 4, pp. 511-518. https://doi.org/10.18280/mmep.060405
806	Adibi, T., Adibi, O.	Laminar forced convection simulation at different boundary conditions with averaging scheme (numerical and theoretical research)	cavity flow, forced convection, reynolds number, complex boundary condition, nusselt number	6, 4, 519-526	https://doi.org/10.18280/mmep.060406	Adibi, T., Adibi, O. (2019). Laminar forced convection simulation at different boundary conditions with averaging scheme (numerical and theoretical research). <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 4, pp. 519-526. https://doi.org/10.18280/mmep.060406
807	Gajjala, N., Garvandha, M., Matta, A.	Effect of mass transfer in a horizontal pipe with suction and chemical reaction on magnetic Newtonian flow	mass transfer, suction, magnetic field, chemical reaction, newtonian fluid, HAM	6, 4, 527-534	https://doi.org/10.18280/mmep.060407	Gajjala, N., Garvandha, M., Matta, A. (2019). Effect of mass transfer in a horizontal pipe with suction and chemical reaction on magnetic Newtonian flow. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 4, pp. 527-534. https://doi.org/10.18280/mmep.060407
808	Kunamneni, R., Ramavathu, S.N.	A grid connected modular multilevel converter for photovoltaic energy conversion	modular multilevel converter, photo voltaic, total harmonic distortion	6, 4, 535-540	https://doi.org/10.18280/mmep.060408	Kunamneni, R., Ramavathu, S.N. (2019). A grid connected modular multilevel converter for photovoltaic energy conversion. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 4, pp. 535-540. https://doi.org/10.18280/mmep.060408
809	Qadiri, U., Wani, M.M.	Performance combustion and emission characteristics of 3-Cylinder SI engine fuelled conventional gasoline, ethanol blends, and micro-emulsion used as an alternative fuel	performance, bio fuel, emissions, AVL boost, micro-emulsions	6, 4, 541-549	https://doi.org/10.18280/mmep.060409	Qadiri, U., Wani, M.M. (2019). Performance combustion and emission characteristics of 3-Cylinder SI engine fuelled conventional gasoline, ethanol blends, and micro-emulsion used as an alternative fuel. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 4, pp. 541-549. https://doi.org/10.18280/mmep.060409
810	Alam, M.F., Bora, M.K., Sharma, B., Barman, R.N.	Numerical investigation of magneto-hydrodynamics mixed convection in a square cavity for various shaped conducting obstacles placed at the center	magneto-hydrodynamics, mixed convection, nanofluid, heat transfer, cavity	6, 4, 550-556	https://doi.org/10.18280/mmep.060410	Alam, M.F., Bora, M.K., Sharma, B., Barman, R.N. (2019). Numerical investigation of magneto-hydrodynamics mixed convection in a square cavity for various shaped conducting obstacles placed at the center. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 4, pp. 550-556. https://doi.org/10.18280/mmep.060410
811	Yadav, R.R., Roy, J.	Solute transport phenomena with input through a plane surface in porous media.	advection, dispersion, porous medium, groundwater velocity, laplace transformation technique	6, 4, 557-565	https://doi.org/10.18280/mmep.060411	Yadav, R.R., Roy, J. (2019). Solute transport phenomena with input through a plane surface in porous media. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 4, pp. 557-565. https://doi.org/10.18280/mmep.060411
812	Mihoubi, H., Bouderah, B., Tayebi, T.	Improvement of free convection heat transfer in a concentric cylindrical annulus heat exchanger using nanofluid	nanofluids, natural convection, horizontal concentric cylinders, finite volume method	6, 4, 566-574	https://doi.org/10.18280/mmep.060412	Mihoubi, H., Bouderah, B., Tayebi, T. (2019). Improvement of free convection heat transfer in a concentric cylindrical annulus heat exchanger using nanofluid. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 4, pp. 566-574. https://doi.org/10.18280/mmep.060412
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815	Tarrad, A.H., Khudor, D.S.	Thermal performance prediction for air flow in a wavy corrugated duct at steady-state constant heat flux mode and early stages of turbulent flow conditions	enhancement, heat transfer, wavy surfaces, correlation, constant heat flux	6, 4, 589-598	https://doi.org/10.18280/mmep.060415	Tarrad, A.H., Khudor, D.S. (2019). Thermal performance prediction for air flow in a wavy corrugated duct at steady-state constant heat flux mode and early stages of turbulent flow conditions. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 4, pp. 589-598. https://doi.org/10.18280/mmep.060415
