## Bibliography

- Global Energy & CO2 Status Report 2018, The latest trends in energy and emissions in 2018, 2018, https://www.iea.org/geco/.
- [2] Global tends in renewable energy investment, 2019, https://www.unenvironment. org/resources/report/global-trends-renewable-energy-investment-2019.
- [3] Ministry of New and Renewable Energy (MNRE), 2019, https://mnre.gov.in/.
- [4] A. Merlin, "Search for a minimal-loss operating spanning tree configuration for an urban power distribution system," Proc. of 5th PSCC, 1975, vol. 1, pp. 1–18, 1975.
- [5] D. Shirmohammadi and H. W. Hong, "Reconfiguration of electric distribution networks for resistive line losses reduction," *IEEE Transactions on Power Delivery*, vol. 4, no. 2, pp. 1492–1498, 1989.
- [6] S. K. Goswami and S. K. Basu, "A new algorithm for the reconfiguration of distribution feeders for loss minimization," *IEEE Transactions on Power Delivery*, vol. 7, no. 3, pp. 1484–1491, 1992.
- S. Civanlar, J. Grainger, H. Yin, and S. Lee, "Distribution feeder reconfiguration for loss reduction," *IEEE Transactions on Power Delivery*, vol. 3, no. 3, pp. 1217–1223, 1988.
- [8] J.-Y. Fan, L. Zhang, and J. D. McDonald, "Distribution network reconfiguration: single loop optimization," *IEEE transactions on Power Systems*, vol. 11, no. 3, pp. 1643–1647, 1996.
- [9] A. K. Ferdavani, A. A. M. Zin, A. Khairuddin, and M. M. Naeini, "Reconfiguration of distribution system through two minimum-current neighbour-chain updating

methods," *IET Generation, Transmission & Distribution*, vol. 7, no. 12, pp. 1492–1497, 2013.

- [10] A. A. M. Zin, A. K. Ferdavani, A. B. Khairuddin, and M. M. Naeini, "Two circularupdating hybrid heuristic methods for minimum-loss reconfiguration of electrical distribution network," *IEEE Transactions on Power Systems*, vol. 28, no. 2, pp. 1318–1323, 2012.
- [11] F. Ding and K. A. Loparo, "Hierarchical decentralized network reconfiguration for smart distribution systemspart i: Problem formulation and algorithm development," *IEEE Transactions on Power Systems*, vol. 30, no. 2, pp. 734–743, 2014.
- [12] K. Nara, A. Shiose, M. Kitagawa, and T. Ishihara, "Implementation of genetic algorithm for distribution systems loss minimum re-configuration," *IEEE Transactions* on Power systems, vol. 7, no. 3, pp. 1044–1051, 1992.
- [13] J. Z. Zhu, "Optimal reconfiguration of electrical distribution network using the refined genetic algorithm," *Electric Power Systems Research*, vol. 62, no. 1, pp. 37–42, 2002.
- [14] R. S. Rao, S. V. L. Narasimham, M. R. Raju, and A. S. Rao, "Optimal network reconfiguration of large-scale distribution system using harmony search algorithm," *IEEE Transactions on power systems*, vol. 26, no. 3, pp. 1080–1088, 2010.
- [15] A. Asrari, T. Wu, and S. Lotfifard, "The impacts of distributed energy sources on distribution network reconfiguration," *IEEE Transactions on Energy Conversion*, vol. 31, no. 2, pp. 606–613, 2016.
- [16] A. Zidan, M. F. Shaaban, and E. F. El-Saadany, "Long-term multi-objective distribution network planning by dg allocation and feeders reconfiguration," *Electric Power Systems Research*, vol. 105, pp. 95–104, 2013.
- [17] E. Romero-Ramos, J. Riquelme-Santos, and J. Reyes, "A simpler and exact mathematical model for the computation of the minimal power losses tree," *Electric Power Systems Research*, vol. 80, no. 5, pp. 562–571, 2010.

