**JMLC Volume 12 （2021）**

**Volume 12, Issue 1, January 2021**

Li, Y., Li, H., Wang, B. et al. Multi-objective unit commitment optimization with ultra-low emissions under stochastic and fuzzy uncertainties. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 1, January 2021, Pages1-15.

Hu, C., Zhang, L. Dynamic dominance-based multigranulation rough sets approaches with evolving ordered data. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 1, January 2021, Pages17-38.

Chen, J., Mi, J., Xie, B. et al. Attribute reduction in formal decision contexts and its application to finite topological spaces. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 1, January 2021, Pages39-52.

Karagoz, G.N., Yazici, A., Dokeroglu, T. et al. A new framework of multi-objective evolutionary algorithms for feature selection and multi-label classification of video data. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 1, January 2021, Pages53-71.

Lin, X., Qin, F., Peng, Y. et al. Fine-grained pornographic image recognition with multiple feature fusion transfer learning. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 1, January 2021, Pages73-86.

Ji, H., Wu, G. & Wang, G. Accelerating ELM training over data streams. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 1, January 2021, Pages87-102.

Chan, P.P.K., He, Z., Hu, X. et al. Causative label flip attack detection with data complexity measures. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 1, January 2021, Pages103-116.

Liu, S., Nie, W., Gao, D. et al. Clinical quantitative information recognition and entity-quantity association from Chinese electronic medical records. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 1, January 2021, Pages117-130.

del Río, A.H., Aranguren, I., Oliva, D. et al. Efficient image segmentation through 2D histograms and an improved owl search algorithm. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 1, January 2021, Pages131-150.

Li, B., Xu, Z. & Zhang, Y. Two-stage multi-sided matching dispatching models based on improved BPR function with probabilistic linguistic term sets. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 1, January 2021, Pages151-169.

Laiadi, O., Ouamane, A., Benakcha, A. et al. A weighted exponential discriminant analysis through side-information for face and kinship verification using statistical binarized image features. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 1, January 2021, Pages171-185.

Wang, Q., Zhao, H., Hu, Z. et al. Discrete convolutional CRF networks for depth estimation from monocular infrared images. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 1, January 2021, Pages187-200.

Li, Z., He, Y., Li, Y. et al. A hybrid grey wolf optimizer for solving the product knapsack problem. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 1, January 2021, Pages201-222.

Yuan, X., Liebelt, M.J., Shi, P. et al. Creating rule-based agents for artificial general intelligence using association rules mining. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 1, January 2021, Pages223-230.

Perrusquía, A., Yu, W. & Li, X. Multi-agent reinforcement learning for redundant robot control in task-space. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 1, January 2021, Pages231-241.

Li, W., Li, J., Huang, J. et al. A new rough set model based on multi-scale covering. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 1, January 2021, Pages243-256.

Xie, Z., Cao, W. & Ming, Z. A further study on biologically inspired feature enhancement in zero-shot learning. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 1, January 2021, Pages257-269.

Zhang, C., Zuo, W., Yin, A. et al. ADET: anomaly detection in time series with linear time. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 1, January 2021, Pages271-280.

**Volume 12, Issue 2,** **February 2021**

Cheng, Y., Zhang, Q. & Wang, G. Optimal scale combination selection for multi-scale decision tables based on three-way decision. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 2, February 2021, Pages281-301.

Javidi, M.M. Feature selection schema based on game theory and biology migration algorithm for regression problems International Journal of Machine Learning and Cybernetics, Volume 12, Issue 2, February 2021, Pages303-342.

Liu, J., Zheng, S., Xu, G. et al. Cross-domain sentiment aware word embeddings for review sentiment analysis. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 2, February 2021, Pages343-354.

Zhang, T., Lin, H., Tadesse, M.M. et al. Chinese medical relation extraction based on multi-hop self-attention mechanism. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 2, February 2021, Pages355-363.

Fatemi, S.M., Hosseini, S.M., Kamandi, A. et al. CL-MAX: a clustering-based approximation algorithm for mining maximal frequent itemsets. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 2, February 2021, Pages365-383.

Fourati, H., Maaloul, R. & Chaari, L. A survey of 5G network systems: challenges and machine learning approaches. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 2, February 2021, Pages385-431.

Ma, XA. Fuzzy entropies for class-specific and classification-based attribute reducts in three-way probabilistic rough set models. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 2, February 2021, Pages433-457.

Hashemi, A., Dowlatshahi, M.B. & Nezamabadi-Pour, H. A bipartite matching-based feature selection for multi-label learning. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 2, February 2021, Pages459-475.

Feng, S., Song, K., Wang, D. et al. InterSentiment: combining deep neural models on interaction and sentiment for review rating prediction. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 2, February 2021, Pages477-488.