816	Abdulkadhim, A.	On simulation of the natural convection heat transfer between circular cylinder and an elliptical enclosure filled with nanofluid [part I: The effect of MHD and internal heat generation/absorption]	MHD, heat generation/absorption, nanofluid, elliptical enclosure, natural convection	6, 4, 599-610	https://doi.org/10.18280/mmep.060416	Abdulkadhim, A. (2019). On simulation of the natural convection heat transfer between circular cylinder and an elliptical enclosure filled with nanofluid [part I: The effect of MHD and internal heat generation/absorption]. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 4, pp. 599-610. https://doi.org/10.18280/mmep.060416
817	Seeni, A.	Aerodynamic performance characterization and static structural analysis of slotted propeller: Part A effect of position	slotted propeller, computational fluid dynamics, static structural, low reynolds number, APC slow flyer, ANSYS fluent, ANSYS mechanical	6, 4, 611-624	https://doi.org/10.18280/mmep.060417	Seeni, A. (2019). Aerodynamic performance characterization and static structural analysis of slotted propeller: Part A effect of position. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 4, pp. 611-624. https://doi.org/10.18280/mmep.060417

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822	Cravero, C., De Domenico, D., Leutcha, P.J., Marsano, D.	Strategies for the numerical modelling of regenerative pre-heating systems for recycled glass raw material	glass industry, heat recovery, CFD, numerical optimization	6, 3, 324-332	https://doi.org/10.18280/mmep.060302	Cravero, C., De Domenico, D., Leutcha, P.J., Marsano, D. (2019). Strategies for the numerical modelling of regenerative pre-heating systems for recycled glass raw material. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 3, pp. 324-332. https://doi.org/10.18280/mmep.060302
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825	Nagaraju, K.R., Mahabaleswar, U.S., Krimpeni, A.A., Sarris, I.E., Lorenzini, G.	Impact of mass transpiration on unsteady boundary layer flow of impulsive porous stretching	darcy number, ADM, mass suction/injection, pade approximants	6, 3, 349-354	https://doi.org/10.18280/mmep.060305	Nagaraju, K.R., Mahabaleswar, U.S., Krimpeni, A.A., Sarris, I.E., Lorenzini, G. (2019). Impact of mass transpiration on unsteady boundary layer flow of impulsive porous stretching. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 3, pp. 349-354. https://doi.org/10.18280/mmep.060305
826	Alhumoud, J.M., Almashan, N.	Muskingum method with variable parameter estimation	muskingum models, linear, nonlinear, trial and error method, least square method, direct optimization method	6, 3, 355-362	https://doi.org/10.18280/mmep.060306	Alhumoud, J.M., Almashan, N. (2019). Muskingum method with variable parameter estimation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 3, pp. 355-362. https://doi.org/10.18280/mmep.060306
827	Xiong, C.P., Sun, H., Pan, D., Li, Y.	A personalized collaborative filtering recommendation algorithm based on linear regression	tag, linear regression, collaborative filtering, Recommender System (RS)	6, 3, 363-368	https://doi.org/10.18280/mmep.060307	Xiong, C.P., Sun, H., Pan, D., Li, Y. (2019). A personalized collaborative filtering recommendation algorithm based on linear regression. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 3, pp. 363-368. https://doi.org/10.18280/mmep.060307
828	Kunnegowda, T., Mahanathesh, B., Lorenzini, G., Animasaun, I.L.	Significance of induced magnetic field and exponential space dependent heat source on quadratic convective flow of casson fluid in a micro-channel via HPM	casson fluid, exponential heat source, microchannel, nonlinear convection, nonlinear boussinesq approximation	6, 3, 369-384	https://doi.org/10.18280/mmep.060308	Kunnegowda, T., Mahanathesh, B., Lorenzini, G., Animasaun, I.L. (2019). Significance of induced magnetic field and exponential space dependent heat source on quadratic convective flow of casson fluid in a micro-channel via HPM. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 3, pp. 369-384. https://doi.org/10.18280/mmep.060308
829	Bendjamaa, I., Allaoui, T., Menni, Y., Chamkha, A.J., Lorenzini, G.	Study and comparison between two receivers of parabolic trough collector	parabolic trough, modeling, solar thermal, liquid water, MATLAB/simulink	6, 3, 385-389	https://doi.org/10.18280/mmep.060309	Bendjamaa, I., Allaoui, T., Menni, Y., Chamkha, A.J., Lorenzini, G. (2019). Study and comparison between two receivers of parabolic trough collector. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 3, pp. 385-389. https://doi.org/10.18280/mmep.060309
