

DAFTAR PUSTAKA

- [1] P. Suharmanto, A. N. Fitria, and S. Ghaliyah, "Indonesian Geothermal Energy Potential as Source of Alternative Energy Power Plant," *KnE Energy*, vol. 1, no. 1, p. 119, 2015.
- [2] Yuniarto, T. E. B. Soesilo, and E. Heviati, "Geothermal Power Plant Emissions in Indonesia," *Proc. World Geotherm. Congr.*, no. April, pp. 1–5, 2015.
- [3] D. M. Yuniar, P. Hastuti, and M. Silaban, "Ulubelu, First Year Reservoir Monitoring," *World Geotherm. Congr. 2015*, no. 9, p. 6, 2015.
- [4] A. Rachmat, Nasruddin, A. S. Wibowo, and A. Surachman, "Exergoeconomic analysis and optimization of a combined double flash - Binary cycle for Ulubelu geothermal power plant in Indonesia," *IOP Conf. Ser. Earth Environ. Sci.*, vol. 105, no. 1, 2018.
- [5] Y. D. Cahyono, "the Assessment of Steam Above Ground System of Unit-1 and Unit-2 Ulubelu Geothermal Field , Indonesia , After 5 Years of Operation," no. 8, 2017.
- [6] A. Poernomo, S. Satar, P. Effendi, A. Kusuma, T. Azimudin, and S. Sudarwo, "An Overview of Indonesia Geothermal Development – Current Status and Its Challenges," *World Geotherm. Congr. 2015*, no. April, pp. 19–25, 2015.
- [7] A. Mahmoudi, M. Fazli, and M. R. Morad, "A recent review of waste heat recovery by Organic Rankine Cycle," *Appl. Therm. Eng.*, vol. 143, no. July, pp. 660–675, 2018.
- [8] A. I. Papadopoulos, M. Stijepovic, and P. Linke, "On the systematic design and selection of optimal working fluids for Organic Rankine Cycles," *Appl. Therm. Eng.*, vol. 30, no. 6–7, pp. 760–769, 2010.
- [9] K. Thulukkanam, *Heat Exchanger Design Handbook, Second Edition*. 2013.
- [10] V. Orlandini, "Waste heat recovery systems: numerical and experimental analysis of organic Rankine cycle solutions," 2017.
- [11] Kementrian Negara dan Lingkungan Hidup, "Peraturan Menteri Negara Lingkungan Hidup Nomor 08 Tahun 2009 Tentang Baku Mutu Air Limbah Bagi Usaha dan/atau Kegiatan Pembangkit Listrik Tenaga Termal," pp. 1–8, 2009.
- [12] C. Liu, C. He, H. Gao, X. Xu, and J. Xu, "The optimal evaporation temperature of subcritical ORC based on second law efficiency for waste heat recovery," *Entropy*, vol. 14, no. 3, pp. 491–504, 2012.
- [13] D. R. H. Malau, "Geothermal Energy Utilization and Environment Impact Prevention on Single Flash Steam Cycle System Case Study: PLTP Ulubelu - Lampung," *Int. J. Sci. Res.*, vol. 7, no. 7, pp. 120–124, 2018.
- [14] M. H. Mubarak and S. J. Zarrouk, "Steam-field design overview of the Ulubelu geothermal project, Indonesia," *New Zeal. Geotherm. Work.*, no. November, pp. 1–6, 2016.

