

REFERENCES

- Ab Aziz, N., Moheemmed, A., & Alias, M. (2009). A wireless sensor network coverage optimization algorithm based on particle swarm optimization and Voronoi diagram. *Proceedings of International Conference on Networking, Sensing and Control* (pp. 602-607). IEEE.
- Abbaspour, C. (2008). SWAT calibrating and uncertainty programs. *SWAT-CUP user manual*. Switzerland: Eawag Zurich.
- Abbaspour, K., Rouholahnejad, E., Vaghefi, S., Srinivasan, R., Yang, H., & Klove, B. (2015). A continental-scale hydrology and water quality model for Europe: Calibration and uncertainty of a high resolution large-scale SWAT model. *Journal of Hydrology*, 524, 733-752.
- Abbaspour, K., Vaghefi, S., & Srinivasan, R. (2018). A guideline for successful calibration and uncertainty analysis for soil and water assessment: A review of papers from the 2016 International SWAT conference. *Water*, 10(6), 1-18. doi:10.3390/w10010006
- Abbott, M., Bathurst, J., Cunge, J., O'Connell, P., & Rasmussen, J. (1986a). An introduction to the European Hydrology System - Systeme Hydrologique European, 'SHE', 1: History and philosophy of a physically based distributed modelling system. *Journal of Hydrology*, 87, 45-59.
- Abbott, M., Bathurst, J., Cunge, J., O'Connell, P., & Rasmussen, J. (1986b). An introduction to the European Hydrological System - Systeme Hydrologique European, 'SHE', 2: Structure of a physically based, distributed modelling system. *Journal of Hydrology*, 87, 61-77.
- Albertini, C., Mazzoleni, M., Totaro, V., Iacobellis, V., & Di Baldassarre, G. (2000). Socio-Hydrological Modelling: The Influence of Reservoir Management and Societal Responses on Flood Impacts. . *Water*, 12(5), 1384.
- Andreassian, V., Perrin, C., Michel, C., Usart-Sanchez, I., & Lavabre, J. (2001). Impact of imperfect rainfall knowledge on the efficiency and the parameters of watershed models. *Journal of Hydrology*, 250, 206-223. doi:https://doi.org/10.1016/S0022-1694(01)00437-1
- Argany, M., Mostafavi, M., Karimipour, F., & Gagne, C. (2011). A GIS based wireless sensor network coverage estimation and optimization. In M. Gavrilova, C. Tan, & M. Mostafavi (Ed.), *Transactions on Computational Science XIV* (pp. 151-172). Berlin, Heidelberg: Springer.

- Arnold, J., Moriasi, D., Gassman, P., Abbaspour, K., White, M., Srinivasan, R., . . . Jha, M. (2012a). SWAT: Model Use, Calibration and Validation. *Transaction of the ASABE*, 55, 4, 1491-1508.
- Arnold, J., Srinivasan, R., Mutiah, R., & Williams, J. (1998). Large area hydrologic modelling and assessment. Part I. Model development. *Journal of American Water Resources Association*, 34(1), 73-89.
- Ashaary, N., Ishak, A., & Ku-Mahamud, K. (2015). Forecasting model for the change of reservoir water level stage based on temporal pattern of reservoir level. *5th International Conference on Computing and Informatics*, (pp. 692-697). Istanbul, Turkey.
- Awadallah, A. (2012). Selecting optimum locations of rainfall stations using kriging and entropy. *International Journal of Civil & Environmental Engineering (IJCEE-IJENS)*, 12(1), pp. 36-41.
- Awol, A., Coulibaly, P., Tsanis, I., & Unduche, F. (2019). Identification of hydrological models for enhanced ensemble reservoir inflow forecasting in a large complex prairie watershed. *Water*, 11(11), 2201.
- Azharuddin, M., & Jana, P. (2016). Particle swarm optimization for maximizing lifetime of wireless sensor networks. *Computers & Electrical Engineering*, 51, 26-42.
- Bauwe, A., Tiedemann, S., Kahle, P., & Lennartz, B. (2017). Does the temporal resolution of precipitation input influence the simulated hydrological components employing the SWAT model? *Journal of the American Water Resources Association*, 53(5), 997-1007.
- Beck, H., van Dijk, A., De Roo, A., Miralles, D., McVicar, T., Schellekens, J., & Bruijnzeel, L. (2016). Global scale regionalization of hydrologic model parameters. *Water Resources Research*, 52(5), 3599-3622.
- Berthet, L., Andreassian, V., Perrin, C., & Javelle, P. (2009). How crucial is it to account for the antecedent moisture conditions in flood forecasting? Comparison of event-based and continuous approaches on 178 catchments. *Hydrology and Earth System Sciences Discussions*, 13, 819-831.
- Beven, K. (1989). Changing ideas in hydrology - The case of physically based models. *Journal of Hydrology*, 157-172.
- Beven, K., & Binley, A. (1992). The future of distributed models: model calibration and uncertainty prediction. *Hydrological processes*, 6(3), 279-298.
- Beven, K., & Kirkby, M. (1976). Towards a simple physically based variable contributing model of catchment hydrology. School of Geography, University of Leeds.

