

## References

- Aflaki, A., Mahyuddin, N., Manteghi, G., & Baharum, M. (2014). Building Height Effects on Indoor Air Temperature and Velocity in High Rise Residential Buildings in Tropical Climate. *OIDA International Journal of Sustainable Development*, 07(07), 39–48.
- Alexander, Ernest R.; Reed, K. David; and Murphy P.(1998).Density Measures and Their Relation to Urban Form. Center for Architecture and Urban Planning Research Books.
- Al-tamimi, N., Fairuz, S., & Fadzil, S. (2011). The potential of shading devices for temperature reduction in high-rise residential buildings in the tropics. *Procedia Engineering*, 21, 273–282. <https://doi.org/10.1016/j.proeng.2011.11.2015>
- Al-tamimi, N., Fairuz, S., & Fadzil, S. (2012). Energy-efficient envelope design for high-rise residential buildings in Malaysia. *Architectural Science Review*, 55(May 2012), 119–127. <https://doi.org/10.1080/00038628.2012.667938>
- Apartment Ownership (Amendment) Act (No. 39 of 2003)
- ARCADIS. (2018). Sustainable cities Index: 2018. Retrieved from [https://www.arcadis.com/media/1/D/5/%7B1D5AE7E2-A348-4B6E-B1D7-6D94FA7D7567%7DSustainable\\_Cities\\_Index\\_2018\\_Arcadis.pdf](https://www.arcadis.com/media/1/D/5/%7B1D5AE7E2-A348-4B6E-B1D7-6D94FA7D7567%7DSustainable_Cities_Index_2018_Arcadis.pdf)
- Archdaily (2020). <https://www.archdaily.com/>
- Arifin, N. A., & Denan, Z. (2015). An Analysis of Indoor Air Temperature and Relative Humidity in Office Room with Various External Shading Devices in Malaysia. *Procedia - Social and Behavioral Sciences*, 179, 290–296. <https://doi.org/10.1016/j.sbspro.2015.02.432>
- Ariyawansa, R.G, & Udayanthika, A. G. P. I. (2012). Living in high-rise: An analysis of demand for condominium properties in Colombo, *International Journal of Sociology and Anthropology* Vol. 4(1), pp. 31-37
- Ascione, F., Bianco, N., De Masi, R. F., Mauro, G. M., & Vanoli, G. P. (2015). Design of the building envelope: A novel multi-objective approach for the optimization of energy performance and thermal comfort. *Sustainability (Switzerland)*, 7(8), 10809–10836. <https://doi.org/10.3390/su70810809>
- ASHRAE/IESNA. (2007). ASHRAE 90.1-2007 Standard-energy Standard for Buildings except Low-rise Residential Buildings, Appendix G.
- Asyary, A., & Veruswati, M. (2020). Sunlight exposure increased Covid-19 recovery rates : A study in the central pandemic area of Indonesia. *Science of the Total Environment*, 729, 139016. <https://doi.org/10.1016/j.scitotenv.2020.139016>
- Attia, S., Evrard, A., & Gratia, E. (2012). Development of benchmark models for the Egyptian residential buildings sector. *Applied Energy*, 94(2012), 270–284. <https://doi.org/10.1016/j.apenergy.2012.01.065>

Berghauer Pont M & Haupt P. (2007) The relation between urban form and density, *Urban Morphology* (2007), International Seminar on Urban Form

Berghauer Pont M & Haupt P. (2010) *Spacematrix: Space, density and urban form*. Rotterdam: Nai Publishers

Bâldea M. and Dumitrescu C. (2013). High-Density Forms in Contemporary Architecture. *Acta Technica Napocensis: Civil Engineering & Architecture* Vol. 56, No. 2

Branke, J., Deb, K., Dierolf, H., & Osswald, M. (2004). Finding knees in multi-objective optimization. *Lecture Notes in Computer Science*, 3242, 722–731.  
[https://doi.org/10.1007/978-3-540-30217-9\\_73](https://doi.org/10.1007/978-3-540-30217-9_73)

Brownlee, A., & Wright, J. (2012). Solution analysis in multi-objective optimization. *First Building Simulation and Optimization Conference*, September, 317–324.  
<https://dspace.lboro.ac.uk/2134/10275>

Capeluto, I. G., & Shaviv, E. (2001). Modeling the Design of Urban Fabric With Solar Rights Considerations. *Solar Energy*, 70(October), 275–280.

Ceylon Electricity Board. (2014). Statistical digest

Ceylon Electricity Board (2015). Statistical digest

Ceylon Electricity Board. (2017). Transmission and Generation Planning Branch  
Transmission, LONG TERM GENERATION EXPANSION PLAN 2018-2037 (draft)

Cheung, C. K., Fuller, R. J., & Luther, M. B. (2005). Energy-efficient envelope design for high-rise apartments. *37*(March 2004), 37–48. <https://doi.org/10.1016/j.enbuild.2004.05.002>

Cheung, C. T., Mui, K. W., & Wong, L. T. (2015). A hybrid simulation approach to predict cooling energy demand for public housing in Hong Kong. *Building Simulation*, 8(6), 603–611. <https://doi.org/10.1007/s12273-015-0233-8>

Chi, D. A., Moreno, D., & Navarro, J. (2017). Design optimisation of perforated solar façades in order to balance daylighting with thermal performance. *Building and Environment*, 125, 383–400. <https://doi.org/10.1016/J.BUILDENV.2017.09.007>

Cho, J., Yoo, C., & Kim, Y. (2014). Viability of exterior shading devices for high-rise residential buildings : Case study for cooling energy saving and economic feasibility analysis. *Energy & Buildings*, 82, 771–785. <https://doi.org/10.1016/j.enbuild.2014.07.092>

Choi, S. J., Lee, D. S., & Jo, J. H. (2017). Lighting and cooling energy assessment of multi-purpose control strategies for external movable shading devices by using shaded fraction. *Energy and Buildings*, 150, 328–338. <https://doi.org/10.1016/j.enbuild.2017.06.030>

Chua, K. J., & Chou, S. K. (2010). Evaluating the performance of shading devices and glazing types to promote energy efficiency of residential buildings. *Building Simulation*, 3, pages181–194.

