

References

- [1] "Surface meteorology and Solar Energy," 2005. [Online]. Available: <https://eosweb.larc.nasa.gov/sse/>. [Accessed 02 12 2014].
- [2] "Soorya Bala Sangramaya," [Online]. Available: http://www.energy.gov.lk/surya_bala_sangramaya/.
- [3] R. George, C. Gueymard, D. Heimiller, B. Marion and D. Renne, "Solar Resource Assesment for Sri Lanka and Maldives," National Renewable Energy Laboratory, 2003.
- [4] Sri Lanka Sustainable Energy Authority, "Sri Lanka Energy Balance 2010," 2010. [Online]. Available: <http://www.energy.gov.lk>. [Accessed 15 10 2014].
- [5] Sri Lanka Sustainable Energy Authority, "Sri Lanka Energy Balance 2012," 2012. [Online]. Available: <http://www.energy.gov.lk>. [Accessed 12 10 2014].
- [6] "CEB Tenders," 10 4 2017. [Online]. Available: http://www.ceb.lk/index.php?aam_media=19088..
- [7] "CEB Tenders," 4 7 2017. [Online]. Available: http://www.ceb.lk/index.php?aam_media=30755.
- [8] "CEB Tenders," 4 7 2017. [Online]. Available: http://www.ceb.lk/index.php?aam_media=25974.
- [9] "Rooftop solar PV development in Sri Lanka," 9 2017. [Online]. Available: http://www.pucsl.gov.lk/english/wp-content/uploads/2017/09/Consultation-doc_-rooftop.pdf.
- [10] M. Blumthaler, "Solar Radiation of the High Alps," 2012. [Online]. Available: http://www.springer.com/cda/content/document/cda_downloaddocument/9783709101353-c1.pdf?SGWID=0-0-45-1208745-p174130569..
- [11] D. M. T. B. Robert E Blankenship, "science," *Comparing Photosynthetic and Photovoltaic Efficiencies and Recognizing the Potential for Improvement*, p. 332, 2011.
- [12] G. H. J.W. Jones, "The DSSAT cropping system model," *Europ. J. Agronomy* 18, pp. 235-265, 2003.

- [13] C. N. W. R. H. M.P.N.M. Diasa, "Application of DSSAT crop simulation model to identify the changes of rice growth and yield in Nilwala river basin for mid-centuries under changing climatic conditions," *Procedia Food Science* 6, pp. 159-163, 2016.
- [14] M. L. Sorensen, *Agricultural Water Management Research Trends*, New York: Nova Science Publishers, 2008, p. 22.
- [15] "dssat.net," 2003. [Online]. Available: <https://dssat.net/crop-models-and-applications/modular-approach-example>.
- [16] "www.isric.org," [Online]. Available: <http://www.isric.org/explore/soilgrids>.
- [17] "TMY-NSRDB," [Online]. Available: <https://nsrdb.nrel.gov/tmy>.
- [18] "Area and Climate - Department of Census and Statistics," [Online]. Available: <http://www.statistics.gov.lk/Abstract2016/CHAP1/1.4.pdf>.
- [19] M. R. Hossam-Eldin, "A Review on Photovoltaic Solar Energy Technology and its Efficiency," *Department of Electrical Engineering, University of Alexandria, Egypt*, 2015.
- [20] "Photovoltaic Report," 2016. [Online]. Available: www.ise.fraunhofer.de.
- [21] "www.utdallas.edu," 2017. [Online]. Available: <https://www.utdallas.edu/~metin/Merit/MyNotes/solarEnergy.pdf>.
- [22] Energystar, "Solar Inverters," December 2013. [Online]. Available: https://www.energystar.gov/sites/default/files/asset/document/Solar_PV_Inverters_Scoping_Report.pdf.
- [23] YongKim, "Power conversion in concentrating photovoltaic," *PROGRESS IN PHOTOVOLTAICS*, pp. 984-992, 2014.
- [24] Hohm, "Comparative study of maximum power point tracking algorithms," *Progress in photovoltaics*, pp. 47-62, 2003.
- [25] A. V. Arecchi, *Field Guide to Illumination*, Bellingham: SPIE Press, 2007.
- [26] H. C. Rajpoot, "Advanced Geometry," in *Advanced Geometry*, Chennai, Notion Press, 2014, p. 8.
- [27] "Budgeting for Solar Plant," Electrical Power Research Institute, California,

USA, 2016.