830	An, Q.Q.	A novel recommendation algorithm considering average similarity and user-based collaborative filtering	Average Similarity (AS), User-Based Collaborative Filtering (USF), recommendation algorithm, scoring matrix	6, 3, 390-396	https://doi.org/10.18280/mmep.060310	An, Q.Q. (2019). A novel recommendation algorithm considering average similarity and user-based collaborative filtering. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 3, pp. 390-396. https://doi.org/10.18280/mmep.060310
831	Hasan, M.S., Mondal, R.N., Lorenzini, G.	Centrifugal instability with convective heat transfer through a tightly coiled square duct	curved square duct, secondary flow, steady solution, unsteady solution, heat transfer	6, 3, 397-408	https://doi.org/10.18280/mmep.060311	Hasan, M.S., Mondal, R.N., Lorenzini, G. (2019). Centrifugal instability with convective heat transfer through a tightly coiled square duct. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 3, pp. 397-408. https://doi.org/10.18280/mmep.060311
832	Sun, S.S., Lei, G., Sun, Z.P.	Dynamic and static load tests on a large-span rigid-frame bridge	Dynamic and Static Load (DSL) tests, bearing capacity, working performance, rigid-frame bridge, stress state, dynamic properties	6, 3, 409-414	https://doi.org/10.18280/mmep.060312	Sun, S.S., Lei, G., Sun, Z.P. (2019). Dynamic and static load tests on a large-span rigid-frame bridge. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 3, pp. 409-414. https://doi.org/10.18280/mmep.060312
833	Menni, Y., Chamkha, A.J., Lorenzini, G., Kaid, N., Ameer, H., Bensafi, M.	Advances of nanofluids in solar collectors - A review of numerical studies	nanofluid, base fluid, heat transfer, fluid flow, solar collector, numerical simulation	6, 3, 415-427	https://doi.org/10.18280/mmep.060313	Menni, Y., Chamkha, A.J., Lorenzini, G., Kaid, N., Ameer, H., Bensafi, M. (2019). Advances of nanofluids in solar collectors - A review of numerical studies. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 3, pp. 415-427. https://doi.org/10.18280/mmep.060313
834	Fasogbon, S.K., Oyelami, F.H., Adetimirin, E.O., Ige, E.O.	On blasius plate solution of particle dispersion and deposition in human respiratory track	combust fuel, environmental pollution, bio-fuel combusts, combust fossil aerosol, blasius solution	6, 3, 428-432	https://doi.org/10.18280/mmep.060314	Fasogbon, S.K., Oyelami, F.H., Adetimirin, E.O., Ige, E.O. (2019). On blasius plate solution of particle dispersion and deposition in human respiratory track. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 3, pp. 428-432. https://doi.org/10.18280/mmep.060314
835	Qin, Y.P., Zheng, C.F.	A backpropagation neural network-based flexural-tensile strength prediction model for asphalt mixture in cold regions under cyclic thermal stress	cold regions, asphalt mixture, flexural-tensile strength, Backpropagation Neural Network (BPNN), regression analysis	6, 3, 433-436	https://doi.org/10.18280/mmep.060315	Qin, Y.P., Zheng, C.F. (2019). A backpropagation neural network-based flexural-tensile strength prediction model for asphalt mixture in cold regions under cyclic thermal stress. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 3, pp. 433-436. https://doi.org/10.18280/mmep.060315
836	Qin, Y.P., Zheng, C.F.	Analysis of aspect ratio effects of left heated 2D cavity using energy streamlines and field synergy principle	Rayleigh number, aspect ratio, energy streamlines, field synergy, Nusselt number	6, 3, 437-448	https://doi.org/10.18280/mmep.060316	Qin, Y.P., Zheng, C.F. (2019). Analysis of aspect ratio effects of left heated 2D cavity using energy streamlines and field synergy principle. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 3, pp. 437-448. https://doi.org/10.18280/mmep.060316

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838	Leonidovich, P.E.	On development of analytical approach for analysis of energy transfer of traveling wave tube	traveling wave tube, analysis of operating regimes, analysis of energy transfer, increasing of efficiency, analytical approach for analysis	6, 3, 455-459	https://doi.org/10.18280/mmep.060318	Leonidovich, P.E. (2019). On development of analytical approach for analysis of energy transfer of traveling wave tube. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 3, pp. 455-459. https://doi.org/10.18280/mmep.060318