- Chung, W., Hui, Y. V., & Lam, Y. M. (2006). Benchmarking the energy efficiency of commercial buildings. *Applied Energy*, 83(1), 1–14. <https://doi.org/10.1016/j.apenergy.2004.11.003>
- Coakley, D., Raftery, P., & Keane, M. (2014). A review of methods to match building energy simulation models to measured data. *Renewable and Sustainable Energy Reviews*, 37, 123–141. <https://doi.org/10.1016/j.rser.2014.05.007>
- Cohen, R., & Bordass, W. (2006). Fixed and customized benchmarks for building energy performance certificates based on operational ratings. *European Energy Performance of Buildings Directive at EPIC 2006 AIVC Conference*, 3–8. [http://eplabel.org/links/EPLLabel\\_EPIC\\_paper\\_final\\_03Jul06\\_corr.pdf](http://eplabel.org/links/EPLLabel_EPIC_paper_final_03Jul06_corr.pdf)
- Compagnon, R. (2004). Solar and daylight availability in the urban fabric. *Energy and Buildings*, 36(4), 321–328. <https://doi.org/10.1016/j.enbuild.2004.01.009>
- Council on Tall Buildings and Urban Habitat (CTBUH). (n.d). Search skyscraper centre. <https://www.skyscrapercenter.com>
- Council on Tall Buildings and Urban Habitat (CTBUH). (2015). *Best tall buildings*. Images publishing, Australia.
- Council on Tall Buildings and Urban Habitat (CTBUH). (n.d.) Height criteria. Retrieved December 12, 2019, from <https://www.ctbuh.org/resource/height>
- Curtis, William J.R. (1986). *Le Corbusier : ideas and forms*, Oxford Phaidon Press
- Curtis, William J.R., (1982). *Modern architecture since 1900*, Oxford Phaidon Press
- David, M., Sigrid, K., Frayret, J. M., Gilles, P., & Nicolas, G. (2015). A review and taxonomy of interactive optimization methods in operations research. *ACM Transactions on Interactive Intelligent Systems*, 5(3). <https://doi.org/10.1145/2808234>
- Dawodu, A., & Cheshmehzangi, A. (2017). Impact of Floor Area Ratio ( FAR ) on Energy Consumption at Meso Scale in China : Case Study of Ningbo. *Energy Procedia*, 105(i), 3449–3455. <https://doi.org/10.1016/j.egypro.2017.03.789>
- De Luca, F., & Dogan, T. (2019). A novel solar envelope method based on solar ordinances for urban planning. *Building Simulation*, 12(5), 817–834. <https://doi.org/10.1007/s12273-019-0561-1>
- Department of Census and Statistics. (2012). *Census of Population and Housing 2012 – Final Report*. Retrieved from <http://www.statistics.gov.lk/PopHouSat/CPH2011/Pages/Activities/Reports/FinalReport/FinalReport.pdf>
- Department of Census and Statistics. (2015). *Statistical newsletter*. Retrieved from <http://www.statistics.gov.lk/Newsletters/DCSB-PUB-2015-01.pdf>

Department of Land Use Policy Planning, National Land Use Policy of Sri Lanka. Retrieved from [http://www.luppd.gov.lk/web/images/content\\_image/downloads/pdf/national\\_land\\_use\\_policy.pdf](http://www.luppd.gov.lk/web/images/content_image/downloads/pdf/national_land_use_policy.pdf)

DOE. (n.d.). EnergyPlus Documentation.  
[https://energyplus.net/sites/default/files/pdfs\\_v8.3.0/EngineeringReference.pdf](https://energyplus.net/sites/default/files/pdfs_v8.3.0/EngineeringReference.pdf)

Dredge D. & Coiactto E. (2011). Strata Title: Towards a Research Agenda for Informed Planning Practice, *Planning Practice & Research*, 26:4, 417-433, DOI:10.1080/02697459.2011.582383

Durvasula, S., Kok, C., Sambrook, P. N., Cumming, R. G., Lord, S. R., March, L. M., Mason, R. S., Seibel, M. J., Simpson, J. M., & Cameron, I. D. (2010). Sunlight and health: Attitudes of older people living in intermediate care facilities in southern Australia. *Archives of Gerontology and Geriatrics*, 51(3), e94–e99.  
<https://doi.org/10.1016/J.ARCHGER.2010.01.008>

Durvasula, S., Sambrook, P. N., & Cameron, I. D. (2012). Factors influencing adherence with therapeutic sunlight exposure in older people in intermediate care facilities. *Archives of Gerontology and Geriatrics*, 54(2), e234–e241.  
<https://doi.org/10.1016/J.ARCHGER.2011.08.009>

Edwards L. and Torcellini P. (2002). A Literature Review of the Effects of Natural Light on Building Occupants retrieved from <http://www.osti.gov/bridge>