- [28] SLSEA, "Sri Lanka Energy Balance," Sri Lanka Sustainable Energy Authority, 2012.
- [29] CEB, "Power Generation Plan 2013-2022," Ceylon Electricity Board, 2012.
- [30] G. N. Tiwari, Solar Energy: Fundamentals, Design, Modelling and Applications, Alpha Science International Limited, 2013.
- [31] T. Siyambalapitiya, "Net Metering of Electricity has Arrived!," 14 01 2009. [Online]. Available: <http://www.island.lk/2009/01/14/features1.html>. [Accessed 02 12 2014].
- [32] A. K. Samy and A. M. Shaffie, "Performance of Statistical Comparison Models of Solar Energy on Horizontal and Inclined Surface," *International Journal of Energy and Powe*, vol. 2, no. 1, pp. 8-25, 2013.
- [33] Renewable Energy For Rural Economic Development Project, "Statistics and reports," 2003. [Online]. Available: <http://www.energyservices.lk/index.htm>. [Accessed 02 12 2014].
- [34] C. K. Pandey and A. K. Katiyar, "Solar radiation: Models and measurement techniques," *Journal of Energy*, pp. 1-8, 2013.
- [35] T. Khatib, M. Mahmoud, A. Mohamed and K. Sopian, "Modeling of daily solar energy on a horizontal surface for five main sites in Malaysia," *Int J Green Energy*, pp. 795-819, 2011.
- [36] G. A. Kamali, I. Moradi and A. M. Noorian, "Evaluation of 12 Models to estimate hourly diffuse Irradiation on Inclined Surfaces," *Renewable Energy*, pp. 1406-1412, 2008.
- [37] S. A. Kalogirou, Solar Energy Engineering Processes and Systems, 2 ed., Kidlington: Acedemic Press, 2014.
- [38] R. C. Jordan and B. Y. H. Liu, "The interrelationship and catechistic distribution of direct, diffuse and total solar radiation," *Solar energy*, pp. 87-90, 1979.
- [39] A. Q. Jakharini, S. A. Kamboh, A. R. H. Rigit and S. R. Samo, "Selection of models for calculation of incident solar radiation on tilted surfaces," *World*

applied sciences journal, pp. 1334-1343, 2013.

- [40] M. Iqbal, "Estimation of the monthly average of the diffuse component of total insolation on horizontal surface," *Solar energy*, pp. 101-106, 1978.
- [41] J. E. Hay, "Calculation of Monthly Mean Solar Radiation for Horizontal and Inclined Surfaces," *Solar Energy, Volume 23*, pp. 301-307, 1979.
- [42] A. M. Gracia and T. Huld, "Performance comparison of different models for the estimation of global irradiance on inclined surfaces," Joint research center of the European Commission, Luxembourg, 2013.
- [43] D. Y. Gowsami, J. F. Kreider and F. Krieth, *Principles of Solar Engineering*, 2, Ed., London: Taylor & Francis, 1999.
- [44] E. O. Falayi, A. B. Rabiou and R. O. Teliat, "Correlations to estimate monthly mean of daily diffuse solar radiation in some selected cities in Nigeria," *Advances in applied science research*, pp. 480-490, 2011.
- [45] J. F. Escobedo and A. P. Souza, "Estimates of hourly diffuse radiation on tilted surfaces in southeast of Brazil," *International journal of renewable energy research*, pp. 207-221, 2013.
- [46] K. Dissanayake and I. Vithanage, "Solar Energy Development in Sri Lanka, Solar Conference 2011," 2011.
- [47] M. Collares-Pereira and A. Rabel, "The average distribution of solar radiation-correlations between diffuse and hemispherical and between daily and hourly insolation values," *Solar Energy*, pp. 155-164, 1979.
- [48] W. K. Chow and L. T. Wong, "Solar radiation model," *Applied energy*, pp. 191-224, 2001.
- [49] M. G. M. Choudhury, M. M. Rahman, R. Rahuman and S. Shareef, "Computation of Solar radiation tilt factor and optimum tilt angle for Bangladesh," *Indian journal of radio and space physics, Vol 29*, pp. 37-40, 2000.
- [50] Ceylon Electricity Board, "Power Generation Plan 2013-2022," 2012. [Online]. Available: <http://www.ceb.lk>. [Accessed 15 10 2014].
- [51] W. Beckman and J. A. Duffie, *Solar Engineering of Thermal Processes*,

Second Edition, New York: John Wiley & Sons, 1991.