839	Roshid, M., Bashar, H.	Breather wave and kinky periodic wave solutions of one-dimensional oskolkov equation	kinky periodic wave, breather wave, the Oskolkov equation, simple equation method	6, 3, 460-466	https://doi.org/10.18280/mmep.060319	Roshid, M., Bashar, H. (2019). Breather wave and kinky periodic wave solutions of one-dimensional oskolkov equation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 3, pp. 460-466. https://doi.org/10.18280/mmep.060319
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841	Abderrahim A., Ghellai N., Bouzid Z., Menni Y.	Wind energy resource assessment in south western of Algeria	wind energy, wind resource, assessment wind potential, weibull parameters, the southwest of algeria	6, 2, 157-162	https://doi.org/10.18280/mmep.060201	Abderrahim, A., Ghellai, N., Bouzid, Z., Menni, Y. (2019). Wind energy resource assessment in south western of Algeria. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 2, pp. 157-162. https://doi.org/10.18280/mmep.060201
842	Alhumoud J.M.	Non-equilibrium natural convection flow through a porous medium	natural convection, non-equilibrium model, porous layer, porous medium	6, 2, 163-169	https://doi.org/10.18280/mmep.060202	Alhumoud, J.M. (2019). Non-equilibrium natural convection flow through a porous medium. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 2, pp. 163-169. https://doi.org/10.18280/mmep.060202
843	Y. Menni, A.J. Chamkha, G. Lorenzini, B. Benyoucef	Computational fluid dynamics based numerical simulation of thermal and thermo-hydraulic performance of a solar air heater channel having various ribs on absorber plates	nusselt number, skin friction coefficient, thermal enhancement factor, ribs, obstacles, CFD	6, 2, 170-174	https://doi.org/10.18280/mmep.060203	Menni, Y., Chamkha, A.J., Lorenzini, G., Benyoucef, B. (2019). Computational fluid dynamics based numerical simulation of thermal and thermo-hydraulic performance of a solar air heater channel having various ribs on absorber plates. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 2, pp. 170-174. https://doi.org/10.18280/mmep.060203
844	Mallikarjun P., Murthy R.V., Mahabaleshwar U.S., Lorenzini G.	Numerical study of mixed convective flow of a couple stress fluid in a vertical channel with first order chemical reaction and heat generation/absorption	mixed convection, couple stress fluid, chemical reaction, vertical channel, numerical method	6, 2, 175-182	https://doi.org/10.18280/mmep.060204	Mallikarjun, P., Murthy, R.V., Mahabaleshwar, U.S., Lorenzini, G. (2019). Numerical study of mixed convective flow of a couple stress fluid in a vertical channel with first order chemical reaction and heat generation/absorption. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 2, pp. 175-182. https://doi.org/10.18280/mmep.060204
845	Radhi D., Mohsen A.M.H., Abdulkadhim A.	Experimental investigation of two-phase fluid flow over a rectangular obstructions located inside enlarged rectangular channel	two-phase flow, rectangular obstructions, flow rate	6, 2, 183-187	https://doi.org/10.18280/mmep.060205	Radhi, D., Mohsen, A.M.H., Abdulkadhim, A. (2019). Experimental investigation of two-phase fluid flow over a rectangular obstructions located inside enlarged rectangular channel. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 2, pp. 183-187. https://doi.org/10.18280/mmep.060205
846	Ayano, M.S., Otegbeye, O., Motsa, S.S.	MHD mixed convection chemically reactive casson fluid flow over an inclined stretching/shrinking sheet: paired quasilinearization approach (PQLM)	heat transfer, mass transfer, hydromagnetic flow, secondary flow, numerical solution, hall effect, chemical reaction, solet and dufour	6, 2, 188-196	https://doi.org/10.18280/mmep.060206	Ayano, M.S., Otegbeye, O., Motsa, S.S. (2019). MHD mixed convection chemically reactive casson fluid flow over an inclined stretching/shrinking sheet: Paired quasilinearization approach (PQLM). <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 2, pp. 188-196. https://doi.org/10.18280/mmep.060206
847	Sánchez-Escalona A.A., Góngora-Leyva E., Camaraza-Medina Y.	Monoethanolamine heat exchangers modeling using the buckingham pi theorem	amine treatment, CO2 capture, dimensional analysis, heat transfer, industrial applications, performance, prediction	6, 2, 197-202	https://doi.org/10.18280/mmep.060207	Sánchez-Escalona, A.A., Góngora-Leyva, E., Camaraza-Medina, Y. (2019). Monoethanolamine heat exchangers modeling using the buckingham pi theorem. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 2, pp. 197-202. https://doi.org/10.18280/mmep.060207