- [18] H. Khodr, J. Martinez-Crespo, M. Matos, and J. Pereira, "Distribution systems reconfiguration based on opf using benders decomposition," *IEEE Transactions on Power Delivery*, vol. 24, no. 4, pp. 2166–2176, 2009.
- [19] R. A. Jabr, R. Singh, and B. C. Pal, "Minimum loss network reconfiguration using mixed-integer convex programming," *IEEE Transactions on Power systems*, vol. 27, no. 2, pp. 1106–1115, 2012.
- [20] J. C. López, J. F. Franco, and M. J. Rider, "Optimisation-based switch allocation to improve energy losses and service restoration in radial electrical distribution systems," *IET Generation, Transmission & Distribution*, vol. 10, no. 11, pp. 2792– 2801, 2016.
- [21] H. Haghighat and B. Zeng, "Distribution system reconfiguration under uncertain load and renewable generation," *IEEE Transactions on Power Systems*, vol. 31, no. 4, pp. 2666–2675, 2015.
- [22] E. R. Ramos, A. G. Expósito, J. R. Santos, and F. L. Iborra, "Path-based distribution network modeling: application to reconfiguration for loss reduction," *IEEE Transactions on power systems*, vol. 20, no. 2, pp. 556–564, 2005.
- [23] S. F. Santos, D. Z. Fitiwi, M. R. Cruz, C. M. Cabrita, and J. P. Catalão, "Impacts of optimal energy storage deployment and network reconfiguration on renewable integration level in distribution systems," *Applied energy*, vol. 185, pp. 44–55, 2017.
- [24] H. B. Tolabi, M. H. Ali, and M. Rizwan, "Simultaneous reconfiguration, optimal placement of dstatcom, and photovoltaic array in a distribution system based on fuzzy-aco approach," *IEEE Transactions on sustainable Energy*, vol. 6, no. 1, pp. 210–218, 2014.
- [25] T. T. Nguyen, A. V. Truong, and T. A. Phung, "A novel method based on adaptive cuckoo search for optimal network reconfiguration and distributed generation allocation in distribution network," *International Journal of Electrical Power & Energy* Systems, vol. 78, pp. 801–815, 2016.

- [26] H. R. Esmaeilian and R. Fadaeinedjad, "Energy loss minimization in distribution systems utilizing an enhanced reconfiguration method integrating distributed generation," *IEEE Systems Journal*, vol. 9, no. 4, pp. 1430–1439, 2014.
- [27] K. Nekooei, M. M. Farsangi, H. Nezamabadi-Pour, and K. Y. Lee, "An improved multi-objective harmony search for optimal placement of dgs in distribution systems," *IEEE Transactions on smart grid*, vol. 4, no. 1, pp. 557–567, 2013.
- [28] A. M. Imran, M. Kowsalya, and D. Kothari, "A novel integration technique for optimal network reconfiguration and distributed generation placement in power distribution networks," *International Journal of Electrical Power & Energy Systems*, vol. 63, pp. 461–472, 2014.
- [29] S. Singh, G. Raju, G. Rao, and M. Afsari, "A heuristic method for feeder reconfiguration and service restoration in distribution networks," *International Journal of Electrical Power & Energy Systems*, vol. 31, no. 7-8, pp. 309–314, 2009.
- [30] D. Shirmohammadi, "Service restoration in distribution networks via network reconfiguration," *IEEE Transactions on Power Delivery*, vol. 7, no. 2, pp. 952–958, 1992.
- [31] W.-M. Lin and H.-C. Chin, "A new approach for distribution feeder reconfiguration for loss reduction and service restoration," *IEEE Transactions on Power Delivery*, vol. 13, no. 3, pp. 870–875, 1998.
- [32] K. N. Miu, H.-D. Chiang, and R. J. McNulty, "Multi-tier service restoration through network reconfiguration and capacitor control for large-scale radial distribution networks," in *Proceedings of the 21st International Conference on Power Industry Computer Applications. Connecting Utilities. PICA 99. To the Millennium and Beyond* (Cat. No. 99CH36351). IEEE, 1999, pp. 153–159.
- [33] K. Manjunath and M. Mohan, "A new hybrid multi-objective quick service restoration technique for electric power distribution systems," *International Journal of Electrical Power & Energy Systems*, vol. 29, no. 1, pp. 51–64, 2007.

