

DAFTAR PUSTAKA

- [1] D. N. T. How, M. A. Hannan, M. S. H. Lipu, K. S. M. Sahari, P. J. Ker, and K. M. Muttaqi, "State-of-Charge Estimation of Li-Ion Battery in Electric Vehicles: A Deep Neural Network Approach," *IEEE Trans. Ind. Appl.*, vol. 56, no. 5, pp. 5565–5574, 2020, doi: 10.1109/TIA.2020.3004294.
- [2] R. He *et al.*, "Towards interactional management for power batteries of electric vehicles," *RSC Adv.*, vol. 13, no. 3, pp. 2036–2056, 2023, doi: 10.1039/d2ra06004c.
- [3] L. Timilsina, P. R. Badr, P. H. Hoang, G. Ozkan, B. Papari, and C. S. Edrington, "Battery Degradation in Electric and Hybrid Electric Vehicles: A Survey Study," *IEEE Access*, vol. 11, no. May, pp. 42431–42462, 2023, doi: 10.1109/ACCESS.2023.3271287.
- [4] C. H. Brillianto Apribowo, S. P. Hadi, F. D. Wijaya, M. I. Bambang Setyonegoro, and Sarjiya, "Early prediction of battery degradation in grid-scale battery energy storage system using extreme gradient boosting algorithm," *Results Eng.*, vol. 21, no. December 2023, p. 101709, 2024, doi: 10.1016/j.rineng.2023.101709.
- [5] F. Yang, D. Shi, Q. Mao, and K. ho Lam, "Scientometric research and critical analysis of battery state-of-charge estimation," *J. Energy Storage*, vol. 58, no. August 2022, p. 106283, 2023, doi: 10.1016/j.est.2022.106283.
- [6] X. Han *et al.*, "A review on the key issues of the lithium ion battery degradation among the whole life cycle," *eTransportation*, vol. 1, p. 100005, 2019, doi: 10.1016/j.etrans.2019.100005.
- [7] M. Shabani, F. Wallin, E. Dahlquist, and J. Yan, "The impact of battery operating management strategies on life cycle cost assessment in real power market for a grid-connected residential battery application," *Energy*, vol. 270, no. September 2022, p. 126829, 2023, doi: 10.1016/j.energy.2023.126829.
- [8] W. Wu, N. Cong, X. Zhang, Q. Yue, and M. Zhang, "Life cycle assessment and carbon reduction potential prediction of electric vehicles batteries," *Sci. Total Environ.*, vol. 903, no. May, p. 166620, 2023, doi: 10.1016/j.scitotenv.2023.166620.
- [9] Y. Cao, K. Wang, Z. Wang, J. Wang, Y. Yang, and X. Xu, "Utilization of liquid nitrogen as efficient inhibitor upon thermal runaway of 18650 lithium ion battery in open space," *Renew. Energy*, vol. 206, pp. 1097–1105, 2023, doi: <https://doi.org/10.1016/j.renene.2023.02.117>.

