

DAFTAR PUSTAKA

- Abdullah, D. M., & Abdulazeez, A. M. (2021). Machine learning applications based on SVM classification a review. *Qubahan Academic Journal*, 1(2), 81-90.
- Abiodun, E. O., Alabdulatif, A., Abiodun, O. I., Alawida, M., Alabdulatif, A., & Alkhawaldeh, R. S. (2021). A systematic review of emerging feature selection optimization methods for optimal text classification: the present state and prospective opportunities. *Neural Computing and Applications*, 33(22), 15091–15118.
- Aggarwal, C. C., & Zhai, C. (2012). A survey of text classification algorithms. *Mining Text Data*, 163–222.
- Aizawa, A. (2003). An information-theoretic perspective of tf-idf measures. *Information Processing & Management*, 39(1), 45–65.
- Alazaidah, R., Samara, G., Almatarneh, S., Hassan, M., Aljaidi, M., & Mansur, H. (2023). Multi-label classification based on associations. *Applied Sciences*, 13(8), 5081.
- Al-Jadir, I., & Mahmoud, W. A. (2021). A grey wolf optimizer feature selection method and its effect on the performance of document classification problem. *Journal Port Science Research*, 4(2), 125-131.
- Allahverdipour, A., & Soleimanian Gharehchopogh, F. (2018). An improved k-nearest neighbor with crow search algorithm for feature selection in text documents classification. *Journal of Advances in Computer Research*, 9(2), 37–48.
- Almeida, L. B. (2020). Multilayer perceptrons. In *Handbook of Neural Computation* (pp. C1-2). CRC Press.
- Alomari, O. A., Elnagar, A., Afyouni, I., Shahin, I., Nassif, A. B., Hashem, I. A., & Tubishat, M. (2022). Hybrid feature selection based on principal component analysis and grey wolf optimizer algorithm for Arabic news article classification. *IEEE Access*, 10, 121816-121830.
- Alyamani, H. J. (2022). Determining Feature-Size for Text to Numeric Conversion

- based on BOW and TF-IDF. *International Journal of Computer Science & Network Security*, 22(1), 283-287.
- Attiya, I., Abd Elaziz, M., Abualigah, L., Nguyen, T. N., & Abd El-Latif, A. A. (2022). An improved hybrid swarm intelligence for scheduling IoT application tasks in the cloud. *IEEE Transactions on Industrial Informatics*, 18(9), 6264-6272.
- Azhagusundari, B., & Thanamani, A. S. (2013). Feature selection based on information gain. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, 2(2), 18-21.
- Bafna, P., Pramod, D., & Vaidya, A. (2016, March). Document clustering: TF-IDF approach. In *2016 International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT)* (pp. 61-66). IEEE.
- Bahassine, S., Madani, A., Al-Sarem, M., & Kissi, M. (2020). Feature selection using an improved Chi-square for Arabic text classification. *Journal of King Saud University-Computer and Information Sciences*, 32(2), 225-231.
- Balakumar, J., & Mohan, S. V. (2019). Artificial bee colony algorithm for feature selection and improved support vector machine for text classification. *Information Discovery and Delivery*, 47(3), 154–170.
- Basu, A., Walters, C., & Shepherd, M. (2003). Support vector machines for text categorization. *36th Annual Hawaii International Conference on System Sciences, 2003. Proceedings of The*, 7-pp.
- Bir-Jmel, A., Douiri, S. M., & Elbernoussi, S. (2019). Gene Selection via a New Hybrid Ant Colony Optimization Algorithm for Cancer Classification in High-Dimensional Data. *Computational and mathematical methods in medicine*, 2019(1), 7828590.
- Brezočnik, L., Fister, I., & Podgorelec, V. (2018). Swarm intelligence algorithms for feature selection: A review. *Applied Sciences (Switzerland)*, 8(9). <https://doi.org/10.3390/app8091521>
- Brindha, S., Prabha, K., & Sukumaran, S. (2016, January). A survey on classification techniques for text mining. In *2016 3rd International Conference on Advanced Computing and Communication Systems (ICACCS)* (Vol. 1, pp.

1-5). IEEE.

Buckland, M. K. (1997). What is a “document”? *Journal of the American Society for Information Science*, 48(9), 804–809.

Cai, J., Luo, J., Wang, S., & Yang, S. (2018). Feature selection in machine learning: A new perspective. *Neurocomputing*, 300, 70-79.