- Beven, K., & Kirkby, M. (1979). A physically based variable contributing area model of basin hydrology. *Hydrological Sciences Bulletin*, 24(1), 43-69.
- Beven, K., Calver, A., & Morris, E. (1987). *The Institute of Hydrology distributed model*. Institute of Hydrology, Wallingford, UK.
- Bitella, G., Rossi, R., Boicchio, R., Perniola, M., & Amato, M. (2014). A novel low cost open hardware platform for monitoring soil water content and multiple soil-air-vegetation parameters. *Sensors*, 14, 19639 -19659.
- Boithias, L., Sauvage, S., Lenica, A., Roux, H., Abbaspour, K., Larnier, K., . . . Sanchez-Perez, J. (2017). Simulating flash floods at hourly time-step using the SWAT model. *Water*, 9(12), 929.
- Boubrima, A., Bechkit, W., & Rivano, H. (2019). On the deployment of wireless sensor networks for air quality mapping. *IEEE/ACM Transaction on Networking*, 27(4), pp. 1629-1642.
- Cai, Y., Ke, C., & Shen, X. (2020). Variations in water level, area and volume of Hongze Lake, China from 2003 to 2018. *Journal of Great Lakes Research*.
- Calver, A., & Wood, W. (1995). The Institute of Hydrology Distributed Model. In V. Singh, *Computer Models of Watershed Hydrology* (pp. 595-626). Highlands Ranch, CO: Water Resources Publications.
- Chaplot, V., Saleh, A., & Jaynes, D. (2005). Effect of the accuracy of spatial rainfall information on the modeling of water, sediment, and NO₃-N loads at the watershed level. *Journal of Hydrology*, 312, 223-234. doi:<https://doi.org/10.1016/j.jhydrol.2005.02.019>
- Chemin, Y., Bandara, N., & Eriyagama, N. (2015). A national upgrade of the climate monitoring grid in Sri Lanka. *The place of Open design, OSHW and FOSS. In EGU General Assembly Conference Abstracts*, 17.
- Chemin, Y., Sanjaya, N., & Liyanage, P. (2014). An open source hardware & software online rain gauge for real-time monitoring of rainwater harvesting in Sri Lanka. *Symposium on Mainstreaming Rainwater Harvesting as a water supply option*.
- Chen, J., Zhong, P., An, R., Zhu, F., & Xu, B. (2019). Risk analysis for real-time flood control operation of a multi-reservoir system using a dynamic Bayesian network. *Environmental Modelling & Software*, 111, 409-420.
- Chen, Y., Wei, C., & Yeh, H. (2008). Rainfall network design using kriging and entropy. *Hydrological Processes*, 22(3), 340-346.
- Chow, V. (1959). *Open-channel hydraulics*. New York: McGraw-Hill Book Co.