Zhang, S., Callaghan, V. Real-time human posture recognition using an adaptive hybrid classifier. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 2, February 2021, Pages489-499.

Yuan, P., Wang, B. & Mao, Z. Using multiple classifier behavior to develop a dynamic outlier ensemble. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 2, February 2021, Pages501-513.

Fezai, R., Abodayeh, K., Mansouri, M. et al. Fault diagnosis of biological systems using improved machine learning technique. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 2, February 2021, Pages515-528.

Liu, W., Wang, Z., Zeng, N. et al. A novel randomised particle swarm optimizer. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 2, February 2021, Pages529-540.

Ding, L., Ding, S., Wang, Y. et al. M-pSC: a manifold p-spectral clustering algorithm. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 2, February 2021, Pages541-553.

Li, Y., Chai, Y., Yin, H. et al. A novel feature learning framework for high-dimensional data classification. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 2, February 2021, Pages555-569.

Dhiman, G., Singh, K.K., Slowik, A. et al. EMoSOA: a new evolutionary multi-objective seagull optimization algorithm for global optimization. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 2, February 2021, Pages571-596.

Jin, T., Wu, Q., Ou, X. et al. Community detection and co-author recommendation in co-author networks. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 2, February 2021, Pages597-609.

**Volume 12, Issue 3, March 2021**

Fei, J., Feng, Z. Adaptive super-twisting sliding mode control for micro gyroscope based on double loop fuzzy neural network structure. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 3, March 2021, Pages611-624.

Fan, Y., Li, D., Liu, Y. et al. Toward better prediction of recurrence for Cushing’s disease: a factorization-machine based neural approach. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 3, March 2021, Pages625-633.

Hassani, A., Iranmanesh, A., Eftekhari, M. et al. DISCERN: diversity-based selection of centroids for k-estimation and rapid non-stochastic clustering. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 3, March 2021, Pages635-649.

Chen, B., Zhao, T., Liu, J. et al. Multipath feature recalibration DenseNet for image classification. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 3, March 2021, Pages651-660.

Chen, B., Zhao, T., Liu, J. et al. Multipath feature recalibration DenseNet for image classification. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 3, March 2021, Pages661-687.

Yi, Y., Shi, Y., Wang, W. et al. Combining Boundary Detector and SND-SVM for Fast Learning. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 3, March 2021, Pages689-698.

Midya, S., Roy, S.K. & Yu, V.F. Intuitionistic fuzzy multi-stage multi-objective fixed-charge solid transportation problem in a green supply chain. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 3, March 2021, Pages699-717.

Yang, X., Cai, Z., Li, R. et al. GDPC: generalized density peaks clustering algorithm based on order similarity. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 3, March 2021, Pages719-731.

Zhang, C., Li, H., Chen, C. et al. Nonnegative representation based discriminant projection for face recognition. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 3, March 2021, Pages733-745.

Rezaei, S., Tahmoresnezhad, J. & Solouk, V. A transductive transfer learning approach for image classification. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 3, March 2021, Pages747-762.

Chowdhury, I.M., Su, K. & Zhao, Q. MS-NET: modular selective network. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 3, March 2021, Pages763-781.

Abualigah, L., Alsalibi, B., Shehab, M. et al. A parallel hybrid krill herd algorithm for feature selection. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 3, March 2021, Pages783-806.

Guo, L., Dai, Q. Laplacian regularized low-rank sparse representation transfer learning. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 3, March 2021, Pages807-821.

Zhuang, D., Jiang, M., Kong, J. et al. Spatiotemporal attention enhanced features fusion network for action recognition. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 3, March 2021, Pages823-841.

Costadopoulos, N., Islam, M.Z. & Tien, D. A knowledge discovery and visualisation method for unearthing emotional states from physiological data. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 3, March 2021, Pages843-858.

Hou, Wh., Wang, Yt., Wang, Jq. et al. Intuitionistic fuzzy c-means clustering algorithm based on a novel weighted proximity measure and genetic algorithm. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 3, March 2021, Pages859-875.

Liu, H., Liu, Y., Fu, M. et al. Towards learning line descriptors from patches: a new paradigm and large-scale dataset. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 3, March 2021, Pages877-890.

Zhao, M., Wei, G., Wei, C. et al. Improved TODIM method for intuitionistic fuzzy MAGDM based on cumulative prospect theory and its application on stock investment selection. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 3, March 2021, Pages891-901.

**Volume 12, Issue 4, April 2021**

She, Q., Zou, J., Meng, M. et al. Balanced Graph-based regularized semi-supervised extreme learning machine for EEG classification. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 4, April 2021, Pages903-916.