- [34] N. C. Koutsoukis, P. A. Karafotis, P. S. Georgilakis, and N. D. Hatziargyriou, "Optimal service restoration of power distribution networks considering voltage regulation," in *PowerTech*, 2017 IEEE Manchester. IEEE, 2017, pp. 1–6.
- [35] R. Anilkumar, G. Devriese, and A. K. Srivastava, "Voltage and reactive power control to maximize the energy savings in power distribution system with wind energy," *IEEE Transactions on Industry Applications*, vol. 54, no. 1, pp. 656–664, 2017.
- [36] A. Padilha-Feltrin, D. A. Q. Rodezno, and J. R. S. Mantovani, "Volt-var multiobjective optimization to peak-load relief and energy efficiency in distribution networks," *IEEE Transactions on Power Delivery*, vol. 30, no. 2, pp. 618–626, 2014.
- [37] N. Daratha, B. Das, and J. Sharma, "Coordination between oltc and svc for voltage regulation in unbalanced distribution system distributed generation," *IEEE Transactions on Power Systems*, vol. 29, no. 1, pp. 289–299, 2013.
- [38] H. Ahmadi, J. R. Martí, and H. W. Dommel, "A framework for volt-var optimization in distribution systems," *IEEE Transactions on Smart Grid*, vol. 6, no. 3, pp. 1473– 1483, 2014.
- [39] R.-H. Liang, Y.-K. Chen, and Y.-T. Chen, "Volt/var control in a distribution system by a fuzzy optimization approach," *International Journal of Electrical Power & Energy Systems*, vol. 33, no. 2, pp. 278–287, 2011.
- [40] S. Paudyal, C. A. Canizares, and K. Bhattacharya, "Optimal operation of distribution feeders in smart grids," *IEEE Transactions on Industrial Electronics*, vol. 58, no. 10, pp. 4495–4503, 2011.
- [41] L. Mokgonyana, J. Zhang, L. Zhang, and X. Xia, "Coordinated two-stage volt/var management in distribution networks," *Electric Power Systems Research*, vol. 141, pp. 157–164, 2016.
- [42] A. G. Madureira and J. P. Lopes, "Coordinated voltage support in distribution networks with distributed generation and microgrids," *IET Renewable Power Generation*, vol. 3, no. 4, pp. 439–454, 2009.

- [43] M. Di Somma, G. Graditi, E. Heydarian-Forushani, M. Shafie-Khah, and P. Siano, "Stochastic optimal scheduling of distributed energy resources with renewables considering economic and environmental aspects," *Renewable energy*, vol. 116, pp. 272– 287, 2018.
- [44] Y. Chen, M. Strothers, and A. Benigni, "All-day coordinated optimal scheduling in distribution grids with pv penetration," *Electric Power Systems Research*, vol. 164, pp. 112–122, 2018.
- [45] P. Li, H. Ji, C. Wang, J. Zhao, G. Song, F. Ding, and J. Wu, "Coordinated control method of voltage and reactive power for active distribution networks based on soft open point," *IEEE Transactions on Sustainable Energy*, vol. 8, no. 4, pp. 1430–1442, 2017.
- [46] T. Niknam, "A new hbmo algorithm for multiobjective daily volt/var control in distribution systems considering distributed generators," *Applied Energy*, vol. 88, no. 3, pp. 778–788, 2011.
- [47] T. Niknam, M. Zare, and J. Aghaei, "Scenario-based multiobjective volt/var control in distribution networks including renewable energy sources," *IEEE Transactions* on Power Delivery, vol. 27, no. 4, pp. 2004–2019, 2012.
- [48] J. Smith, W. Sunderman, R. Dugan, and B. Seal, "Smart inverter volt/var control functions for high penetration of pv on distribution systems," in 2011 IEEE/PES Power Systems Conference and Exposition. IEEE, 2011, pp. 1–6.
- [49] V. Calderaro, G. Conio, V. Galdi, G. Massa, and A. Piccolo, "Optimal decentralized voltage control for distribution systems with inverter-based distributed generators," *IEEE Transactions on Power Systems*, vol. 29, no. 1, pp. 230–241, 2013.
- [50] P. Jahangiri and D. C. Aliprantis, "Distributed volt/var control by pv inverters," *IEEE Transactions on power systems*, vol. 28, no. 3, pp. 3429–3439, 2013.
- [51] Y. Xu, Z. Y. Dong, R. Zhang, and D. J. Hill, "Multi-timescale coordinated voltage/var control of high renewable-penetrated distribution systems," *IEEE Transactions on Power Systems*, vol. 32, no. 6, pp. 4398–4408, 2017.