- Cohen Liechti, T., Matos, J., Ferràs Segura, D., Boillat, J., & Schleiss, A. (2014). Hydrological modelling of the Zambezi River Basin taking into account floodplain behaviour by a modified reservoir approach. *International journal of river basin management*, 12(1), 29-41.
- Cretaux, J., Abarca-del-Rio, R., Berge-Bguyen, M., Arsen, A., Drolon, V., Clos, G., & Maisongrande, P. (2016). Lake volume monitoring from space. *Surveys in Geophysics*, 37(2), 269-305.
- Cunge, J. (1969). On the subject of a flood routing method (Muskingum method). *Journal of Hydraulic Research*, 7, 205–230.
- Daniele, M., Facchi, A., Depoli, E. V., Renga, F. M., & Gandolfi, C. (2016). Irrig-OH: An open-hardware device for soil water potential monitoring and irrigation management. *Irrigation and Drainage*, 65(5), 750-761.
- Davis Instruments. (2017). *User manual - rain collector with mountable base - product numbers 6465 and 6465M*. Retrieved from https://www.davisinstruments.com/product_documents/weather/manuals/07395-294_IM_6465.pdf
- Dile, Y., Daggupati, P., George, C., Srinivasan, R., & Arnolde, J. (2016). Introducing a new open source GIS user interface for the SWAT model. *Environmental Modelling & Software*, 85, 129-138.
- Doorenbos, J., & Pruitt, W. (1977). *Computer programme for estimation of reference crop evapotranspiration*. Rome, Italy: Food and Agric Organization of the United Nations.
- Duan, Y., Meng, F., Liu, T., Huang, Y., Luo, M., Xing, W., & De Maeyer, P. (2019). Sub-daily simulation of mountain flood processes based on the modified soil water assessment tool (swat) model. *International journal of environmental research and public health*, 16(17), 3118.
- Duncan, M., Austin, B., Fabry, F., & Austin, G. (1993). The effect of gauge sampling density on the accuracy of streamflow prediction for rural catchments. *Journal of Hydrology*, 142, 445-476. doi:[https://doi.org/10.1016/0022-1694\(93\)90023-3](https://doi.org/10.1016/0022-1694(93)90023-3)
- Elhabyan, R., & Yagoub, M. (2015). Two-tier particle swarm optimization protocol for clustering and routing in wireless sensor network. *Journal of Network and Computer Applications*, 52, 116-128.
- Evans, D. (2011). *The Internet of Things: How the next evolution of the internet is changing everything*. Cisco Internet Business Solutions Group. Retrieved December 2016, from

http://www.cisco.com/c/dam/en_us/about/ac79/docs/innov/IoT_IBSG_0411FINAL.pdf

- Fan, F., & Biagioni, E. (2004). An approach to data visualization and interpretation for sensor networks. *Proceedings of the 37th Annual Hawaii International Conference on System Sciences*, (p. 9).
- FAO (2018). *Food and Agricultural Organization of the United Nations*. Retrieved from Sri Lanka among Globally Important Agricultural Heritage Systems: <http://www.fao.org/srilanka/news/detail-events/en/c/1118377/>
- Faures, J., Goodrich, D., Woolhiser, D., & Sorooshian, S. (1995). Impact of small-scale spatial rainfall variability on runoff modeling. *Journal of Hydrology*, 173, 309-326. doi:[https://doi.org/10.1016/0022-1694\(95\)02704-S](https://doi.org/10.1016/0022-1694(95)02704-S)
- Ford, D., & Killen, J. (1995). Pc-based decision-support system for trinity river. *Journal of Water Resources Planning and Management*, 121(5), 375-381.
- Formisano, F., Massera, E., & De Vito, S. (2015). Tinynose, an Auxiliary smart gas sensor for RFID tag in vegetables ripening monitoring during refrigerated cargo transport. Retrieved May 2017, from <https://www.researchgate.net/publication/278668294>
- Freeze, R., & Harlan, R. (1969). Blueprint for a physically-based, digitally-simulated hydrologic response model. *Journal of Hydrology*, 9, 237-258.
- Garen, D., & Moore, D. (2005). Curve number hydrology in water quality modelling: Uses, abuses, and and future directions 1. *Journal of the American Water Resources Association*, 41(2), 377 - 388.
- Geekiyange, N., & Pushpakumara, D. (2013). Ecology of ancient tank cascade systems in island Sri Lanka. *Journal of Marine and Island Cultures*, 2, 93-101.
- Gosain, A., Mani, A., & Dwivedi, C. (2009). *Hydrological modelling literature review*. Indo-Norwegian Institutional Cooperation Program 2009-2011.
- Hao, Y., & Xie, S. (2018). Optimal redistribution of an urban air quality monitoring network using atmospheric dispersion model and genetic algorithm. *Atmospheric Environment*, 177, 222-233.
- Hargreaves, G., Hargreaves, G., & Riley, J. (1985). Agricultural benefits for Senegal River Basin. *Journal of Irrigation and Drainage Engineering*, 111(2), 113-124.
- Hart, J., & Martinez, K. (2015). Toward an environmental Internet of Things. *Earth and Space Science*, 2, 194-200.