Li, P., Wang, N., Wei, C. et al. A two-sided matching method considering the lowest value of acceptability with regret theory for probabilistic linguistic term sets. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 4, April 2021, Pages917-930.

Yu, Y., Zhu, H., Wang, L. et al. Dense crowd counting based on adaptive scene division. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 4, April 2021, Pages931-942.

Xue, F., Dong, T., You, S. et al. A hybrid many-objective competitive swarm optimization algorithm for large-scale multirobot task allocation problem. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 4, April 2021, Pages943-957.

Zhou, W., Zhu, Z. A novel BNMF-DNN based speech reconstruction method for speech quality evaluation under complex environments. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 4, April 2021, Pages959-972.

Song, C., Xu, Z. & Hou, J. An improved TODIM method based on the hesitant fuzzy psychological distance measure. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 4, April 2021, Pages973-985.

Yue, W., Liu, X., Li, S. et al. Knowledge representation and reasoning with industrial application using interval-valued intuitionistic fuzzy Petri nets and extended TOPSIS. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 4, April 2021, Pages987-1013.

Zhou, Z., Chen, R., Wang, C. et al. Dynamic pricing in profit-driven task assignment: a domain-of-influence based approach. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 4, April 2021, Pages1015-1030.

Chan, P.P.K., Xiao, M., Qin, X. et al. Dynamic fusion for ensemble of deep Q-network. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 4, April 2021, Pages 1031-1040.

Xu, Y., Wang, Q. & Sun, W. Matrix-based incremental updating approximations in multigranulation rough set under two-dimensional variation. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 4, April 2021, Pages1041-1065.

Shanavas, N., Wang, H., Lin, Z. et al. Knowledge-driven graph similarity for text classification. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 4, April 2021, Pages1067-1081.

Tan, G., Wei, P., He, Y. et al. An algorithm based on valuation forecasting for game tree search. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 4, April 2021, Pages1083-1095.

Chen, J., Wang, B., Ouyang, Z. et al. Dynamic clustering collaborative filtering recommendation algorithm based on double-layer network. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 4, April 2021, Pages1097-1113.

Baghdadi, G., Amiri, M., Falotico, E. et al. Recurrence quantification analysis of EEG signals for tactile roughness discrimination. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 4, April 2021, Pages1115-1136.

Aryal, S., Santosh, K. & Dazeley, R. usfAD: a robust anomaly detector based on unsupervised stochastic forest. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 4, April 2021, Pages1137-1150.

Mori, K., Nakajima, H. & Hata, Y. Automated worker skill evaluation for improving productivity based on labeled LDA. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 4, April 2021, Pages1151-1171.

Mahmoud, R., Belgacem, S. & Omri, M.N. Towards wide-scale continuous gesture recognition model for in-depth and grayscale input videos. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 4, April 2021, Pages1173-1189.

Zhu, H., Liu, H. & Fu, A. Class-weighted neural network for monotonic imbalanced classification. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 4, April 2021, Pages1191-1201.

**Volume 12, Issue 5, May 2021**

Lai, CH., Liu, DR. & Lien, KS. A hybrid of XGBoost and aspect-based review mining with attention neural network for user preference prediction. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 5, May 2021, Pages1203-1217.

Zhang, C., Li, D., Liang, J. et al. MAGDM-oriented dual hesitant fuzzy multigranulation probabilistic models based on MULTIMOORA. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 5, May 2021, Pages 1219-1241.

Wang, L., Ding, S., Wang, Y. et al. A robust spectral clustering algorithm based on grid-partition and decision-graph. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 5, May 2021, Pages 1243-1254.

Raghuwanshi, B.S., Shukla, S. Classifying imbalanced data using SMOTE based class-specific kernelized ELM. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 5, May 2021, Pages 1255-1280.

Srinivasan, S., L D, D. A social immunity based approach to suppress rumors in online social networks. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 5, May 2021, Pages 1281-1296.

Li, R., Wang, X., Song, Y. et al. Hierarchical extreme learning machine with L21-norm loss and regularization. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 5, May 2021, Pages 1297-1310.

Gupta, U., Gupta, D. Regularized based implicit Lagrangian twin extreme learning machine in primal for pattern classification. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 5, May 2021, Pages 1311-1342.

Li, L., Yao, B., Zhan, J. et al. L-fuzzifying approximation operators derived from general L-fuzzifying neighborhood systems. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 5, May 2021, Pages 1343-1367.

Mahindru, A., Sangal, A.L. SemiDroid: a behavioral malware detector based on unsupervised machine learning techniques using feature selection approaches. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 5, May 2021, Pages 1369-1411.