Emmanuel, R. (2005). *An Urban Approach To Climate Sensitive Design Strategies for the Tropics*. Taylor & Francis. London

Ewing R.H. (2008). Characteristics, Causes, and Effects of Sprawl: A Literature Review. In: Marzluff J.M. et al. (eds.) *Urban Ecology*. Springer, Boston, MA

EN 17037. (2018) *Daylight in buildings*. (European Union)

Pererz-Lombard, L., Ortis, J., Gonzalez, R., & Maestre, I. (2009). A review of benchmarking, rating and labelling concepts within the framework of building energy certification schemes. *Energy and Buildings*, 41, 272–279.  
<https://doi.org/10.1016/j.enbuild.2008.10.004>

Evans G.W., Wells N.M. and Moch A. (2003). Housing and mental health: a review of the evidence and a methodological and conceptual critique. *J Soc. Issues* 59:475–500.

Ewing R.H. (2008). Characteristics, Causes, and Effects of Sprawl: A Literature Review. In: Marzluff J.M. et al. (eds.) *Urban Ecology*. Springer, Boston, MA

Ewing, R. (2010). The Impact of Urban Form on U.S. Residential Energy Use. *Housing Policy Debate*, 19(April 2013), 37–41. <https://doi.org/10.1080/10511482.2008.9521624>

Fanning D.M., (1967). Families in flats. *British Medical Journal*. 18; 4(5576): 382–386. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1748722/>

- Forsyth, A. (2003). Measuring Density: Working Definitions for Residential Density and Building Intensity. *Design Center for American Urban Landscape*, 8(8), 2–8.
- Freewan, A. A. Y. (2014). Impact of external shading devices on thermal and daylighting performance of offices in hot climate regions. *Solar Energy*, 102, 14–30.  
<https://doi.org/10.1016/J.SOLENER.2014.01.009>
- Fumo, N., Mago, P., & Luck, R. (2010). Methodology to estimate building energy consumption using EnergyPlus Benchmark Models. *Energy and Buildings*, 42(12), 2331–2337. <https://doi.org/10.1016/j.enbuild.2010.07.027>
- Futrell, B. J., Ozelkan, E. C., & Brentrup, D. (2015). Optimizing complex building design for annual daylighting performance and evaluation of optimization algorithms. *Energy and Buildings*, 92, 234–245. <https://doi.org/10.1016/j.enbuild.2015.01.017>
- Gao, X., & Malkawi, A. (2014). A new methodology for building energy performance benchmarking: An approach based on intelligent clustering algorithm. *Energy and Buildings*, 84, 607–616. <https://doi.org/10.1016/j.enbuild.2014.08.030>
- Gauzin-Muller, D.(2002). Sustainable architecture and urbanism: concepts, technologies, examples, Basel Birkhauser
- Gifford R. (2007). The Consequences of Living in High-Rise Buildings, *Architectural Science Review*, 50, 2007 -1, 2-17
- Giridharan, R., Lau, S. S. Y., & Ganesan, S. (2005). Nocturnal heat island effect in urban residential developments of Hong Kong. *Energy and Buildings*, 37(9), 964–971.  
<http://doi.org/10.1016/j.enbuild.2004.12.005>
- Givoni, B. (1998). Climate considerations in building and urban design. *Building*, 241–300.  
[http://books.google.com/books?id=MGkArZ\\_berAC&pgis=1](http://books.google.com/books?id=MGkArZ_berAC&pgis=1)
- Google Inc. (n.d.) Google maps. <https://www.google.com/streetview/>
- Gossard, D., Lartigue, B., & Thellier, F. (2013). Multi-objective optimization of a building envelope for thermal performance using genetic algorithms and artificial neural network. *Energy and Buildings*, 67, 253–260. <https://doi.org/10.1016/j.enbuild.2013.08.026>
- Grasshopper for Rhino 5.0. (n.d.). <https://www.grasshopper3d.com>
- Grout, D. Z. (1980). Access to Sunlight: New Mexico’s Solar Rights Act. 10.N.M.L.Rev.169(Winter 1980).
- Gunaratna, K. L. (2006). Spatial concerns in development: a Sri Lankan perspective, New Delhi Atlantic 2006
- Hamzah, B., & Lau, S. S. Y. (2016). The development of visible sky area as an alternative daylight assessment method for high-rise buildings in high-density urban environments.

Architectural Science Review, 59(3), 178–189.  
<https://doi.org/10.1080/00038628.2014.963021>

Han, Y., Taylor, J. E., & Pisello, A. L. (2017). Exploring mutual shading and mutual reflection inter-building effects on building energy performance. *Applied Energy*, 185, 1556–1564.

Hawkes, D., (1996). *The Environmental tradition: studies in the architecture of environment*, London E & FN Spon

Hawkes, D., (2008). *The Environmental imagination: technics and poetics of the architectural environment*, Oxon Taylor and Francis

Hawkes, D., McDonald, J., & Steemers, K.,(2002).*The Selective environment*, London Spon Press

Hraška, J. (2020). Approaches, Methods and Tools of Rights of Access to Sunlight around the World. *Slovak Journal of Civil Engineering*, 27(4), 45–52. <https://doi.org/10.2478/sjce-2019-0031>

Huang, L., & Zhao, S. (2017). Perforated thermal mass shading: An approach to winter solar shading and energy, shading and daylighting performance. *Energies*, 10(12).  
<https://doi.org/10.3390/en10121955>

Hyde, R. (2000). *Climate Responsive Design*. London; New York: E & FN Spon.