Chandrashekar, G., & Sahin, F. (2014). A survey on feature selection methods. *Computers & electrical engineering*, 40(1), 16-28.

Chantar, H., Mafarja, M., Alsawalqah, H., Heidari, A. A., Aljarah, I., & Faris, H. (2020). Feature selection using binary grey wolf optimizer with elite-based crossover for Arabic text classification. *Neural Computing and Applications*, 32(16), 12201–12220.

Chhabra, A., Huang, K. C., Bacanin, N., & Rashid, T. A. (2022). Optimizing bag-of-tasks scheduling on cloud data centers using hybrid swarm-intelligence meta-heuristic. *The Journal of Supercomputing*, 1-63.

Dadaneh, B. Z., Markid, H. Y., & Zakerolhosseini, A. (2016). Unsupervised probabilistic feature selection using ant colony optimization. *Expert Systems with Applications*, 53, 27–42.

Dhar, A., Mukherjee, H., Dash, N. S., & Roy, K. (2021). Text categorization: past and present. *Artificial Intelligence Review*, 54(4), 3007-3054.

Dasgupta, A., Drineas, P., Harb, B., Josifovski, V., & Mahoney, M. W. (2007). Feature selection methods for text classification. *Proceedings of the 13th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, 230–239.

de Carvalho, A. C., & Freitas, A. A. (2009). A tutorial on multi-label classification techniques. *Foundations of Computational Intelligence Volume 5: Function Approximation and Classification*, 177–195.

Deng, X., Li, Y., Weng, J., & Zhang, J. (2019). Feature selection for text classification: A review. *Multimedia Tools and Applications*, 78(3), 3797–3816. <https://doi.org/10.1007/s11042-018-6083-5>.

Destercke, S. (2014). Multilabel prediction with probability sets: the hamming loss case. In *Information Processing and Management of Uncertainty in*

- Knowledge-Based Systems: 15th International Conference, IPMU 2014, Montpellier, France, July 15-19, 2014, Proceedings, Part II 15 (pp. 496-505). Springer International Publishing.
- Dewi, C., & Chen, R. C. (2022, November). Complement naive bayes classifier for sentiment analysis of internet movie database. In Asian Conference on Intelligent Information and Database Systems (pp. 81-93). Cham: Springer International Publishing.
- Díez, J., Luaces, O., del Coz, J. J., & Bahamonde, A. (2015). Optimizing different loss functions in multilabel classifications. *Progress in Artificial Intelligence*, 3, 107–118.
- Dogra, V., Verma, S., Kavita, Chatterjee, P., Shafi, J., Choi, J., & Ijaz, M. F. (2022). A complete process of text classification system using state-of-the-art NLP models. *Computational Intelligence and Neuroscience*, 2022(1), 1883698.
- Dorigo, M., Birattari, M., & Stützle, T. (2006). Ant colony optimization. *IEEE Computational Intelligence Magazine*, 1(4), 28–39.
- Dorigo, M., Maniezzo, V., & Coloni, A. (1991). *The ant system: An autocatalytic optimizing process*.
- Dorigo, M., & Stützle, T. (2019). *Ant colony optimization: overview and recent advances*. Springer.
- El-Kenawy, E. S., & Eid, M. (2020). Hybrid gray wolf and particle swarm optimization for feature selection. *Int. J. Innov. Comput. Inf. Control*, 16(3), 831-844.
- Emambocus, B. A. S., Jasser, M. B., & Amphawan, A. (2023). A survey on the optimization of artificial neural networks using swarm intelligence algorithms. *IEEE access*, 11, 1280-1294.
- Emary, E., Zawbaa, H. M., & Hassanien, A. E. (2016). Binary grey wolf optimization approaches for feature selection. *Neurocomputing*, 172, 371-381.
- Evangeline, M. M., & Shyamala, K. (2021, February). Text categorization techniques: A survey. In 2021 International Conference on Innovative Practices in Technology and Management (ICIPTM) (pp. 137-142). IEEE.
- Faris, H., Aljarah, I., Al-Betar, M. A., & Mirjalili, S. (2018). Grey wolf optimizer:

a review of recent variants and applications. *Neural computing and applications*, 30, 413-435.