- HP. (2013). *Central Nervous System for the Earth (CeNSE)*. Retrieved June 2017, from <http://www8.hp.com/us/en/hp-information/environment/cense.html#.WTLzUmiGM2w>
- Huang, K., Ye, L., Chen, L., Wang, Q., Dai, L., Zhou, J., & Zhang, J. (2018). Risk analysis of flood control reservoir operation considering multiple uncertainties. *Journal of Hydrology*, 565, 672-684.
- Huang, W., & Yang, F. (1999). A handy decision support system for reservoir operation in Taiwan. *Journal of the American Water Resources Association*, 35(5), 1101-1112.
- IBM. (2010). *A Smarter Planet*. Retrieved June 2017, from <http://www.ibm.com/smarterplanet/>
- Jang, S., & Kim, S. (2016). Comparison of Hourly and Daily SWAT Results for the Evaluation of Runoff Simulation Performance. *Journal of The Korean Society of Agricultural Engineers*, 58(5), 59-69.
- Jeong, J., Kannan, N., Arnold, J., Glick, R., Gosselink, L., & Srinivasan, R. (2010). Development and integration of sub-hourly rainfall-runoff modeling capability within a watershed model. *Water Resources Management*, 24(15), 4505-4527.
- Jodar-Abellan, A., Valdes-Abellan, J., Pla, C., & Gomariz-Castillo, F. (2019). Impact of land use changes on flash flood prediction using a sub-daily SWAT model in five Mediterranean ungauged watersheds (SE Spain). *Science of The Total Environment*, 657, 1578-1591.
- Joo, H., Lee, J., Jun, H., Kim, K., Hong, S., Kim, J., & Kim, H. (2019). Optimal Stream Gauge Network Design Using Entropy Theory and Importance of Stream Gauge Stations. *Entropy*, 21(10), 991.
- Jourdan, D., & de Weck, O. (2004). Layout optimization for a wireless sensor network using a multi-objective genetic algorithm. *Proceedings of 59th Vehicular Technology Conference (VTC)* (pp. 2466-2470). IEEE.
- Karimi-Hosseini, A., Bozorg Haddad, O., & Marino, M. (2011). Site selection of rain gauges using entropy methodologies. *Proceedings of the Institution of Civil Engineers - Water Management* (pp. 321-333). Thomas Telford Ltd.
- Katupotha, J. (2009). Water shortage in lower Deduru oya Basin. *National Conference in Water, Food Security and Climate Change, Sri Lanka*.
- Kennedy, J., & Eberhart, R. (1995). Particle swarm optimization. *In Proceedings of ICNN'95 - International Conference on Neural Networks*, 4, pp. 1942 -1948.

- Khatibi, R., Ghorbani, M., Naghipour, L., Jothiprakash, V., Fathima, T., & Fazelifard, M. (2014). Intercomparison of time series models of lake levels predicted by several modeling strategies. *Journal of Hydrology*, *511*, 530-545.
- King, K., Arnold, J., & Bingner, R. (1999). Comparison of Green-Ampt and curve number methods on Goodwin Creek watershed using SWAT. *Transactions of the ASAE*, *42*(4), 919.
- Kite, G. (1995). The SLURP Model. In V. Singh, *Computer Models of Watershed Hydrology* (pp. 521-562). Highlands Ranch, CO: Water Resources Publications.
- Kuczera, G., & Parent, E. (1998). Monte Carlo assessment of parameter uncertainty in conceptual catchment models: The Metropolis algorithm. *Journal of Hydrology*, *34*(4), 1681-1619. doi:10.1214/009053606000000515
- Kulkarni, R., & Venayagamoorthy, G. (2011). Particle swarm optimization in wireless sensor networks: A brief survey. *Transactions on Systems, Man, and Cybernetics, Part C (Applications and Reviews)*, *41*(2), pp. 262-267. IEEE.
- Lai, C., Ting, C., & Ko, R. (2007). An effective genetic algorithm to improve wireless sensor network lifetime for large scale surveillance applications. *Congress on Evolutionary Computation (CEC)* (pp. 3531-3538). IEEE.
- Lankadhikara, L., Kalhari, I., Kularathna, G., Haafi, M., & Weerasinghe, V. (2015). Development of flood inundation map for Deduru Oya basin and flood risk analysis: public participation approach. *Undergraduate Research Symposium on Environmental Conservation and Management*.
- Lee, J. (2013). Determination of optimal water quality monitoring points in sewer systems using Entropy Theory. *Entropy*, *15*(9), 3419-3434.
- Li, Q., Qu, S., Shi, P., Chen, X., Xue, F., Gou, J., & Zhang, W. (2018). Development and integration of sub-daily flood modelling capability within the SWAT model and a comparison with XAJ model. *Water*, *10*(9), 1263.
- Li, S., Heng, S., Siev, S., Yoshimura, C., Saavedra, O., & Ly, S. (2019). Multivariate interpolation and information entropy for optimizing raingauge network in the Mekong River Basin. *Hydrological Sciences Journal*, *64*(12), 1439-1452.
- Liang, S., & Huang, C.-Y. (2013). GeoCENS: A Geospatial Cyberinfrastructure for the World-Wide Sensor Web. *Sensors*, *13*, 13402 - 13424. doi:10.3390/s131013402
- Lindenschmidt, K., Fleischbein, K., & Baborowski, M. (2007). Structural uncertainty in a river water quality modelling system. *Ecological Modelling*, *204*, 289-300.