848	Katuri R., Gorantla S.	Design and simulation of a controller for a hybrid energy storage system based electric vehicle	Bidirectional Converter (BDC), Unidirectional Converter (UDC), Battery, Ultracapacitor (UC), MFB controller, Proportional Integral (PI) controller, Proportional Integral Derivative (PID) controller, fuzzy logic controller, ANN controller	6, 2, 203-216	https://doi.org/10.18280/mmep.060208	Katuri, R., Gorantla, S. (2019). Design and simulation of a controller for a hybrid energy storage system based electric vehicle. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 2, pp. 203-216. https://doi.org/10.18280/mmep.060208
849	Driss A., Maalej S., Chouat I., Zaghdoudi M.C.	Experimental investigation on the thermal performance of a heat pipe-based cooling system	capillary pumping, electronics cooling, heat pipes, grooves	6, 2, 217-228	https://doi.org/10.18280/mmep.060209	Driss, A., Maalej, S., Chouat, I., Zaghdoudi, M.C. (2019). Experimental investigation on the thermal performance of a heat pipe-based cooling system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 2, pp. 217-228. https://doi.org/10.18280/mmep.060209
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851	Radid A., Rhoifir K.	Partitioning differential transformation for solving integro-differential equations problem and application to electrical circuits	Multi-Stages Differential Transformation Method (MsDTM), Taylor'S Series, Power Series, integro-differential equations, electrical circuit modelling	6, 2, 235-240	https://doi.org/10.18280/mmep.060211	Radid, A., Rhoifir, K. (2019). Partitioning differential transformation for solving integro-differential equations problem and application to electrical circuits. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 2, pp. 235-240. https://doi.org/10.18280/mmep.060211
852	Choudhury K., Ahmed N.	Unsteady MHD mass transfer flow past a temporarily accelerated semi-infinite vertical plate in presence of thermal diffusion with ramped wall temperature	heat transfer, ramped temperature, thermal diffusion, thermal radiation	6, 2, 241-248	https://doi.org/10.18280/mmep.060212	Choudhury, K., Ahmed, N. (2019). Unsteady MHD mass transfer flow past a temporarily accelerated semi-infinite vertical plate in presence of thermal diffusion with ramped wall temperature. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 2, pp. 241-248. https://doi.org/10.18280/mmep.060212
853	Ali A.A., Hegaze M.M., Elrodesly A.S.	In-flight correction of the satellite orientation parameter during target mode	orientation parameters, pointing accuracy, satellite attitude and orbit control, time-optimal nonlinear feedback control	6, 2, 249-262	https://doi.org/10.18280/mmep.060213	Ali, A.A., Hegaze, M.M., Elrodesly, A.S. (2019). In-flight correction of the satellite orientation parameter during target mode. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 2, pp. 249-262. https://doi.org/10.18280/mmep.060213
854	Alayi R., Nemati R., Shamel A., Kasaeian A., Sarkaleh M.K., Ahmadi M.H.	Energetic and exergetic analysis hybrid solid oxide fuel cell systems and gas turbine (SOFC-GT)	Modeling, Energetic, Exergetic, SOFC, Gas Turbine	6, 2, 263-270	https://doi.org/10.18280/mmep.060214	Alayi, R., Nemati, R., Shamel, A., Kasaeian, A., Sarkaleh M.K., Ahmadi, M.H. (2019). Energetic and exergetic analysis hybrid solid oxide fuel cell systems and gas turbine (SOFC-GT). <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 2, pp. 263-270. https://doi.org/10.18280/mmep.060214
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857	Nabila C.K., Azzedine S.	Numerical study of surface roughness effects on the behavior of fluid flow in micro-channels	CFD, friction factor, laminar flow, rough surface, smooth surface	6, 2, 285-292	https://doi.org/10.18280/mmep.060217	Nabila, C.K., Azzedine, S. (2019). Numerical study of surface roughness effects on the behavior of fluid flow in micro-channels. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 2, pp. 285-292. https://doi.org/10.18280/mmep.060217
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859	Srinivasacharya D., Jagadeeshwar P.	Flow over an exponentially stretching sheet with double dispersion and convective thermal condition	double dispersion, porous medium, convective thermal condition, heat and mass transfer	6, 2, 300-308	https://doi.org/10.18280/mmep.060219	Srinivasacharya, D., Jagadeeshwar, P. (2019). Flow over an exponentially stretching sheet with double dispersion and convective thermal condition. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 2, pp. 300-306. https://doi.org/10.18280/mmep.060219