IPCC. (2014). Summary for Policymakers. In *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. <https://doi.org/10.1017/CBO9781107415324>

Jabareen, Y. R. (2006). Sustainable Urban Forms. *Journal of Planning Education and Research*, 26(3), 38–52. <https://doi.org/10.1177/0739456X05285119>

Jakubiec, J. A., & Reinhart, C. F. (2011). DIVA 2.0: Integrating daylight and thermal simulations using rhinoceros 3D, DAYSIM and EnergyPlus. *Proceedings of Building Simulation 2011: 12th Conference of International Building Performance Simulation Association*, 2202–2209.

Johnston N.R and Reid, S.,(2013) Multi-owned developments: a life cycle review of a developing research area, *Property Management*, Vol. 31 Issue: 5, pp.366-388,  
<https://doi.org/10.1108/PM-01-2013-0003>

Jones Lang La Salle. (2011). *Real Estate in Sri Lanka Prospects and Potential Translating Economic Growth into Real Developments in Colombo*

Kaplan, J.(2007). Sustainable design in High rise residential, *CTUBH Journal Summer 2007*

Khin, A., Lau, K., Salleh, E., Lim, C. H., & Sulaiman, M. Y. (2016). Potential of shading devices and glazing configurations on cooling energy savings for high-rise office buildings

- in hot-humid climates: The case of Malaysia. *International Journal of Sustainable Built Environment*, 5(2), 387–399. <https://doi.org/10.1016/j.ijbsbe.2016.04.004>
- Khoshnevisan, S., Gong, W., Wang, L., & Juang, C. H. (2014). Robust design in geotechnical engineering – an update. *Georisk*, 8(4), 217–234. <https://doi.org/10.1080/17499518.2014.980274>
- Kim, J. (2013). Adaptive façade design for the daylighting performance in an office building: The investigation of an opening design strategy with cellular automata. *International Journal of Low-Carbon Technologies*, 10(3), 313–320. <https://doi.org/10.1093/ijlct/ctt015>
- Kim, J. T., & Kim, G. (2010). Advanced External Shading Device to Maximize Visual and View Performance. *Indoor and Built Environment*, 19(1), 65–72. <https://doi.org/https://doi.org/10.1177/1420326X09358001>
- Knowles, R. L. (2003). The solar envelope: its meaning for energy and buildings. *Energy and Buildings*, 35(35), 15–25. <https://doi.org/10.1192/bjp.111.479.1009-a>
- Ko, Y. (2013). Urban form and residential energy use: A review of design principles and empirical findings. *Journal of Planning Literature*, 28(4), 327–351. <https://doi.org/10.1177/0885412213491499>
- Koenigsberger, O. H., T. G. Ingersoll, A. Mayhew, S., Szokolay V.S. (1973). *Manual of Tropical Housing and Building Design*. London: Longman.
- Kosir, M., & Sprah, N. (2019). Daylight Provision Requirements According to EN 17037 as a Restriction for Sustainable Urban Planning of Residential Developments. *Sustainability*, 12(1), 1–22. <https://doi.org/10.3390/su12010315>
- Kwofie, T. E., Fugar, F., Adinyira, E., & Ahadzie, D. K. (2014). Identification and Classification of the Unique Features of Mass Housing Projects. *Journal of Construction Engineering*, 2014. <http://dx.doi.org/10.1155/2014/927652>
- Lai, C. M., & Wang, Y. H. (2011). Energy-saving potential of building envelope designs in residential houses in Taiwan. *Energies*, 4(11), 2061–2076. <https://doi.org/10.3390/en4112061>
- Lam, J. C. (2000). Shading effects due to nearby buildings and energy implications. *Energy Conversion and Management*, 41(7), 647–659. [https://doi.org/10.1016/S0196-8904\(99\)00138-7](https://doi.org/10.1016/S0196-8904(99)00138-7)
- Lansiaux, É., Pébäy, P. P., Picard, J., & Forget, J. (2020). Spatial and Spatio-temporal Epidemiology Covid-19 and vit-d : Disease mortality negatively correlates with sunlight exposure. 0. <https://doi.org/10.1016/j.sste.2020.100362>
- Lau, K. L., Ng, E., & He, Z. J. (2011). Residents' preference of solar access in high-density sub-tropical cities. *Solar Energy*, 85(9), 1878–1890. <https://doi.org/10.1016/j.solener.2011.04.026>