- Luo, Y., Su, B., Yuan, J., Li, H., & Zhang, Q. (2011). GIS techniques for watershed delineation of SWAT model in plain polders. *Procedia Environmental Sciences*, 10, 2050-2057.
- Madakam, S., Ramaswamy, R., & Tripathi, S. (2015). Internet of Things (IoT); A Literature Review. *Journal of Computer and Communications*, 3, 164-173.
- Madduma Bandara, C. (1995). *Tank cascade systems in Sri Lanka: Some thoughts on their development implications*. (K. Haq, C. Wijayratne, & B. Samarasekera, Eds.) Colombo.
- Mein, R., & Larson, C. (1973). Modelling infiltration during a steady rain. *Water resources research*, 9(2), 384 - 394.
- Mesas-Carrascosa, F., Verdu Santano, D., Morono, J., Sanchez de la Orden, M., & Garcia-Ferrer, A. (2015). Open source hardware to monitor environmental parameters in precision agriculture. *Biosystem Engineering*, 137, 73-83.
- Michael, A. (1978). *Irrigation Theory and Practice*. Vikas Publishing House Pvt Ltd.
- Mokhtar, S., W.H.W. , I., & N. Md., N. (2014). Modelling of reservoir water level release decision using neural network and temporal pattern of reservoir level. *5th International Conference on Intelligent Systems, Modelling and Simulation*, (pp. 127-130). doi:10.1109/ISMS.2014.27
- Monteith, J. (1965). Evaporation and the environment. *Proceedings of the 19th Symposium of the Society for Experimental Biology* (pp. 205-234). London, UK: Cambridge University Press.
- Moreno-Carbonell, S., Sanchez-Ubeda, E., & Munoz, A. (2020). Rethinking weather station selection for electric load forecasting using genetic algorithms. *International Journal of Forecasting*, 36(2), 695-712.
- Moulin, L., Gaume, E., & Obled, C. (2008). Uncertainties on mean areal precipitation: assessment and impact on stream flow simulations. *Hydrology & Earth System Sciences Discussions*, 13(2), 99-114.
- Murillo-Escobar, J., Sepulveda-Suescun, J., Correa, M., & Orrego-Metaute, D. (2019). Forecasting concentrations of air pollutants using support vector regression improved with particle swarm optimization: Case study in Aburrá Valley, Colombia. *Urban Climate*, 29, 100473.
- Muvundja, F., Wuest, A., Isumlisho, M., Kaningini, M., Pasche, N., Rinta, P., & Schmid, M. (2014). Modelling Lake Kivu water level variations over the last seven decades. *Limnologica - Ecology and Management of Inland Waters*, 47, 21-33.

- Nash, J. (1957). The form of the instantaneous unit hydrograph. 3-4, 114-121. IASH publication.
- Nicks, A. (1974). Stochastic generation of the occurrence, pattern and location of maximum amount of daily rainfall. *Symposium on statistical hydrology* (pp. 154-171). Tucson, AZ: USDA Misc. Publ. 1275. U.S. Gov. Print. Office, Washington, DC.
- Niu, W., Feng, Z., Feng, B., Min, Y., Cheng, C., & Zhou, J. (2019). Comparison of multiple linear regression, artificial neural network, extreme learning machine, and support vector machine in deriving operation rule of hydropower reservoir. *Water*, *11*(1), 88.
- Nolihan, J., & Mahfour, J. (1996). ISBA land surface parameterization scheme. *Global Planetary Change*, *13*, 145-159.
- Nolihan, J., & Planton, S. (1989). A simple parameterization of land surface processes for meteorological model. *17. Monthly Weather Review*.
- Open Geospatial Consortium. (2012). *OGC Sensor Observation Service Interface Standard*. Retrieved from <http://www.opengis.net/doc/IS/SOS/2.0>
- Pannu, H., Singh, D., & Malhi, A. (2019). Multi-objective particle swarm optimization-based adaptive neuro-fuzzy inference system for benzene monitoring. *Neural computing and applications*, 1-11.
- Pipitone, C., Maltese, A., Dardanelli, G., Lo Brutto, M., & La Loggia, G. (2018). Monitoring water surface and level of a reservoir using different remote sensing approaches and comparison with dam displacements evaluated via GNSS. *Remote Sensing*, *10*(1), 71.
- Pourshahabi, S., Talebbeydokhti, N., Rakhshdehroo, G., & Nikoo, M. (2018). Spatio-temporal multicriteria optimization of reservoir water quality monitoring network using value of information and transinformation entropy. *Water Resources Management*, *10*, 3489-3504.
- Prescott, E., Rome, C., Marchiori, A., & Hayes, B. (2016). HydroSense: An open platform for hydroclimatic monitoring. Retrieved May 2017, from http://www.eg.bucknell.edu/wse/documents/journal_articles/smartcomp2016.pdf
- Priestley, C., & Taylor, R. (1972). On the assessment of surface heat flux and evaporation using large-scale parameters. *Monthly Weather Review*, *100*:81-92.
- Rao, B., Rao, K., & Ome, N. (2016). Internet of Things (IOT) based weather monitoring system. *International Journal of Advanced Research in Computer and*