Farisi, A. A., Sibaroni, Y., & Al Faraby, S. (2019, March). Sentiment analysis on hotel reviews using Multinomial Naïve Bayes classifier. In *Journal of Physics: Conference Series* (Vol. 1192, No. 1, p. 012024). IOP Publishing.

Forman, G. (2007). Feature Selection for Text Classification. In *Computational methods of feature selection* (pp. 273–292). Chapman and Hall/CRC.

Friedman, N., Geiger, D., & Goldszmidt, M. (1997). Bayesian network classifiers. *Machine Learning*, 29, 131–163.

Gasparetto, A., Marcuzzo, M., Zangari, A., & Albarelli, A. (2022). A survey on text classification algorithms: From text to predictions. *Information*, 13(2), 83.

Gaye, B., & Wulamu, A. (2019). Sentiment analysis of text classification algorithms using confusion matrix. In *Cyberspace Data and Intelligence, and Cyber-Living, Syndrome, and Health: International 2019 Cyberspace Congress, CyberDI and CyberLife, Beijing, China, December 16–18, 2019, Proceedings, Part I 3* (pp. 231-241). Springer Singapore.

Gite, S., Patil, S., Dharrao, D., Yadav, M., Basak, S., Rajendran, A., & Kotecha, K. (2023). Textual feature extraction using ant colony optimization for hate speech classification. *Big Data and Cognitive Computing*, 7(1), 45.

Goudjil, M., Koudil, M., Bedda, M., & Ghoggali, N. (2018). A novel active learning method using SVM for text classification. *International Journal of Automation and Computing*, 15, 290-298.

Grover, P., & Chawla, S. (2020). Text feature space optimization using artificial bee colony. In *Soft Computing for Problem Solving: SocProS 2018, Volume 2* (pp. 691-703). Springer Singapore.

Gunavathi, C., & Premalatha, K. (2014). A comparative analysis of swarm intelligence techniques for feature selection in cancer classification. *The Scientific World Journal*, 2014.

Gupta, S., & Deep, K. (2019). A novel random walk grey wolf optimizer. *Swarm and Evolutionary Computation*, 44, 101–112.

Hasan, T., & Matin, A. (2021). Extract sentiment from customer reviews: A better

- approach of TF-IDF and BOW-based text classification using N-Gram technique. In Proceedings of International Joint Conference on Advances in Computational Intelligence: IJCACI 2020 (pp. 231-244). Springer Singapore.
- Heydarian, M., Doyle, T. E., & Samavi, R. (2022). MLCM: Multi-label confusion matrix. *IEEE Access*, 10, 19083–19095.
- Hickman, L., Thapa, S., Tay, L., Cao, M., & Srinivasan, P. (2022). Text preprocessing for text mining in organizational research: Review and recommendations. *Organizational Research Methods*, 25(1), 114–146.
- Hijazi, M., Zeki, A., & Ismail, A. (2021). Arabic Text Classification Using Hybrid Feature Selection Method Using Chi-Square Binary Artificial Bee Colony Algorithm. *International Journal of Mathematics and Computer Science*, 16(1), 213–228.
- Hoseini, Z., Varae, H., Rafieizonooz, M., & Kim, J. H. J. (2022). A New Enhanced Hybrid Gray Wolf Optimizer (GWO) Combined with Elephant Herding Optimization (EHO) Algorithm for Engineering Optimization. *Journal of Soft Computing in Civil Engineering*, 6(4), 1–42.
- Janani, R., & Vijayarani, S. (2020). Text classification using K-nearest neighbor algorithm and firefly algorithm for text feature selection. *Advances in Electrical and Computer Technologies: Select Proceedings of ICAECT 2019*, 527–539.
- Jayaprakash, A., & KeziSelvaVijila, C. J. C. S. R. (2019). Feature selection using ant colony optimization (ACO) and road sign detection and recognition (RSDR) system. *Cognitive Systems Research*, 58, 123-133.
- Jiang, Z., Gao, B., He, Y., Han, Y., Doyle, P., & Zhu, Q. (2021). Text Classification Using Novel Term Weighting Scheme-Based Improved TF-IDF for Internet Media Reports. *Mathematical Problems in Engineering*, 2021(1), 6619088.
- Kabir, M. M., Shahjahan, M., & Murase, K. (2012). A new hybrid ant colony optimization algorithm for feature selection. *Expert Systems with Applications*, 39(3), 3747-3763.
- Karaboga, D., & Basturk, B. (2008). On the performance of artificial bee colony (ABC) algorithm. *Applied Soft Computing*, 8(1), 687–697.

