

References

References

- Abdraman, M., Tahir, A., Lissouck, D., Kazet, M., and MOUANGUE, R. (2016). Wind Resource Assessment in the City of N'djamena in Chad. *International Journal of Renewable Energy Research (IJRER)*, 6(3), 1022-1036.
- Abdullah, M. A., Agalgaonkar, A. P., & Muttaqi, K. M. (2014). Assessment of energy supply and continuity of service in distribution network with renewable distributed generation. *Applied Energy*, 113, 1015-1026.
- Ackermann, T. (2005). Wind power in power systems. *John Wiley & Sons (Ed.)*.
- Ackermann, T., Andersson, G., & Söder, L. (2001). Distributed generation: a definition. *Electric power systems research*, 57(3), 195-204.
- Ahmad, S., & Tahar, R. M. (2014). Selection of renewable energy sources for sustainable development of electricity generation system using analytic hierarchy process: A case of Malaysia. *Renewable energy*, 63, 458-466.
- Ahmed, M. H., Bhattacharya, K., & Salama, M. M. A. (2011, November). Analysis of uncertainty model to incorporate wind penetration in LMP-based energy markets. In *Electric Power and Energy Conversion Systems (EPECS), 2011 2nd International Conference on* (pp. 1-8). IEEE.
- Akgül, F. G., Şenoğlu, B., and Arslan, T. (2016). An alternative distribution to Weibull for modeling the wind speed data: Inverse Weibull distribution. *Energy Conversion and Management*, 114, 234-240.
- Akpınar, S., and Akpinar, E. K. (2009). Estimation of wind energy potential using finite mixture distribution models. *Energy Conversion and Management*, 50(4), 877-884.
- Akpınar, S., and Akpinar, E. K. (2007). Wind energy analysis based on maximum entropy principle (MEP)-type distribution function. *Energy Conversion and Management*, 48(4), 1140-1149.
- Akter, M. N., Nasiruzzaman, A. B. M., Mahmud, M. A., and Pota, H. R. (2014, June). Topological resiliency analysis of the Australian electricity grid with increased penetration of renewable resources. In *2014 IEEE International Symposium on Circuits and Systems (ISCAS)* (pp. 494-497). IEEE.
- Alagh, Y. (2011). Former Minister of Power and Science Technology of India. Transmission and Distribution of Electricity in India Regulation, Investment and Efficiency.
- Alawaji, S. H. (1996). Wind energy resource assessment in Saudi Arabia—I. Network design and description. *Renewable Energy*, 7(4), 319-328.
- Allan, G., Eromenko, I., Gilmartin, M., Kockar, I., & McGregor, P. (2015). The economics of distributed energy generation: A literature review. *Renewable and Sustainable Energy Reviews*, 42, 543-556.
- Alvarado, F. L. (2001, January). Locational aspects of distributed generation. In *Power Engineering Society Winter Meeting, 2001. IEEE* (Vol. 1, pp. 140-vol). IEEE.

Amer, M., & Daim, T. U. (2011). Selection of renewable energy technologies for a developing county: a case of Pakistan. *Energy for Sustainable Development*, 15(4), 420-435.

Amin, S. M., & Wollenberg, B. F. (2005). Toward a smart grid: power delivery for the 21st century. *IEEE power and energy magazine*, 3(5), 34-41.

Amor, M. B., Gaudreault, C., Pineau, P. O., & Samson, R. (2014). Implications of integrating electricity supply dynamics into life cycle assessment: a case study of renewable distributed generation. *Renewable Energy*, 69, 410-419.

Amor, M. B., Pineau, P. O., Gaudreault, C., & Samson, R. (2012). Assessing the economic value of renewable distributed generation in the Northeastern American market. *Renewable and Sustainable Energy Reviews*, 16(8), 5687-5695.

Andersen (Summer, 2001). Reprinted from Public Utility Reports; issue of Fortnightly's Energy Customer Management.

Anderson, T. W., & Darling, D. A. (1952). Asymptotic theory of certain "goodness of fit" criteria based on stochastic processes. *The annals of mathematical statistics*, 193-212.

Anderson, T. W. (1962). On the distribution of the two-sample Cramer-von Mises criterion. *The Annals of Mathematical Statistics*, 1148-1159.

Angelis-Dimakis, A., Biberacher, M., Dominguez, J., Fiorese, G., Gadocha, S., Gnansounou, E., Guariso, G., Kartalidis, A., Panichelli, L., Pinedo, I. and Robba, M. (2011). Methods and tools to evaluate the availability of renewable energy sources', *Renewable and Sustainable Energy Reviews*, 15(2), 1182-1200.

Apergis, N., & Payne, J. E. (2011). The renewable energy consumption-growth nexus in Central America. *Applied Energy*, 88(1), 343-347.

Asrari, A., Ghasemi, A., and Javidi, M. H. (2012). Economic evaluation of hybrid renewable energy systems for rural electrification in Iran—A case study. *Renewable and Sustainable Energy Reviews*, 16(5), 3123-3130.

Atwa, Y. M., & El-Saadany, E. F. (2009). Reliability evaluation for distribution system with renewable distributed generation during islanded mode of operation. *IEEE Transactions on Power Systems*, 24(2), 572-581.

Atwa, Y. M., & El-Saadany, E. F. (2011). Probabilistic approach for optimal allocation of wind-based distributed generation in distribution systems. *IET Renewable Power Generation*, 5(1), 79-88.

Atwa, Y. M., El-Saadany, E. F., Salama, M. M. A., & Seethapathy, R. (2010). Optimal renewable resources mix for distribution system energy loss minimization. *IEEE Transactions on Power Systems*, 25(1), 360-370.

Azami, R., Javadi, M. S., & Hematipour, G. (2011). Economic load dispatch and DC-optimal power flow problem-PSO versus LR. *International Journal of Multidisciplinary Science and Engineering* 2(9), 8-13.