- [15] M. Agani, S. Patangke, D. B. Hartanto, and M. Silaban, "Opportunity and Barriers to Develop a Bottoming Unit by Utilizing Separated Hot Brine in Ulubelu, Indonesia," *World Geotherm. Congr. 2015*, no. April, p. 11, 2015.
- [16] A. Hinde and D. Mulazzani, "Using Untapped Proven Resources and Improving Efficiency of Flash Plants , By Retro Fitting Binary Cycle," no. November, pp. 1–9, 2016.
- [17] E. T. Eliasson, S. Thorhallsson, and B. Steingrimsson, "Geothermal Power Plants," *Short Course Geotherm. Drilling, Resour. Dev. Power Plants*, p. 24, 2011.
- [18] Z. Muhammad, Alfathan, "Perancangan Awal Sistem Siklus Rankine Organik pada PLTP Lahendong Unit 3, Studi Kasus Penukar Kalor Rekuperator dan Kondensor," Gadjah Mada, 2018.
- [19] K. Darvish, M. A. Ehyaei, F. Atabi, and M. A. Rosen, "Selection of optimum working fluid for organic rankine cycles by exergy and exergy-economic analysis," *Sustain.*, vol. 7, no. 11, pp. 15362–15383, 2015.
- [20] Q. Liu, Y. Duan, and Z. Yang, "Performance analyses of geothermal organic Rankine cycles with selected hydrocarbon working fluids," *ScienseDirect*, vol. 63, no. Energy, pp. 123–132, 2013.
- [21] K. Thurairaja, A. Wijewardane, S. Jayasekara, and C. Ranasinghe, "Working fluid selection and performance evaluation of ORC," *Energy Procedia*, vol. 156, no. October, pp. 244–248, 2019.
- [22] S. Douvartzides and I. Karmalis, "Working fluid selection for the Organic Rankine Cycle (ORC) exhaust heat recovery of an internal combustion engine power plant," *IOP Conf. Ser. Mater. Sci. Eng.*, vol. 161, no. 1, 2016.
- [23] CHESTER, "Detailed Design of the High Temperature Heat Pump Laboratory Prototype Type of Deliverable," no. 27, 2019.
- [24] "TURBODEN ORC System." [Online]. Available: <https://www.turboden.com/products/2463/orc-system>. [Accessed: 05-Apr-2020].
- [25] R. K Sinnott, *Chemical Engineering Design*, Fourth. 2005.
- [26] A. Shukla, P. Kumar, and D. R. Tiwari, "Design Procedure of Shell and Tube Heat Exchanger," vol. 0869, no. 12, pp. 116–119, 2015.
- [27] H. Supriyanto, "Perancangan Sistem Siklus Rankine Organik Dua Tingkat pada PLTP PT. Geo Dipa Energi Unit Dieng, Studi Kasus : Evaporator dan Rekuperator Tingkat 2," Gadjah Mada, 2019.
- [28] H. Setiawan, "Geothermal Energy Development in Indonesia: Progress, Challenges and Prospect," *Int. J. Adv. Sci. Eng. Inf. Technol.*, vol. 4, no. 4, p. 224, 2016.
- [29] A. Fauzi, "Revision of Geothermal Resource Classification in Indonesia Based on Type of Potential Power Generation," *World Geotherm. Congr. 2015*, no. April, p. 5, 2015.
- [30] M. Hijriawan *et al.*, "Organic Rankine Cycle (ORC) in geothermal power plants," *J. Phys. Conf. Ser.*, vol. 1402, no. 4, 2019.
- [31] Anonim, "Geothermal Systems and Technologies," pp. 1–35, 2010.
- [32] T. Tartière and M. Astolfi, "A World Overview of the Organic Rankine Cycle Market," *Energy Procedia*, vol. 129, pp. 2–9, 2017.