- [52] C. Zhang, Y. Xu, Z. Y. Dong, and J. Ravishankar, "Three-stage robust inverterbased voltage/var control for distribution networks with high-level pv," *IEEE Transactions on Smart Grid*, vol. 10, no. 1, pp. 782–793, 2019.
- [53] S. Singh and S. P. Singh, "Energy saving estimation in distribution network with smart grid-enabled cvr and solar pv inverter," *IET Generation, Transmission & Distribution*, vol. 12, no. 6, pp. 1346–1358, 2018.
- [54] Z. Ziadi, S. Taira, M. Oshiro, and T. Funabashi, "Optimal power scheduling for smart grids considering controllable loads and high penetration of photovoltaic generation," *IEEE Transactions on Smart Grid*, vol. 5, no. 5, pp. 2350–2359, 2014.
- [55] H. E. Farag and E. F. El-Saadany, "A novel cooperative protocol for distributed voltage control in active distribution systems," *IEEE transactions on power systems*, vol. 28, no. 2, pp. 1645–1656, 2012.
- [56] M. N. Kabir, Y. Mishra, G. Ledwich, Z. Y. Dong, and K. P. Wong, "Coordinated control of grid-connected photovoltaic reactive power and battery energy storage systems to improve the voltage profile of a residential distribution feeder," *IEEE Transactions on industrial Informatics*, vol. 10, no. 2, pp. 967–977, 2014.
- [57] X. Liu, A. Aichhorn, L. Liu, and H. Li, "Coordinated control of distributed energy storage system with tap changer transformers for voltage rise mitigation under high photovoltaic penetration," *IEEE Transactions on Smart Grid*, vol. 3, no. 2, pp. 897–906, 2012.
- [58] P. Bagheri and W. Xu, "Assessing benefits of volt-var control schemes using ami data analytics," *IEEE Transactions on Smart Grid*, vol. 8, no. 3, pp. 1295–1304, 2016.
- [59] V. V. V. S. N. Murty and A. K. Sharma, "Optimal coordinate control of oltc, dg, d-statcom, and reconfiguration in distribution system for voltage control and loss minimization," *International Transactions on Electrical Energy Systems*, vol. 29, no. 3, p. e2752, 2019.

- [60] Z. Wang and J. Wang, "Review on implementation and assessment of conservation voltage reduction," *IEEE Transactions on Power Systems*, vol. 29, no. 3, pp. 1306– 1315, 2014.
- [61] R. Preiss and V. Warnock, "Impact of voltage reduction on energy and demand," *IEEE Transactions on Power Apparatus and Systems*, no. 5, pp. 1665–1671, 1978.
- [62] V. Warnock and T. Kirkpatrick, "Impact of voltage reduction on energy and demand: Phase ii," *IEEE transactions on power systems*, vol. 1, no. 2, pp. 92–95, 1986.
- [63] J. Erickson and S. Gilligan, "The effects of voltage reduction on distribution circuit loads," *IEEE Transactions on Power Apparatus and Systems*, no. 7, pp. 2014–2018, 1982.
- [64] K. Fagen and C. Bernier, "Efficiencies in distribution design and operating practices mid-study analysis (february 2007)," in 2007 IEEE Rural Electric Power Conference. IEEE, 2007, pp. B6–B6.
- [65] B. Milosevic and M. Begovic, "Capacitor placement for conservative voltage reduction on distribution feeders," *IEEE transactions on power delivery*, vol. 19, no. 3, pp. 1360–1367, 2004.
- [66] M. A. Peskin, P. W. Powell, and E. J. Hall, "Conservation voltage reduction with feedback from advanced metering infrastructure," in *PES T&D 2012*. IEEE, 2012, pp. 1–8.
- [67] I. Roytelman and J. Medina, "Volt/var control and conservation voltage reduction as a function of advanced dms," in 2016 IEEE Power & Energy Society Innovative Smart Grid Technologies Conference (ISGT). IEEE, 2016, pp. 1–4.
- [68] D. Quijano and A. P. Feltrin, "Assessment of conservation voltage reduction effects in networks with distributed generators," in 2015 IEEE PES Innovative Smart Grid Technologies Latin America (ISGT LATAM). Ieee, 2015, pp. 393–398.
- [69] "Ieee standard for interconnection and interoperability of distributed energy resources with associated electric power systems interfaces," *IEEE Std*, pp. 1547–2018, 2018.

- [70] M. S. Hossan and B. H. Chowdhury, "Integrated cvr and demand response framework for advanced distribution management systems," *IEEE Transactions on Sustainable Energy*, 2019.
- [71] L. Gutierrez-Lagos and L. F. Ochoa, "Opf-based cvr operation in pv-rich mv-lv distribution networks," *IEEE Transactions on Power Systems*, 2019.
- [72] F. Ding and M. Baggu, "Coordinated use of smart inverters with legacy voltage regulating devices in distribution systems with high distributed pv penetrationincrease cvr energy savings," *IEEE Transactions on Smart Grid*, 2018.
- [73] T. Ackermann, G. Andersson, and L. Söder, "Distributed generation: a definition," *Electric power systems research*, vol. 57, no. 3, pp. 195–204, 2001.
- [74] M. N. Marwali, J. Jung, A. Keyhani *et al.*, "Stability analysis of load sharing control for distributed generation systems," *IEEE Transcations on Energy Conversion*, vol. 22, no. 3, p. 737, 2007.
- [75] N. Acharya, P. Mahat, and N. Mithulananthan, "An analytical approach for dg allocation in primary distribution network," *International Journal of Electrical Power* & Energy Systems, vol. 28, no. 10, pp. 669–678, 2006.
- [76] D. Q. Hung, N. Mithulananthan, and R. Bansal, "Analytical expressions for dg allocation in primary distribution networks," *IEEE Transactions on Energy Con*version, vol. 25, no. 3, pp. 814–820, 2010.
- [77] D. Q. Hung and N. Mithulananthan, "Multiple distributed generator placement in primary distribution networks for loss reduction," *IEEE Transactions on Industrial Electronics*, vol. 60, no. 4, pp. 1700–1708, 2013.
- [78] C. Wang and M. H. Nehrir, "Analytical approaches for optimal placement of distributed generation sources in power systems," *IEEE Transactions on Power Systems*, vol. 19, no. 4, pp. 2068–2076, 2004.
- [79] G. Celli, E. Ghiani, S. Mocci, and F. Pilo, "A multiobjective evolutionary algorithm for the sizing and siting of distributed generation," *IEEE Transactions on Power Systems*, vol. 20, no. 2, pp. 750–757, 2005.