860	Benchabane A., Charif F.	Gradient based neural network with fourier transform for AR spectral estimator	gradient-based neural networks, toepplitz systems, fast fourier transform, autoregressive model	6, 2, 309-315	https://doi.org/10.18280/mmep.060220	Benchabane, A., Charif, F. (2019). Gradient based neural network with fourier transform for AR spectral estimator. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 2, pp. 309-315. https://doi.org/10.18280/mmep.060220
861	Rosa J.S., Lorenzini G., Altafani C.R., Wander P.R., Telli G.D., Rocha L.A.O.	Performance effects and economic viability of high-hydrated ethanol fumigation and diesel direct injection in a small compression ignition engine	internal combustion engine, fumigation, economic viability, ethanol, diesel oil	6, 1, 1-9	https://doi.org/10.18280/mmep.060101	Rosa, J.S., Lorenzini, G., Altafani, C.R., Wander, P.R., Telli, G.D., Rocha, L.A.O. (2019). Performance effects and economic viability of high-hydrated ethanol fumigation and diesel direct injection in a small compression ignition engine. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 1, pp. 1-9. https://doi.org/10.18280/mmep.060101
862	Izadi M., Mehryan S.A.M., Chamkha A.J., Lorenzini G.	The impacts of heat generation/absorption and partial slip on boundary layer flow and heat transfer of a nanofluid comprising of self-impelled motile microorganisms passing a stretching sheet	nanofluid, stretching sheet, motile gyrotactic microorganisms, heat generation/absorption, partial slip	6, 1, 10-20	https://doi.org/10.18280/mmep.060102	Izadi, M., Mehryan, S.A.M., Chamkha, A.J., Lorenzini, G. (2019). The impacts of heat generation/absorption and partial slip on boundary layer flow and heat transfer of a nanofluid comprising of self-impelled motile microorganisms passing a stretching sheet. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 1, pp. 10-20. https://doi.org/10.18280/mmep.060102
863	Menni Y., Chamkha A.J., Zidani C., Benyoucef B.	Heat and nanofluid transfer in baffled channels of different outlet models	nanofluid, forced convection, turbulent flow, fluid mechanics, baffle, channel	6, 1, 21-28	https://doi.org/10.18280/mmep.060103	Menni, Y., Chamkha, A.J., Zidani, C., Benyoucef, B. (2019). Heat and nanofluid transfer in baffled channels of different outlet models. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 1, pp. 21-28. https://doi.org/10.18280/mmep.060103
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867	Menni Y., Chamkha A.J., Zidani C., Benyoucef B.	Numerical analysis of heat and nanofluid mass transfer in a channel with detached and attached baffle plates	design, optimization, flow control, nanofluid filed, computational nanofluid dynamics	6, 1, 52-60	https://doi.org/10.18280/mmep.060107	Menni, Y., Chamkha, A.J., Zidani, C., Benyoucef, B. (2019). Numerical analysis of heat and nanofluid mass transfer in a channel with detached and attached baffle plates. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 1, pp. 52-60. https://doi.org/10.18280/mmep.060107
868	Kadri M., Sahli A., Sahli S.	Analysis of cylindrical shells by the Least Squares Method	container, cylindrical shells, enrichment, linear behavior, weighted residual method	6, 1, 61-68	https://doi.org/10.18280/mmep.060108	Kadri, M., Sahli, A., Sahli, S. (2019). Analysis of cylindrical shells by the Least Squares Method. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 1, pp. 61-68. https://doi.org/10.18280/mmep.060108
869	Qadri U., Marouf Wani M.	Experimental investigation on multi-cylinder SI engine fueled conventional gasoline, ethanol blends, and micro-emulsion as an alternative fuel	performance, emissions, bio fuels, micro-emulsions, 3-Cylinder	6, 1, 69-76	https://doi.org/10.18280/mmep.060109	Qadri, U., Marouf Wani, M. (2019). Experimental investigation on multi-cylinder SI engine fueled conventional gasoline, ethanol blends, and micro-emulsion as an alternative fuel. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 1, pp. 69-76. https://doi.org/10.18280/mmep.060109
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872	Chabane F., Benshal D., Brima A., Moummi N.	Solar drying of drying agricultural product (Apricot)	drying room, solar air collector, moisture content, mass flow rate, apricot, temperature	6, 1, 92-98	https://doi.org/10.18280/mmep.060112	Chabane, F., Benshal, D., Brima, A., Moummi, N. (2019). Solar drying of drying agricultural product (Apricot). <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 1, pp. 92-98. https://doi.org/10.18280/mmep.060112