- Banerjee, R. (2006). Comparison of options for distributed generation in India. *Energy Policy*, 34(1), 101-111.
- Banos, R., Manzano-Agugliaro, F., Montoya, F. G., Gil, C., Alcayde, A., & Gómez, J. (2011). Optimization methods applied to renewable and sustainable energy: A review. *Renewable and Sustainable Energy Reviews*, 15(4), 1753-1766.
- Barry, M.L., Steyn, H., & Brent, A. (2011). Selection of renewable energy technologies for Africa: eight case studies in Rwanda, Tanzania and Malawi. *Renewable Energy* 36(11):2845–2852.
- Bayod-Rújula, A. A. (2009). Future development of the electricity systems with distributed generation. *Energy*, 34(3), 377-383.
- Bayod, A. A., Mur, J., & Sallán, J. (2003). Active system for voltage control in wind generation units. In *Proceedings of the EPE Association European conference on power electronics*.
- Beccali, M., Cellura, M., & Mistretta, M. (2003). Decision-making in energy planning. Application of the Electre method at regional level for the diffusion of renewable energy technology. *Renewable Energy* 28(13):2063–2087
- Begovic, M., Pregelj, A., Rohatgi, A., & Novosel, D. (2001, January). Impact of renewable distributed generation on power systems. In *System Sciences, 2001. Proceedings of the 34th Annual Hawaii International Conference on* (pp. 654-663). IEEE.
- Berly, J. (1880). Notes on the Jablochkoff System of Electric Lighting. *Journal of the Society of Telegraph Engineers*.9 (32): 143.
- Bilir, L., İmir, M., Devrim, Y., and Albostan, A. (2015). Seasonal and yearly wind speed distribution and wind power density analysis based on Weibull distribution function. *International Journal of Hydrogen Energy*, 40(44), 15301-15310.
- Blake, R. R., Mouton, J. S., & Bidwell, A. C. (1962). Managerial grid. *Advanced Management-Office Executive*.
- Bo, R., & Li, F. (2009). Probabilistic LMP forecasting considering load uncertainty. *IEEE Transactions on Power Systems*, 24(3), 1279-1289.
- Bollen, M. H., & Hassan, F. (2011). Integration of distributed generation in the power system. *John wiley & sons. (Vol. 80)*.
- Borges, A. R., & Antunes, C. H. (2003). A fuzzy multiple objective decision support model for energy-economy planning. *European Journal of Operational Research*, 145(2), 304-316.
- Borges, C. L., & Cantarino, E. (2011). Microgrids reliability evaluation with renewable distributed generation and storage systems. *IFAC Proceedings Volumes*, 44(1), 11695-11700.
- Bose, A. (2010). Smart transmission grid applications and their supporting infrastructure. *IEEE Transactions on Smart Grid*, 1(1), 11-19.

- Bradley, R. L. (2011). Edison to Enron: Energy markets and political strategies. *John Wiley & Sons*.
- Brey, J. J., Castro, A., Moreno, E., & Garcia, C. (2002, November). Integration of renewable energy sources as an optimised solution for distributed generation. In *IECON 02 [Industrial Electronics Society, IEEE 2002 28th Annual Conference of the]* (Vol. 4, pp. 3355-3359). IEEE.
- Broeber, T., Fuller, J., Tuffner, F., Chassin, D., & Djilali, N. (2014). Modeling framework and validation of a smart grid and demand response system for wind power integration. *Applied Energy*, 113, 199-207.
- Buckley T. 2015. India's Electricity-Sector Transformation. 1-51. <http://ieefa.org/wp-content/uploads/2015/08/IEEFA-Indian-Electricity-Sector-Transformation-August-2015.pdf> [accessed 29.11.2016].
- Capehart B. L. (2010). CEM College of Engineering, University of Florida, Distributed Energy Resources (DER).
- Cardell, J., & Tabors, R. (1997). Operation and control in a competitive market: distributed generation in a restructured industry. *The Energy Journal*, 111-136.
- Carpentier, J. (1962). Contribution à l'étude du dispatching économique. *Bulletin de la Société Française des Électriciens*, 3(8), 431-447.
- Celik, A. N. (2004). A statistical analysis of wind power density based on the Weibull and Rayleigh models at the southern region of Turkey. *Renewable energy*, 29(4), 593-604.
- Chang, T. P. (2011). Estimation of wind energy potential using different probability density functions. *Applied Energy*, 88(5), 1848-1856.
- Choisnard, J., Lafrance, G., and Bernier, M. (2004). SAR-satellite for offshore and coastal wind resource analysis, with examples from St. Lawrence Gulf, Canada. *Wind Engineering*, 28(4), 367-382.
- Chowdhury, S. P., Chowdhury, S., & Crossley, P. A. (2011). UK scenario of islanded operation of active distribution networks with renewable distributed generators. *International Journal of Electrical Power & Energy Systems*, 33(7), 1251-1255.
- Christiansen, M. B., Koch, W., Horstmann, J., Hasager, C. B., and Nielsen, M. (2006). Wind resource assessment from C-band SAR. *Remote Sensing of Environment*, 105(1), 68-81.
- Chu, M.T., Shyu, J., Tzeng, G.H., & Khosla, R. (2007). Comparison among three analytical methods for knowledge communities group-decision analysis. *Expert Systems with Applications* 33:1011-24.
- CIGRE, W. (1998). Impact of increasing contribution of dispersed generation on the power system-Final Report. *Electra, September*. 23-37.