- [10] P. D. Patel and S. N. Pandya, "Energy Regeneration during Deceleration of Direct Torque Control of Induction Motor Drive for Electric Vehicles," *Proc. 2019 3rd IEEE Int. Conf. Electr. Comput. Commun. Technol. ICECCT 2019*, pp. 1–4, 2019, doi: 10.1109/ICECCT.2019.8869494.
- [11] Q. Yao, D. D.-C. Lu, and G. Lei, "Rapid Open-Circuit Voltage Measurement Method for Lithium-Ion Batteries Using One-Cycle Bipolar-Current Pulse," *IEEE J. Emerg. Sel. Top. Ind. Electron.*, vol. 2, no. 2, pp. 132–141, 2020, doi: 10.1109/jestie.2020.3041711.
- [12] C. Y. Tang and J. T. Lin, "Online Autonomous Specific Gravity Measurement Strategy for Lead-Acid Batteries," *IEEE Sens. J.*, vol. 20, no. 4, pp. 1980–1987, 2020, doi: 10.1109/JSEN.2019.2948778.
- [13] P. Hoenicke, R. Khatri, C. Bauer, M. Osama, J. Kallo, and C. Willich, "Influence of Low Pressures on the Performance of Lithium Ion Batteries for Airplane Applications," *J. Electrochem. Soc.*, vol. 170, no. 6, p. 060541, 2023, doi: 10.1149/1945-7111/acdd1e.
- [14] Y. Ko, K. Cho, M. Kim, and W. Choi, "A Novel Capacity Estimation Method for the Lithium Batteries Using the Enhanced Coulomb Counting Method With Kalman Filtering," *IEEE Access*, vol. 10, pp. 38793–38801, 2022, doi: 10.1109/ACCESS.2022.3165639.
- [15] M. Senol, I. Safak Bayram, Y. NADERI, and S. Galloway, "Electric Vehicles under Low Temperatures: A Review on Battery Performance, Charging Needs, and Power Grid Impacts," *IEEE Access*, vol. 11, no. March, pp. 39879–39912, 2023, doi: 10.1109/ACCESS.2023.3268615.
- [16] M. Elmahallawy, T. Elfouly, A. Alouani, and A. M. Massoud, "A Comprehensive Review of Lithium-Ion Batteries Modeling, and State of Health and Remaining Useful Lifetime Prediction," *IEEE Access*, vol. 10, no. September, pp. 119040–119070, 2022, doi: 10.1109/ACCESS.2022.3221137.
- [17] X. Gong, R. Xiong, and C. C. Mi, "Study of the Characteristics of Battery Packs in Electric Vehicles with Parallel-Connected Lithium-Ion Battery Cells," *IEEE Trans. Ind. Appl.*, vol. 51, no. 2, pp. 1872–1879, 2015, doi: 10.1109/TIA.2014.2345951.
- [18] Idaho National Laboratory, "2011 Nissan Leaf – VIN 0356," *Veh. Technol. Progr.*, pp. 1–5, 2011, [Online]. Available: http://www1.eere.energy.gov/vehiclesandfuels/avta/pdfs/fsev/battery_leaf_0356.pdf
- [19] U.S Department of Energy, "2013 Chevrolet Volt – VIN 3929," pp. 1–6, 2013.

- [20] A. Aktaş and Y. Kirçiçek, "Chapter 5 - Solar Hybrid Systems and Energy Storage Systems," A. Aktaş and Y. B. T.-S. H. S. Kirçiçek, Eds., Academic Press, 2021, pp. 87–125. doi: <https://doi.org/10.1016/B978-0-323-88499-0.00005-7>.
- [21] A. Singh, K. Pal, and C. B. Vishwakarma, "State of charge estimation techniques of Li-ion battery of electric vehicles," *e-Prime - Adv. Electr. Eng. Electron. Energy*, vol. 6, no. October, p. 100328, 2023, doi: [10.1016/j.prime.2023.100328](https://doi.org/10.1016/j.prime.2023.100328).
- [22] M. G. Lim, J. B. Jung, N. H. Kim, J. M. Kim, J. Shen, and D. S. Rho, "Evaluation Method of Internal Resistance for Repurposing Using Middle and Large-Sized Batteries," *Energies*, vol. 16, no. 15, 2023, doi: [10.3390/en16155652](https://doi.org/10.3390/en16155652).
- [23] Z. Rahmawan, "Estimasi State of Charge (Soc) Pada Baterai Lead-Acid Dengan Menggunakan Metode Coulomb Counting Pada PV Hybrid," *Its*, no. 0 Surabaya, p. 123, 2018.
- [24] G. Vora and P. Gundewar, "Survey on Designing of Electric Vehicle Instrument Cluster," *Proc. 2nd Int. Conf. Intell. Comput. Control Syst. ICICCS 2018*, no. Iccics, pp. 765–771, 2019, doi: [10.1109/ICCONS.2018.8662836](https://doi.org/10.1109/ICCONS.2018.8662836).
- [25] J. M. G. Valle, J. C. C. Garcia, and E. R. Cadaval, "Electric vehicle monitoring system by using MATLAB/App Designer," *Proc. - 2017 Int. Young Eng. Forum, YEF-ECE 2017*, pp. 65–68, 2017, doi: [10.1109/YEF-ECE.2017.7935642](https://doi.org/10.1109/YEF-ECE.2017.7935642).
- [26] D. Zheng, H. Wang, J. An, J. Chen, H. Pan, and L. Chen, "Real-time estimation of battery state of charge with metabolic grey model and LabVIEW platform," *IEEE Access*, vol. 6, pp. 13170–13180, 2018, doi: [10.1109/ACCESS.2018.2807805](https://doi.org/10.1109/ACCESS.2018.2807805).
- [27] D. Benedetti, J. Agnelli, A. Gagliardi, P. Dini, and S. Saponara, "Design of a Digital Dashboard on Low-Cost Embedded Platform in a Fully Electric Vehicle," *Proc. - 2020 IEEE Int. Conf. Environ. Electr. Eng. 2020 IEEE Ind. Commer. Power Syst. Eur. IEEEIC / I CPS Eur. 2020*, no. 7165, pp. 1–5, 2020, doi: [10.1109/IEEEIC/ICPSEurope49358.2020.9160509](https://doi.org/10.1109/IEEEIC/ICPSEurope49358.2020.9160509).
- [28] M. U. Khasan, "Literatur Review : Analisa Performa Baterai Lithium-air, Lithium-sulfur, All-Solid-State Battery, Lithium-ion Pada Kendaraan Listrik," *J. Tek. Elektro*, vol. 10, pp. 597–607, 2021, [Online]. Available: <https://ejournal.unesa.ac.id/index.php/JTE/article/download/42028/36139>
- [29] A. Satriady, W. Alamsyah, H. I. Saad, and S. Hidayat, "PENGARUH LUAS ELEKTRODA TERHADAP KARAKTERISTIK BATERAI LiFePO₄," *J.*

