
BIBLIOGRAPHY

- Abeyasingha, N., Jayasekara, J., Abeyasingha, N. S., Jayasekara, J. M. N. S., & Meegastenna, T. J. (2017). *Stream flow trends in up and midstream of Kirindi Oya river basin In Sri Lanka and its linkages to rainfall* (Vol. 68, Issue 1). <https://www.researchgate.net/publication/313771386>
- Ahmad, J., Forman, B., & Kumar, S. (2021). SMAP retrieval assimilation improves soil moisture estimation across irrigated areas in South Asia. *Hydrology and Earth System Sciences Discussions*, 1–32. <https://doi.org/10.5194/HESS-2021-460>
- Akbari, S., & Singh, R. (2012). *Hydrological modelling of catchments using MIKE SHE*. <https://www.infona.pl//resource/bwmeta1.element.ieee-art-000006216284>
- Alvarez-Garreton, C., Ryu, D., Western, A. W., Su, C. H., Crow, W. T., Robertson, D. E., & Leahy, C. (2015). Improving operational flood ensemble prediction by the assimilation of satellite soil moisture: Comparison between lumped and semi-distributed schemes. *Hydrology and Earth System Sciences*, 19(4), 1659–1676. <https://doi.org/10.5194/HESS-19-1659-2015>
- Alvarez-Garreton, Ryu, D., Western, A. W., Crow, W. T., Su, C.-H., & Robertson, D. R. (2016). Dual assimilation of satellite soil moisture to improve streamflow prediction in data-scarce catchments. *Water Resources Research*, 52(7), 5357–5375. <https://doi.org/10.1002/2015WR018429>
- Ampitiyawatta, A., & Guo, S. (2010). Precipitation trends in the Kalu Ganga basin in Sri Lanka. *Journal of Agricultural Sciences*, 4(1), 10. <https://doi.org/10.4038/jas.v4i1.1641>
- Armanuos, A. M., Al-Ansari, N., & Yaseen, Z. M. (2020). Cross Assessment of Twenty-One Different Methods for Missing Precipitation Data Estimation. *Atmosphere* 2020, Vol. 11, Page 389, 11(4), 389. <https://doi.org/10.3390/ATMOS11040389>

- Aubert, D., Loumagne, C., & Oudin, L. (2003). Sequential assimilation of soil moisture and streamflow data in a conceptual rainfall–runoff model. *Journal of Hydrology*, 280(1), 145–161. [https://doi.org/10.1016/S0022-1694\(03\)00229-4](https://doi.org/10.1016/S0022-1694(03)00229-4)
- Bakker, M., Barker, R., Meinzen-Dick, R., & Konradsen, F. (Eds.). (1999). *Multiple uses of water in irrigated areas: A case study from Sri Lanka* (Vol. 8). IWMI.
- Barnston, A. G. (1992). Correspondence among the Correlation, RMSE, and Heidke Forecast Verification Measures; Refinement of the Heidke Score. *Weather and Forecasting*, 7(4), 699–709. [https://doi.org/10.1175/1520-0434\(1992\)007](https://doi.org/10.1175/1520-0434(1992)007)
- Baumbach, T., Burckhard, S. R., & Kant, J. M. (2015). *Watershed Modeling Using Arc Hydro Tools. Geo HMS, and HEC-HMS*. https://openprairie.sdstate.edu/cvlee_pubs
- Bennett, T. H., & Peters, J. C. (2004). *Continuous Soil Moisture Accounting in the Hydrologic Engineering Center Hydrologic Modeling System (HEC-HMS)*.
- Bhuiyan, H., McNairn, H., Powers, J., & Merzouki, A. (2017). Application of HEC-HMS in a Cold Region Watershed and Use of RADARSAT-2 Soil Moisture in Initializing the Model. *Hydrology*, 4(1), 9. <https://doi.org/10.3390/hydrology4010009>
- Brocca, Ciabatta, L., Massari, C., Camici, S., & Tarpanelli, A. (2017). Soil Moisture for Hydrological Applications: Open Questions and New Opportunities. *Water* 2017, Vol. 9, Page 140, 9(2), 140. <https://doi.org/10.3390/W9020140>
- Brocca, L., Melone, F., Moramarco, T., Wagner, W., Naeimi, V., Bartalis, Z., & Hasenauer, S. (2010). Improving runoff prediction through the assimilation of the ASCAT soil moisture product. *Hydrology and Earth System Sciences*, 14(10), 1881–1893. <https://doi.org/10.5194/HESS-14-1881-2010>
- Brocca, Moramarco, T., Melone, F., Wagner, W., Hasenauer, S., & Hahn, S. (2012). Assimilation of Surface- and Root-Zone ASCAT Soil Moisture Products Into Rainfall–Runoff Modeling. *IEEE Transactions on Geoscience and Remote Sensing*, 50(7), 2542–2555. <https://doi.org/10.1109/TGRS.2011.2177468>
- Buytaert, W., De Bièvre, B., Wyseure, G., & Deckers, J. (2004). The use of the linear