- Kabuloglu, I. & Buyuktahtakin, A. (2015). A stochastic multi-criteria decision analysis for sustainable biomass crop selection. *Expert Systems with Applications*, 42(15):6065–6074.
- Colak, I., Bayindir, R., Fulli, G., Tekin, I., Demirtas, K., & Covrig, C. F. (2014). Smart grid opportunities and applications in Turkey. *Renewable and Sustainable Energy Reviews*, 33, 344-352.
- Colak, I., Fulli, G., Sagiroglu, S., Yesilbudak, M., & Covrig, C. F. (2015). Smart grid projects in Europe: Current status, maturity and future scenarios. *Applied Energy*, 152, 58-70.
- Coles, L., & Beck, R. W. (2001, January). Distributed generation can provide an appropriate customer price response to help fix wholesale price volatility. In *Power Engineering Society Winter Meeting, 2001.IEEE* (Vol. 1, pp. 141-143).IEEE.
- Conti, S., Nicolosi, R., & Rizzo, S. A. (2012). Generalized systematic approach to assess distribution system reliability with renewable distributed generators and microgrids. *IEEE Transactions on Power Delivery*, 27(1), 261-270.
- Cormio, C., Dicorato, M., Minoia, A., & Trovato, M. (2003). A regional energy planning methodology including renewable energy sources and environmental constraints. *Renewable and Sustainable Energy Reviews*, 7(2), 99-130.
- Daily News and Analysis. (Jan 25, 2016). Energy sector emits 70% of country's greenhouse gases. <http://www.dnaindia.com/money/report-energy-sector-emits-70-of-country-s-greenhouse-gases-2169900> [accessed 27.06.2017].
- Daniel, Wayne W. (1990). Kolmogorov-Smirnov one-sample test. Applied Nonparametric Statistics (2nd ed.). Boston: PWS-Kent. pp. 319–330.
- Deb, K. (2001). Multi-objective optimization using evolutionary algorithms. *John Wiley & Sons. (Vol. 16)*.
- Desai, J.V., Dadhich, P.K., Bhatt, P.K. (2016). Investigations on harmonics in smart distribution grid with solar PV integration. *Technology and Economics of Smart Grids and Sustainable Energy* 1(1):1–11.
- Dobson, J. M. (2007). Bulls, Bears, Boom, and Bust: A Historical Encyclopedia of American Business Concepts. *ABC-CLIO*.
- Domínguez, J., & Amador, J. (2007). Geographical information systems applied in the field of renewable energy sources. *Computers & Industrial Engineering*, 52(3), 322-326.
- Dondi, P., Bayoumi, D., Haederli, C., Julian, D., & Suter, M. (2002). Network integration of distributed power generation. *Journal of power sources*, 106(1), 1-9.
- El-Khattam, W., & Salama, M. M. A. (2002, March). Impact of distributed generation on voltage profile in deregulated distribution system. In *Proceedings of the Power Systems 2002 Conference, Impact of Distributed Generation, Clemson, SC, USA* (pp. 13-15).

Electric Power Research Institute web-page (January 1998): <http://www.epri.com/gg/newgen/disgen/index.html>.

Essig, M. (2005). Edison and the electric chair: A story of light and death. *Bloomsbury Publishing USA*.

Estimation of Installable Wind Power Potential at 80 m level in India <http://niwe.res.in/department_wra_est.php> [accessed 14.11.16].

Eto, J., Koomey, J., Lehman, B., Martin, N., Mills, E., Webber, C., & Worrell, E. (2001). Scoping study on trends in the economic value of electricity reliability to the US economy. *Lawrence Berkeley National Laboratory*.

Fadaeenejad, M., Saberian, A. M., Fadaee, M., Radzi, M. A. M., Hizam, H., & AbKadir, M. Z. A. (2014). The present and future of smart power grid in developing countries. *Renewable and Sustainable Energy Reviews*, 29, 828-834.

Fan, Z., Kulkarni, P., Gormus, S., Efthymiou, C., Kalogridis, G., Sooriyabandara, M. and Chin, W.H. (2013). Smart grid communications: overview of research challenges, solutions, and standardization activities. *IEEE Communications Surveys & Tutorials*, Vol. 15, No. 1, pp.21–38.

Fang, X., Misra, S., Xue, G., & Yang, D. (2012). Smart grid—The new and improved power grid: A survey. *IEEE communications surveys & tutorials*, 14(4), 944-980.

Farhangi, H. (2010). The path of the smart grid. *IEEE power and energy magazine*, 8(1).

Fehrenbacher K. (2010). 5 Reasons Why Developing Countries Need Smart Grids, Too. <https://gigaom.com/2010/02/11/5-reasons-why-developing-countries-need-smart-grids-too/> [accessed 29.11.2016].

Frandsen, S., and Christensen, C. J. (1992). Accuracy of estimation of energy production from wind power plants. *Wind Engineering*, 16(5), 257-268.

Gao, J., Xiao, Y., Liu, J., Liang, W., & Chen, C. P. (2012). A survey of communication/networking in smart grids. *Future Generation Computer Systems*, 28(2), 391-404.

Gas Research Institute (1998). Distributed Power Generation: A Strategy for a Competitive Energy Industry, *Gas Research Institute, Chicago, USA*.

Gelazanskas, L., & Gamage, K. A. (2014). Demand side management in smart grid: A review and proposals for future direction. *Sustainable Cities and Society*, 11, 22-30.

Gemine, Q., Ernst, D., & Cornélusse, B. (2016). Active network management for electrical distribution systems: problem formulation, benchmark, and approximate solution. *Optimization and Engineering*, 1-43.

Georgopoulou, E., Lalas, D., & Papagiannakis, L. (1997). A multicriteria decision aid approach for energy planning problems: the case of renewable energy option. *European Journal of Operational Research*, 103(1), 38-54.

Global Wind 2015 Report <http://www.gwec.net/wp-content/uploads/vip/GWEC-Global-Wind-2015-Report_April-2016_19_04.pdf> [accessed 12.11.16].

Golabi, K., Kirkwood, C. W., & Sicherman, A. (1981). Selecting a portfolio of solar energy projects using multiattribute preference theory. *Management Science*, 27(2), 174-189.

Gopakumar, P., Reddy, M. J. B., & Mohanta, D. K. (2014). Letter to the Editor: Stability concerns in Smart Grid with emerging renewable energy technologies. *Electric Power Components and Systems*, 42(3-4), 418-425.