- Kashef, S., & Nezamabadi-pour, H. (2015). An advanced ACO algorithm for feature subset selection. *Neurocomputing*, 147, 271-279.
- Kelly, A., & Johnson, M. A. (2021, March). Investigating the statistical assumptions of Naïve Bayes classifiers. In 2021 55th annual conference on information sciences and systems (CISS) (pp. 1-6). IEEE.
- Kennedy, J. (2006). Swarm intelligence. In *Handbook of nature-inspired and innovative computing: integrating classical models with emerging technologies* (pp. 187–219). Springer.
- Kennedy, J., & Eberhart, R. (1995). Particle swarm optimization. *Proceedings of ICNN'95-International Conference on Neural Networks*, 4, 1942–1948.
- Kibriya, A. M., Frank, E., Pfahringer, B., & Holmes, G. (2005). Multinomial naive bayes for text categorization revisited. *AI 2004: Advances in Artificial Intelligence: 17th Australian Joint Conference on Artificial Intelligence, Cairns, Australia, December 4-6, 2004. Proceedings 17*, 488–499.
- Kıran, M. S., Özceylan, E., Gündüz, M., & Paksoy, T. (2012). A novel hybrid approach based on particle swarm optimization and ant colony algorithm to forecast energy demand of Turkey. *Energy conversion and management*, 53(1), 75-83.
- Korde, V., & Mahender, C. N. (2012). Text classification and classifiers: A survey. *International Journal of Artificial Intelligence & Applications*, 3(2), 85.
- Kowsari, K., Jafari Meimandi, K., Heidarysafa, M., Mendu, S., Barnes, L., & Brown, D. (2019). Text classification algorithms: A survey. *Information*, 10(4), 150.
- Kravets, A., & Semenochkin, D. (2024). Text Classification Technologies in Document Categorization Systems. A Survey. *Advances in Systems Science and Applications*, 24(2), 133-165.
- Krstinić, D., Braović, M., Šerić, L., & Božić-Štulić, D. (2020). Multi-label classifier performance evaluation with confusion matrix. *Computer Science & Information Technology*, 1, 1-14.
- Kruse, R., Mostaghim, S., Borgelt, C., Braune, C., & Steinbrecher, M. (2022). Multi-layer perceptrons. In *Computational intelligence: a methodological*

introduction (pp. 53–124). Springer.

- Kyaw, K. S., & Limsiroratana, S. (2019). Traditional and Swarm Intelligent Based Text Feature Selection for Document Classification. *Proceedings - 2019 19th International Symposium on Communications and Information Technologies, ISCIT 2019*, 226–231. <https://doi.org/10.1109/ISCIT.2019.8905200>
- Kyaw, K. S., Limsiroratana, S., & Sattayaraksa, T. (2022). A comparative study of meta-heuristic and conventional search in optimization of multi-dimensional feature selection. *International Journal of Applied Metaheuristic Computing (IJAMC)*, 13(1), 1–34.
- Lee, J., Park, J., Kim, H.-C., & Kim, D.-W. (2019). Competitive particle swarm optimization for multi-category text feature selection. *Entropy*, 21(6), 602.
- Li-guo, D., Peng, D., & Ai-ping, L. (2014). A new naive Bayes text classification algorithm. *TELKOMNIKA Indonesian Journal of Electrical Engineering*, 12(2), 947-952.
- Luo, J., Wong, C. M., & Vong, C. M. (2021). Multinomial Bayesian extreme learning machine for sparse and accurate classification model. *Neurocomputing*, 423, 24-33.
- Luque, C., Luna, J. M., Luque, M., & Ventura, S. (2019). An advanced review on text mining in medicine. *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery*, 9(3), 1–16. <https://doi.org/10.1002/widm.1302>
- Ma, J., Xue, B., & Zhang, M. (2019). A hybrid filter-wrapper feature selection approach for authorship attribution. *Int. J. Innov. Comput. Inf. Control*, 15, 1989–2006.
- Ma, W., Zhou, X., Zhu, H., Li, L., & Jiao, L. (2021). A two-stage hybrid ant colony optimization for high-dimensional feature selection. *Pattern Recognition*, 116, 107933. <https://doi.org/10.1016/j.patcog.2021.107933>
- Magnus, A. L., & Oxley, M. E. (2001). Theory of confusion. *Applications and Science of Neural Networks, Fuzzy Systems, and Evolutionary Computation IV*, 4479, 105–116.
- Manning, C. D. (2008). *Introduction to information retrieval*. Syngress Publishing.
- Manoj, J., Anto Praveena, M. D., & Vijayakumar, K. (2019). An ACO–ANN based

feature selection algorithm for big data. *Cluster Computing*, 22(Suppl 2), 3953–3960