Mater. dan Energi Indones., vol. 06, no. 02, pp. 43–48, 2016.

- [30] F. Damayanti, “Perancangan Sistem Charging Dan Monitoring Pada Baterai Level Tegangan 12 VOLT DC Berbasis Mikrokontroler Atmega16,” p. Surabaya, 2018.
- [31] A. Rosman, Risdayana, E. Yuliani, and Vovi, “Karakteristik arus dan tegangan pada rangkaian seri dan rangkaian paralel dengan menggunakan resistor,” *J. Ilm. d’Computare*, vol. 9, pp. 40–43, 2019.
- [32] Y. K. Tan, J. C. Mao, and K. J. Tseng, “Modelling of battery temperature effect on electrical characteristics of Li-ion battery in hybrid electric vehicle,” *Proc. Int. Conf. Power Electron. Drive Syst.*, no. December, pp. 637–642, 2011, doi: 10.1109/PEDS.2011.6147318.
- [33] R. Agned and Nurhalim, “Studi Kapasitas Baterai 110 Vdc pada Gardu Induk 150 kV Bangkinang,” *Jom FTEKNIK*, vol. 3, no. 2, pp. 1–9, 2016, [Online]. Available: <https://jom.unri.ac.id/index.php/JOMFTEKNIK/article/view/11137>
- [34] L. Canals Casals, M. Etxandi-Santolaya, P. A. Bibiloni-Mulet, C. Corchero, and L. Trilla, “Electric Vehicle Battery Health Expected at End of Life in the Upcoming Years Based on UK Data,” *Batteries*, vol. 8, no. 10, 2022, doi: 10.3390/batteries8100164.
- [35] M. Etxandi-Santolaya, L. Canals Casals, and C. Corchero, “Estimation of electric vehicle battery capacity requirements based on synthetic cycles,” *Transp. Res. Part D Transp. Environ.*, vol. 114, no. July 2022, p. 103545, 2023, doi: 10.1016/j.trd.2022.103545.
- [36] R. RAKHMAWATI, S. SUTEDJO, F. N. OKTAVIANI, I. IRIANTO, D. S. YANARATRI, and A. F. ADILA, “Estimasi State of Charge pada Baterai Lead Acid menggunakan Elman Recurrent Neural Network,” *ELKOMIKA J. Tek. Energi Elektr. Tek. Telekomun. Tek. Elektron.*, vol. 11, no. 4, p. 864, 2023, doi: 10.26760/elkomika.v11i4.864.
- [37] I. Civilization, TEMA 19, and E. Domenico, “No 主観的健康感を中心とした在宅高齢者における健康関連指標に関する共分散構造分析Title,” p. 6, 2021.
- [38] X. Liu, C. Zheng, J. Wu, J. Meng, D. I. Stroe, and J. Chen, “An improved state of charge and state of power estimation method based on genetic particle filter for lithium-ion batteries,” *Energies*, vol. 13, no. 2, 2020, doi: 10.3390/en13020478.
- [39] Sarah R, “Advanced State Estimation for Electric Vehicle Batteries”.