Goumas, M., & Lygerou, V. (2000). An extension of the PROMETHEE method for decision making in fuzzy environment: Ranking of alternative energy exploitation projects. *European Journal of Operational Research*, 123(3), 606-613.

Goumas, M. G., Lygerou, V. A., & Papayannakis, L. E. (1999). Computational methods for planning and evaluating geothermal energy projects. *Energy policy*, 27(3), 147-154.

Guo, Y., Pan, M., Fang, Y., & Khargonekar, P. P. (2013). Decentralized coordination of energy utilization for residential households in the smart grid. *IEEE transactions on smart grid*, 4(3), 1341-1350.

Guttikunda, S. K., and Jawahar, P. (2014). Atmospheric emissions and pollution from the coal-fired thermal power plants in India. *Atmospheric Environment*, 92, 449-460.

GWEC Global Wind Statistics 2015 <http://www.gwec.net/wp-content/uploads/vip/GWEC-PRstats-2015_LR.pdf> [accessed 12.11.16].

Hadjsaid, N., Canard, J. F., & Dumas, F. (1999). Dispersed generation impact on distribution networks. *IEEE Computer Applications in power*, 12(2), 22-28.

Hafez, O., Bhattacharya, K. (2012). Optimal planning and design of a renewable energy based supply system for microgrids. *Renew Energy* 45:7–15

Haghi, H. V., Bina, M. T., Golkar, M. A., & Moghaddas-Tafreshi, S. M. (2010). Using Copulas for analysis of large datasets in renewable distributed generation: PV and wind power integration in Iran. *Renewable Energy*, 35(9), 1991-2000.

Haralambopoulos, D. A., & Polatidis, H. (2003). Renewable energy projects: structuring a multi-criteria group decision-making framework. *Renewable energy*, 28(6), 961-973.

Harris, R. I., and Cook, N. J. (2014). The parent wind speed distribution: Why Weibull?. *Journal of Wind Engineering and Industrial Aerodynamics*, 131, 72-87.

He, M., Murugesan, S., & Zhang, J. (2013). A multi-timescale scheduling approach for stochastic reliability in smart grids with wind generation and opportunistic demand. *IEEE Transactions on Smart Grid*, 4(1), 521-529.

Hennessey Jr, J. P. (1977). Some aspects of wind power statistics. *Journal of applied meteorology*, 16(2), 119-128.

Hines, W. W., Montgomery, D. C., & Borror, D. M. G. C. M. (2008). Probability and statistics in engineering. *John Wiley & Sons*.

- Hiremath, R. B., Kumar, B., Balachandra, P., Ravindranath, N. H., & Raghunandan, B. N. (2009). Decentralised renewable energy: Scope, relevance and applications in the Indian context. *Energy for Sustainable Development*, 13(1), 4-10.
- Holland, J. H. (1992). Genetic algorithms. *Scientific american*, 267(1), 66-73.
- Hossain, E., Han, Z., & Poor, H. V. (2012). Smart grid communications and networking. *Cambridge University Press*.
- Hossain, J., Sharma, D. (2015). Report on India's wind power potential <<http://www.cstep.in/uploads/default/files/publications/stuff/5d77aef29188ef44eaf7499eb3eb33a2.pdf>>[accessed 12.11.16].
- How-big-are-powerline-losses (2013). <http://blog.schneider-electric.com/energy-management-energy-efficiency/2013/03/25/how-big-are-powerline-losses/>
- Hsu, S. A., Meindl, E. A., and Gilhousen, D. B. (1994). Determining the power-law wind-profile exponent under near-neutral stability conditions at sea. *Journal of Applied Meteorology*, 33(6), 757-765.
- Hung, D. Q., Mithulanthan, N., & Bansal, R. C. (2013). Analytical strategies for renewable distributed generation integration considering energy loss minimization. *Applied Energy*, 105, 75-85.
- India in Business. (2016). Industry & Sectors: Power. <http://indiainbusiness.nic.in/newdesign/index.php?param=industryervices_landing/365/2> [accessed 29.11.2016].
- India Solar Resource Data: Hourly Data and TMYs <http://rredc.nrel.gov/solar/new_data/India/>[accessed 12.08.17].
- India's Wind Power Potential (2014). <<http://mnre.gov.in/file-manager/UserFiles/Presentations-NWM-09012014/Gomathinayagam>>[accessed 14.11.16].
- Installed Capacity Reports. (2016). 1-7. <http://www.cea.nic.in/reports/monthly/installedcapacity/2016/installed_capacity-03.pdf> [accessed 29.11.2016].
- International Energy Agency (IEA). (2002). distributed generation in liberalised electricity markets. *OECD/IEA*. See also: <http://www.iea.org/textbase/nppdf/free/2000/distributed2002.pdfS>.
- Invention story of electricity. (August 2012). Who Invented Electricity.<http://readanddigest.com/who-invented-electricity/>
- Jones, M., Hope, C., & Hughes, R. (1990). A multi-attribute value model for the study of UK energy policy. *Journal of the Operational Research Society*, 919-929.
- Justus, C. G., and Mikhail, A. (1976). Height variation of wind speed and wind distributions statistics. *Geophysical Research Letters*, 3(5), 261-264.
- Kahraman, C., & Kaya, İ. (2010). A fuzzy multicriteria methodology for selection among energy alternatives. *Expert Systems with Applications*, 37(9), 6270-6281.