- Communication Engineering*, 5(9), 312-319. Retrieved March 2017, from <http://www.ijarcce.com/upload/2016/september-16/IJARCCE%2066.pdf>
- Refsgaard, J., & Storm, B. (1995). MIKE SHE. In V. Singh, *Computer Models of Watershed Hydrology* (pp. 809-846). Highlands Ranch, CO: Water Resources Publications.
- Renard, B., Kavetski, D., Kuczera, G., Thyer, M., & Franks, S. W. (2010). Understanding predictive uncertainty in hydrologic modeling: The challenge of identifying input and structural errors. *Water Resources Research*, 46(5).
- Robillard, P., Walter, M., & Allee, D. (1979). Computer-based methodology for analysis of. *Water Resources Bulletin*, 15(5), 1430-1443.
- Sabatini, F. (2017). Setting up and managing Automatic Weather Stations for Remote Sites monitoring from Niger and Nepal. In T. Pezzoli, & A. Tarchiani (Eds.), *Renewing local planning to face climate change in the tropics* (pp. 21-39). Cham, Switzerland: Springer International Publishing.
- Sadler, J., Ames, D., & Khattar, R. (2014). Open hardware meets open software for environmental monitoring. *7th International congress of environmental modelling and software*. Retrieved December 2016, from <https://www.researchgate.net/publication/264417370>
- Saha, S., Moorthi, S., Pan, H., Wu, X., Wang, J., Nadiga, S., . . . Liu, H. (2010). The NCEP climate forecast system reanalysis. *Bulletin of the American Meteorological Society*, 91(8), 1015-1058.
- Saini, H., Thakur, A., Ahuja, S., Sabharwal, N., & Kumar, N. (2016). Arduino based automatic wireless weather station with remote graphical application and alerts. *3rd International Conference on Signal Processing and Integrated Networks (SPIN)*, (pp. 605 - 609).
- Samourkasidis, A., & Athanasiadis, I. (2014). Towards a low cost, full service air quality data archival system. *7th International congress on environmental modelling and software*. Retrieved December 2016, from http://www.iemss.org/sites/iemss2014/papers/iemss2014_submission_300.pdf
- Sampath, D., Weerakoon, S., & Herath, S. (2015). HEC-HMS model for runoff simulation in a tropical catchment with intra-basin diversion - case study of the Deduru Oya River Basin, Sri Lanka. *Engineer*, 48(1), 1-9.
- Santhi, C., Arnold, J., Williams, J., Dugas, W., Srinivasan, R., & Hauck, L. (2001). Validation of the swat model on a large river basin with point and nonpoint sources. *Journal of the American Water Resources Association*, 37(5), 1169-1188.

