REFERENCES

[1] Z. Cao, X. Zhou, H. Hu, Z. Wang and Y. Wen, Towards a Systematic Survey for Carbon Neutral Data Centers, 2021.

[2] S. Zhang, M. Xu, W. Y. B. Lim and D. Niyato, Sustainable AIGC Workload Scheduling of Geo-Distributed Data Centers: A Multi-Agent Reinforcement Learning Approach, 2023.

[3] J. A. H. Sánchez, K. Casilimas and O. M. C. Rendon, Deep Reinforcement Learning for Resource Management on Network Slicing: A Survey, vol. 22, MDPI, 2022.

[4] C. Chen, J. An, C. Wang, X. Duan, S. Lu, H. Che, M. Qi and D. Yan, Deep Reinforcement Learning-Based Joint Optimization Control of Indoor Temperature and Relative Humidity in Office Buildings, vol. 13, MDPI, 2023.

[5] K. Bilal, S. U. Khan, J. Kolodziej, L. Zhang, K. Hayat, S. A. Madani, N. Min-Allah, L. Wang and D. Chen, "A Comparative Study of Data Center Network Architectures," *Proceedings 26th European Conference on Modelling and Simulation,* 2012.

[6] G. Obaido, I. D. Mienye, O. F. Egbelowo, I. D. Emmanuel, A. Ogunleye, B. Ogbuokiri, P. Mienye and K. Aruleba, "Supervised machine learning in drug discovery and development: Algorithms, applications, challenges, and prospects," *Machine Learning with Applications,* 2024.

[7] M. Yenugula, "Data center power management using neural network," *International Journal of Advanced Academic Studies,* 2021.

[8] P. Ladosz, L. Weng, M. Kim and H. Oh, "Exploration in Deep Reinforcement Learning: A Survey," *arXiv,* 2022.

[9] T. Hua, J. Wan, S. Jaffry, Z. Rasheed, L. Li and Z. Ma, "Comparison of Deep Reinforcement Learning Algorithms in Data Center Cooling Management: A Case Study," in *IEEE International Conference on Systems, Man, and Cybernetics (SMC),* Melbourne, Australia, 2021.

[10] K. M. U. Ahmed, M. H. J. Bollen and M. Alvarez, "A Review of Data Centers Energy Consumption and Reliability Modeling," *IEEE Access,* vol. 9, 2021.

[11] M. Singh, A. Verma, A. Parasher, N. Chauhan and G. Budhiraja, "Implementation of Database Using Python Flask Framework," *International Journal Of Engineering And Computer Science ,* vol. 8, no. 12 December 2019, 2019.

[12] D. Santos, B. Mataloto and J. C. Ferreira, "Data Center Environment Monitoring System," *Association for Computing Machinery,* 2019.

[13] A. Kamble, A. Gagan, P. Wagh, U. Aziz and M. R. Rajput, "Flask Web Framework based News Summarizer: Web Application," *International Journal of Scientific Research and Engineering Development,* vol. 5, no. 6, 2022.

[14] R. F. Mustaram, T. S. Gulo, E. Leksono and J. Pradipta, "Digital - Twin Based Energy Audit at Campus' Data Center for Energy Efficiency," *Jurnal Otomasi Kontrol dan Instrumentasi,* vol. 15, no. 1, 2023.

[15] A. Naug, A. Guillen, R. L. Gutiérrez, V. Gundecha, D. Markovikj, L. D. Kashyap, L. Krause, S. Ghorbanpour, S. Mousavi, A. R. Babu and S. Sarkar, "PyDCM: Custom Data Center Models with Reinforcement Learning for Sustainability," in *2023 BuildSys '23:*

Proceedings of the 10th ACM International Conference on Systems for Energy-Efficient Buildings, Cities, and Transportation, Istanbul, Turkey, 5 Oct 2023.

[16] N. Ahmed, R. Ahammed, M. M. Islam, M. A. Uddin, A. Akhter, M. A. Talukder and B. K. Paul, "Machine learning based diabetes prediction and development of smart web application," *International Journal of Cognitive Computing in Engineering,* vol. 2, 2021.

[17] S. Omer, S. Azizi, M. Shojafar and R. Tafazolli, "A Priority, Power and Traffic-aware Virtual Machine Placement of IoT Applications in Cloud Data Centers," 2021.

[18] M. Maiterth, W. Brewer, D. De Wet, S. Greenwood, V. Kumar, J. Hines, S. Bouknight, Z. Wang, H. Packard and E. F. Wang, "Visualizing an Exascale Data Center Digital Twin: Considerations, Challenges and Opportunities Tim Dykes," 2024.

[19] T. Gia Nguyen, S. Member, T. V. Phan, D. Thai Hoang, T. N. Nguyen and C. So-In, "Federated Deep Reinforcement Learning for Traffic Monitoring in SDN-Based IoT Networks," 2021.

[20] T. Gia Nguyen, S. Member, T. V. Phan, D. Thai Hoang, T. N. Nguyen and C. So-In, "" Federated Deep Reinforcement Learning for Traffic Monitoring in SDN-Based IoT Networks," 2021.