- Laukkarinen, A., Kero, P., & Vinha, J. (2018). Condensation at the exterior surface of windows. *Journal of Building Engineering*, 19, 592–601. <https://doi.org/10.1016/J.JOBE.2018.06.014>
- Lavin, C., & Fiorito, F. (2017). Optimization of an External Perforated Screen for Improved Daylighting and Thermal Performance of an Office Space. *Procedia Engineering*, 180, 571–581. <https://doi.org/10.1016/j.proeng.2017.04.216>
- LEED BD+C: Healthcare | v4 - LEED v4 Daylight. (n.d.). Leadership in Energy and Environmental Design (LEED).
- Li, C., Song, Y., & Kaza, N. (2018). Urban form and household electricity consumption: A multilevel study. *Energy and Buildings*, 158, 181–193. <https://doi.org/10.1016/j.enbuild.2017.10.007>
- Li, D. H. W., Wong, S. L., Tsang, C. L., & Cheung, G. H. W. (2006). A study of the daylighting performance and energy use in heavily obstructed residential buildings via computer simulation techniques. *Energy and Buildings*, 38(11), 1343–1348. <https://doi.org/10.1016/j.enbuild.2006.04.001>
- Lim, T., Yim, W.S., Kim, D.D., 2020. Evaluation of daylight and cooling performance of shading devices in residential buildings in South Korea. *Energies* 13. <https://doi.org/10.3390/en13184749>
- Lima, I., Scalco, V., & Lamberts, R. (2019). Estimating the impact of urban densification on high-rise office building cooling loads in a hot and humid climate. In *Energy and Buildings* (Vol. 182, pp. 30–44). <https://doi.org/10.1016/j.enbuild.2018.10.019>
- Lin, H., Xiao, Y., & Musso, F. (2018). Shading Effect and Heat Reflection Performance of Green Façade in Hot Humid Climate Area: Measurements of a Residential Project in Guangzhou, China. *IOP Conference Series: Earth and Environmental Science*, 146, 012006. <https://doi.org/10.1088/1755-1315/146/1/012006>
- Lobaccaro, G., Carlucci, S., Croce, S., Paparella, R., & Finocchiaro, L. (2017). Boosting solar accessibility and potential of urban districts in the Nordic climate: A case study in Trondheim. *Solar Energy*, 149, 347–369. <https://doi.org/10.1016/J.SOLENER.2017.04.015>
- Lu, L., Anderson-Cook, C. M., & Robinson, T. J. (2011). Optimization of designed experiments based on multiple criteria utilizing a pareto frontier. *Technometrics*, 53(4), 353–365. <https://doi.org/10.1198/TECH.2011.10087>
- Lu, M., & Du, J. (2013). Assessing the daylight and sunlight availability in high- density residential areas : a case in North-east China. *Architectural Science Review*, November 2014, 37–41. <https://doi.org/10.1080/00038628.2012.729311>
- Machairas, V., Tsangrassoulis, A., & Axarli, K. (2014). Algorithms for optimization of building design : A review. *Renewable and Sustainable Energy Reviews*, 31, 101–112.



- Méndez Echenagucia, T., Capozzoli, A., Cascone, Y., & Sassone, M. (2015). The early design stage of a building envelope: Multi-objective search through heating, cooling and lighting energy performance analysis. *Applied Energy*, 154, 577–591. <https://doi.org/10.1016/j.apenergy.2015.04.090>
- Ministry of Housing and Construction. (2017). National Housing Policy -Revision of 2017. Retrieved from <https://drive.google.com/file/d/0B6o-6gqv4JNBRGFfRE1IWXRvXzQ/view>
- Ministry of Megapolis and Western Development, Master plan 2030. Retrieved from <https://megapolis.gov.lk/downloads/> on 01.12.2017
- Mustafaraj, G., Marini, D., Costa, A., & Keane, M. (2014). Model calibration for building energy efficiency simulation. 130, 72–85. <https://doi.org/10.1016/j.apenergy.2014.05.019>
- Natanian, J., Aleksandrowicz, O., & Auer, T. (2019). A parametric approach to optimizing urban form, energy balance and environmental quality: The case of Mediterranean districts. *Applied Energy*, 254(June), 113637. <https://doi.org/10.1016/j.apenergy.2019.113637>
- National Environment Agency (NEA). (2017). Household energy consumption study, 2017. <https://www.e2singapore.gov.sg/overview/households/saving-energy-at-home/households-studies>
- Nebia, B., & Aoul, K. T. (2017). Overheating and daylighting; assessment tool in early design of London’s high-rise residential buildings. *Sustainability (Switzerland)*, 9(9). <https://doi.org/10.3390/su9091544>
- Nejat, P., Jomehzadeh, F., Mahdi, M., & Gohari, M. (2015). A global review of energy consumption, CO 2 emissions and policy in the residential sector ( with an overview of the top ten CO 2 emitting countries ). *Renewable and Sustainable Energy Reviews*, 43, 843–862. <https://doi.org/10.1016/j.rser.2014.11.066>
- Newman, P., & Kenworthy, J. (2006). *Urban Design to Reduce Automobile Dependence*. *Opolis: An International Journal of Suburban and Metropolitan Studies*, 2(1).
- Ng, E. (2003). Studies on Daylight Design and Regulation of High-density Residential Housing in Hong Kong. *Lighting Research & Technology*, 35(2), 127–139.
- Nguyen, A. T., Reiter, S., & Rigo, P. (2014). A review on simulation-based optimization methods applied to building performance analysis. *Applied Energy*, 113, 1043–1058. <https://doi.org/10.1016/j.apenergy.2013.08.061>
- Nikolaou, T., Kolokotsa, D., & Stavrakakis, G. (2011). Advances in Building Energy Research Review on methodologies for energy benchmarking , rating and classification of buildings Review on methodologies for energy benchmarking , rating and classification of buildings. *Advances in Building Energy Research*, 5(1), 53–70. <https://doi.org/10.1080/17512549.2011.582340>
- Norman, J., MacLean, H. L., & Kennedy, C. A. (2006). Comparing High and Low Residential Density: Life-Cycle Analysis of Energy Use and Greenhouse Gas Emissions.