- [80] S.-H. Lee and J.-W. Park, "Selection of optimal location and size of multiple distributed generations by using kalman filter algorithm," *IEEE Transactions on Power Systems*, vol. 24, no. 3, pp. 1393–1400, 2009.
- [81] S. H. Lee and J.-W. Park, "Optimal placement and sizing of multiple dgs in a practical distribution system by considering power loss," *IEEE Transactions on Industry Applications*, vol. 49, no. 5, pp. 2262–2270, 2013.
- [82] M. F. Shaaban, Y. M. Atwa, and E. F. El-Saadany, "Dg allocation for benefit maximization in distribution networks," *IEEE Transactions on Power Systems*, vol. 28, no. 2, pp. 639–649, 2013.
- [83] S. N. G. Naik, D. K. Khatod, and M. P. Sharma, "Analytical approach for optimal siting and sizing of distributed generation in radial distribution networks," *IET Generation, Transmission & Distribution*, vol. 9, no. 3, pp. 209–220, 2014.
- [84] A. Ameli, S. Bahrami, F. Khazaeli, and M.-R. Haghifam, "A multiobjective particle swarm optimization for sizing and placement of dgs from dg owner's and distribution company's viewpoints," *IEEE Transactions on Power Delivery*, vol. 29, no. 4, pp. 1831–1840, 2014.
- [85] S. Elsaiah, M. Benidris, and J. Mitra, "Analytical approach for placement and sizing of distributed generation on distribution systems," *IET Generation, Transmission & Distribution*, vol. 8, no. 6, pp. 1039–1049, 2014.
- [86] V. Murthy and A. Kumar, "Comparison of optimal dg allocation methods in radial distribution systems based on sensitivity approaches," *International Journal of Electrical Power & Energy Systems*, vol. 53, pp. 450–467, 2013.
- [87] H. L. Willis, "Analytical methods and rules of thumb for modeling dg-distribution interaction," in *Power Engineering Society Summer Meeting*, 2000. IEEE, vol. 3. IEEE, 2000, pp. 1643–1644.
- [88] K. M. Muttaqi, A. D. Le, M. Negnevitsky, and G. Ledwich, "An algebraic approach for determination of dg parameters to support voltage profiles in radial distribution networks," *IEEE Transactions on Smart Grid*, vol. 5, no. 3, pp. 1351–1360, 2014.

- [89] D. Kumar, S. Samantaray, I. Kamwa, and N. Sahoo, "Reliability-constrained based optimal placement and sizing of multiple distributed generators in power distribution network using cat swarm optimization," *Electric Power Components and Systems*, vol. 42, no. 2, pp. 149–164, 2014.
- [90] M. Esmaili, "Placement of minimum distributed generation units observing power losses and voltage stability with network constraints," *IET Generation, Transmis*sion & Distribution, vol. 7, no. 8, pp. 813–821, 2013.
- [91] T. Shukla, S. Singh, V. Srinivasarao, and K. Naik, "Optimal sizing of distributed generation placed on radial distribution systems," *Electric power components and* systems, vol. 38, no. 3, pp. 260–274, 2010.
- [92] W. S. Tan, M. Y. Hassan, H. A. Rahman, M. P. Abdullah, and F. Hussin, "Multi-distributed generation planning using hybrid particle swarm optimisationgravitational search algorithm including voltage rise issue," *IET Generation, Trans*mission & Distribution, vol. 7, no. 9, pp. 929–942, 2013.
- [93] P. S. Georgilakis and N. D. Hatziargyriou, "Optimal distributed generation placement in power distribution networks: models, methods, and future research," *IEEE transactions on Power systems*, vol. 28, no. 3, pp. 3420–3428, 2013.
- [94] N. Jain, S. Singh, and S. Srivastava, "A generalized approach for dg planning and viability analysis under market scenario," *IEEE Transactions on Industrial Electronics*, vol. 60, no. 11, pp. 5075–5085, 2013.
- [95] R. Li, W. Wang, X. Wu, F. Tang, and Z. Chen, "Cooperative planning model of renewable energy sources and energy storage units in active distribution systems: A bi-level model and pareto analysis," *Energy*, vol. 168, pp. 30–42, 2019.
- [96] J. M. Home-Ortiz, M. Pourakbari-Kasmaei, M. Lehtonen, and J. R. S. Mantovani, "Optimal location-allocation of storage devices and renewable-based dg in distribution systems," *Electric Power Systems Research*, vol. 172, pp. 11–21, 2019.
- [97] Y. Li, B. Feng, G. Li, J. Qi, D. Zhao, and Y. Mu, "Optimal distributed generation planning in active distribution networks considering integration of energy storage," *Applied energy*, vol. 210, pp. 1073–1081, 2018.