- Kahraman, C., Kaya, İ., & Cebi, S. (2009). A comparative analysis for multiattribute selection among renewable energy alternatives using fuzzy axiomatic design and fuzzy analytic hierarchy process. *Energy*, 34(10), 1603-1616.
- Kanchev, H., Lu, D., Colas, F., Lazarov, V., & Francois, B. (2011). Energy management and operational planning of a microgrid with a PV-based active generator for smart grid applications. *IEEE transactions on industrial electronics*, 58(10), 4583-4592.
- Kantar, Y. M., and Usta, I. (2008). Analysis of wind speed distributions: Wind distribution function derived from minimum cross entropy principles as better alternative to Weibull function. *Energy Conversion and Management*, 49(5), 962-973.
- Karabiber, A., Keles, C., Kaygusuz, A., & Alagoz, B. B. (2013). An approach for the integration of renewable distributed generation in hybrid DC/AC microgrids. *Renewable Energy*, 52, 251-259.
- Karki, S., Mann, M. D., & Salehfar, H. (2008). Environmental implications of renewable distributed generation technologies in rural electrification. *Energy Sources, Part B*, 3(2), 186-195.
- Kaya, T., Kahraman, C. (2010). Multicriteria renewable energy planning using an integrated fuzzy VIKOR and AHP methodology: the case of Istanbul. *Energy* 35(6):2517–2527.
- Kaya, T., & Kahraman, C. (2011a). Multicriteria decision making in energy planning using a modified fuzzy TOPSIS methodology. *Expert Systems with Applications*, 38(6), 6577-6585.
- Kaya, T., & Kahraman, C. (2011b). Fuzzy multiple criteria forestry decision making based on an integrated VIKOR and AHP approach. *Expert Systems with Applications*, 38(6), 7326-7333.
- Keeney, R. L., & Raiffa, H. (1993). Decisions with multiple objectives: preferences and value trade-offs. *Cambridge university press*.
- Keyhani, A., Ghasemi-Varnamkhasti, M., Khanali, M., and Abbaszadeh, R. (2010). An assessment of wind energy potential as a power generation source in the capital of Iran, Tehran. *Energy*, 35(1), 188-201.
- Khamis, A., Shareef, H., Bizkevelci, E., & Khatib, T. (2013). A review of islanding detection techniques for renewable distributed generation systems. *Renewable and sustainable energy reviews*, 28, 483-493.
- Khare, V., Nema, S., and Baredar, P. (2013). Status of solar wind renewable energy in India. *Renewable and Sustainable Energy Reviews*, 27, 1-10.
- Khatod, D. K., Pant, V., & Sharma, J. (2013). Evolutionary programming based optimal placement of renewable distributed generators. *IEEE Transactions on Power systems*, 28(2), 683-695.

- Kim, S. Y., Kim, W. W., & Kim, J. O. (2014). Determining the optimal capacity of renewable distributed generation using restoration methods. *IEEE Transactions on Power Systems*, 29(5), 2001-2013.
- Klein, M. (2010). The power makers: Steam, electricity, and the men who invented modern America. *Bloomsbury Publishing USA*.
- Kollu, R., Rayapudi, S. R., Narasimham, S. V. L., and Pakkurthi, K. M. (2012). Mixture probability distribution functions to model wind speed distributions. *International Journal of Energy and Environmental Engineering*, 3(1), 1-10.
- Kose, F., Aksoy, M. H., and Ozgoren, M. (2014). An assessment of wind energy potential to meet electricity demand and economic feasibility in Konya, Turkey. *International Journal of Green Energy*, 11(6), 559-576.
- Krewitt, W., & Nitsch, J. (2003). The potential for electricity generation from on-shore wind energy under the constraints of nature conservation: a case study for two regions in Germany. *Renewable energy*, 28(10), 1645-1655.
- Kumar, M., Samuel, C., and Jaiswal, A. (2015). An overview of distributed generation in power sector. *International Journal of Science, Technology & Management*, 4(1), 1407-1423.
- Kumar, Y. P., & Ravikumar, B. (2016). Integrating renewable energy sources to an urban building in India: challenges, opportunities, and techno-economic feasibility simulation. *Technology and Economics of Smart Grids and Sustainable Energy*, 1(1), 1-16.
- Kwon, S. D. (2010). Uncertainty analysis of wind energy potential assessment. *Applied Energy*, 87(3), 856-865.
- Kyoto Protocol to the United Nations Framework Convention on Climate Change. (1997). See also:<http://www.unfccc.int/>
- Labis, P. E., Visande, R. G., Pallugna, R. C., and Caliao, N. D. (2011). The contribution of renewable distributed generation in mitigating carbon dioxide emissions. *Renewable and Sustainable Energy Reviews*, 15(9), 4891-4896.
- Lackner, M. A., Rogers, A. L., and Manwell, J. F. (2008). The round robin site assessment method: A new approach to wind energy site assessment. *Renewable Energy*, 33(9), 2019-2026.
- Lai YJ, Liu, T.Y. & Hwang, C.L. (1994).Topsis for MODM. European Journal of Operation Research 76(3):486–500.
- LALAS, D. P. (1985). Wind energy estimation and siting in complex terrain. *International journal of solar energy*, 3(2), 43-71.
- Landberg, L., Myllerup, L., Rathmann, O., Petersen, E. L., Jørgensen, B. H., Badger, J., and Mortensen, N. G. (2003). Wind resource estimation—an overview. *Wind Energy*, 6(3), 261-271.