Shang, X., Jia, B., Yang, K. et al. A credibility-based fuzzy programming model for the hierarchical multimodal hub location problem with time uncertainty in cargo delivery systems. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 5, May 2021, Pages 1413-1426.

Bao, H., Wu, WZ., Zheng, JW. et al. Entropy based optimal scale combination selection for generalized multi-scale information tables. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 5, May 2021, Pages 1427-1437.

Wang, X., Wang, P., Yang, X. et al. Attribution reduction based on sequential three-way search of granularity. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 5, May 2021, Pages 1439-1458.

Liao, S., Zhang, X. & Mo, Z. Three-level and three-way uncertainty measurements for interval-valued decision systems. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 5, May 2021, Pages 1459-1481.

Zhao, K., Jiang, H., Li, X. et al. Ensemble adaptive convolutional neural networks with parameter transfer for rotating machinery fault diagnosis. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 5, May 2021, Pages 1483-1499.

Hu, Z., Peng, J. & Zhao, H. Dynamic neural orthogonal mapping for fault detection. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 5, May 2021, Pages 1501-1516.

Sağ, T., Abdullah Jalil Jalil, Z. Vortex search optimization algorithm for training of feed-forward neural network. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 5, May 2021, Pages 1517-1544.

Jia, X., Rao, Y., Li, W. et al. An automatic three-way clustering method based on sample similarity. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 5, May 2021, Pages 1545-1556.

Wen, C., Qian, W., Zhang, Q. et al. Algorithms of matrix recovery based on truncated Schatten p-norm. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 5, May 2021, Pages 1557-1570.

**Volume 12, Issue 6, June 2021**

Wang, Y., Ding, S., Wang, L. et al. An improved density-based adaptive p-spectral clustering algorithm. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1571-1582.

Chen, Y., Zhao, H., Hu, Z. et al. Attention-based context aggregation network for monocular depth estimation. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1583-1596.

Liu, B., Li, Y., Zhang, T. et al. 𝐿𝑝-norm probabilistic K-means clustering via nonlinear programming. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1597-1607.

Liu, Q., Wu, H. & Xu, Z. Consensus model based on probability K-means clustering algorithm for large scale group decision making. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1609-1626.

Wang, Y., Xiao, W., Tan, Z. et al. Caps-OWKG: a capsule network model for open-world knowledge graph. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1627-1637.

Huang, Y., Chen, J., Zheng, S. et al. Hierarchical multi-attention networks for document classification. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1639-1647.

Zhang, Z., Zhang, Y., Guo, D. et al. A scalable network intrusion detection system towards detecting, discovering, and learning unknown attacks. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1649-1665.

Vijayarani, J., Geetha, T.V. Joint learning of author and citation contexts for computing drift in scholarly documents. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1667-1686.

Si, C., Tao, Y., Qiu, J. et al. Deep reinforcement learning based home energy management system with devices operational dependencies. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1687-1703.

Che, X., Chen, D. & Mi, J. Feature distribution-based label correlation in multi-label classification. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1705-1719.

Goienetxea, I., Mendialdua, I., Rodríguez, I. et al. Problems selection under dynamic selection of the best base classifier in one versus one: PSEUDOVO. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1721-1735.

Roshan, S., Asadi, S. Development of ensemble learning classification with density peak decomposition-based evolutionary multi-objective optimization. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1737-1751.

Xue, W., Zhong, P., Zhang, W. et al. Sample-based online learning for bi-regular hinge loss. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1753-1768.

Li, Z., Wang, Z., Li, Q. et al. Uncertainty measurement for a fuzzy set-valued information system. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1769-1787.

Ye, T., Zhang, Z., Zhang, X. et al. Fault detection of railway freight cars mechanical components based on multi-feature fusion convolutional neural network. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1789-1801.

Chen, Z., Fang, Z., Sheng, V. et al. Adaptive robust local online density estimation for streaming data. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1803-1824.

Yang, W., Li, C. Improving crowd labeling using Stackelberg models. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1825-1838.

Wang, Z., Weng, F., Liu, J. et al. Numerical solution for high-dimensional partial differential equations based on deep learning with residual learning and data-driven learning. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1839-1851.

Shen, H., Chen, S. & Wang, R. A study on the uncertainty of convolutional layers in deep neural networks. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 6, June 2021, Pages 1853-1865.

**Volume 12, Issue 7, July 2021**

Xu, W., Huang, D. & Zhou, S. Universal consistency of twin support vector machines. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 7, July 2021, Pages 1867-1877.

Zhai, Z., Liu, P., Zhao, L. et al. An efficiency-enhanced deep learning model for citywide crowd flows prediction. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 7, July 2021, Pages 1879-1891.