- [98] M. R. Jannesar, A. Sedighi, M. Savaghebi, and J. M. Guerrero, "Optimal placement, sizing, and daily charge/discharge of battery energy storage in low voltage distribution network with high photovoltaic penetration," *Applied energy*, vol. 226, pp. 957–966, 2018.
- [99] V. A. Evangelopoulos and P. S. Georgilakis, "Optimal distributed generation placement under uncertainties based on point estimate method embedded genetic algorithm," *IET Generation, Transmission & Distribution*, vol. 8, no. 3, pp. 389–400, 2013.
- [100] Y. Zhang, S. Ren, Z. Y. Dong, Y. Xu, K. Meng, and Y. Zheng, "Optimal placement of battery energy storage in distribution networks considering conservation voltage reduction and stochastic load composition," *IET Generation, Transmission & Distribution*, vol. 11, no. 15, pp. 3862–3870, 2017.
- [101] L. Bai, T. Jiang, F. Li, H. Chen, and X. Li, "Distributed energy storage planning in soft open point based active distribution networks incorporating network reconfiguration and dg reactive power capability," *Applied Energy*, vol. 210, pp. 1082–1091, 2018.
- [102] L. Zhang, C. Shen, Y. Chen, S. Huang, and W. Tang, "Coordinated allocation of distributed generation, capacitor banks and soft open points in active distribution networks considering dispatching results," *Applied energy*, vol. 231, pp. 1122–1131, 2018.
- [103] A. Ali, D. Raisz, and K. Mahmoud, "Optimal oversizing of utility-owned renewable dg inverter for voltage rise prevention in mv distribution systems," *International Journal of Electrical Power & Energy Systems*, vol. 105, pp. 500–513, 2019.
- [104] S. S. AlKaabi, V. Khadkikar, and H. Zeineldin, "Incorporating pv inverter control schemes for planning active distribution networks," *IEEE Transactions on Sustainable Energy*, vol. 6, no. 4, pp. 1224–1233, 2015.
- [105] M. Nick, R. Cherkaoui, and M. Paolone, "Optimal planning of distributed energy storage systems in active distribution networks embedding grid reconfiguration," *IEEE Transactions on Power Systems*, vol. 33, no. 2, pp. 1577–1590, 2017.

- [106] S. Zhang, H. Cheng, D. Wang, L. Zhang, F. Li, and L. Yao, "Distributed generation planning in active distribution network considering demand side management and network reconfiguration," *Applied energy*, vol. 228, pp. 1921–1936, 2018.
- [107] M. Gheydi, A. Nouri, and N. Ghadimi, "Planning in microgrids with conservation of voltage reduction," *IEEE Systems Journal*, vol. 12, no. 3, pp. 2782–2790, 2016.
- [108] Y. Zhang, Y. Xu, H. Yang, and Z. Y. Dong, "Voltage regulation-oriented co-planning of distributed generation and battery storage in active distribution networks," *International Journal of Electrical Power & Energy Systems*, vol. 105, pp. 79–88, 2019.
- [109] M. Wu, L. Kou, X. Hou, Y. Ji, B. Xu, and H. Gao, "A bi-level robust planning model for active distribution networks considering uncertainties of renewable energies," *International Journal of Electrical Power & Energy Systems*, vol. 105, pp. 814–822, 2019.
- [110] D. Singh, D. Singh, and K. Verma, "Multiobjective optimization for dg planning with load models," *IEEE transactions on power systems*, vol. 24, no. 1, pp. 427–436, 2009.
- [111] M. F. Shaaban, Y. M. Atwa, and E. F. El-Saadany, "Dg allocation for benefit maximization in distribution networks," *IEEE Transactions on Power Systems*, vol. 28, no. 2, pp. 639–649, 2012.
- [112] M. Moradi and M. Abedini, "A combination of genetic algorithm and particle swarm optimization for optimal dg location and sizing in distribution systems," *International Journal of Electrical Power & Energy Systems*, vol. 34, no. 1, pp. 66–74, 2012.
- [113] S. Montoya-Bueno, J. I. Muoz, and J. Contreras, "A stochastic investment model for renewable generation in distribution systems," *IEEE Transactions on Sustainable Energy*, vol. 6, no. 4, pp. 1466–1474, 2015.
- [114] O. D. Melgar-Dominguez, M. Pourakbari-Kasmaei, and J. R. S. Mantovani, "Adaptive robust short-term planning of electrical distribution systems considering siting