Journal of Urban Planning and Development, 132(1), 10–21.  
[https://doi.org/10.1061/\(ASCE\)0733-9488\(2006\)132:1\(10\)](https://doi.org/10.1061/(ASCE)0733-9488(2006)132:1(10))

O'Brien, W. T., Kennedy, C. A., Athienitis, A. K., & Kesik, T. J. (2010). The relationship between net energy use and the urban density of solar buildings. *Environment and Planning B: Planning and Design*, 37(6), 1002–1021. <https://doi.org/10.1068/b36030>

Offiong, A., & Ukpoho, A. U. (2004). External window shading treatment effects on internal environmental temperature of buildings. *Renewable Energy*, 29(14), 2153–2165.  
<https://doi.org/10.1016/j.renene.2003.11.015>

Patterson, M. G. (1996). What is energy efficiency? Concepts, indicators and methodological issues. *Energy Policy*, 24(5), 377–390. [https://doi.org/10.1016/0301-4215\(96\)00017-1](https://doi.org/10.1016/0301-4215(96)00017-1)

Pérez-Lombard, L., Ortiz, J., González, R., & Maestre, I. R. (2009). A review of benchmarking, rating and labelling concepts within the framework of building energy certification schemes. In *Energy and Buildings* (Vol. 41, Issue 3, pp. 272–278).  
<https://doi.org/10.1016/j.enbuild.2008.10.004>

Pisello, A. L., Castaldo, V. L., Taylor, J. E., & Cotana, F. (2014). Expanding Inter-Building Effect modeling to examine primary energy for lighting. *Energy and Buildings*, 76, 513–523.  
<https://doi.org/10.1016/j.enbuild.2014.02.081>

Pisello, A. L., Taylor, J. E., Xu, X., & Cotana, F. (2012). Inter-building effect: Simulating the impact of a network of buildings on the accuracy of building energy performance predictions. *Building and Environment*, 58, 37–45.  
<https://doi.org/10.1016/J.BUILDENV.2012.06.017>

Quan, S. J., Economou, A., Grasl, T., & Yang, P. P. J. (2014). Computing energy performance of building density, shape and typology in urban context. *Energy Procedia*, 61, 1602–1605. <https://doi.org/10.1016/j.egypro.2014.12.181>

Quan, S. J., Wu, J., Wang, Y., Shi, Z., Yang, T., & Yang, P. P. J. (2016). Urban form and building energy performance in Shanghai neighborhoods. *Energy Procedia*, 88, 126–132.  
<https://doi.org/10.1016/j.egypro.2016.06.035>

Rajapaksha, U., & Jayaweera, N. (2018). Condominium development in Sri Lanka: Current status and recommendations. University of Moratuwa, Sri Lanka.

Rajasekar, E., & Ramachandraiah, A. (2011). A study on thermal parameters in residential buildings associated with hot humid environments. *Architectural Science Review*, 54(1), 23–38. <https://doi.org/10.3763/asre.2009.0082>

Ramos, G., & Ghisi, E. (2010). Analysis of daylight calculated using the EnergyPlus programme. *Renewable and Sustainable Energy Reviews*, 14(7), 1948–1958.  
<https://doi.org/10.1016/J.RSER.2010.03.040>

Rapport, A. (1969), *House, Form and Culture*, New Jersey Prentice Hall

- Ratcliffe, M., & Day, T. (2004). Improving Office Staff Productivity while Reducing Carbon Dioxide Emissions. *Cibse*, 1–10. [www.cibse.org/pdfs/8aratcliffe.pdf](http://www.cibse.org/pdfs/8aratcliffe.pdf)
- Ratti, C., Baker, N., & Steemers, K. (2015). Energy consumption and urban texture. *Energy and Buildings*, 37(7), 762–776. <https://doi.org/10.1016/j.enbuild.2004.10.010>
- Razzaque, M. S. (2018). Sunlight exposure: Do health benefits outweigh harm? *The Journal of Steroid Biochemistry and Molecular Biology*, 175, 44–48. <https://doi.org/10.1016/J.JSBMB.2016.09.004>
- RECS. (2009). Survey Data Consumption and Expenditures, accessible from: <http://www.eia.gov/consumption/residential/data/2009/index.cfm?view¼consumption>
- Reinhart, C. F., Dogan, T., Jakubiec, J. A., Rakha, T., & Sang, A. (2013). UMI - An urban simulation environment for building energy use, daylighting and walkability. *Proceedings of BS 2013: 13th Conference of the International Building Performance Simulation Association*, July 2014, 476–483.
- Resch, E., André, R., Kvamsdal, T., & Lohne, J. (2016). Impact of urban density and building height on energy use in cities. *Energy Procedia*, 96(1876), 800–814. <https://doi.org/10.1016/j.egypro.2016.09.142>
- Rhinoceros, version 5. (n.d.). <https://www.rhino3d.com/>
- Rode, P., Keim, C., Robazza, G., Viejo, P., & Schofield, J. (2014). Cities and energy: Urban morphology and residential heat-energy demand. *Environment and Planning B: Planning and Design*, 41(1), 138–162. <https://doi.org/10.1068/b39065>
- Rosen G, & Walks A.(2013).Castles in Toronto’s sky: condo-ism and urban transformation, *Journal of Urban Affairs*, Volume 37, Issue 3, 289–310
- Rossi, A. (1931). *The Architecture of the city*, MIT Press, Cambridge, UK
- Roy, R., Hinduja, S., & Teti, R. (2008). Recent advances in engineering design optimisation: Challenges and future trends. *CIRP Annals - Manufacturing Technology*, 57(2), 697–715. <https://doi.org/10.1016/j.cirp.2008.09.007>
- Ruiz, G. R., & Bandera, C. F. (2017). Validation of calibrated energy models: Common errors. *Energies*, 10(10). <https://doi.org/10.3390/en10101587>
- Sakamoto, R. R. (2019). Sunlight in Vitamin D Deficiency: Clinical Implications. *The Journal for Nurse Practitioners*, 15(4), 282–285. <https://doi.org/10.1016/J.NURPRA.2019.01.014>
- Samuelson, H., Claussnitzer, S., Goyal, A., Chen, Y., & Romo-castillo, A. (2016). Parametric energy simulation in early design : High-rise residential buildings in urban contexts. *Building and Environment*, 101, 19–31. <https://doi.org/10.1016/j.buildenv.2016.02.018>