- reservoir concept to quantify the impact of changes in land use on the hydrology of catchments in the Andes. *Hydrology and Earth System Sciences*, 8(1), 108–114. <https://doi.org/10.5194/HESS-8-108-2004>
- Cenci, L., Laiolo, P., Gabellani, S., Campo, L., Silvestro, F., Delogu, F., Boni, G., & Rudari, R. (2016). Assimilation of H-SAF Soil Moisture Products for Flash Flood Early Warning Systems. Case Study: Mediterranean Catchments. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 9(12), 5634–5646. <https://doi.org/10.1109/JSTARS.2016.2598475>
- Chandrasekara, S. S. K., Kwon, H. H., Vithanage, M., Obeysekera, J., & Kim, T. W. (2021). Drought in south asia: A review of drought assessment and prediction in south asian countries. *Atmosphere*, 12(3). <https://doi.org/10.3390/atmos12030369>
- Chien, H., Yeh, P. J. F., & Knouft, J. H. (2013). Modeling the potential impacts of climate change on streamflow in agricultural watersheds of the Midwestern United States. *Journal of Hydrology*, 491(1), 73–88. <https://doi.org/10.1016/J.JHYDROL.2013.03.026>
- Chow, V. Te, Maidment, D. R., & Mays, L. W. (1988). *Applied Hydrology*. McGraw-Hill, Inc.
- Costa, M. H., Botta, A., & Cardille, J. A. (2003). Effects of large-scale changes in land cover on the discharge of the Tocantins River, Southeastern Amazonia. *Journal of Hydrology*, 283(1–4), 206–217. [https://doi.org/10.1016/S0022-1694\(03\)00267-1](https://doi.org/10.1016/S0022-1694(03)00267-1)
- Czigány, S., Pirkhoffer, E., & Geresdi, I. (2010). Impact of extreme rainfall and soil moisture on flash flood generation. *IDŐJÁRÁS Quarterly Journal of the Hungarian Meteorological Service*, 114(2), 79–100. <https://www.researchgate.net/publication/289445194>
- Davison, A. C., & Smith, R. L. (1990). Models for Exceedances Over High Thresholds. *Journal of the Royal Statistical Society: Series B (Methodological)*, 52(3), 393–425. <https://doi.org/10.1111/J.2517-6161.1990.TB01796.X>

