

DAFTAR PUSTAKA

- Binama, M., Kan, K., Chen, H.X., Zheng, Y., Zhou, D., Su, W.T., Ge, X.F., Ndayizigiye, J., 2021. A numerical investigation into the pat hydrodynamic response to impeller rotational speed variation. *Sustainability (Switzerland)* 13. <https://doi.org/10.3390/su13147998>
- Bossinov, D., Ramazanov, G., Turalina, D., 2025. Optimization and Modelling to Enhance Hydroturbine Performance. *Journal of Advanced Research in Applied Sciences and Engineering Technology* 47, 81–93. <https://doi.org/10.37934/araset.47.1.8193>
- Carlino, M.G., Boscheri, W., 2023. Arbitrary-Lagrangian-Eulerian finite volume IMEX schemes for the incompressible Navier-Stokes equations on evolving Chimera meshes.
- Caughey, D.A., 2003. Computational Aerodynamics, in: *Encyclopedia of Physical Science and Technology*. Elsevier, pp. 469–485. <https://doi.org/10.1016/B0-12-227410-5/00905-4>
- Contreras, L.T., Lopez, O.D., Lain, S., 2018. Computational fluid dynamics modelling and simulation of an inclined horizontal axis hydrokinetic turbine. *Energies (Basel)* 11. <https://doi.org/10.3390/en11113151>
- Darbandi, M., Abdollahpour, M.S., Hasanpour-Matkolaei, M., 2021. A new developed semi-full-scale approach to facilitate the CFD simulation of shell and tube heat exchangers. *Chem Eng Sci* 245. <https://doi.org/10.1016/j.ces.2021.116836>
- Dietzel, F., 1990. *Turbin, Pompa dan Kompresor / Fritz Dietzel ; alih bahasa Dakso Sriyono*.
- Elbatran, A.H., Yaakob, O.B., Ahmed, Y.M., Shabara, H.M., 2015. Operation, performance and economic analysis of low head micro-hydropower turbines for rural and remote areas: A review. *Renewable and Sustainable Energy Reviews*. <https://doi.org/10.1016/j.rser.2014.11.045>
- Elkhatat, A., Al-Muhtaseb, S., 2024. Climate Change and Energy Security: A Comparative Analysis of the Role of Energy Policies in Advancing Environmental Sustainability. *Energies* . <https://doi.org/10.3390/en17133179>
- Fatla, O.M.H., Valera-Medina, A., Robinson, F., Cichuta, M., Beynon, N., 2018. Development of convection in high temperature coil annealing furnaces using rotating cylinder technique. *Appl Therm Eng* 129, 1392–1402. <https://doi.org/10.1016/j.applthermaleng.2017.10.136>
- Girfoglio, M., Quaini, A., Rozza, G., 2019. A Finite Volume approximation of the Navier-Stokes equations with nonlinear filtering stabilization.