- [33] Turboden, "Geothermal Solution." [Online]. Available: <https://www.turboden.com/solutions/1052/geothermal>. [Accessed: 27-Apr-2020].
- [34] M. Moran, J. H. Shapiro, N. and D. Boettner, D, *Fundamentals of Engineering Thermodynamics*, Eighth., vol. 29, no. 1. United States of America: Don Fowley.
- [35] J. Nouman, "Comparative studies and analyses of working fluids for Organic Rankine Cycles - ORC," 2012.
- [36] Y. Cengel and M. Boles, *Thermodynamics: An Engineering Approach*, Eighth. New York: McGraw-Hill Education.
- [37] Turboden, "Organic Rankine Cycle Technology."
- [38] J. I. Chowdhury, B. K. Nguyen, and D. Thornhill, "Modelling of evaporator in waste heat recovery system using finite volume method and fuzzy technique," *Energies*, vol. 8, no. 12, pp. 14078–14097, 2015.
- [39] India Institute of Technology, "Design of Evaporator," p. 31, 2010.
- [40] TMI Staff & Contributors, "Gas Turbine - 16 MW ORC turbine powers geothermal plant in Croatia," *Turbomachinerymag.com*, 2016. [Online]. Available: <https://www.turbomachinerymag.com/the-high-16-mw-turbine-for-a-geothermal-plant-in-croatia/>. [Accessed: 08-Jul-2020].
- [41] Energy Education, "Turbine," *University of Calgary*, 2018. [Online]. Available: <https://energyeducation.ca/encyclopedia/Turbine>. [Accessed: 08-Jul-2020].
- [42] A. Richter, "Turboden awarded 16.5 MW geothermal power project in Croatia," *Think GeoEnergy*, 2015. [Online]. Available: <https://www.thinkgeoenergy.com/turboden-awarded-16-5-mw-geothermal-power-project-in-croatia/>. [Accessed: 08-Jul-2020].
- [43] S. Quoilin, M. Van Den Broek, S. Declaye, P. Dewallef, and V. Lemort, "Techno-economic survey of organic rankine cycle (ORC) systems," *Renew. Sustain. Energy Rev.*, vol. 22, no. October 2014, pp. 168–186, 2013.
- [44] S. Lecompte, *Performance Evaluation of Organic Rankine Cycle Architectures: Application to Waste Heat Valorisation*. Belgia, 2016.
- [45] B. Tchanche, "Criteria for working fluids selection in low-temperature solar organic Rankine cycles," no. October 2008, 2014.
- [46] D. C. Bandean, S. Smolen, and J. T. Cieslinski, "Working Fluid Selection for Organic Rankine Cycle Applied to Heat Recovery Systems," *Proc. World Renew. Energy Congr. – Sweden, 8–13 May, 2011, Linköping, Sweden*, vol. 57, pp. 772–779, 2011.
- [47] E. Macchi, "Organic Rankine Cycle (ORC) Power Systems," *Org. Rank. Cycle Power Syst.*, 2017.
- [48] ASTM International, "Organic Liquids," 2018. [Online]. Available: https://www.astm.org/DIGITAL_LIBRARY/MNL/PAGES/MNL11044M.htm.
- [49] D. Luo, A. Mahmoud, and F. Cogswell, "Evaluation of Low-GWP fluids for power generation with Organic Rankine Cycle," *Energy*, vol. 85, pp. 481–488, 2015.
- [50] R. Kuster, "25 th IIR International Congress of Refrigeration," no.

September, 2019.

- [51] A. J. Nugroho, "Evaluation of Waste Brine Utilization From Lhd Unit III for Electricity Generation in Lahendong Geothermal Field , Indonesia," *Geotherm. Energy*, no. 17, 2007.
- [52] Nptel, "Lecture 1: Heat Exchangers Classifications," *Chem. Eng. Des. - II*, pp. 1–41, 2006.
- [53] J. P. Holman, *Heat Transfer*, Tenth. McGraw-Hill Education, 2010.
- [54] Y. A. Cengel, "Heat Transfer a Practical Approach," *MacGraw-Hill*, vol. 4, no. 9, p. 874, 2004.
- [55] Nuclear Power, "Recuperator - Heat Exchanger." [Online]. Available: <https://www.nuclear-power.net/nuclear-engineering/heat-transfer/heat-exchangers/recuperator-heat-exchanger/>. [Accessed: 05-May-2020].
- [56] TU Delft, "Cycle Tempo - Reference Guide." .
- [57] Y. A. Gavrilova, V. N. Beschatnykh, Y. A. Borisov, D. A. Achkasov, and A. S. Kosoy, "Optimization of micro gas-turbine-recuperator heat transfer surface," *J. Phys. Conf. Ser.*, vol. 1128, no. 1, 2018.
- [58] TU Delft, "Cycle Tempo - Technical Notes." .
- [59] P. Nayar, "Thermodynamics Isentropic Efficiencies of Steady Flow Devices," pp. 1–3, 2010.
- [60] D. Q. Kern, *Process Heat Transfer*. New York: McGraw-Hill, 1965.
- [61] M. Nitsche and R. O. Gbadamosi, *Heat Exchanger Design Guide A Practical Guide for Planning; Selecting and Designing of Shell and Tube Exchange*. United States of America: Joy Hayton, 2016.
- [62] S. B. Thakore and B. I. Bhatt, *Introduction to Process Engineering and Design*. New Delhi: McGraw-Hill, 2007.
- [63] S. K. Bhatti, C. M. Krishna, C. Vundru, and M. L. Neelapu, "Estimating number of shells and determining the log mean temperature difference correction factor of shell and tube heat exchangers," vol. 53, pp. 323–335.