- De Silva, M. M. G. T., Weerakoon, ; S B, & Herath, S. (2014). *Modeling of Event and Continuous Flow Hydrographs with HEC-HMS: Case Study in the Kelani River Basin, Sri Lanka*. [https://doi.org/10.1061/\(ASCE\)HE.1943-5584.0000846](https://doi.org/10.1061/(ASCE)HE.1943-5584.0000846)
- Devia, G. K., Ganasri, B. P., & Dwarakish, G. S. (2015). A Review on Hydrological Models. *Aquatic Procedia*, 4, 1001–1007. <https://doi.org/10.1016/J.AQPRO.2015.02.126>
- Di Bucchianico, A. (2008). Coefficient of Determination (R^2) . *Encyclopedia of Statistics in Quality and Reliability*. <https://doi.org/10.1002/9780470061572.EQR173>
- Dissanayaka, K. D. C. R., & Rajapakse, R. L. H. L. (2018). Climate Extremes And Precipitation Trends In Kelani River Basin, Sri Lanka And Impacts On Streamflow Variability Under Climate Change. *Proceedings of The International Conference on Climate Change*, 2(2), 1–17. <https://doi.org/10.17501/2513258X.2018.2201>
- Dobson, M. C., Ulaby, F. T., Hallikainen, M. T., & El-Rayes, M. A. (1985). Microwave Dielectric Behavior of Wet Soil-Part II: Dielectric Mixing Models. *IEEE Transactions on Geoscience and Remote Sensing*, GE-23(1), 35–46. <https://doi.org/10.1109/TGRS.1985.289498>
- Dorji, K. Y. (2018). *The Effect Of Antecedent Moisture Condition On Hec-Hms Model Performance: A Case Study In Kelani River Basin, Sri Lanka*. <http://dl.lib.uom.lk/handle/123/15764>
- Du, J., Qian, L., Rui, H., Zuo, T., Zheng, D., Xu, Y., & Xu, C.-Y. (2012). Assessing the effects of urbanization on annual runoff and flood events using an integrated hydrological modeling system for Qinhuai River basin, China. *Journal of Hydrology*, 464, 127–139.
- Dunkerley, D. (2008a). Rain event properties in nature and in rainfall simulation experiments: a comparative review with recommendations for increasingly systematic study and reporting. *Process*, 22, 4415–4435. <https://doi.org/10.1002/hyp.7045>

- Dunkerley, D. (2008b). Identifying individual rain events from pluviograph records: a review with analysis of data from an Australian dryland site. *Hydrological Processes*, 22(26), 5024–5036. <https://doi.org/10.1002/HYP.7122>
- Enrekhabi, D., Yueh, Si., O’Neil, P. E., Kellogg, K. H., Allen, A., Bindlish, R., & Administration, N. A. and S. (2014). SMAP Handbook. *Mapping Soil Moisture and Freezes/Thaw from Space*, 192.
- ESRI. (2017). *ArcGIS* (10.5). Environmental Systems Research Institute, United States of America. <https://desktop.arcgis.com/en/arcmap/10.5/get-started/setup/arcgis-desktop-quick-start-guide.htm>
- Feldman, A. D. (2000). *Hydrologic modeling system HEC-HMS: technical reference manual*. US Army Corps of Engineers, Hydrologic Engineering Center.
- Ferreira, P. M. de L., Paz, A. R. da, & Bravo, J. M. (2020). Objective functions used as performance metrics for hydrological models: state-of-the-art and critical analysis. *RBRH*, 25. <https://doi.org/10.1590/2318-0331.252020190155>
- Gabriel-Martin, I., Sordo-Ward, A., Garrote, L., & García, J. T. (2019). Dependence Between Extreme Rainfall Events and the Seasonality and Bivariate Properties of Floods. A Continuous Distributed Physically-Based Approach. *Water* 2019, Vol. 11, Page 1896, 11(9), 1896. <https://doi.org/10.3390/W11091896>
- Gebre, S. L. (2015). *Application of the HEC-HMS Model for Runoff Simulation of Upper Blue Nile River Basin Enset bacteria wilt distribution in Southern Ethiopia View project Hydro climatology on Omo-Gibe River Basin View project Application of the HEC-HMS Model for Runoff Sim.* <https://doi.org/10.4172/2157-7587.1000199>
- Gleick, P. H., & Adams, D. B. (2000). *Water: the potential consequences of climate variability and change for the water resources of the United States* (P. H. Gleick, D. B. Adams, A. J. J. Busalacchi, T. Engman, D. K. Frederick, A. P. Georgakakos, B. P. Hayden, K. L. Jacobs, J. L. Meyer, M. J. Sale, J. C. Schaake, S. S. Seacrest, R. Kuzelka, & E. Z. Stakhiv (Eds.)).
- Golkhatmi, N. S. N., Sanaeinejad, S. H., Ghahraman, B., & Pazhand, H. R. (2012).