- Santamouris, M., Cartalis, C., Synnefa, A., & Kolokotsa, D. (2015). On the impact of urban heat island and global warming on the power demand and electricity consumption of buildings - A review. *Energy and Buildings*, 98, 119–124. <https://doi.org/10.1016/j.enbuild.2014.09.052>
- Santamouris, M. (Ed.) (2001). *Energy and climate in the urban built environment*. James and James London.
- Santos, I. G. dos, Auer, T., & Souza, R. V. G. de. (2017). Optimized indoor daylight for tropical dense urban environments. *Ambiente Construído*, 17(3), 87–102. <https://doi.org/10.1590/s1678-86212017000300164>
- Senaratne, S., Zainudeen, N., & Weddikkara, C. (2006). Factors Affecting Condominium: Development In Sri Lanka, *Built-Environment-Sri Lanka - Vol. 07, Issue 01*
- Seong, Y. B., Lim, J. H., Yeo, M. S., Goh, I. Du, & Kim, K. W. (2006). HELIOS: Solar rights analysis system for apartment buildings. *Solar Energy*, 80(6), 723–741. <https://doi.org/10.1016/j.solener.2005.11.008>
- Shabunko, V., Lim, C. M., Brahim, S., & Mathew, S. (2014). Developing building benchmarking for Brunei Darussalam. *Energy and Buildings*, 85, 79–85. <https://doi.org/10.1016/j.enbuild.2014.08.047>
- Shahdan, M. S., Ahmad, S. S., & Hussin, M. A. (2018). External shading devices for energy efficient building. *IOP Conference Series: Earth and Environmental Science*, 117(1). <https://doi.org/10.1088/1755-1315/117/1/012034>
- Shaviv, E., & Yezioro, A. (1997). Analyzing mutual shading among buildings. *Solar Energy*, 59(1–3), 83–88. [https://doi.org/10.1016/S0038-092X\(96\)00103-X](https://doi.org/10.1016/S0038-092X(96)00103-X)
- Sherif, A., Sabry, H., & Rakha, T. (2012). External perforated Solar Screens for daylighting in residential desert buildings: Identification of minimum perforation percentages. *Solar Energy*, 86(6), 1929–1940. <https://doi.org/10.1016/J.SOLENER.2012.02.029>
- Shi, X. (2011). Design optimization of insulation usage and space conditioning load using energy simulation and genetic algorithm. *Energy*, 36(3), 1659–1667. <https://doi.org/10.1016/j.energy.2010.12.064>
- Shi, Z., Fonseca, J. A., & Schlueter, A. (2017). A review of simulation-based urban form generation and optimization for energy-driven urban design. *Building and Environment*, 121, 119–129. <https://doi.org/10.1016/j.buildenv.2017.05.006>
- Soebarto, V. I., & Ph, D. (1997). Calibration of Hourly Energy Simulations Using Hourly Monitored Data and Monthly Utility Records for Two Case Study Buildings. [http://www.ibpsa.org/proceedings/BS1997/BS97\\_P017.Pdf](http://www.ibpsa.org/proceedings/BS1997/BS97_P017.Pdf), March. [http://www.ibpsa.org/proceedings/BS1997/BS97\\_P017.pdf](http://www.ibpsa.org/proceedings/BS1997/BS97_P017.pdf)
- Stemmers, K. (2003). Energy and the city: density, buildings and transport. *Energy and Buildings*, 35(1), 3–14. [https://doi.org/10.1016/S0378-7788\(02\)00075-0](https://doi.org/10.1016/S0378-7788(02)00075-0)