Maruthupandi, J., & Devi, K. V. (2017). Multi-label text classification using optimised feature sets. *International Journal of Data Mining, Modelling and Management*, 9(3), 237–248.

Meena, J. M., Chandran, K. R., Karthik, A., & Vijay Samuel, A. (2012). An enhanced ACO algorithm to select features for text categorization and its parallelization. *Expert Systems with Applications*, 39(5), 5861–5871.

Meesad, P., Boonrawd, P., & Nui pian, V. (2011). A chi-square-test for word importance differentiation in text classification. *Proceedings of International Conference on Information and Electronics Engineering*, 110–114.

Menghour, K., & Souici-Meslati, L. (2016). Hybrid ACO-PSO based approaches for feature selection. *Int J Intell Eng Syst*, 9(3), 65-79.

Mirjalili, S., & Lewis, A. (2016). The whale optimization algorithm. *Advances in Engineering Software*, 95, 51–67.

Mirjalili, S., Mirjalili, S. M., & Lewis, A. (2014). Grey wolf optimizer. *Advances in Engineering Software*, 69, 46–61.

Mojaveriyan, M., Ebrahimpour-komleh, H., & jala leddin Mousavirad, S. (2016). IGICA: a hybrid feature selection approach in text categorization. *International Journal of Intelligent Systems and Applications*, 8(3), 42.

Muaad, A. Y., Davanagere, H. J., Guru, D. S., Benifa, J. B., Chola, C., AlSalman, H., ... & Al-antari, M. A. (2022). Arabic document classification: performance investigation of preprocessing and representation techniques. *Mathematical Problems in Engineering*, 2022(1), 3720358.

Nayar, N., Ahuja, S., & Jain, S. (2019). Swarm intelligence for feature selection: a review of literature and reflection on future challenges. *Advances in Data and Information Sciences: Proceedings of ICDIS 2017, Volume 2*, 211-221.

Negi, G., Kumar, A., Pant, S., & Ram, M. (2021). Optimization of complex system reliability using hybrid grey wolf optimizer. *Decision Making: Applications in Management and Engineering*, 4(2), 241-256.

Palanisamy, S., & Kanmani, S. (2012). Artificial bee colony approach for

- optimizing feature selection. *International Journal of Computer Science Issues (IJCSI)*, 9(3), 432.
- Peng, H., Ying, C., Tan, S., Hu, B., & Sun, Z. (2018). An improved feature selection algorithm based on ant colony optimization. *Ieee Access*, 6, 69203-69209.
- Pintas, J. T., Fernandes, L. A., & Garcia, A. C. B. (2021). Feature selection methods for text classification: a systematic literature review. *Artificial Intelligence Review*, 54(8), 6149-6200.
- Purushothaman, R., Rajagopalan, S. P., & Dhandapani, G. (2020). Hybridizing Gray Wolf Optimization (GWO) with Grasshopper Optimization Algorithm (GOA) for text feature selection and clustering. *Applied Soft Computing*, 96, 106651.
- Qaiser, S., & Ali, R. (2018). Text mining: use of TF-IDF to examine the relevance of words to documents. *International journal of computer applications*, 181(1), 25-29.
- Qaraad, M., Amjad, S., Hussein, N. K., & Elhosseini, M. A. (2022). Large scale salp-based grey wolf optimization for feature selection and global optimization. *Neural Computing and Applications*, 34(11), 8989-9014.
- Qawqzeh, Y., Alharbi, M. T., Jaradat, A., & Sattar, K. N. A. (2021). A review of swarm intelligence algorithms deployment for scheduling and optimization in cloud computing environments. *PeerJ Computer Science*, 7, e696.
- Rahat, A. M., Kahir, A., & Masum, A. K. M. (2019, November). Comparison of Naive Bayes and SVM Algorithm based on sentiment analysis using review dataset. In *2019 8th International Conference System Modeling and Advancement in Research Trends (SMART)* (pp. 266-270). IEEE.
- Ramos, J. (2003). Using tf-idf to determine word relevance in document queries. *Proceedings of the First Instructional Conference on Machine Learning*, 242(1), 29-48.
- Rao, H., Shi, X., Rodrigue, A. K., Feng, J., Xia, Y., Elhoseny, M., ... & Gu, L. (2019). Feature selection based on artificial bee colony and gradient boosting decision tree. *Applied Soft Computing*, 74, 634-642.
- Rennie, J. D., Shih, L., Teevan, J., & Karger, D. R. (2003). Tackling the poor

