

REFERENCES

- [1] H. Sufianto and A. R. Green, "Urban Fire Situation in Indonesia," *Fire Technol.*, vol. 48, no. 2, pp. 367–387, Apr. 2012.
- [2] I. M. Reza Permana, M. Abdurohman, and A. G. Putrada, "Comparative Analysis of Mesh and Star Topologies in Improving Smart Fire Alarms," in *2019 Fourth International Conference on Informatics and Computing (ICIC)*, Semarang, Indonesia, Oct. 2019, pp. 1–5.
- [3] Z. Djunaidi, N. A. A. Tuah, and G. Rafifa, "Analysis of the active and passive fire protection systems in the government building, Depok City, Indonesia," *KnE Life Sci.*, pp. 384–398, 2018.
- [4] M. Karimah and B. Kurniawan, "Analisis Upaya Penanggulangan Kebakaran di Gedung Bougenville Rumah Sakit Telogorejo Semarang," *J. Kesehat. Masy.*, vol. 4, p. 9, 2016.
- [5] F. Saeed, A. Paul, A. Rehman, W. Hong, and H. Seo, "IoT-Based Intelligent Modeling of Smart Home Environment for Fire Prevention and Safety," *J. Sens. Actuator Netw.*, vol. 7, no. 1, p. 11, Mar. 2018.
- [6] V. Kodur, P. Kumar, and M. M. Rafi, "Fire hazard in buildings: review, assessment and strategies for improving fire safety," *PSU Res. Rev.*, vol. 4, no. 1, pp. 1–23, Sep. 2019.
- [7] A. M. Putrada, M. Abdurohman, and A. G. Putrada, "Increasing smoke classifier accuracy using naive bayes method on internet of things," *Kinet. Game Technol. Inf. Syst. Comput. Netw. Comput. Electron. Control*, pp. 19–26, 2019.
- [8] E. S. Saputra, A. G. Putrada, and M. Abdurohman, "Selection of Vape Sensing Features in IoT-Based Gas Monitoring with Feature Importance Techniques," in *2019 Fourth International Conference on Informatics and Computing (ICIC)*, 2019, pp. 1–5.
- [9] G. Sulistian, M. Abdurohman, and A. G. Putrada, "Comparison of Classification Algorithms to Improve Smart Fire Alarm System Performance," in *2019 International Workshop on Big Data and Information Security (IWbis)*, Bali, Indonesia, Oct. 2019, pp. 119–124.
- [10] H. Alqourabah, A. Muneer, and S. M. Fati, "A Smart Fire Detection System using IoT Technology With Automatic Water Sprinkler," *Int. J. Electr. Comput. Eng. IJECE*, vol. 9, no. 4, 2020.
- [11] B. Sarwar, I. S. Bajwa, N. Jamil, S. Ramzan, and N. Sarwar, "An intelligent fire warning application using IoT and an adaptive neuro-fuzzy inference system," *Sensors*, vol. 19, no. 14, p. 3150, 2019.
- [12] K. Kumar, N. Sen, S. Azid, and U. Mehta, "A fuzzy decision in smart fire and home security system," *Procedia Comput. Sci.*, vol. 105, pp. 93–98, 2017.
- [13] B. Sarwar, I. S. Bajwa, S. Ramzan, B. Ramzan, and M. Kausar, "Design and application of fuzzy logic based fire monitoring and warning systems for smart buildings," *Symmetry*, vol. 10, no. 11, p. 615, 2018.
- [14] L. T. Hong Lan *et al.*, "A New Complex Fuzzy Inference System With Fuzzy Knowledge Graph and Extensions in Decision Making," *IEEE Access*, vol. 8, pp. 164899–164921, 2020.
- [15] F. Dernoncourt, "Fuzzy logic: between human reasoning and artificial intelligence," Jan. 2011.
- [16] R. Sowah, K. O. Ampadu, A. Ofoli, K. Koumadi, G. A. Mills, and J. Nortey, "Design and implementation of a fire detection and control system for automobiles using fuzzy logic," in *2016 IEEE Industry Applications Society Annual Meeting*, Portland, OR, USA, Oct. 2016, pp. 1–8.
- [17] R. A. Purnomo, D. Syauqy, and M. H. Hanafi, "Implementasi Metode Fuzzy Sugeno Pada Embedded System Untuk Mendekripsi Kondisi Kebakaran Dalam Ruangan," *Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer*, vol. 2, pp. 1428–1435, Apr. 2017.
- [18] R. N. Yanuar, M. H. H. Ichsan, and G. E. Setyawan, "Implementasi Sistem Pemadam Kebakaran Pada Ruang Tertutup Berbasis Arduino Menggunakan Logika Fuzzy," *Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer*, vol. 3, pp. 3963–3970, Apr. 2019.
- [19] R. Satriatama, P. Pangaribuan, and D. Darlis, "Sistem Kontrol Troli Rotari Sebagai Tempat Penitipan Barang Otomatis Berbasis Rfid Menggunakan Fuzzy Logic," unpublished.
- [20] N. R. Sari and W. F. Mahmudy, "Fuzzy Inference System Tsukamoto Untuk Menentukan Kelayakan Calon Pegawai," p. 8, 2015.
- [21] H. Xiangdong and W. Xue, "Application of fuzzy data fusion in multi-sensor fire monitoring," in *2012 International Symposium on Instrumentation & Measurement, Sensor Network and Automation (IMSNA)*, Sanya, China, Aug. 2012, pp. 157–159.
- [22] O. Giandi and R. Sarno, "Prototype of fire symptom detection system," in *2018 International Conference on Information and Communications Technology (ICOIACT)*, Yogyakarta, Mar. 2018, pp. 489–494.
- [23] F. Z. Rachman *et al.*, "Design of the early fire detection based fuzzy logic using multisensor," *IOP Conf. Ser. Mater. Sci. Eng.*, vol. 732, p. 012039, Jan. 2020.
- [24] A. Saepullah, "Comparative Analysis of Mamdani, Sugeno And Tsukamoto Method of Fuzzy Inference System for Air Conditioner Energy Saving," *J. Intell. Syst.*, vol. 1, no. 2, p. 5, 2015.
- [25] A. A. Caraka, H. Haryanto, D. P. Kusumaningrum, and S. Astuti, "Logika Fuzzy Menggunakan Metode Tsukamoto Untuk Prediksi Perilaku Konsumen di Toko Bangunan," vol. 14, no. 4, p. 11.
- [26] J. R. Parker, "Rank and response combination from confusion matrix data," *Inf. Fusion*, vol. 2, no. 2, pp. 113–120, Jun. 2001.
- [27] M. Sokolova, N. Japkowicz, and S. Szpakowicz, "Beyond Accuracy, F-Score and ROC: A Family of Discriminant Measures for Performance Evaluation," in *AI 2006: Advances in Artificial Intelligence*, vol. 4304, A. Sattar and B. Kang, Eds. Berlin, Heidelberg: Springer Berlin Heidelberg, 2006, pp. 1015–1021.
- [28] A. I. Filkov, T. J. Duff, and T. D. Penman, "Frequency of Dynamic Fire Behaviours in Australian Forest Environments," *Fire*, vol. 3, no. 1, p. 1.
- [29] N. Ghamrawi and A. McCallum, "Collective Multi-Label Classification," p. 6.
- [30] D. N. Ilham, H. Hardisal, B. Balkhaya, R. A. Candra, and E. Sipahutar, "Heart Rate Monitoring and Stimulation with the Internet of Thing-Based (IoT) Alquran Recitation," *SinkrOn*, vol. 4, no. 1, p. 221, Oct. 2019.