Zehai, G., Cunbao, M., Jianfeng, Z. et al. Remaining useful life prediction of integrated modular avionics using ensemble enhanced online sequential parallel extreme learning machine. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 7, July 2021, Pages 1893-1911.

Sun, L., Qin, X., Ding, W. et al. Density peaks clustering based on k-nearest neighbors and self-recommendation. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 7, July 2021, Pages 1913-1938.

Liu, W., Wang, Z., Zeng, N. et al. A PSO-based deep learning approach to classifying patients from emergency departments. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 7, July 2021, Pages 1939-1948.

Dalir, M., Bigdeli, N. An Adaptive neuro-fuzzy backstepping sliding mode controller for finite time stabilization of fractional-order uncertain chaotic systems with time-varying delays. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 7, July 2021, Pages 1949-1971.

Kalhor, E., Noori, A. & Noori, G. Cancer cells population control in a delayed-model of a leukemic patient using the combination of the eligibility traces algorithm and neural networks. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 7, July 2021, Pages 1973-1992.

Qian, F., Huang, Y., Li, J. et al. DLSA: dual-learning based on self-attention for rating prediction. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 7, July 2021, Pages 1993-2005.

Dong, Y., Cheng, X., Hou, C. et al. Distance, similarity and entropy measures of dynamic interval-valued neutrosophic soft sets and their application in decision making. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 7, July 2021, Pages 2007-2025.

Dzhezyan, G., Cecotti, H. Symmetrical filters in convolutional neural networks. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 7, July 2021, Pages 2027-2039.

Asilian Bidgoli, A., Ebrahimpour-komleh, H. & Rahnamayan, S. A novel binary many-objective feature selection algorithm for multi-label data classification. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 7, July 2021, Pages 2041-2057.

Shen, J. Uncertain two-echelon green supply chain models based on revenue sharing contract. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 7, July 2021, Pages 2059-2068.

Salem, S.B., Naouali, S. & Chtourou, Z. A rough set based algorithm for updating the modes in categorical clustering. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 7, July 2021, Pages 2069-2090.

Pal, P., Tiwari, S.P. & Singh, S. L-fuzzy rough automaton: a mathematical model for natural languages. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 7, July 2021, Pages 2091-2107.

Pei, S., Wang, C., Fan, X. et al. Cooperative representation of multiscale patch face recognition based on fuzzy decision. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 7, July 2021, Pages 2109-2119.

Yin, H., Hu, W., Li, F. et al. One-step multi-view spectral clustering by learning common and specific nonnegative embeddings. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 7, July 2021, Pages 2121-2134.

Yuan, K., Li, W., Xu, W. et al. A comparative experimental evaluation on performance of type-1 and interval type-2 Takagi-Sugeno fuzzy models. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 7, July 2021, Pages 2135-2150.

Rehman, A. Machine learning based air traffic control strategy. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 7, July 2021, Pages 2151-2161.

**Volume 12, Issue 8, August 2021**

Hong, N., Wang, X. & Xu, Z. Probabilistic reliable linguistic term sets applied to investment project selection with the gained and lost dominance score method. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 8, August 2021, Pages 2163-2183.

Qiu, Z. Online domain description of big data based on hyperellipsoid models. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 8, August 2021, Pages 2185-2197.

Wang, F., Wang, G., Du, Y. et al. A two-stage temporal proposal network for precise action localization in untrimmed video. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 8, August 2021, Pages 2199-2211.

Zhang, J., Dai, Q. & Yao, C. DEP-TSPmeta: a multiple criteria Dynamic Ensemble Pruning technique ad-hoc for time series prediction. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 8, August 2021, Pages 2213-2236.

Liu, L., Li, P., Chu, M. et al. Stochastic gradient support vector machine with local structural information for pattern recognition. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 8, August 2021, Pages 2237-2254.

Zhou, D., Guo, C., Liu, R. et al. Hierarchical learning recurrent neural networks for 3D motion synthesis. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 8, August 2021, Pages 2255-2267.

Feng, X., Gong, H., Chen, Y. et al. Learning number reasoning for numerical table-to-text generation. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 8, August 2021, Pages 2269-2280.

Tian, J., Teng, Z., Zhang, B. et al. Imitating targets from all sides: an unsupervised transfer learning method for person re-identification. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 8, August 2021, Pages 2281-2295.

Li, F., Yu, F., Wang, X. et al. Integrate new cross association fuzzy logical relationships to multi-factor high-order forecasting model of time series. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 8, August 2021, Pages 2297-2315.

Yang, B., Li, J. Self-questioning dynamical evolutionary game with altruistic behavior and sharing mechanism in scale-free network. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 8, August 2021, Pages 2317-2325.

