

The List of Papers used to train the customised Chat-GPT

State of the art review paper:

1. Shirvanian, Paige, and Frans Van Berkel. "Novel Components in Proton Exchange Membrane (PEM) Water Electrolyzers (PEMWE): Status, Challenges and Future Needs. A Mini Review." *Electrochemistry Communications* 114 (2020): 106704. <https://doi.org/10.1016/j.elecom.2020.106704>.
2. Ghoroghi, A., Rezgüi, Y., Petri, I. et al. Advances in application of machine learning to life cycle assessment: a literature review. *Int J Life Cycle Assess* 27, 433–456 (2022). <https://doi.org/10.1007/s11367-022-02030-3>
3. Lotrič, Andrej, Mihael Sekavčnik, Igor Kuštrin, and Mitja Mori. "Life-Cycle Assessment of Hydrogen Technologies with the Focus on EU Critical Raw Materials and End-of-Life Strategies." *International Journal of Hydrogen Energy* 46, no. 16 (2021): 10143–60. <https://doi.org/10.1016/j.ijhydene.2020.06.190>.

LCA- related papers:

1. Bareiß, Kay, Cristina De La Rua, Maximilian Möckl, and Thomas Hamacher. "Life Cycle Assessment of Hydrogen from Proton Exchange Membrane Water Electrolysis in Future Energy Systems." *Applied Energy* 237 (2019): 862–72. <https://doi.org/10.1016/j.apenergy.2019.01.001>.
2. Bhandari, Ramchandra, Clemens A. Trudewind, and Petra Zapp. "Life cycle assessment of hydrogen production via electrolysis—a review." *Journal of cleaner production* 85 (2014): 151–163. <https://doi.org/10.1016/j.jclepro.2013.07.048>
3. Dreyer, Louise Camilla, Anne Louise Niemann, and Michael Z. Hauschild. "Comparison of Three Different LCIA Methods: EDIP97, CML2001 and Eco-indicator 99: Does it matter which one you choose?." *The international journal of life cycle assessment* 8 (2003): 191–200. <https://doi.org/10.1007/BF02978471>
4. Gerhardt-Mörsdorf, Janis, et al. "Life Cycle Assessment of a 5 MW Polymer Exchange Membrane Water Electrolysis Plant." *Advanced Energy and Sustainability Research* 5.4 (2024): 2300135. <https://doi.org/10.1002/aesr.202300135>
5. Kalverkamp, M., Helmers, E., & Pehlken, A. (2020). Impacts of life cycle inventory databases on life cycle assessments: A review by means of a drivetrain case study. *Journal of Cleaner Production*, 269, 121329. <https://doi.org/10.1016/j.jclepro.2020.121329>
6. Lasvaux, S., Achim, F., Garat, P., Peuportier, B., Chevalier, J., & Habert, G. (2016). Correlations in Life Cycle Impact Assessment methods (LCIA) and indicators for construction materials: What matters?. *Ecological Indicators*, 67, 174–182. <https://doi.org/10.1016/j.ecolind.2016.01.056>
7. Romeiko, X. X., Zhang, X., Pang, Y., Gao, F., Xu, M., Lin, S., & Babbitt, C. (2023). A review of machine learning applications in life cycle assessment studies. *Science of The Total Environment*, 168969. <https://doi.org/10.1016/j.scitotenv.2023.168969>
8. Takano, Atsushi, Stefan Winter, Mark Hughes, and Lauri Linkosalmi. "Comparison of Life Cycle Assessment Databases: A Case Study on Building Assessment." *Building and Environment* 79 (2014): 20–30. <https://doi.org/10.1016/j.buildenv.2014.04.025>.
9. Uekert, Taylor, Hope M. Wikoff, and Alex Badgett. "Electrolyzer and Fuel Cell Recycling for a Circular Hydrogen Economy." *Advanced Sustainable Systems* 8, no. 4 (2024): 2300449. <https://doi.org/10.1002/adsu.202300449>.
10. Bareiß, K. (2020). An enhanced methodology for energy system modeling including life-cycle analysis: Hydrogen as Power-to-X element (Doctoral dissertation, Technische Universität München).

Papers about ML in LCA:

1. Yitmen, I., et al. "An Adapted Model of Cognitive Digital Twins for Building Lifecycle Management." **Applied Sciences**, vol. 11, no. 9, 2021, <https://doi.org/10.3390/app11094276>
2. Baduge, S.K., et al. "Artificial Intelligence and Smart Vision for Building and Construction 4.0: Machine and Deep Learning Methods and Applications." **Automation in Construction**, vol. 133, 2022, <https://doi.org/10.1016/j.autcon.2022.104440>
3. Wang, L., et al. "Artificial Intelligence in Product Lifecycle Management." **The International Journal of Advanced Manufacturing Technology**, vol. 114, 2021, 10.1007/s00170-021-06882-1
4. D'Amico, A., et al. "Artificial Neural Networks to Assess Energy and Environmental Performance of Buildings: An Italian Case Study." **Journal of Cleaner Production**, vol. 254, 2020, <https://doi.org/10.1016/j.enbuild.2020.110220>
5. Long, F., and H. Liu. "An Integration of Machine Learning Models and Life Cycle Assessment for Lignocellulosic Bioethanol Platforms." **Energy Conversion and Management**, vol. 276, 2023, <https://doi.org/10.1016/j.enconman.2023.117379>
6. Markowska, A., et al. "Machine Learning for Environmental Life Cycle Costing." **Procedia Computer Science**, vol. 207, 2022, 10.1016/j.procs.2022.09.471
7. Koyamparambath, A., et al. "Implementing Artificial Intelligence Techniques to Predict Environmental Impacts: Case of Construction Products." **Sustainability**, vol. 14, no. 6, 2022, <https://doi.org/10.3390/su14063699>
8. Dinesh, A., and B. Rahul Prasad. "Predictive Models in Machine Learning for Strength and Life Cycle Assessment of Concrete Structures." *Automation in Construction* 162 (2024): 105412. <https://doi.org/10.1016/j.autcon.2024.105412>.
9. Prioux, N., et al. "Environmental Assessment Coupled with Machine Learning for Circular Economy." **Clean Technologies and Environmental Policy**, vol. 25, 2023, 10.1007/s10098-022-02275-4
10. Portolani, P., et al. "Machine Learning to Forecast Electricity Hourly LCA Impacts Due to a Dynamic Electricity Technology Mix." **Frontiers in Sustainability**, vol. 3, 2022, <https://doi.org/10.3389/frsus.2022.1037497>
11. Akhshik, M., et al. "Prediction of Greenhouse Gas Emissions Reductions via Machine Learning Algorithms: Toward an Artificial Intelligence-Based Life Cycle Assessment for Automotive Lightweighting." **Sustainable Materials and Technologies**, vol. 32, 2022, <https://doi.org/10.1016/j.susmat.2021.e00370>
13. El Hafdaoui, H., Khallaayoun, A., Bouarfa, I. et al. Machine learning for embodied carbon life cycle assessment of buildings. *J. Umm Al-Qura Univ. Eng.Archit.* 14, 188–200 (2023). <https://doi.org/10.1007/s43995-023-00028-y>
14. Marvuglia, A., et al. "Machine Learning for Toxicity Characterization of Organic Chemical Emissions Using USEtox Database: Learning the Structure of the Input Space." **Environment International**, vol. 84, 2015, <https://doi.org/10.1016/j.envint.2015.05.011>
14. Cheng, F., et al. "Slow Pyrolysis as a Platform for Negative Emissions Technology: An Integration of Machine Learning Models, Life Cycle Assessment, and Economic Analysis." **Energy Conversion and Management**, vol. 224, 2020, <https://doi.org/10.1016/j.enconman.2020.113258>
15. Zhu, X., et al. "Application of Life Cycle Assessment and Machine Learning for High-Throughput Screening of Green Chemical Substitutes." **ACS Sustainable Chemistry & Engineering**, vol. 8, no. 25, 2020, <https://doi.org/10.1021/acssuschemeng.0c02211>
16. Elomari, Y., et al. "A Data-Driven Framework for Designing a Renewable Energy Community Based on the Integration of Machine Learning Model with Life Cycle Assessment and Life Cycle Cost Parameters." **Applied Energy**, vol. 347, 2024, <https://doi.org/10.1016/j.apenergy.2024.122619>

17. Slapnik, M., et al. "Extending Life Cycle Assessment Normalization Factors and Use of Machine Learning—A Slovenian Case Study." **Ecological Indicators**, vol. 58, 2015, <https://doi.org/10.1016/j.ecolind.2014.10.028>
18. Khoshnevisan, B., et al. "Prognostication of Environmental Indices in Potato Production Using Artificial Neural Networks." **Journal of Cleaner Production**, vol. 52, 2013, pp. 402-409, <https://doi.org/10.1016/j.jclepro.2013.03.028>
19. Omidkar, A., et al. "Machine-Learning-Assisted Techno-Economic and Life Cycle Assessment of Renewable Diesel Production." **Applied Energy**, vol. 355, 2024, p. 122321, <https://doi.org/10.1016/j.apenergy.2023.122321>
20. Nejad, Mansour Sadouni, Morteza Almassi, and Mohammad Ghahderijani. "Life Cycle Energy and Environmental Impacts in Sugarcane Production: A Case Study of Amirkabir Sugarcane Agro-Industrial Company in Khuzestan Province." *Results in Engineering* 20 (2023): 101545. <https://doi.org/10.1016/j.rineng.2023.101545>.
21. Guinee, J.B. "Handbook on Life Cycle Assessment: Operational Guide to the ISO Standards." **International Journal of Life Cycle Assessment**, vol. 7, no. 5, 2002, pp. 311-313, 10.1007/BF02978784
22. Zheng, L., et al. "Predicting Whole-Life Carbon Emissions for Buildings Using Different Machine Learning Algorithms." **Applied Energy**, vol. 357, 2024, p. 122472, <https://doi.org/10.1016/j.apenergy.2023.122472>
23. Algren, M., Fisher, W., and A.E. Landis. "Machine Learning in Life Cycle Assessment." **Data Science Applied to Sustainability Analysis**, edited by Dunn J. and P. Balaprakash, Elsevier, 2021, <https://doi.org/10.1016/B978-0-12-817976-5.00009-7>
24. Kaab, Ali, Mohammad Sharifi, Hossein Mobli, Ashkan Nabavi-Pelesaraei, and Kwok-wing Chau. "Combined Life Cycle Assessment and Artificial Intelligence for Prediction of Output Energy and Environmental Impacts of Sugarcane Production." *Science of The Total Environment* 664 (2019): 1005–19. <https://doi.org/10.1016/j.scitotenv.2019.02.004>.
25. Guo, Genmao, Yuan He, Fangming Jin, Ondřej Mašek, and Qing Huang. "Application of Life Cycle Assessment and Machine Learning for the Production and Environmental Sustainability Assessment of Hydrothermal Bio-Oil." *Bioresource Technology* 379 (2023): 129027. <https://doi.org/10.1016/j.biortech.2023.129027>.
26. Amasyali, K., and N.M. El-Gohary. "A Review of Data-Driven Building Energy Consumption Prediction Studies." **Renewable and Sustainable Energy Reviews**, vol. 81, 2018, pp. 1192-1205, <https://doi.org/10.1016/j.rser.2017.04.095>