- [52] V. Badescu, *Modeling Solar Radiation at the Earth's Surface, Recent Advances*, Springer, 2008.
- [53] A. A. Al-Ghamdi, F. S. Al-Hazmi, A. A. El-Sebaili and S. J. Yaghmour, "Global, direct and diffuse solar radiation on horizontal and tilted surfaces in Jeddah, Saudi Arabia," *Applied Energy*, pp. 568-576, 2010.
- [54] S. B. Alam, U. K. Das, D. Datta and M. D. M. Islam, "Modeling monthly average daily diffuse radiation for Dhaka, Bangladesh," *International Journal of reaearch in engineering and technology*, pp. 540-544, 2013.
- [55] A. Akinagolu and L. Ecevit, "Modeling of solar radiation," *Journal of Physics*, p. 269, 1993.
- [56] M. J. Ahmad and G. N. Tiwari, "Estimation of hourly solar radiation for composite climate," *Open environmental sciences*, pp. 34-38, 2008.
- [57] E. Calabro, "An algorithm to determine the optimum tilt angle of a solar panel from global horizontal solar radiation," *Journal of renewable energy*, pp. 1-11, 2013.
- [58] F. Ahmad and I. Ulfat, "Empirical models for the correlation of monthly average daily global solar radiation with hours of sunshine on a horizontal surface at Karachi, Pakistan," *Turk J Phys*, pp. 301-307, 2004.
- [59] A. American Society of HeatingRefrigeration & Air conditioning Engineers, *ASHRAE Hand Book-HVAC Applications*, 2007.
- [60] A. Agarwel, S. N. Mishra and V. K. Vashishtha, "Solar tilt measurement of array for building application & error analysis," *International journal of renewable energy research*, vol. 2, pp. 781-789, 2012.
- [61] M. T. R. Jayasinghe and S. Sendanayake, "Estimating incident solar radiation in tropical islands with short term weather data," pp. 108-116, 2008.
- [62] E. Bellini, "Sri Lanka seeks bids for 60 MW of large-scale PV," 10 4 2017. [Online]. Available: <https://www.pv-magazine.com/2017/04/10/sri-lanka-seeks-bids-for-60-mw-of-large-scale-pv/>.
- [63] R. F. a. M. d. H. P. Carlos Campillo, "Solar Radiation Effect on Crop Production," 21 3 2012. [Online]. Available:

http://cdn.intechopen.com/pdfs/33351/InTech-Solar_radiation_effect_on_crop_production.pdf.

- [64] D. G. E. Agency, "Information about German renewable energy, industries, companies and product," p. 41, 2014.
- [65] Mohammad, "Resource-Efficient Technologies," *Design of a solar photovoltaic system to cover the electricity demand for the faculty of Engineering*, 2017.
- [66] "250 Watt Mono Crystalline Solar Module," 2012. [Online]. Available: <http://www.evoenergy.co.uk/wp-content/uploads/2012/05/Suntech-250-Datasheet.pdf>.
- [67] P. P. analysis, "RETScreen Textbook," www.etscreen.net, canada, 2004.
- [68] A. Z. Sahin, "Economical Feasibility of Utilizing Photovoltaics for Water Pumping in Saudi Arabia," *International Journal of Photoenergy*, 2012.
- [69] Dupraz, "Is crop growth rate affected in the partial shade of solar panels?," *Microclimate under agrivoltaic systems*, pp. 117-132, 2013.
- [70] "Food Information Bulletin," Hector Kobbekaduwa Agrarian Research and Training Institute, Colombo 07, 2017.
- [71] Gamage, "Role of shade trees in tea," *Tea Research Institute of Sri Lanka*, 2007.