Geng, Y., Ruan, X., Zhou, Q. et al. Robust adaptive iterative learning control for nonrepetitive systems with iteration-varying parameters and initial state. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 8, August 2021, Pages 2327-2337.

Borzooei, R.A., Rezaei, G.R., Muhiuddin, G. et al. Multipolar fuzzy a-ideals in BCI-algebras. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 8, August 2021, Pages 2339-2348.

Yao, X., Zhu, J., Huo, G. et al. Model-agnostic multi-stage loss optimization meta learning. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 8, August 2021, Pages 2349-2363.

Ali, M.N.Y., Rahman, M.L., Chaki, J. et al. Machine translation using deep learning for universal networking language based on their structure. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 8, August 2021, Pages 2365-2376.

Chen, Z., Ding, S. & Hou, H. A novel self-attention deep subspace clustering. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 8, August 2021, Pages 2377-2387.

Wang, J., He, Z., Huang, S. et al. Fuzzy measure with regularization for gene selection and cancer prediction. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 8, August 2021, Pages 2389-2405.

Jiang, H., Zhan, J. & Chen, D. Covering-based variable precision L-fuzzy rough sets based on residuated lattices and corresponding applications. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 8, August 2021, Pages 2407-2429.

Xie, J., Lu, Y., Wu, Z. et al. Investigations of butterfly species identification from images in natural environments. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 8, August 2021, Pages 2431-2442.

**Volume 12, Issue 9, September 2021**

Ma, G., Yan, H., Qian, Y. et al. Path-based estimation for link prediction. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2443-2458.

Ma, G., Yan, H., Qian, Y. et al. Correction to: Path-based estimation for link prediction. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2459-2459.

Asim, M., Javed, K., Rehman, A. et al. A new feature selection metric for text classification: eliminating the need for a separate pruning stage. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2461-2478.

Hsu, MF., Lin, SJ. A BSC-based network DEA model equipped with computational linguistics for performance assessment and improvement. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2479-2497.

Cao, W., Wang, R., Fan, M. et al. Froth image clustering with feature semi-supervision through selection and label information. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2499-2516.

Song, R., Gao, S., Yu, Z. et al. Case2vec: joint variational autoencoder for case text embedding representation. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2517-2528.

Al-taezi, M., Zhu, P., Hu, Q. et al. Self-paced hierarchical metric learning (SPHML). International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2529-2541.

Fu, S., Wang, G. & Xu, J. hier2vec: interpretable multi-granular representation learning for hierarchy in social networks. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2543-2557.

Abdi, L., Hasehmi, S. Binary domain adaptation with independence maximization. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2559-2578.

Chen, X., Lai, C.S., Ng, W.W.Y. et al. A stochastic sensitivity-based multi-objective optimization method for short-term wind speed interval prediction. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2579-2590.

Qiao, J., Wang, L. & Duan, L. Sequence and graph structure co-awareness via gating mechanism and self-attention for session-based recommendation. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2591-2605.

Ren, L., Lin, H., Xu, B. et al. Learning to capture contrast in sarcasm with contextual dual-view attention network. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2607-2615.

Li, C., Sun, J., Palade, V. et al. Diversity collaboratively guided random drift particle swarm optimization. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2617-2638.

Pang, Q., Zhang, L. A recursive feature retention method for semi-supervised feature selection. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2639-2657.

Huang, R., Kang, L. Local positive and negative label correlation analysis with label awareness for multi-label classification. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2659-2672.

Yang, X., Wu, W., Xin, X. et al. Adaptive factorization rank selection-based NMF and its application in tumor recognition. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2673-2691.

Liu, F., Li, T., Wu, J. et al. Modification of the BWM and MABAC method for MAGDM based on q-rung orthopair fuzzy rough numbers. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2693-2715.

Kárný, M. Towards on-line tuning of adaptive-agent’s multivariate meta-parameter. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2717-2731.

Mu, X., Dong, G. A projection and contraction method for circular cone programming support vector machines. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 9, September 2021, Pages 2733-2746.

**Volume 12, Issue 10, October 2021**

Wang, M., Yu, J., Ning, ZH. *et al.* Compressed sensing using generative models based on fisher information. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 10, October 2021, Pages 2747-2759.

Zhao, H., Tan, X. & Liu, F. A decision making model based on intuitionistic multiplicative preference relations with approximate consistency. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 10, October 2021, Pages 2761-2775.

Xu, D., Bai, M., Long, T. et al. LSTM-assisted evolutionary self-expressive subspace clustering. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 10, October 2021, Pages 2777-2793.