873	Mehdaoui Y., Malaoui A., Gaga A., Alami R.E., Mrabti M.	The efficiency of the CORDIC Operator in the MIMO MC-CDMA receiver	MIMO MC-CDMA, CORDIC, DFT, fixed point, processing time	6, 1, 90-104	https://doi.org/10.18280/mmep.060113	Mehdaoui, Y., Malaoui, A., Gaga, A., Alami, R.E., Mrabti, M. (2019). The efficiency of the CORDIC Operator in the MIMO MC-CDMA receiver. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 1, pp. 90-104. https://doi.org/10.18280/mmep.060113
874	Dutta S., Biswas A.K.	A numerical investigation of natural convection heat transfer of copper-water nanofluids in a rectotrapezoidal enclosure heated uniformly from the bottom wall	natural convection, nanofluids, rectotrapezoidal enclosure	6, 1, 105-114	https://doi.org/10.18280/mmep.060114	Dutta, S., Biswas, A.K. (2019). A numerical investigation of natural convection heat transfer of copper-water nanofluids in a rectotrapezoidal enclosure heated uniformly from the bottom wall. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 6, No. 1, pp. 105-114. https://doi.org/10.18280/mmep.060114

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908	Cardinale T., Sposato C., A. Feo P., Fazio D.	Clay and fibers: Energy efficiency in buildings between tradition and innovation	adobe bricks, biobased materials, mechanical strength, natural fibers, thermal conductivity	5, 3, 183-189	https://doi.org/10.18280/mmep.050308	Cardinale, T., Sposato, C., A. Feo, P., Fazio, D. (2018). Clay and fibers: Energy efficiency in buildings between tradition and innovation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 5, No. 3, pp. 183-189. https://doi.org/10.18280/mmep.050308
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919	Karthik G., Jayanthu S.	Selection of suitable location and method for installation of TDR in opencast mine-an experimental approach	Time Domain Reflectometry (TDR), hangwall, footwall, joint survey	5, 3, 256-259	https://doi.org/10.18280/mmep.050319	Karthik, G., Jayanthu, S. (2018). Selection of suitable location and method for installation of TDR in opencast mine-an experimental approach. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 5, No. 3, pp. 256-259. https://doi.org/10.18280/mmep.050319
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921	Magrini A., Lazzari S., Marengo L., Guazzi G.	Cost optimal analysis of energy refurbishment actions depending on the local climate and its variations	building energy performance, building refurbishment, cost optimal methodology	5, 3, 268-274	https://doi.org/10.18280/mmep.050321	Magrini, A., Lazzari, S., Marengo, L., Guazzi, G. (2018). Cost optimal analysis of energy refurbishment actions depending on the local climate and its variations. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 5, No. 3, pp. 268-274. https://doi.org/10.18280/mmep.050321
922	Youssef A.M.	Operations of electric vehicle traction system	electric vehicle, four quadrant operation, BLDC motor, drive system, rechargeable energy storage system, regenerative braking	5, 2, 51-57	https://doi.org/10.18280/mmep.050201	Youssef, A.M. (2018). Operations of electric vehicle traction system. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 5, No. 2, pp. 51-57. https://doi.org/10.18280/mmep.050201
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926	Ike C.C.	Flexural analysis of rectangular kirchhoff plate on winkler foundation using galerkin-vaslov variational method	galerkin-vaslov variational method, kirchhoff plate, winkler foundation	5, 2, 83-92	https://doi.org/10.18280/mmep.050205	Ike, C.C. (2018). Flexural analysis of rectangular kirchhoff plate on winkler foundation using galerkin-vaslov variational method. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 5, No. 2, pp. 83-92. https://doi.org/10.18280/mmep.050205
927	Halber A., Chakravarty D.	Investigation of wireless tracking performance in the tunnel-like environment with particle filter	indoor localization, particle filter, monte carlo localization, wireless positioning, underground tracking	5, 2, 93-101	https://doi.org/10.18280/mmep.050206	Halber, A., Chakravarty, D. (2018). Investigation of wireless tracking performance in the tunnel-like environment with particle filter. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 5, No. 2, pp. 93-101. https://doi.org/10.18280/mmep.050206