- Schmidt, A. (2002). *Analysis of stage-discharge relations for open-channel flow and their associated uncertainties*. Doctoral Dissertation, University of Illinois at Urbana-Champaign.
- SCS, US. (1972). National engineering handbook. In *Hydrology Section 4*.
- Senevirathna, S., & Jayawickrama, A. (2014). *Developing a National Climate Observatory System for Sri Lanka*. Coordinating Secretariat for Science Technology & Innovation.
- Seo, H., Oh, S., & Lee, C. (2009). Evolutionary genetic algorithm for efficient clustering of wireless sensor networks. *6th Consumer Communication and Networking Conference (CCNC)* (pp. 1-5). IEEE.
- Shannak, S. (2017). Calibration and Validation of SWAT for sub-hourly time steps using SWAT-CUP. *International Journal of Sustainable Water and Environmental Systems*, 9(1), 21-27.
- Shannon, C., & Weaver, W. (1949). *The mathematical theory of communication*. Urbana, IL, USA: The university of Illinois Press.
- Shen, C., & Phanikumar, M. (2010). A process-based, distributed hydrologic model based on a large-scale method for surface-subsurface coupling. *Advances in Water Resources*, 33, 1524-1541.
- Shim, K., Fontane, D., & Labadie, J. (2002). Spatial decision support system for integrated. *Journal of Water Resources Planning and Management*, 128(3), 190-201.
- Shrivastava, P., Pandiaraj, S., & Jagadeesan, J. (2014). Big data analytics in forecasting lake levels. *International Journal of Application or Innovation in Engineering & Management*, 3(3), 247-250.
- Silva, J., Calmant, S., Seyler, F., Moreira, D., Oliveira, D., & Monteiro, A. (2014). Radar altimetry aids managing gauge networks. *Water Resources Management*, 28-3, 587-603. doi:10.1007/s11269-013-0484-z
- Sima, S., & Tajrishy, M. (2013). Using satellite data to extract volume-area elevation relationships for Urmia Lake, Iran. *Journal of Great Lake Research*, 39(1), 90-99. doi:10.1016/j.jglr.2012.2.013
- Singh, V. (1988). Rainfall-runoff modelling. In *Hydrologic Systems*. New Jersey: Prentice Hall.
- So, A., & Ye, Y. (2005). On solving coverage problems in a wireless sensor network using voronoi diagrams. *International workshop on internet and network economics* (pp. 584-593). Berlin, Heidelberg: Springer.

- Sobhani, M., Campbell, A., Sangamwar, S., & Hong, T. (2019). Combining weather stations for electric load forecasting. *Energies*, *12*(8), 1510.
- Su, C., & Chen, X. (2019). Assessing the effects of reservoirs on extreme flows using nonstationary flood frequency models with the modified reservoir index as a covariate. *Advances in Water Resources*, *124*, 29-40.
- Sun, Q., Miao, C., Duan, Q., Ashouri, H., Sorooshian, S., & Hsu, K. (2018). A review of global precipitation data sets: Data sources, estimation, and intercomparisons. *Reviews of Geophysics*, *56*(1), 79-107.
- Sung, T., & Yang, C. (2014). Voronoi-based coverage improvement approach for wireless directional sensor networks. *Journal of Network and Computer Applications*, *39*, 202-213
- Takeuchi, K., Hamlin, M., Kundzewicz, Z., Rosbjerg, D., & Simonovic, S. (Eds.). (1998). *Sustainable Reservoir Development and Management*. Wallingford, UK: IAHS Publ.
- Thiessen, A. (1911). Precipitation averages for large areas. *Monthly weather review*, *39*(7), 1082-1084.
- Tobler, W. (1963). Geographic area and map projections. *Geographic review*, *53*(1), 59-78.
- Tuomi, I. (2005). The future of open source. How open is the future. 429-459.
- Unver, O., Mays, L., & Lansley, K. (1987). Real-time flood management model for highland lake. *Journal of Water Resources Planning and Management*, *113*(5), 620-638.
- Valdes, J., & Marco, J. (1995). Managing reservoirs for flood control. *Hydrometeorology, Impacts, and Management of Extreme Floods*. Perugia, Italy. Retrieved May 2017, from <https://www.researchgate.net/publication/267420353>
- Valenzuela, C., Sosa, C., Castaneda, M., Palomeque, J., & Amaro, I. (2018). Turbidity measurement system for aquaculture effluents using an open source software and hardware. *Nature Environment and Pollution Technology*, *17*(3), 957 - 961.
- Van de Giesen, N., Hut, R., & Selker, J. (2014). The Trans-African Hydrometeorological Observatory (TAHMO). *Water*.
- van Griensven, A., & Meixner, T. (2006). Methods to quantify and identify the sources of uncertainty for river basin water quality models. *Water Science and Technology*, *53*(1), 51-59.