Wang, F., He, Z., Zhang, X. et al. LHFF-Net: Local heterogeneous feature fusion network for 6DoF pose estimation. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 10, October 2021, Pages 2795-2807.

Liu, J., Xie, Z., Zhang, C. et al. A novel method for Mandarin speech synthesis by inserting prosodic structure prediction into Tacotron2. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 10, October 2021, Pages 2809-2823.

Yuan, X., Yu, H., Liang, J. et al. A novel density peaks clustering algorithm based on K nearest neighbors with adaptive merging strategy. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 10, October 2021, Pages 2825-2841.

Zhan, S., Sun, W., Du, C. et al. Diversity-promoting multi-view graph learning for semi-supervised classification. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 10, October 2021, Pages 2843-2857.

Nogales, R.E., Benalcázar, M.E. Hand gesture recognition using machine learning and infrared information: a systematic literature review. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 10, October 2021, Pages 2859-2886.

Wei, J., Ma, H., Liu, Y. et al. Hierarchical high-order co-clustering algorithm by maximizing modularity. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 10, October 2021, Pages 2887-2898.

Xie, K., Wu, Y., Xiao, J. et al. Unsupervised person re-identification via K-reciprocal encoding and style transfer. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 10, October 2021, Pages 2899-2916.

Li, M., Di, Z. & Liu, W. Trust consistency in public data games on complex networks. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 10, October 2021, Pages 2917-2932.

Liu, Y., Ma, Y. Mixed 𝐻∞ and passivity analysis for T-S fuzzy system with non-fragile memory sampled-data control via augment Lyapunov–Krasovskii functional. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 10, October 2021, Pages 2933-2945.

Du, W., Ding, S., Zhang, C. et al. Modified action decoder using Bayesian reasoning for multi-agent deep reinforcement learning. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 10, October 2021, Pages 2947-2961.

Zeng, W., Yuan, C. ECG arrhythmia classification based on variational mode decomposition, Shannon energy envelope and deterministic learning. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 10, October 2021, Pages 2963-2988.

Owuor, D.O., Runkler, T., Laurent, A. et al. Ant colony optimization for mining gradual patterns. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 10, October 2021, Pages 2989-3009.

Ke, C., Li, C., Han, Y. et al. Adaptive fuzzy leader-following consensus for nonlinear multi-agent systems via state-constraint impulsive control. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 10, October 2021, Pages 3011-3022.

Fang, X., Liu, Z., Han, N. et al. Discrete matrix factorization hashing for cross-modal retrieval. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 10, October 2021, Pages 3023-3036.

Gu, H., Li, X., Liu, M. et al. Scheduling method with adaptive learning for microservice workflows with hybrid resource provisioning. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 10, October 2021, Pages 3037-3048.

**Volume 12, Issue 11, November 2021**

Cheng, X., Zhang, C., Qian, Y. et al. Editorial: deep learning for 5G IoT systems. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3049-3051.

Ahmed, I., Ahmad, M., Ahmad, A. et al. Top view multiple people tracking by detection using deep SORT and YOLOv3 with transfer learning: within 5G infrastructure. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3053-3067.

Bi, Z., Yu, L., Gao, H. et al. Improved VGG model-based efficient traffic sign recognition for safe driving in 5G scenarios. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3069-3080.

Yu, R., Lu, W., Lu, H. et al. Sentence pair modeling based on semantic feature map for human interaction with IoT devices. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3081-3099.

Yassien, M.B., Aljawarneh, S.A., Eyadat, M. et al. Routing protocol for low power and lossy network–load balancing time-based. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3101-3114.

Ullah, F., Naeem, M.R., Mostarda, L. et al. Clone detection in 5G-enabled social IoT system using graph semantics and deep learning model. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3115-3127.

Hu, N., Tian, Z., Lu, H. et al. A multiple-kernel clustering based intrusion detection scheme for 5G and IoT networks. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3129-3144.

Ko, I., Chambers, D. & Barrett, E. Recurrent autonomous autoencoder for intelligent DDoS attack mitigation within the ISP domain. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3145-3167.

Xiao, Y., Yin, H., Duan, T. et al. An Intelligent prediction model for UCG state based on dual-source LSTM. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3169-3178.

Cvitić, I., Peraković, D., Periša, M. et al. Ensemble machine learning approach for classification of IoT devices in smart home. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3179-3202.

Ashraf, I., Zikria, Y.B., Hur, S. et al. Localizing pedestrians in indoor environments using magnetic field data with term frequency paradigm and deep neural networks. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3203-3219.

Rajkumar, K., Ramachandran, M., Al-Turjman, F. et al. A reinforcement learning optimization for future smart cities using software defined networking. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3221-3233.