Extended Modified Inverse Distance Method for Interpolation Rainfall. 57–65.

Green, I. R. A., & Stephenson, D. (2009). Criteria for comparison of single event models. *Https://Doi.Org/10.1080/02626668609491056*, 31(3), 395–411. <https://doi.org/10.1080/02626668609491056>

Gupta, H. V., Sorooshian, S., & Yapo, P. O. (1999). Status of Automatic Calibration for Hydrologic Models: Comparison with Multilevel Expert Calibration. *Journal of Hydrologic Engineering*, 4(2), 135–143. [https://doi.org/10.1061/\(ASCE\)1084-0699\(1999\)4:2\(135\)](https://doi.org/10.1061/(ASCE)1084-0699(1999)4:2(135))

Gupta, H. V., Kling, H., Yilmaz, K. K., & Martinez, G. F. (2009). Decomposition of the mean squared error and NSE performance criteria: Implications for improving hydrological modelling. *Journal of Hydrology*, 377(1–2), 80–91. <https://doi.org/10.1016/J.JHYDROL.2009.08.003>

Haile, A. T., Rientjes, T. H. M., Habib, E., Jetten, V., & Gebremichael, M. (2011). Hydrology and Earth System Sciences Rain event properties at the source of the Blue Nile River. *Hydrol. Earth Syst. Sci*, 15, 1023–1034. <https://doi.org/10.5194/hess-15-1023-2011>

Halwatura, D., & Najim, M. M. M. (2013). Application of the HEC-HMS model for runoff simulation in a tropical catchment. *Environmental Modelling & Software*, 46, 155–162. <https://doi.org/10.1016/J.ENVSOFT.2013.03.006>

Hegedüs, P., Czigány, S., Balatonyi, L., & Pirkhoffer, E. (2013). Analysis of soil boundary conditions of flash floods in a small basin in SW Hungary. *Central European Journal of Geosciences 2013 5:1*, 5(1), 97–111. <https://doi.org/10.2478/S13533-012-0119-6>

Hendawitharana, S. U., Priyasad, M. K. D. D., & Rajapakse, R. L. H. L. (2020). Comparative Study of Spatial and Temporal Variation of Drought Using Remotely Sensed Data - A Case Study for Kirindi Oya Basin. In R. Dissanayake & P. Mendis (Eds.), *Lecture Notes in Civil Engineering* (Vol. 44, pp. 116–130). Springer Singapore. https://doi.org/10.1007/978-981-13-9749-3_11

Hossain, S., Hewa, G. A., & Wella-Hewage, S. (2019). A comparison of continuous

- and event-based rainfall-runoff (RR) modelling using EPA-SWMM. *Water (Switzerland)*, *11*(3). <https://doi.org/10.3390/w11030611>
- Hu, M., Sayama, T., Duan, W., Takara, K., He, B., & Luo, P. (2017). Assessment of hydrological extremes in the Kamo River Basin, Japan. *https://doi.org/10.1080/02626667.2017.1319063*, *62*(8), 1255–1265. <https://doi.org/10.1080/02626667.2017.1319063>
- Huo, J., & Liu, L. (2020). Evaluation Method of Multiobjective Functions' Combination and Its Application in Hydrological Model Evaluation. *Computational Intelligence and Neuroscience*, *2020*. <https://doi.org/10.1155/2020/8594727>
- Hvitved-Jacobsen, T., & Yousef, Y. A. (1988). Analysis of rainfall series in the design of urban drainage control systems. *Water Research*, *22*(4), 491–496. [https://doi.org/10.1016/0043-1354\(88\)90045-0](https://doi.org/10.1016/0043-1354(88)90045-0)
- IPCC. (2007). *Climate Change 2007: Synthesis Report: An Assessment of the Intergovernmental Panel on Climate Change*.
- Jackson, B., McIntyre, N., Pechlivanidis, I. G., Jackson, B. M., McIntyre, N. R., & Wheeler, H. S. (2011). Catchment scale hydrological modelling: A review of model types, calibration approaches and uncertainty analysis methods in the context of recent developments in technology and applications. *Article in GlobalNEST International Journal*, *13*(3), 193–214. <https://www.researchgate.net/publication/266341273>
- Jayadeera, P. M., & Wijesekera, N. T. S. (2019). A Diagnostic Application of HEC–HMS Model to Evaluate the Potential for Water Management in the Ratnapura Watershed of Kalu Ganga Sri Lanka. *Engineer: Journal of the Institution of Engineers, Sri Lanka*, *52*(3), 11. <https://doi.org/10.4038/engineer.v52i3.7361>
- Jeong, D. Il, Sushama, L., Khaliq, M. N., & Roy, R. (2014). A copula-based multivariate analysis of Canadian RCM projected changes to flood characteristics for northeastern Canada. *Climate Dynamics*, *42*(7–8), 2045–2066. <https://doi.org/10.1007/S00382-013-1851-4/FIGURES/11>