- Van Liew, M., & Garbrecht, J. (2003). Hydrologic simulation of the Little Washita River experimental watershed using SWAT. *Journal of American Water Resources Association*, 39, 413-426.
- Van Wesemael, A., Landuyt, L., Lievens, H., & Verhoest, N. (2019). Improving flood inundation forecasts through the assimilation of in situ floodplain water level measurements based on alternative observation network configurations. *Advances in Water Resources*, 130, 229-243.
- Vanderstar, G., Musilek, P., & Nassif, A. (2018). Solar forecasting using remote solar monitoring stations and artificial neural networks. *IEEE Canadian Conference on Electrical & Computer Engineering (CCECE)*, (pp. 1-4).
- Vieira, M., Vieira, L., Ruiz, L., Loureiro, A., Fernandes, A., & Nogueira, J. (2003). Scheduling nodes in wireless sensor networks: A Voronoi approach. *Proceedings of 28th Annual IEEE International Conference on Local Computer Networks (LCN'03)*, (pp. 423-429).
- Wang, K., & Yang, X. (2019). The Comparison of Two Empirical Runoff Yield Models and Three Physical Models. . *DEStech Transactions on Computer Science and Engineering*,.
- Wang, L., Chen, C., Thomas, M., Kaban, M., Güntner, A., & Du, J. (2018). Increased water storage of Lake Qinghai during 2004–2012 from GRACE data, hydrological models, radar altimetry and in situ measurements. *Geophysical Journal International*, 212(1), 679-693.
- Ward, R. (1972). Estimating streamflow using Thornthwaite's climatic water-balance. *Weather*, 73-84.
- Werstuck, C., & Coulibaly, P. (2017). Hydrometric network design using dual entropy multi-objective optimization in the Ottawa River Basin. *Hydrology Research*, 48(6), 1639-1651.
- Wickramaarachchi, T. (2004). An assessment of surface water resources in Deduru Oya basin of Sri Lanka - A preliminary approach. *Proceedings of the international conference on sustainable water resources management in the changing environment of the monsoon region*. Colombo, Sri Lanka: National water resources secretariat.
- Williams, J. (1969). Flood routing with variable travel time or variable storage coefficients. *Trans. ASAE*, 12(1), 100-103.
- WMO. (2006). *Instruments and observing methods*. World Meteorological Organization.

- WMO. (2008). *Guide to Meteorological Instruments and Methods of Observations*. 7th Edition, World Meteorological Organization.
- WMO. (2013). *Flood forecasting and early warning*. World Meteorological Organization.
- Wurbs, R. (1993). Reservoir-System Simulation and Optimization Models. *Journal of Water Resources Planning and Management*, 119(4), 455-472. doi:10.1061/(ASCE)07339496(1993)119:4(455)
- Xu, P., Wang, D., Singh, V., Wang, Y., Wu, J., Wang, L., & He, R. (2018). A kriging and entropy based approach to rain gauge network design. *Environmental research*, 161, 61-75.
- Xuan, Y., Cluckie, I., & Wang, Y. (2009). Uncertainty analysis of hydrological ensemble forecasts in a distributed model utilising short-range rainfall prediction. *Hydrology and Earth System Sciences*, 13(3), 293-303. doi:10.5194/hess-13-293-2009, 2009
- Yang, S., Yang, D., Chen, J., & Zhao, B. (2019). Real-time reservoir operation using recurrent neural networks and inflow forecast from a distributed hydrological model. *Journal of Hydrology*, 579.
- Yang, X., Liu, Q., He, Y., Luo, X., & Zhang, X. (2016). Comparison of daily and sub-daily SWAT models for daily streamflow simulation in the Upper Huai River Basin of China. *Stochastic environmental research and risk assessment*, 30(3), 959-972.
- Yeh, H., Chen, Y., Wei, C., & Chen, R. (2011). Entropy and kriging approach to rainfall network design. *Paddy and Water Environment*, 9(3), 343-355.
- Yoon, Y., & Kim, Y. (2013). An efficient genetic algorithm for maximum coverage deployment in wireless sensor networks. *Transactions on Cybernetics*. 43(5), pp. 1473-1483. IEEE.
- Yu, D., Xie, P., Dong, X., Hu, X., Liu, J., Li, Y., & Xu, S. (2018). Improvement of the SWAT model for event-based flood simulation on a sub-daily timescale. *Hydrology and Earth System Sciences*, 22(9), 5001-5019.
- Zeckoski, R., Smolen, M., Moriasi, D., & Frankenberger, G. (2015). Hydrologic and water quality terminology as applied to modeling. *American Society of Agricultural and Biological Engineers*, 58, 6, 1619-1635.
- Zhang, Q., Wang, J., Jin, C., Ye, J., Ma, C., & Zhang, W. (2008). Genetic algorithm based wireless sensor network localization. *4th International Conference on Natural Computation (ICNC'08)*, (pp. 608-613).

- Zhang, Z., Lu, W., Chu, H., Cheng, W., & Zhao, Y. (2014). Uncertainty analysis of hydrological model parameters based on the bootstrap method: A case study of the SWAT model applied to the Dongliao River Watershed, Jilin Province, Northeastern China. *Science China Technological Sciences*, 57(1), 219-229.
- Zhao, G., Gao, H., Naz, B., Kao, S., & Voisin, N. (2016). Integrating a reservoir regulation scheme into a spatially distributed hydrological model. *Advances in Water Resources*, 98, 16-31.