- [40] Ahmad Faiz Farizy, "Desain Sistem Monitoring State of Charge Baterai Pada Charging Station Mobil Listrik Berbasis Fuzzy Logic Dengan Mempertimbangkan Temperature Design of Monitoring System of State of Charge of Battery in a Charging Station Electric Car Based on Fuzzy Logic," *J. Tek. ITS*, 2016.
- [41] E. M. Allam, "Study Vehicle Battery Simulation and Monitoring System," *Am. J. Model. Optim.*, vol. 3, no. 2, pp. 40–49, 2015, doi: 10.12691/ajmo-3-2-2.
- [42] B. R. Abdilah, A. Syakur, and Y. Alvin, "Perancangan Prototipe Alat Ukur Tegangan Ujung Feeder Menggunakan Metode Pembagi Tegangan," *Transient J. Ilm. Tek. Elektro*, vol. 10, no. 1, pp. 48–53, 2021, doi: 10.14710/transient.v10i1.48-53.
- [43] H. Purnomo, "Rangkaian Elektrik," *Jur. Tek. Elektro Fak. Tek. Univ. Brawijaya Malang*, vol. 1, p. 64, 2017, [Online]. Available: <http://elektro.ub.ac.id/wp-content/uploads/2019/01/Rangkaian-Elektrik-pdf.pdf>
- [44] T. Jackery, "Panduan Utama untuk Bagan Tegangan Baterai Lithium-Ion," pp. 1–17, 2023.
- [45] P. Shrivastava, S. Member, and T. K. Soon, "Combined State of Charge and State of Energy Estimation of Lithium-Ion Battery Using Dual Forgetting Factor-Based Adaptive Extended Kalman Filter for Electric Vehicle Applications," vol. 70, no. 2, pp. 1200–1215, 2021.
- [46] M. R. Agsa and A. Fatoni, "Estimasi State of Charge Baterai dengan Kalman Filter untuk Battery Management System," *J. Tek. ITS*, vol. 12, no. 2, 2023, doi: 10.12962/j23373539.v12i2.114629.
- [47] K. Movassagh, A. Raihan, B. Balasingam, and K. Pattipati, "A critical look at coulomb counting approach for state of charge estimation in batteries," *Energies*, vol. 14, no. 14, pp. 1–33, 2021, doi: 10.3390/en14144074.
- [48] Z. Haizhou, "Modeling of lithium-ion battery for charging/discharging characteristics based on circuit model," *Int. J. Online Eng.*, vol. 13, no. 6, pp. 86–95, 2017, doi: 10.3991/ijoe.v13i06.6799.
- [49] K. Sayed and H. A. Gabbar, "Electric Vehicle to Power Grid Integration Using Three-Phase Three-Level AC/DC Converter and PI-Fuzzy Controller," *Energies*, vol. 9, no. 7, 2016, doi: 10.3390/en9070532.
- [50] N. Noura, L. Boulon, and S. Jemeï, "A review of battery state of health estimation methods: Hybrid electric vehicle challenges," *World Electr. Veh. J.*, vol. 11, no. 4, pp. 1–20, 2020, doi: 10.3390/wevj11040066.

- [51] L. Power, "Data Manual," no. May, 2002.
- [52] C. D. Spencer, "ADC Module," *Digit. Des. Comput. Data Acquis.*, no. September, pp. 203–210, 2009, doi: 10.1017/cbo9780511608247.009.
- [53] D. Ibrahim, *Advanced PIC Microcontroller Projects in C*.
- [54] R. Xiong, Q. Yu, W. Shen, C. Lin, and F. Sun, "A Sensor Fault Diagnosis Method for a Lithium-Ion Battery Pack in Electric Vehicles," *IEEE Trans. Power Electron.*, vol. 34, no. 10, pp. 9709–9718, 2019, doi: 10.1109/TPEL.2019.2893622.
- [55] A. Cheng, Y. Xin, H. Wu, L. Yang, and B. Deng, "A Review of Sensor Applications in Electric Vehicle Thermal Management Systems," *Energies*, vol. 16, no. 13, 2023, doi: 10.3390/en16135139.
- [56] C. Mobil, "Ioniq 5: V2L," pp. 1–4, [Online]. Available: <https://www.hyundaimotorgroup.com/tv/CONT00000000000002268>
- [57] Hyundai, "Ioniq 5," *Hyundai*, 2022, [Online]. Available: <https://www.hyundai.com/id/id/build-a-car/build-and-price/build-and-price-steps?productCode=ioniq5>