- assumptions of naive bayes text classifiers. *Proceedings of the 20th International Conference on Machine Learning (ICML-03)*, 616–623.
- Renuka, D. K., Visalakshi, P., & Sankar, T. J. I. J. C. A. (2015). Improving E-mail spam classification using ant colony optimization algorithm. *Int. J. Comput. Appl*, 22, 22-26.
- Salam, M. A., & Ali, M. (2020). Optimizing extreme learning machine using GWO algorithm for sentiment analysis. *Int J Comput Appl*, 176(38), 22–28.
- Santra, A. K., & Christy, C. J. (2012). Genetic algorithm and confusion matrix for document clustering. *International Journal of Computer Science Issues (IJCSI)*, 9(1), 322.
- Sarac, E., & Oturakci, M. (2021). Artificial bee colony–based feature selection algorithm for cyberbullying. *The Computer Journal*, 64(3), 305-313.
- Sel, İ., Yeroğlu, C., & Hanbay, D. (2019). Feature selection by using heuristic methods for text classification. *2019 International Artificial Intelligence and Data Processing Symposium (IDAP)*, 1–6.
- Shah, F. P., & Patel, V. (2016, March). A review on feature selection and feature extraction for text classification. In *2016 international conference on wireless communications, signal processing and networking (WiSPNET)* (pp. 2264-2268). IEEE.
- Shen, C., & Zhang, K. (2021). Two-stage improved Grey Wolf optimization algorithm for feature selection on high-dimensional classification. *Complex & Intelligent Systems*, 1–21.
- Shunmugapriya, P., Kanmani, S., Devipriya, S., Archana, J., & Pushpa, J. (2012). Investigation on the effects of ACO parameters for feature selection and classification. *Proc. Springer—the Third Int. Conf. Advances in Communications, Networks and Computing, LNICST*, 136–145.
- Socha, K., & Dorigo, M. (2008). Ant colony optimization for continuous domains. *European Journal of Operational Research*, 185(3), 1155–1173.
- Suresh, G., & Balasubramanian, R. (2020). An ensemble feature selection model using fast convergence ant colony optimization algorithm. *Int. J*, 8, 1417-1423.
- Suyanto, S. (2017). *Swarm Intelligence Komputasi Modern untuk Optimasi dan*

Big Data Mining. *Informatika Bandung*.

- Tabakhi, S., & Moradi, P. (2015). Relevance–redundancy feature selection based on ant colony optimization. *Pattern recognition*, 48(9), 2798-2811.
- Tama, V. O., & Sibaroni, Y. (2019, March). Labeling analysis in the classification of product review sentiments by using multinomial Naive Bayes algorithm. In *Journal of Physics: Conference Series* (Vol. 1192, No. 1, p. 012036). IOP Publishing.
- Tan, A.-H. (1999). Text mining: The state of the art and the challenges. *Proceedings of the Pakdd 1999 Workshop on Knowledge Discovery from Advanced Databases*, 8, 65–70.
- Tang, J., Alelyani, S., & Liu, H. (2014). Feature selection for classification: A review. *Data Classification: Algorithms and Applications*, 37.
- Tarekegn, A. N., Giacobini, M., & Michalak, K. (2021). A review of methods for imbalanced multi-label classification. *Pattern Recognition*, 118, 107965.
- Taud, H., & Mas, J. F. (2017). Multilayer perceptron (MLP). In *Geomatic approaches for modeling land change scenarios* (pp. 451-455). Cham: Springer International Publishing.
- Thaher, T., Saheb, M., Turabieh, H., & Chantar, H. (2021). Intelligent detection of false information in arabic tweets utilizing hybrid harris hawks based feature selection and machine learning models. *Symmetry*, 13(4), 556.
- Thiyagarajan, D., & Shanthi, N. (2019). A modified multi objective heuristic for effective feature selection in text classification. *Cluster Computing*, 22(Suppl 5), 10625–10635.
- Tilahun, S. L. (2019). Balancing the degree of exploration and exploitation of swarm intelligence using parallel computing. *International Journal on Artificial Intelligence Tools*, 28(03), 1950014.
- Toksari, M. D. (2006). Ant colony optimization for finding the global minimum. *Applied Mathematics and Computation*, 176(1), 308–316.
- Tong, S., & Koller, D. (2001). Support vector machine active learning with applications to text classification. *Journal of Machine Learning Research*, 2(Nov), 45–66.