Le, DN., Parvathy, V.S., Gupta, D. et al. IoT enabled depthwise separable convolution neural network with deep support vector machine for COVID-19 diagnosis and classification. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3235-3248.

Elhoseny, M., Selim, M.M. & Shankar, K. Optimal Deep Learning based Convolution Neural Network for digital forensics Face Sketch Synthesis in internet of things (IoT). International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3249-3260.

International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Stephan, T., Al-Turjman, F., K, S. et al. Energy and spectrum aware unequal clustering with deep learning based primary user classification in cognitive radio sensor networks. Pages 3261-3294.

Chen, H., Lu, K., Wang, X. et al. Generating transferable adversarial examples based on perceptually-aligned perturbation. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3295-3307.

Sharma, P., Shankar, A. & Cheng, X. Reduced PAPR Model Predictive Control based FBMC/OQAM signal for NB-IoT paradigm. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3309-3323.

Ren, H., Huang, T. & Yan, H. Adversarial examples: attacks and defenses in the physical world. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3325-3336.

Almiani, M., AbuGhazleh, A., Jararweh, Y. et al. DDoS detection in 5G-enabled IoT networks using deep Kalman backpropagation neural network. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3337-3349.

Guan, J., Cai, J., Bai, H. et al. Deep transfer learning-based network traffic classification for scarce dataset in 5G IoT systems. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 11, November 2021, Pages 3351-3365.

**Volume 12, Issue 12, December 2021**

Kárný, M., Hůla, F. Fusion of probabilistic unreliable indirect information into estimation serving to decision making. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 12, December 2021, Pages 3367-3378.

Wang, Z., Hu, D., Luo, X. et al. Performance guarantees of transformed Schatten-1 regularization for exact low-rank matrix recovery. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 12, December 2021, Pages 3379-3395.

Guo, Q., Qian, Y., Liang, X. et al. Logic could be learned from images. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 12, December 2021, Pages 3397-3414.

Yang, L., Li, G., Wu, Z. et al. Robust truncated L2-norm twin support vector machine. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 12, December 2021, Pages 3415-3436.

Shao, M., Liu, S., Wang, R. et al. An Adversarial sample defense method based on multi-scale GAN. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 12, December 2021, Pages 3437-3447.

Zebhi, S., AlModarresi, S.M.T. & Abootalebi, V. Human activity recognition using pre-trained network with informative templates. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 12, December 2021, Pages 3449-3461.

Zhao, Q., Ma, H., Li, X. et al. Is the simple assignment enough? Exploring the interpretability for community detection. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 12, December 2021, Pages 3463-3474.

Zhang, J., Liu, D. & Ma, Y. Delay-dependent stability analysis of nonlinear truck-trailer systems based on non-fragile memory sampled-data via fuzzy control. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 12, December 2021, Pages 3475-3490.

Li, M., Huang, T. & Zhu, W. Adaptive exploration policy for exploration–exploitation tradeoff in continuous action control optimization. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 12, December 2021, Pages 3491-3501.

Wang, Y., Lei, Z. & Che, W. Character-Level Syntax Infusion in Pre-Trained Models for Chinese Semantic Role Labeling. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 12, December 2021, Pages 3503-3515.

Yang, Z., Mei, H., Wang, W. et al. Joint resource allocation for emotional 5G IoT systems using deep reinforcement learning. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 12, December 2021, Pages 3517-3528.

Wang, X., Li, J., Yang, L. et al. Weakly-supervised learning for community detection based on graph convolution in attributed networks. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 12, December 2021, Pages 3529-3539.

Mohagheghi, V., Mousavi, S.M. A new multi-period optimization model for resilient-sustainable project portfolio evaluation under interval-valued Pythagorean fuzzy sets with a case study. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 12, December 2021, Pages 3541-3560.

Yi, X., Zhu, A., Yang, S.X. et al. An improved neural dynamics based approach with territorial mechanism to online path planning of multi-robot systems. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 12, December 2021, Pages 3561-3572.

Xie, Y., Xie, K. & Xie, S. Underdetermined blind source separation of speech mixtures unifying dictionary learning and sparse representation. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 12, December 2021, Pages 3573-3583.

Wei, Y., Han, A. & Xue, X. A data-driven study for evaluating the compressive strength of high-strength concrete. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 12, December 2021, Pages 3585-3595.

Guo, X., Dang, C., Liang, J. et al. Metric learning with clustering-based constraints. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 12, December 2021, Pages 3597-3605.

Hu, K., Wu, J., Weng, L. et al. A novel federated learning approach based on the confidence of federated Kalman filters. International Journal of Machine Learning and Cybernetics, Volume 12, Issue 12, December 2021, Pages 3607-3627.