- Gresse, T., Merlier, L., Jacob, J., Kuznik, F., 2024. Prediction of airflow and heat transfer in a mechanically ventilated room with Large-Eddy Simulations based on Lattice Boltzmann Method. *Build Environ* 253. <https://doi.org/10.1016/j.buildenv.2024.111316>
- Jarrar Pirzada, S., Kurniawan, I., Pialina Nababan, N., Roni Sahroni, T., 2024. NEW DESIGN OF A MICRO-HYDRO POWER PLANT (MHPP) SYSTEM IN THE 3T REGION AS ALTERNATIVE SOLUTION UNIT TURBINE USING COMPUTATIONAL FLUID DYNAMICS (CFD) SIMULATION This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International. *Eduvest-Journal of Universal Studies* 4.
- Katopodes, N.D., 2019. Active Flood Control, in: *Free-Surface Flow*: Elsevier, pp. 776–809. <https://doi.org/10.1016/B978-0-12-815487-8.00014-7>
- Kaunda, C.S., Kimambo, C.Z., Nielsen, T.K., 2014. A technical discussion on microhydropower technology and its turbines. *Renewable and Sustainable Energy Reviews*. <https://doi.org/10.1016/j.rser.2014.04.035>
- Knopp, T., 2006. Model-consistent universal wall-functions for RANS turbulence modelling.
- Kochkov, D., Smith, J.A., Alieva, A., Wang, Q., Brenner, M.P., Hoyer, S., Bertozzi, A.L., Designed, S.H., Performed, S.H., Analyzed Data;, S.H., 2021. Machine learning-accelerated computational fluid dynamics. <https://doi.org/10.1073/pnas.2101784118/-/DCSupplemental.y>
- Kryszk, H., Kurowska, K., Marks-Bielska, R., Bielski, S., Eźlakowski, B., 2023. Barriers and Prospects for the Development of Renewable Energy Sources in Poland during the Energy Crisis. *Energies (Basel)* 16. <https://doi.org/10.3390/en16041724>
- Krzemianowski, Z., Kaniecki, M., 2023. Low-head high specific speed Kaplan turbine for small hydropower – design, CFD loss analysis and basic, cavitation and runaway investigations: A case study. *Energy Convers Manag* 276. <https://doi.org/10.1016/j.enconman.2022.116558>
- Laín, S., Cortés, P., López, O.D., 2020. Numerical simulation of the flow around a straight blade Darrieus water turbine. *Energies (Basel)* 13. <https://doi.org/10.3390/en13051137>
- Lallemant, P., Luo, L.S., Krafczyk, M., Yong, W.A., 2021. The lattice Boltzmann method for nearly incompressible flows. *J Comput Phys* 431. <https://doi.org/10.1016/j.jcp.2020.109713>
- Liszka, D., Krzemianowski, Z., Węgiel, T., Borkowski, D., Polniak, A., Wawrzykowski, K., Cebula, A., 2022. Alternative Solutions for Small Hydropower Plants. *Energies (Basel)* 15. <https://doi.org/10.3390/en15041275>

- Liu, Z., Wang, C., Zhang, K., Zhao, Z., Xie, Z., 2021. Research on computational method of supersonic inlet/isolator internal flow. *Applied Sciences (Switzerland)* 11. <https://doi.org/10.3390/app11199272>
- Lu, J., Wu, G., Zhou, L., Wu, J., 2023. Finite Volume Method for Modeling the Load-Rejection Process of a Hydropower Plant with an Air Cushion Surge Chamber. *Water (Switzerland)* 15. <https://doi.org/10.3390/w15040682>
- Maisuria, M., Ratadiya, L., Patel, A., 2024. Computational investigation and optimization of the bulb turbine for ultra-low head application. *Renew Energy* 230. <https://doi.org/10.1016/j.renene.2024.120876>
- Moore, B., Nabhani, F., Askari, V., 2017. Sensitivity analysis of spray painting process to input parameters: Validation of CFD jet impingement model against an experimental dataset. *Robot Comput Integr Manuf.* <https://doi.org/10.1016/j.rcim.2017.01.001>
- Nishi, Y., Kobayashi, Y., Inagaki, T., Kikuchi, N., 2016. The Design Method of Axial Flow Runners Focusing on Axial Flow Velocity Uniformization and Its Application to an Ultra-Small Axial Flow Hydraulic Turbine. *International Journal of Rotating Machinery* 2016. <https://doi.org/10.1155/2016/5390360>
- Pakulska, T., 2023. The Energy Crisis—Looking at the Renewable Transition. *Energies (Basel)*. <https://doi.org/10.3390/en16155705>
- Rais, N.A.M., Basar, M.F., Gani, S.F.A., Mustafa, W.A., 2022. Techno-Economic Evaluations: An Innovative of Hydraulic Reaction Turbine for Pico-Hydro Generation System. *Journal of Advanced Research in Fluid Mechanics and Thermal Sciences* 90, 9–19. <https://doi.org/10.37934/arfmts.90.2.919>
- Shamsuddeen, M.M., Shahzer, M.A., Roh, M.S., Kim, J.H., 2024. Feasibility study of ultra-low-head hydro turbines for energy extraction from shallow waterways. *Heliyon* 10. <https://doi.org/10.1016/j.heliyon.2024.e35008>
- Stojkovski, F., Markov, Z., 2022. Optimization of guide vanes for variable speed Francis turbines - Human controlled vs. automated approach, in: *IOP Conference Series: Earth and Environmental Science*. Institute of Physics. <https://doi.org/10.1088/1755-1315/1079/1/012083>
- Sudsuansee, T., Phitaksurachai, S., Pan-Aram, R., Srirakul, N., Tiaple, Y., 2025. Design and hydrodynamic performance of low head propeller hydro turbine for wide range high efficiency operation. *International Journal of Thermofluids* 27. <https://doi.org/10.1016/j.ijft.2025.101228>
- Tantichukiad, K., Yahya, A., Mustafah, A.M., Rafie, A.S.M., Su, A.S.M., 2024. Computational Fluid Dynamics Evaluations on New Designs of the Delta-Shaped Blade Darrieus Hydrokinetic Turbine. *International Journal of Automotive and Mechanical Engineering* 21, 11247–11262. <https://doi.org/10.15282/ijame.21.2.2024.6.0869>