- Tsoumakas, G., & Katakis, I. (2007). Multi-label classification: An overview. *International Journal of Data Warehousing and Mining (IJDWM)*, 3(3), 1–13.
- Vidyadhari, C., Sandhya, N., & Premchand, P. (2019). Particle grey wolf optimizer (pgwo) algorithm and semantic word processing for automatic text clustering. *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems*, 27(02), 201–223.
- Visa, S., Ramsay, B., Ralescu, A. L., & Van Der Knaap, E. (2011). Confusion matrix-based feature selection. *Maics*, 710(1), 120–127.
- Wah, Y. B., Ibrahim, N., Hamid, H. A., Abdul-Rahman, S., & Fong, S. (2018). Feature selection methods: Case of filter and wrapper approaches for maximising classification accuracy. *Pertanika Journal of Science & Technology*, 26(1).
- Wang, H., Hu, Z., Yang, Z., & Guo, Y. (2019). A Novel Grey Wolf Optimization Based Combined Feature Selection Method. *International Conference on Bio-Inspired Computing: Theories and Applications*, 569–580.
- Widiyans, J. A., Wardoyo, R., & Hartati, S. (2024a). *A Hybrid Ant Colony and Grey Wolf Optimization Algorithm for Exploitation-Exploration Balance*. 8(4), 1642–1654.
- Widiyans, J. A., Wardoyo, R., & Hartati, S. (2024b). Feature selection based on chi-square and ant colony optimization for multi-label classification. *International Journal of Electrical & Computer Engineering (2088-8708)*, 14(3).
- Witten, I. H., & Frank, E. (2002). Data mining: practical machine learning tools and techniques with Java implementations. *Acm Sigmod Record*, 31(1), 76–77.
- Wu, G., & Zhu, J. (2020). Multi-label classification: do hamming loss and subset accuracy really conflict with each other?. *Advances in Neural Information Processing Systems*, 33, 3130–3140.
- Xu, S., Li, Y., & Wang, Z. (2017). Bayesian multinomial Naïve Bayes classifier to text classification. In *Advanced Multimedia and Ubiquitous Engineering: MUE/FutureTech 2017* 11 (pp. 347–352). Springer Singapore.
- Yang, B., Sun, J.-T., Wang, T., & Chen, Z. (2009). Effective multi-label active

learning for text classification. *Proceedings of the 15th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, 917–926.

Yilahun, H., & Hamdulla, A. (2023). Entity extraction based on the combination of information entropy and TF-IDF. *International Journal of Reasoning-based Intelligent Systems*, 15(1), 71-78.

Yousef, J., Youssef, A., & Keshk, A. (2021). A hybrid swarm intelligence based feature selection algorithm for high dimensional datasets. *IJCI. International Journal of Computers and Information*, 8(1), 67-86.

Zaiyadi, M. F., & Baharudin, B. (2010). A proposed hybrid approach for feature selection in text document categorization. *International Journal of Computer and Information Engineering*, 4(12), 1799–1803.

Žižka, J., Dařena, F., & Svoboda, A. (2019). *Text mining with machine learning: principles and techniques*. CRC Press.

Zheng, Z., Wu, X., & Srihari, R. (2004). Feature selection for text categorization on imbalanced data. *ACM Sigkdd Explorations Newsletter*, 6(1), 80-89.

Zolghadr-Asli, B., Bozorg-Haddad, O., & Chu, X. (2018). Crow search algorithm (CSA). *Advanced Optimization by Nature-Inspired Algorithms*, 143–149.