- Laurikka, H., and Koljonen, T. (2006). Emissions trading and investment decisions in the power sector—a case study in Finland. *Energy Policy*, 34(9), 1063-1074.
- Le Cam, L. M. (1953). On some asymptotic properties of maximum likelihood estimates and related Bayes' estimates. *University of California press. (Vol. 1, No. 11)*.
- Liang, H., Tamang, A. K., Zhuang, W., & Shen, X. S. (2014). Stochastic information management in smart grid. *IEEE Communications Surveys & Tutorials*, 16(3), 1746-1770.
- Liu, J., Xiao, Y., Li, S., Liang, W., & Chen, C. P. (2012). Cyber security and privacy issues in smart grids. *IEEE Communications Surveys & Tutorials*, 14(4), 981-997.
- Liu, Z., Wen, F., & Ledwich, G. (2011). Optimal siting and sizing of distributed generators in distribution systems considering uncertainties. *IEEE Transactions on power delivery*, 26(4), 2541-2551.
- MNRE. Ministry of New and Renewable Energy. <<http://www.mnre.gov.in/>>
- Ma, Z., Wang, H., Wu, A., Zeng, G., & Tu, X. (2014). An intelligent decision support system for residential energy consumption and renewable energy utilization in rural China. *Energy Sources, Part B: Economics, Planning, and Policy*, 9(4), 374-382.
- Madrigal, M., Ponnambalam, K., & Quintana, V. H. (1998, May). Probabilistic optimal power flow. In *Electrical and Computer Engineering, 1998. IEEE Canadian Conference on* (Vol. 1, pp. 385-388). IEEE.
- Manditereza, P. T., & Bansal, R. (2016). Renewable distributed generation: The hidden challenges—A review from the protection perspective. *Renewable and Sustainable Energy Reviews*, 58, 1457-1465.
- Manwell, J. F., McGowan, J. G., and Rogers, A. L. (2010). Wind energy explained: theory, design and application. *John Wiley & Sons*.
- Mazidi, P., & Sreenivas, G. N. (2011). Reliability assessment of a distributed generation connected distribution system. *International Journal of Power System Operation and Energy Management (IJPSEM)*.
- Mena, R., Hennebel, M., Li, Y. F., & Zio, E. (2014). Self-adaptable hierarchical clustering analysis and differential evolution for optimal integration of renewable distributed generation. *Applied Energy*, 133, 388-402.
- Microgrids. (2005a). Deliverable DG4 Methodology for Quantifying Economic and Environmental Benefits of MicroGrids. See also: <http://www.microgrids.power.ece.ntua.gr>.
- Microgrids. (2005b). Deliverable DI3 Report on Socio-Economic Evaluation of MicroGrids. Benefits of MicroGrids. See also: <http://www.microgrids.power.ece.ntua.gr>.
- Mladineo, N., Margeta, J., Brans, J. P., & Mareschal, B. (1987). Multicriteria ranking of alternative locations for small scale hydro plants. *European Journal of Operational Research*, 31(2), 215-222.

- Mohammadi, K., Alavi, O., Mostafaeipour, A., Goudarzi, N., and Jalilvand, M. (2016). Assessing different parameters estimation methods of Weibull distribution to compute wind power density. *Energy Conversion and Management*, 108, 322-335.
- Mohsenzadeh, A., & Haghifam, M. R. (2012). Simultaneus placement of conventional and renewable distributed generation using fuzzy multiobjective optimization.
- Molderink, A., Bakker, V., Bosman, M. G., Hurink, J. L., & Smit, G. J. (2010). Management and control of domestic smart grid technology. *IEEE transactions on Smart Grid*, 1(2), 109-119.
- Moslehi, K., & Kumar, R. (2010). A reliability perspective of the smart grid. *IEEE Transactions on Smart Grid*, 1(1), 57-64.
- Mozafari, S. B. (2016). Design and simulation of a hybrid micro-grid for Bisheh village. *International Journal of Renewable Energy Research (IJRER)*, 6(1), 199-211.
- Nadimi, A., & Adabi, F. (2016). Optimized Planning for Hybrid Micro-grid in Grid-connected Mode. *International Journal of Renewable Energy Research (IJRER)*, 6(2), 494-503.
- Nfaoui, H., Buret, J., and Sayigh, A. A. M. (1998). Wind characteristics and wind energy potential in Morocco. *Solar Energy*, 63(1), 51-60.
- Nobre, A., Pacheco, M., Jorge, R., Lopes, M. F. P., & Gato, L. M. C. (2009). Geospatial multi-criteria analysis for wave energy conversion system deployment. *Renewable energy*, 34(1), 97-111.
- Ochoa, L. F., & Harrison, G. P. (2011). Minimizing energy losses: Optimal accommodation and smart operation of renewable distributed generation. *IEEE Transactions on Power Systems*, 26(1), 198-205.
- Olaofe, Z. O., and Folly, K. A. (2012). Statistical Analysis of Wind Resources at Darling for Energy Production. *International Journal of Renewable Energy Research (IJRER)*, 2(2), 250-261.
- Oprićović, S. (1998). Multi-criteria optimization of civil engineering systems. Belgrade: Faculty of Civil Engineering.
- Oprićović S, Tzeng GH (2004). Compromise solution by MCDM methods: a comparative analysis of VIKOR and TOPSIS. *European Journal of Operation Research*. 156(2):445–455
- Oprićović, S., Tzeng, G.H. (2007). Extended VIKOR method in comparison with outranking methods. *European Journal of Operation Research*. 178(2):514–529
- Papoulis, A., & Pillai, S. U. (2002). Probability, random variables, and stochastic processes. *Tata McGraw-Hill Education*.
- Pawar, V., Manocha, A., & Rai, H. M. (2012). Smart Grid–Internet of Future Technology for Electrical Energy. *International Journal of Applied Engineering Research*, 7(11).