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935	Dzimunya N., Radhe K., William C.M.	Design and dimensioning of sublevel stoping for extraction of thin ore (< 12 m) at very deep level: a case study of konkola copper mines (kcm), Zambia	stope, instability of stope, numerical modelling, empirical analysis and productivity	5, 1, 27-32	https://doi.org/10.18280/mmep.050104	Dzimunya, N., Radhe, K., William, C.M. (2018). Design and dimensioning of sublevel stoping for extraction of thin ore (< 12 m) at very deep level: a case study of konkola copper mines (kcm), Zambia. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 5, No. 1, pp. 27-32. https://doi.org/10.18280/mmep.050104
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940	Ike C.C.	Flexural Analysis of Kirchhoff plates on Winkler foundations using finite Fourier sine integral transform method	finite fourier sine transform method, kirchhoff plate, winkler foundation, Navier's double trigonometric series method, boundary value problem	4, 4, 145-154	https://doi.org/10.18280/mmep.040402	Ike C.C. (2017). Flexural Analysis of Kirchhoff plates on Winkler foundations using finite Fourier sine integral transform method. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 4, No. 4, pp. 145-154. https://doi.org/10.18280/mmep.040402
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945	Wang C.L., Wang Q.Y., Cao Y.P.	Blind source separation of indoor mobile voice sources	mobile voice sources, reverberation, blind source separation, natural gradient, independent component analysis	4, 4, 179-183	https://doi.org/10.18280/mmep.040407	Wang C.L., Wang Q.Y., Cao Y.P. (2017). Blind source separation of indoor mobile voice sources. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 4, No. 4, pp. 179-183. https://doi.org/10.18280/mmep.040407
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966	Fedali S., Madani H.	Azeotropic points with relative volatility-prediction and calculation	equation of state, mixing rules, excess free energy, azeotrope, relative volatility	4, 1, 38-42	https://doi.org/10.18280/mmep.040108	Fedali S., Madani H. (2017). Azeotropic points with relative volatility-prediction and calculation. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 4, No. 1, pp. 38-42. https://doi.org/10.18280/mmep.040108
967	Mourad D., el Hedj O., Rachid L., Ahmed M.	Experimental characterization of the Heat Affected Zone (HAZ) properties of 100Cr6 steel joined by rotary friction welding method	rotary friction welding, HAZ, 100Cr6 steel, microstructure, hardness	4, 1, 43-47	https://doi.org/10.18280/mmep.040109	Mourad D., el Hedj O., Rachid L., Ahmed M. (2017). Experimental characterization of the Heat Affected Zone (HAZ) properties of 100Cr6 steel joined by rotary friction welding method. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 4, No. 1, pp. 43-47. https://doi.org/10.18280/mmep.040109
968	Chen J.L., Dong D.S., Qiao Z.	Non-circular crane rail theory and parametric design	clothoid spiral, rail theory, parametric design, adams simulation	4, 1, 48-52	https://doi.org/10.18280/mmep.040110	Chen J.L., Dong D.S., Qiao Z. (2017). Non-circular crane rail theory and parametric design. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 4, No. 1, pp. 48-52. https://doi.org/10.18280/mmep.040110
969	Ali B.M., Bouiadjera B.B., Chikh E.B.O., Elmeuguenni M.	The effect of the plastic instability on the behavior of an amorphous polymere	amorphous polymer, damage, mechanical behavior, modeling	4, 1, 53-58	https://doi.org/10.18280/mmep.040111	Ali B.M., Bouiadjera B.B., Chikh E.B.O., Elmeuguenni M. (2017). The effect of the plastic instability on the behavior of an amorphous polymere. <i>Mathematical Modelling of Engineering Problems</i> , Vol. 4, No. 1, pp. 53-58. https://doi.org/10.18280/mmep.040111

970	Houria H.S., Bariza Z., Djamel H., Hocine B.	DMFC water management in presence of heat sources	DMFC, methanol, heat source, temperature, FORTRAN	4, 1, 59-62	https://doi.org/10.18280/mmep.040112	Houria H.S., Bariza Z., Djamel H., Hocine B. (2017). DMFC water management in presence of heat sources. Mathematical Modelling of Engineering Problems, Vol. 4, No. 1, pp. 59-62. https://doi.org/10.18280/mmep.040112
971	Liu B.L., Xu X.W.	Optimal reactive power planning considering the adjustment coefficient of generator excitation system	reactive power optimal planning, excitation system adjustment coefficient, benders decomposition	4, 1, 63-67	https://doi.org/10.18280/mmep.040113	Liu B.L., Xu X.W. (2017). Optimal reactive power planning considering the adjustment coefficient of generator excitation system. Mathematical Modelling of Engineering Problems, Vol. 4, No. 1, pp. 63-67. https://doi.org/10.18280/mmep.040113