- Thakur, A.K., Kumar, R., Banerjee, N., Chaudhari, P., Gaurav, G.K., 2022. Hydrodynamic modeling of liquid-solid flow in polyolefin slurry reactors using CFD techniques – A critical analysis. *Powder Technol.* <https://doi.org/10.1016/j.powtec.2022.117544>
- Thakur, R., Kashyap, T., Kumar, R., Saini, R.K., Lee, D., Kumar, S., Singh, T., 2024. Potential of the Archimedes screw to generate sustainable green energy for mini, micro, and pico hydro Turbine power stations: An extensive analysis. *Energy Strategy Reviews.* <https://doi.org/10.1016/j.esr.2024.101514>
- Tinoco, H., Lindqvist, H., Frid, W., 2010. *Numerical Simulation of Industrial Flows.*
- Tran, B.N., Kim, B.-G., Kim, J.-H., 2021. The effect of the guide vane number and inclined angle on the performance improvement of a low head propeller turbine. *Journal of Advanced Marine Engineering and Technology* 45, 205–212. <https://doi.org/10.5916/jamet.2021.45.4.205>
- Velásquez, L., Rubio-Clemente, A., Chica, E., 2024. Numerical and Experimental Analysis of Vortex Profiles in Gravitational Water Vortex Hydraulic Turbines. *Energies (Basel)* 17. <https://doi.org/10.3390/en17143543>
- Yah, N.F., Oumer, A.N., Idris, M.S., 2017. Small scale hydro-power as a source of renewable energy in Malaysia: A review. *Renewable and Sustainable Energy Reviews.* <https://doi.org/10.1016/j.rser.2017.01.068>
- Yaseen, Z.M., Ameen, A.M.S., Aldlemy, M.S., Ali, M., Abdulmohsin Afan, H., Zhu, S., Sami Al-Janabi, A.M., Al-Ansari, N., Tiyasha, T., Tao, H., 2020. State-of-the Art-Powerhouse, Dam Structure, and Turbine Operation and Vibrations. *Sustainability* 12, 1676. <https://doi.org/10.3390/su12041676>
- YoosefDoost, A., Lubitz, W.D., 2020. Archimedes screw turbines: A sustainable development solution for green and renewable energy generation-a review of potential and design procedures. *Sustainability (Switzerland)* 12. <https://doi.org/10.3390/SU12187352>
- Yuan, X., Chai, Z., Wang, H., Shi, B., 2020. A generalized lattice Boltzmann model for fluid flow system and its application in two-phase flows. *Computers and Mathematics with Applications* 79, 1759–1780. <https://doi.org/10.1016/j.camwa.2019.10.007>