- Pegueroles-Queralt, J., Bianchi, F. D., & Gomis-Bellmunt, O. (2015). A power smoothing system based on supercapacitors for renewable distributed generation. *IEEE Transactions on Industrial Electronics*, 62(1), 343-350.
- Pepermans, G., Driesen, J., Haeseldonckx, D., Belmans, R., & D'haeseleer, W. (2005). Distributed generation: definition, benefits and issues. *Energy policy*, 33(6), 787-798.
- Physical Progress (Achievements). (January 2014). Ministry of New and Renewable Energy, Govt. of India.
- Pishgar-Komleh, S. H., Keyhani, A., and Sefeedpari, P. (2015). Wind speed and power density analysis based on Weibull and Rayleigh distributions (a case study: Firouzkoooh county of Iran). *Renewable and Sustainable Energy Reviews*, 42, 313-322.
- Planning Commission Government of India. (February, 2014). Annual Report (2013-14) on The Working of State Power Utilities & Electricity Departments. 1-218. http://planningcommission.gov.in/reports/genrep/rep_arpower1305.pdf[accessed 29.11.2016].
- Pohekar, S. D., & Ramachandran, M. (2004). Multi-criteria evaluation of cooking energy alternatives for promoting parabolic solar cooker in India. *Renewable Energy*, 29(9), 1449-1460.
- Polatidis H, Haralambopoulos DA, Munda G, Vreeker R (2006). Selecting an appropriate multi-criteria decision analysis technique for renewable energy planning. *Energy Source Part B 1*(2):181–193.
- Power Generation from Various Renewable Energy Sources. (December 2013). Ministry of New and Renewable Energy.
- Pudjianto, D., Strbac, G., Van Oberbeeke, F., Androutsos, A. I., Larrabe, Z., & Saraiva, J. T. (2005, November). Investigation of regulatory, commercial, economic and environmental issues in microgrids.In *Future Power Systems, 2005 International Conference on* (pp. 6-pp). IEEE.
- Rahimi, F., & Ipakchi, A. (2010). Demand response as a market resource under the smart grid paradigm. *IEEE Transactions on Smart Grid*, 1(1), 82-88.
- Rahman, M. S., Mahmud, M. A., Pota, H. R., and Hossain, M. J. (2014). Distributed multi-agent scheme for reactive power management with renewable energy. *Energy conversion and management*, 88, 573-581.
- Rajanna, S., and Saini, R. P. (2016). Modeling of integrated renewable energy system for electrification of a remote area in India. *Renewable Energy*, 90, 175-187.
- Ramírez, P., and Carta, J. A. (2005). Influence of the data sampling interval in the estimation of the parameters of the Weibull wind speed probability density distribution: a case study. *Energy Conversion and Management*, 46(15), 2419-2438.
- Re-assessment of India's On-shore Wind Power Potential <<http://www.cstep.in/uploads/default/files/publications/stuff/c1d1ec51806ba5d1716b15b01d89e4f9>>[accessed 14.11.16].

Remme, U., Trudeau, N., Graczyk, D., & Taylor, P. (2011). Technology development prospects for the Indian power sector.

Report of the Expert Group on 175 GW Renewable Energy by 2022 <http://niti.gov.in/writereaddata/files/writereaddata/files/document_publication/report-175-GW-RE.pdf> [accessed 12.03.17].

Robitaille, M., Agbossou, K., & Doumbia, M. L. (2005, May). Modeling of an islanding protection method for a hybrid renewable distributed generator. In *Electrical and Computer Engineering, 2005. Canadian Conference on* (pp. 1477-1481). IEEE.

Roncero, J. R. (2008, June). Integration is key to smart grid management. In *Smart Grids for Distribution, 2008.IET-CIRED. CIRED Seminar* (pp. 1-4). IET.

Roy, N. K., Pota, H. R., and Hossain, M. J. (2013). Reactive power management of distribution networks with wind generation for improving voltage stability. *Renewable energy*, 58, 85-94.

Saaty TL (1990). How to make a decision: the analytic hierarchy process. *European Journal of Operation Research* 48(1):9–26

Saber, A. Y., & Venayagamoorthy, G. K. (2012). Resource scheduling under uncertainty in a smart grid with renewables and plug-in vehicles. *IEEE systems journal*, 6(1), 103-109.

Samantaray, S. R. (2014). Letter to the Editor: Smart grid initiatives in India. *Electric Power Components and Systems*, 42(3-4), 262-266.

San Cristóbal, J. R. (2011). Multi-criteria decision-making in the selection of a renewable energy project in spain: The Vikor method. *Renewable energy*, 36(2), 498-502.

Sasaki, Y., Yorino, N., Zoka, Y., & Farid, I. (2017). Robust Stochastic Dynamic Load Dispatch against Uncertainties. *IEEE Transactions on Smart Grid*.

Scientific, A. W. S. (1997). Inc. Wind resource assessment handbook. *National Renewable Energy Laboratory, CO, USA*.

S,engü'l U'' , Eren M, Shiraz SE, Gezder V, S,engü'l AB (2015). Fuzzy TOPSIS method for ranking renewable energy supply systems in Turkey. *Renew Energy* 75:617–625.

Sharma, D., & Bartels, R. (1997). Distributed electricity generation in competitive energy markets: a case study in Australia. *The Energy Journal*, 17-39.

Shenhang, Y. U., Ying, S. U. N., Xiaona, N. I. U., & Chuanhui, Z. H. A. O. (2010). Energy internet system based on distributed renewable energy generation. *Electric Power Automation Equipment*, 5(30), 104-108.

Sholapurkar, R. B., and Mahajan, Y. S. (2015). Review of Wind Energy Development and Policy in India. *Energy Technology & Policy*, 2(1), 122-132.