- Johnston, R., & Smakhtin, V. (2014). Hydrological Modeling of Large river Basins: How Much is Enough? *Water Resources Management*, 28(10), 2695–2730. <https://doi.org/10.1007/S11269-014-0637-8/TABLES/4>
- Kamali, B., Mousavi, S. J., & Abbaspour, K. C. (2013). Automatic calibration of HEC-HMS using single-objective and multi-objective PSO algorithms. *Hydrological Processes*, 27(26), 4028–4042. <https://doi.org/10.1002/HYP.9510>
- Kamran, M., & Rajapakse, R. H. L. (2018). Effect of Watershed Subdivision and Antecedent Moisture Condition on HEC-HMS Model Performance in the Maha Oya Basin, Sri Lanka. *Kamran & Rajapakse/International Journal of Engineering Technology and Sciences*, 5(2), 22–37. <https://doi.org/10.15282/ijets.5.2.2018.1004>
- Karnieli, A. (1990). Application of kriging technique to areal precipitation mapping in Arizona. *GeoJournal* 1990 22:4, 22(4), 391–398. <https://doi.org/10.1007/BF00174760>
- Karra, K., Kontgis, C., Statman-Weil, Z., Mazzariello, J. C., Mathis, M., & Brumby, S. P. (2021). *Global land use / land cover with Sentinel 2 and deep learning*. 4704–4707. <https://doi.org/10.1109/IGARSS47720.2021.9553499>
- Knebl, M. R., Yang, Z.-L., Hutchison, K., & Maidment, D. R. (2005). Regional scale flood modeling using NEXRAD rainfall, GIS, and HEC-HMS/RAS: a case study for the San Antonio River Basin Summer 2002 storm event. *Journal of Environmental Management*, 75(4), 325–336.
- Krause, P., Boyle, D. P., & Bäse, F. (2005). Comparison of different efficiency criteria for hydrological model assessment. *Advances in Geosciences*, 5, 89–97. <https://doi.org/10.5194/ADGEO-5-89-2005>
- Kumar, N. (2011). Water Resources Systems Planning and Management:Simulation-ReservoirOperation Simulation [electronic resource]. *NPTEL, IISC BAnglore*, iii, 1–8. <https://nptel.ac.in/courses/105108081/28>
- Lang, M., Ouarda, T. B. M. J., & Bobée, B. (1999). Towards operational guidelines for over-threshold modeling. *Journal of Hydrology*, 225(3–4), 103–117.