[21] H. Che, Z. Bai, R. Zuo and H. Li, A Deep Reinforcement Learning Approach to the Optimization of Data Center Task Scheduling, vol. 2020, Hindawi Limited, 2020.

[22] X. Xu, Y. Jia, Y. Xu, Z. Xu, S. Chai and C. S. Lai, A Multi-Agent Reinforcement Learning-Based Data-Driven Method for Home Energy Management, vol. 11, Institute of Electrical and Electronics Engineers Inc., 2020, pp. 3201-3211.

[23] D. Saxena and A. K. Singh, A proactive autoscaling and energy-efficient VM allocation framework using online multi-resource neural network for cloud data center, 2022.

[24] S. Sierla, H. Ihasalo and V. Vyatkin, A Review of Reinforcement Learning Applications to Control of Heating, Ventilation and Air Conditioning Systems, vol. 15, MDPI, 2022.

[25] H. Zhang, Z. Xie, R. Zarei, T. Wu and K. Chen, Adaptive Client Selection in Resource Constrained Federated Learning Systems: A Deep Reinforcement Learning Approach, vol. 9, Institute of Electrical and Electronics Engineers Inc., 2021, pp. 98423-98432.

[26] S. Yan, X. Wang, X. Zheng, Y. Xia, D. Liu and W. Deng, ACC: Automatic ECN tuning for high-speed datacenter networks, Association for Computing Machinery, Inc, 2021, pp. 384-397.

[27] Z. Zhou, M. Shojafar, M. Alazab, J. Abawajy and F. Li, AFED-EF: An Energy-Efficient VM Allocation Algorithm for IoT Applications in a Cloud Data Center, vol. 5, Institute of Electrical and Electronics Engineers Inc., 2021, pp. 658-669.

[28] P. Zhang, C. Wang, C. Jiang and Z. Han, Deep Reinforcement Learning Assisted Federated Learning Algorithm for Data Management of IIoT, 2022.

[29] Q. Wu, X. Chen, Z. Zhou, L. Chen and J. Zhang, Deep Reinforcement Learning with Spatio-temporal Traffic Forecasting for Data-Driven Base Station Sleep Control, 2021.

[30] H. Tian, X. Xu, T. Lin, Y. Cheng, C. Qian, L. Ren and M. Bilal, DIMA: Distributed cooperative microservice caching for internet of things in edge computing by deep reinforcement learning, vol. 25, Springer, 2022, pp. 1769-1792.

[31] Q. Liu, T. Xia, L. Cheng, M. Van Eijk, T. Ozcelebi and Y. Mao, Deep Reinforcement Learning for Load-Balancing Aware Network Control in IoT Edge Systems, vol. 33, IEEE Computer Society, 2022, pp. 1491-1502.

[32] Q. Meng, S. Hussain, F. Luo, Z. Wang and X. Jin, An Online Reinforcement Learning-based Energy Management Strategy for Microgrids with Centralized Control, Institute of Electrical and Electronics Engineers Inc., 2024.

[33] S. Liu, C. Zheng, Y. Huang and T. Q. S. Quek, Distributed Reinforcement Learning for Privacy-Preserving Dynamic Edge Caching, 2021.

[34] C. L. Stergiou and K. E. Psannis, Digital twin intelligent system for industrial internet of things-based big data management and analysis in cloud environments, 2022.

[35] W. x. Liu, J. Cai, Q. C. Chen and Y. Wang, DRL-R: Deep reinforcement learning approach for intelligent routing in software-defined data-center networks, vol. 177, Academic Press, 2021.

[36] X. Zhou, W. Liang, K. Yan, W. Li, K. I. Wang, J. Ma and Q. Jin, Edge-Enabled Two-Stage Scheduling Based on Deep Reinforcement Learning for Internet of Everything, vol. 10, Institute of Electrical and Electronics Engineers Inc., 2023, pp. 3295-3304.

[37] X. Zhong, Z. Zhang, R. Zhang and C. Zhang, End-to-End Deep Reinforcement Learning Control for HVAC Systems in Office Buildings, vol. 6, MDPI, 2022.

[38] B. Kruekaew and W. Kimpan, Multi-Objective Task Scheduling Optimization for Load Balancing in Cloud Computing Environment Using Hybrid Artificial Bee Colony Algorithm with Reinforcement Learning, vol. 10, Institute of Electrical and Electronics Engineers Inc., 2022, pp. 17803-17818.

[39] R. V. Sudhakar, C. Dastagiraiah, S. Pattem and S. Bhukya, Multi-Objective Reinforcement Learning Based Algorithm for Dynamic Workflow Scheduling in Cloud Computing, vol. 12, Institute of Advanced Engineering and Science, 2024, pp. 640-649.

[40] H. Tran-Dang, S. Bhardwaj, T. Rahim, A. Musaddiq and D. S. Kim, Reinforcement Learning based Resource Management for Fog Computing Environment: Literature Review, Challenges, and Open Issues, vol. 24, Korean Institute of Communications and Information Sciences, 2022, pp. 83-98.

[41] J. Hao, D. W. Gao and J. J. Zhang, Reinforcement Learning for Building Energy Optimization through Controlling of Central HVAC System, vol. 7, Institute of Electrical and Electronics Engineers Inc., 2020, pp. 320-328.