and sizing of renewable energy based dg units," *IEEE Transactions on Sustainable Energy*, vol. 10, no. 1, pp. 158–169, 2018.

- [115] E. Samani and F. Aminifar, "Tri-level robust investment planning of ders in distribution networks with ac constraints," *IEEE Transactions on Power Systems*, 2019.
- [116] O. Gandhi, C. D. Rodríguez-Gallegos, W. Zhang, D. Srinivasan, and T. Reindl, "Economic and technical analysis of reactive power provision from distributed energy resources in microgrids," *Applied energy*, vol. 210, pp. 827–841, 2018.
- [117] V. Murty and A. Kumar, "Mesh distribution system analysis in presence of distributed generation with time varying load model," *International Journal of Electrical Power & Energy Systems*, vol. 62, pp. 836–854, 2014.
- [118] Z. Wang, B. Chen, J. Wang, and M. M. Begovic, "Stochastic dg placement for conservation voltage reduction based on multiple replications procedure," *IEEE Transactions on Power Delivery*, vol. 30, no. 3, pp. 1039–1047, 2015.
- [119] R. Anilkumar, G. Devriese, and A. K. Srivastava, "Voltage and reactive power control to maximize the energy savings in power distribution system with wind energy," *IEEE Transactions on Industry Applications*, vol. 54, no. 1, pp. 656–664, 2018.
- [120] A. Padilha-Feltrin, D. A. Q. Rodezno, and J. R. S. Mantovani, "Volt-var multiobjective optimization to peak-load relief and energy efficiency in distribution networks," *IEEE Transactions on Power Delivery*, vol. 30, no. 2, pp. 618–626, 2015.
- [121] P. Bagheri and W. Xu, "Assessing benefits of volt-var control schemes using ami data analytics," *IEEE Transactions on Smart Grid*, vol. 8, no. 3, pp. 1295–1304, 2017.
- [122] S. Satsangi and G. B. Kumbhar, "Effect of load models on energy loss reduction using volt-var optimization," in *Power Systems Conference (NPSC)*, 2016 National. IEEE, 2016, pp. 1–6.
- [123] D. K. Molzahn, F. Dörfler, H. Sandberg, S. H. Low, S. Chakrabarti, R. Baldick, and J. Lavaei, "A survey of distributed optimization and control algorithms for electric

power systems," *IEEE Transactions on Smart Grid*, vol. 8, no. 6, pp. 2941–2962, 2017.

- [124] F. Ding and K. A. Loparo, "Hierarchical decentralized network reconfiguration for smart distribution systemspart i: Problem formulation and algorithm development," *IEEE Transactions on Power Systems*, vol. 30, no. 2, pp. 734–743, 2015.
- [125] H. R. Esmaeilian and R. Fadaeinedjad, "Energy loss minimization in distribution systems utilizing an enhanced reconfiguration method integrating distributed generation," *IEEE Systems Journal*, vol. 9, no. 4, pp. 1430–1439, 2015.
- [126] A. M. Eldurssi and R. M. O'Connell, "A fast nondominated sorting guided genetic algorithm for multi-objective power distribution system reconfiguration problem," *IEEE Transactions on Power Systems*, vol. 30, no. 2, pp. 593–601, 2015.
- [127] G. Gutiérrez-Alcaraz and J. H. Tovar-Hernández, "Two-stage heuristic methodology for optimal reconfiguration and volt/var control in the operation of electrical distribution systems," *IET Generation, Transmission & Distribution*, vol. 11, no. 16, pp. 3946–3954, 2017.
- [128] S. Mirjalili, S. M. Mirjalili, and A. Lewis, "Grey wolf optimizer," Advances in engineering software, vol. 69, pp. 46–61, 2014.
- [129] W. Long, J. Jiao, X. Liang, and M. Tang, "Inspired grey wolf optimizer for solving large-scale function optimization problems," *Applied Mathematical Modelling*, vol. 60, pp. 112–126, 2018.
- [130] Y. Del Valle, G. K. Venayagamoorthy, S. Mohagheghi, R. G. Harley, and J. Hernandez, "Particle swarm optimization: basic concepts, variants and applications in power systems," 2008.
- [131] M. E. Baran and F. F. Wu, "Network reconfiguration in distribution systems for loss reduction and load balancing," *IEEE Transactions on Power Delivery*, vol. 4, no. 2, pp. 1401–1407, 1989.
- [132] D. Zhang, Z. Fu, and L. Zhang, "An improved ts algorithm for loss-minimum reconfiguration in large-scale distribution systems," *Electric Power Systems Research*, vol. 77, no. 5-6, pp. 685–694, 2007.