[https://doi.org/10.1016/S0022-1694\(99\)00167-5](https://doi.org/10.1016/S0022-1694(99)00167-5)

- Lettenmaier, D. P., Alsdorf, D., Dozier, J., Huffman, G. J., Pan, M., & Wood, E. F. (2015). Inroads of remote sensing into hydrologic science during the WRR era. *Water Resources Research*, *51*(9), 7309–7342. <https://doi.org/10.1002/2015WR017616>
- Liang, B., Shao, Z., Li, H., Shao, M., & Lee, D. (2019). An automated threshold selection method based on the characteristic of extrapolated significant wave heights. *Coastal Engineering*, *144*, 22–32. <https://doi.org/10.1016/J.COASTALENG.2018.12.001>
- López, Wanders, N., Schellekens, J., Renzullo, L. J., Sutanudjaja, E. H., & Bierkens, M. F. P. (2016). Improved large-scale hydrological modelling through the assimilation of streamflow and downscaled satellite soil moisture observations. *Hydrology and Earth System Sciences*, *20*(7), 3059–3076. <https://doi.org/10.5194/hess-20-3059-2016>
- McGill, R., Tukey, J. W., & Larsen, W. A. (1978). Variations of Box Plots. *The American Statistician*, *32*(1), 12. <https://doi.org/10.2307/2683468>
- Mckee, T. B., Doesken, N. J., & Kleist, J. (1993). The Relationship Of Drought Frequency And Duration To Time Scales. *Eighth Conference on Applied Climatology*, 17–22.
- Mckee, T. B., Doesken, N. J., & Kleist, J. (1995). Drought monitoring with multiple time scales. *Proceedings of 9th Conference on Applied Climatology, Boston, 1995*. <https://ci.nii.ac.jp/naid/10028178079>
- McMillan, H. K., & Srinivasan, M. S. (2015). Characteristics and controls of variability in soil moisture and groundwater in a headwater catchment. *Hydrology and Earth System Sciences*, *19*(4), 1767–1786. <https://doi.org/10.5194/HESS-19-1767-2015>
- Medina-Cobo, M. T., García-Marín, A. P., Estévez, J., & Ayuso-Muñoz, J. L. (2016). *The identification of an appropriate Minimum Inter-event Time (MIT) based on multifractal characterization of rainfall data series.*

<https://doi.org/10.1002/hyp.10875>

Meinzen-Dick, R., & Bakker, M. (2000). Water Rights And Multiple Water Uses: Framework And Application To Kirindi Oya Irrigation System, Sri Lanka. *International Water and Resource Economics Consortium, 17*.

Milzow, C., Krogh, P. E., & Bauer-Gottwein, P. (2011). Combining satellite radar altimetry, SAR surface soil moisture and GRACE total storage changes for hydrological model calibration in a large poorly gauged catchment. *Hydrology and Earth System Sciences, 15*(6), 1729–1743. <https://doi.org/10.5194/HESS-15-1729-2011>

Ministry of Disaster Management. (2017). *Floods and Landslides Sri Lanka Rapid Post Disaster Needs Assessment Floods and Landslides*. www.disastermin.gov.lk

Molden, D. J., Starkloff, R., Sakthivadivel, R., & Keller, J. (2001). *Hydronomic Zones for Developing Basin Water Conservation Strategies*. <https://books.google.lk/books?hl=en&lr=&id=s-Xw-uq9VGUC&oi=fnd&pg=PR5&dq=Molden,+D.+J.,+Keller,+J.+and+Sakthivadivel,+R.,+2001,+“Hydronomic+zones+for+developing+basin+water+conservation+strategies”,+Research+Report+56,+Colombo,+Sri+Lanka:+International+Water>

Molina-Sanchis, I., Lázaro, R., Arnau-Rosalén, E., & Calvo-Cases, A. (2016). Rainfall timing and runoff: The influence of the criterion for rain event separation. *J. Hydrol. Hydromech, 64*, 226–236. <https://doi.org/10.1515/johh-2016-0024>

Moormakn, F. R., Panäbokkt, C. R., & Moormann, F. R. (1961). *Soils Of Ceylon A New Approach To The Identification And Classification Of The Most Important Soil Groups Of Ceylon*.

Moriasi, D. N., Arnold, J. G., Liew, M. W. Van, Bingner, R. L., Harmel, R. D., & Veith, T. L. (1983). Model Evaluation Guidelines For Systematic Quantification Of Accuracy In Watershed Simulations. *Transactions of the ASABE, 50*(3).