- Tereci, A., Ozkan, S. T. E., & Eicker, U. (2013). Energy benchmarking for residential buildings. *Energy and Buildings*, 60, 92–99. <https://doi.org/10.1016/j.enbuild.2012.12.004>
- Tian, Z., Zhang, X., Jin, X., Zhou, X., Si, B., & Shi, X. (2018). Towards adoption of building energy simulation and optimization for passive building design: A survey and a review. *Energy and Buildings*, 158(November), 1306–1316. <https://doi.org/10.1016/j.enbuild.2017.11.022>
- Toutou, A., Fikry, M., & Mohamed, W. (2018). The parametric based optimization framework daylighting and energy performance in residential buildings in hot arid zone. *Alexandria Engineering Journal*, 57(4), 3595–3608. <https://doi.org/10.1016/j.aej.2018.04.006>
- Urban Development Authority. (1999). City of Colombo Development Plan-1999
- Urban Development Authority. (2005). Building and planning regulations made easy.
- Urban Development Authority. (2008). City of Colombo Development Plan (Amendment)-2008
- Urban Development Authority. (2008). Development plan for the Dehiwela-Mount Lavinia Municipal Council area
- Urban Development Authority. (2015). Planning and building regulations (General)
- Urban Development Authority. Planning and Building regulations-2008-2020
- Urban Redevelopment Authority of Singapore. (2019). The handbook Development control parameters for residential development. Retrieved from <https://www.ura.gov.sg/uol/publications/technical/dc-handbooks>.
- Urban, F. (2011). *Tower and Slab: Histories of Global Mass Housing*. Routledge.
- Valladares-Rendón, L. G., Schmid, G., & Lo, S. L. (2017). Review on energy savings by solar control techniques and optimal building orientation for the strategic placement of façade shading systems. *Energy and Buildings*, 140(71), 458–479. <https://doi.org/10.1016/j.enbuild.2016.12.073>
- Van der Rhee, H. J., de Vries, E., & Coebergh, J. W. (2016). Regular sun exposure benefits health. *Medical Hypotheses*, 97, 34–37. <https://doi.org/10.1016/J.MEHY.2016.10.011>
- Vermeulen, T., Knopf-Lenoir, C., Villon, P., & Beckers, B. (2015). Urban layout optimization framework to maximize direct solar irradiation. *Computers, Environment and Urban Systems*, 51, 1–12. <https://doi.org/10.1016/j.compenvurbsys.2015.01.001>
- Versage, R., Melo, A. P., & Lamberts, R. (2010). Impact of Different Daylighting Simulation Results on the Prediction of Total Energy Consumption. *SimBuild 2010*, 1–7.

Western Region and Megapolis Planning Authority of Sri Lanka(WRMP), Megapolis Regulations and Guidelines - Planning, Zoning, Environmental and Building Draft retrieved from <https://megapolis.gov.lk/downloads/>. Accessed on 27/10/2017.

Williams, K., Burton, E. and Jenks, M. eds. (2000.) Achieving sustainable urban form, London E & FN Spon

Wong, N. H., & Li, S. (2007). A study of the effectiveness of passive climate control in naturally ventilated residential buildings in Singapore. *Building and Environment*, 42(3), 1395–1405. <https://doi.org/10.1016/j.buildenv.2005.11.032>

Wong, Nyuk Hien, & Istiadji, A. D. (2004). Effect of external shading devices on daylighting penetration in residential buildings. *Lighting Research and Technology*, 36(4), 317–333. <https://doi.org/10.1191/1365782804li126oa>

World Bank. (2016). Leveraging Urbanization in South Asia. <http://library1.nida.ac.th/termpaper6/sd/2554/19755.pdf>

Wu, H., Wang, D., Liu, Y., & Wang, Y. (2017). Study on the effect of building envelope on cooling load and life-cycle cost in low latitude and hot-humid climate. *Procedia Engineering*, 205, 975–982. <https://doi.org/10.1016/j.proeng.2017.10.153>

Wüstenrot Foundation. (n.d.). Brutalism. <http://www.brutalismus.com/e/?/concept/>

Xie, J.C., Xue, P., Mak, C.M., Liu, J.P., 2017. Balancing energy and daylighting performances for envelope design: A new index and proposition of a case study in Hong Kong. *Appl. Energy* 205, 13–22  
<https://doi.org/10.1016/j.apenergy.2017.07.115>

Xue, P., Mak, C. M., & Cheung, H. D. (2014). The effects of daylighting and human behavior on luminous comfort in residential buildings: A questionnaire survey. *Building and Environment*, 81(November), 51–59. <https://doi.org/10.1016/j.buildenv.2014.06.011>

Yang, F. (2016). High-Rise Urban Form and Environmental Performance - An Overview on Integrated Approaches to Urban Design. *International Journal of High-Rise Buildings*, 5(2), 87–9

Yeang K. (1994). Bioclimatic skyscrapers, London Artemis

Yi, Y. K., & Kim, H. (2015). Agent-based geometry optimization with Genetic Algorithm (GA) for tall apartment's solar right. *Solar Energy*, 113, 236–250.  
<https://doi.org/10.1016/j.solener.2014.11.007>

Yıldız, Y. & Arsan, Z.D.(2011).Identification of the building parameters that influence heating and cooling energy loads for apartment buildings in hot-humid climates, *Energy*, Volume 36, Issue 7,Pages 4287-4296,ISSN 0360-5442,  
<https://doi.org/10.1016/j.energy.2011.04.013>.

Yoon, Y. B., Manandhar, R., & Lee, K. H. (2014). Comparative study of two daylighting analysis methods with regard to window orientation and interior wall reflectance. *Energies*, 7(9), 5825–5846. <https://doi.org/10.3390/en7095825>

Yuen, B, Yeh, A. and Appold, S.J. (2006). High-rise Living in Singapore Public Housing, *Urban Studies*, 4

Yuen, B., and Yeh, A. (2011). *High-Rise Living in Asian Cities*, Springer

Zhang, A., Bokel, R., van den Dobbelen, A., Sun, Y., Huang, Q., & Zhang, Q. (2017). Optimization of thermal and daylight performance of school buildings based on a multi-objective genetic algorithm in the cold climate of China. *Energy and Buildings*, 139, 371–384. <https://doi.org/10.1016/j.enbuild.2017.01.048>

Zhang, J., Xu, L., Shabunko, V., Tay, S. E. R., Sun, H., Lau, S. S. Y., & Reindl, T. (2019). Impact of urban block typology on building solar potential and energy use efficiency in tropical high-density city. *Applied Energy*, 240, 513–533. <https://doi.org/10.1016/j.apenergy.2019.02.033>