- Shu, Z. R., Li, Q. S., and Chan, P. W. (2015). Investigation of offshore wind energy potential in Hong Kong based on Weibull distribution function. *Applied Energy*, 156, 362-373.
- Skrabec, Q. R. (2012). The 100 most significant events in American business: An Encyclopedia. *ABC-CLIO*.
- Soares, J., Ghazvini, M. A. F., Borges, N., & Vale, Z. (2017). A stochastic model for energy resources management considering demand response in smart grids. *Electric Power Systems Research*, 143, 599-610.
- Sola M, VitettaGM (2016). A bayesian Demand-Side management strategy for smart Micro-Grid. *Technology and Economics of Smart Grids and Sustainable Energy* 1(1):1–15
- Tan, W. S., Hassan, M. Y., Majid, M. S., & Rahman, H. A. (2013). Optimal distributed renewable generation planning: A review of different approaches. *Renewable and Sustainable Energy Reviews*, 18, 626-645.
- The World Wind Energy Association Half-year Report. (2016). <<http://www.wwindea.org/wwea-half-year-report-worldwind-wind-capacity-reached-456-gw/>>[accessed 12.11.16].
- Thiam, D. R. (2011). An energy pricing scheme for the diffusion of decentralized renewable technology investment in developing countries. *Energy Policy*, 39(7), 4284-4297.
- Togrul, I. T., and Ertekin, C. (2011). A statistical investigation on the wind energy potential of Turkey's geographical regions. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, 33(15), 1399-1421.
- Tomoiagă, B., Chindriş, M., Sumper, A., Sudria-Andreu, A., & Villafafila-Robles, R. (2013). Pareto optimal reconfiguration of power distribution systems using a genetic algorithm based on NSGA-II. *Energies*, 6(3), 1439-1455.
- Tong, X., Kang, C., & Xia, Q. (2016). Smart Metering Load Data Compression Based on Load Feature Identification. *IEEE Transactions on Smart Grid*, 7(5), 2414-2422.
- Türk Toğrul, İ., and İmaş Kizi, M. (2008). Determination of wind energy potential and wind speed data in Bishkek, Kyrgyzstan. *International Journal of Green Energy*, 5(3), 157-173.
- Tzeng G, Lin C, Opricovic S. (2005). Multi-criteria analysis of alternative-fuel buses for public transportation. *Energy Policy* 33:1373-83.
- Usta, I. (2016). An innovative estimation method regarding Weibull parameters for wind energy applications. *Energy*, 106, 301-314.
- Viral, R., & Khatod, D. K. (2012). Optimal planning of distributed generation systems in distribution system: A review. *Renewable and Sustainable Energy Reviews*, 16(7), 5146-5165.
- Vishnu G. (June 2008). Solar India Info. http://indianpowersector.com/home/renewable-energy/solar_new/solar-power/ [accessed 29.11.2016].

- Voorspools, K. R., & D'haeseler, W. D. (2002). The evaluation of small cogeneration for residential heating. *International Journal of Energy Research*, 26(13), 1175-1190.
- Voorspools, K. R., & D'haeseler, W. D. (2003). The impact of the implementation of cogeneration in a given energetic context. *IEEE Transactions on Energy Conversion*, 18(1), 135-141.
- Wald, A. (1949). Note on the consistency of the maximum likelihood estimate. *The Annals of Mathematical Statistics*, 20(4), 595-601.
- Wang, W., & Lu, Z. (2013). Cyber security in the Smart Grid: Survey and challenges. *Computer Networks*, 57(5), 1344-1371.
- Watson, J. (1999). Perspective of Decentralised Energy Systems in a liberalised Market: The UK Perspective. *Rolf Wüstenhagen, Thomas Dyllick, St. Gallen, Institute for Wirtschaft und Ökologie (IWO8)—Diskussionsbeiträge*, (72), 38-47.
- Weisser, D. (2003). A wind energy analysis of Grenada: an estimation using the 'Weibull' density function. *Renewable energy*, 28(11), 1803-1812.
- Welsch, M., Bazilian, M., Howells, M., Divan, D., Elzinga, D., Strbac, G., ...& Brew-Hammond, A. (2013). Smart and just grids for sub-Saharan Africa: exploring options. *Renewable and Sustainable Energy Reviews*, 20, 336-352.
- White, H. (1982). Maximum likelihood estimation of misspecified models. *Econometrica: Journal of the Econometric Society*, 1-25.
- Whitley, D. (1994). A genetic algorithm tutorial. *Statistics and computing*, 4(2), 65-85.
- Wind Power in India <https://en.wikipedia.org/wiki/Wind_power_in_India>[accessed 12.11.16].
- Wizelius, T. (1998). Series of Offshore Projects Planned. *Wind Power Monthly*, 14(10), 23-24.
- Wolsink, M. (2012). The research agenda on social acceptance of distributed generation in smart grids: Renewable as common pool resources. *Renewable and Sustainable Energy Reviews*, 16(1), 822-835.
- Wood, A. J., & Wollenberg, B. F. (2012). *Power generation, operation, and control*. John Wiley & Sons.
- World Economic Forum. (2016). Fuelling India's Potential. 1-10. http://www3.weforum.org/docs/WEF_Future_Electricity_India_case_.pdf[accessed 29.11.2016].
- Xu, D., & Grgis, A. A. (2001). Optimal load shedding strategy in power systems with distributed generation. In *Power Engineering Society Winter Meeting, 2001. IEEE* (Vol. 2, pp. 788-793).IEEE.
- Yan, Y., Qian, Y., Sharif, H., & Tipper, D. (2013). A survey on smart grid communication infrastructures: Motivations, requirements, and challenges. *IEEE communications surveys & tutorials*, 15(1), 5-20.

- Yang, P., Chavali, P., Gilboa, E., & Nehorai, A. (2013). Parallel load schedule optimization with renewable distributed generators in smart grids. *IEEE Transactions on Smart Grid*, 4(3), 1431-1441.
- Yoon, K. (1987). A reconciliation among discrete compromise solutions. *Journal of the Operational Research Society*, 277-286.
- Yu, P.L. (1973). A class of solutions for group decision problems. *Management Science* 19(8):936–946
- Zangeneh, A., Jadid, S., & Rahimi-Kian, A. (2009a). Promotion strategy of clean technologies in distributed generation expansion planning. *Renewable Energy* 34(12):2765–2773.
- Zangeneh, A., Jadid, S., & Rahimi-Kian, A. (2009b). A hierarchical decision making model for the prioritization of distributed generation technologies: A case study for Iran. *Energy Policy*, 37(12), 5752-5763.
- Zeleny, M. (1982). Multi criteria decision making. *McGraw-Hills, New York*.
- Zeng, M., Xu, W. X., Wei, Y., & Tian, K. (2011). Research on fuzzy synthetic evaluation of renewable distributed energy generation investment. *East China Electric Power*, 39(2), 180-183.
- Zhou, K., Yang, S., Chen, Z., & Ding, S. (2014). Optimal load distribution model of microgrid in the smart grid environment. *Renewable and Sustainable Energy Reviews*, 35, 304-310.
- Zimmermann, H.J. (1996). Fuzzy set theory and its applications. *Third revised edition. Kluwer Academic Publishers, Boston*.