- [133] M. Diaz-Aguiló, J. Sandraz, R. Macwan, F. De Leon, D. Czarkowski, C. Comack, and D. Wang, "Field-validated load model for the analysis of cvr in distribution secondary networks: Energy conservation," *IEEE Transactions on Power Delivery*, vol. 28, no. 4, pp. 2428–2436, 2013.
- [134] I. E. Grossmann, J. Viswanathan, A. Vecchietti, R. Raman, E. Kalvelagen *et al.*, "Gams/dicopt: A discrete continuous optimization package," *GAMS Corporation Inc*, vol. 37, p. 55, 2002.
- [135] R. Dugan, "Reference guide. the open distribution simulator (opendss)," EPRI, July, 2010.
- [136] X. Chen, W. Wu, and B. Zhang, "Robust capacity assessment of distributed generation in unbalanced distribution networks incorporating anm techniques," *IEEE Transactions on Sustainable Energy*, vol. 9, no. 2, pp. 651–663, 2018.
- [137] F. Scarlatache, G. Grigoraş, G. Chicco, and G. Cârţină, "Using k-means clustering method in determination of the optimal placement of distributed generation sources in electrical distribution systems," in 2012 13th International Conference on Optimization of Electrical and Electronic Equipment (OPTIM). IEEE, 2012, pp. 953–958.
- [138] W. Sheng, K.-y. Liu, S. Cheng, X. Meng, and W. Dai, "A trust region sqp method for coordinated voltage control in smart distribution grid," *IEEE Transactions on Smart Grid*, vol. 7, no. 1, pp. 381–391, 2015.
- [139] Z. Li, S. Jazebi, and F. De Leon, "Determination of the optimal switching frequency for distribution system reconfiguration," *IEEE Transactions on Power Delivery*, vol. 32, no. 4, pp. 2060–2069, 2016.
- [140] W. Cao, J. Wu, N. Jenkins, C. Wang, and T. Green, "Operating principle of soft open points for electrical distribution network operation," *Applied Energy*, vol. 164, pp. 245–257, 2016.
- [141] M. Baran and F. F. Wu, "Optimal sizing of capacitors placed on a radial distribution system," *IEEE Transactions on power Delivery*, vol. 4, no. 1, pp. 735–743, 1989.

- [142] C. Sabillon-Antunez, O. D. Melgar-Dominguez, J. F. Franco, M. Lavorato, and M. J. Rider, "Volt-var control and energy storage device operation to improve the electric vehicle charging coordination in unbalanced distribution networks," *IEEE Transactions on Sustainable Energy*, vol. 8, no. 4, pp. 1560–1570, 2017.
- [143] O. Gandhi, W. Zhang, C. D. Rodriguez-Gallegos, M. Bieri, T. Reindl, and D. Srinivasan, "Analytical approach to reactive power dispatch and energy arbitrage in distribution systems with ders," *IEEE Transactions on Power Systems*, vol. 33, no. 6, pp. 6522–6533, 2018.
- [144] P. V. Babu and S. Singh, "Optimal placement of dg in distribution network for power loss minimization using nlp & pls technique," *Energy Procedia*, vol. 90, pp. 441–454, 2016.
- [145] D. Q. Hung, N. Mithulananthan, and K. Y. Lee, "Determining pv penetration for distribution systems with time-varying load models," *IEEE Transactions on Power Systems*, vol. 29, no. 6, pp. 3048–3057, 2014.
- [146] A. Brooke, D. Kendrick, A. Meeraus, R. Raman, and R. Rasenthal, ": a users guide.," GAMS Development Corporation: Washington, DC, 1998.