Nandalal, H. K., & Ratmayake, U. R. (2010). Event Based Modeling of a Watershed Using HEC-HMS. *Engineer: Journal of the Institution of Engineers, Sri Lanka,*

43(2), 28. <https://doi.org/10.4038/engineer.v43i2.6979>

- Nash, J. E., & Sutcliffe, J. V. (1970). River flow forecasting through conceptual models part I — A discussion of principles. *Journal of Hydrology*, 10(3), 282–290. [https://doi.org/10.1016/0022-1694\(70\)90255-6](https://doi.org/10.1016/0022-1694(70)90255-6)
- Nasimi, M. N. (2018). *Continuous Hydrological Modeling Using Soil Moisture Accounting for Water Resources Assessment in Kelani River Basin , Sri Lanka Using Soil Moisture Accounting for Water Resources Assessment in Kelani River Basin , Sri Lanka*. May.
- Nguyen, H. T. T., Turner, S. W. D., Buckley, B. M., & Galelli, S. (2020). Coherent Streamflow Variability in Monsoon Asia Over the Past Eight Centuries—Links to Oceanic Drivers. *Water Resources Research*, 56(12), e2020WR027883. <https://doi.org/10.1029/2020WR027883>
- Njoku, E. G., & Kong, J.-A. (1977). Theory for passive microwave remote sensing of near-surface soil moisture. *Journal of Geophysical Research*, 82(20), 3108–3118. <https://doi.org/10.1029/JB082I020P03108>
- Nojumuddin, N. S., Yusof, F., & Yusop, Z. (2018). Determination of minimum inter-event time for storm characterisation in Johor, Malaysia. *Journal of Flood Risk Management*, 11, S687–S699. <https://doi.org/10.1111/JFR3.12242>
- Ondieki, C. M. (1997). Potential Of Episodic Flows In Some Four Representative Non-Perennial River Flow Catchments In Semi Arid Laikipia District, Kenya. *Environmental Monitoring and Assessment* 1997 45:3, 45(3), 285–299. <https://doi.org/10.1023/A:1005751331595>
- Parajka, J., Naeimi, V., Blöschl, G., Wagner, W., Merz, R., & Scipal, K. (2006). Assimilating scatterometer soil moisture data into conceptual hydrologic models at the regional scale. *Hydrology and Earth System Sciences*, 10(3), 353–368. <https://doi.org/10.5194/HESS-10-353-2006>
- Razmkhah, H. (2016). Comparing performance of different loss methods in rainfall-runoff modeling. *Water Resources* 2016 43:1, 43(1), 207–224. <https://doi.org/10.1134/S0097807816120058>

- Reichle, Ardizzone, J. V., Kim, G.-K., Lucchesi, R. A., Smith, E. B., & Weiss, B. H. (2018). *Soil Moisture Active Passive (SMAP) Mission Level 4 Surface and Root Zone Soil Moisture (L4_SM) Product Specification Document*. http://gmao.gsfc.nasa.gov/pubs/office_notes.
- Reichle, de Lannoy, G. J. M., Liu, Q., Ardizzone, J. V., Colliander, A., Conaty, A., Crow, W., Jackson, T. J., Jones, L. A., Kimball, J. S., Koster, R. D., Mahanama, S. P., Smith, E. B., Berg, A., Bircher, S., Bosch, D., Caldwell, T. G., Cosh, M., González-Zamora, Á., ... Zeng, Y. (2017). Assessment of the SMAP Level-4 Surface and Root-Zone Soil Moisture Product Using In Situ Measurements. *Journal of Hydrometeorology*, 18(10), 2621–2645. <https://doi.org/10.1175/JHM-D-17-0063.1>
- Reichle, de Lannoy, G. J. M., Liu, Q., Koster, R. D., Kimball, J. S., Crow, W. T., Ardizzone, J. V., Chakraborty, P., Collins, D. W., Conaty, A. L., Giroto, M., Jones, L. A., Kolassa, J., Lievens, H., Lucchesi, R. A., & Smith, E. B. (2017). Global assessment of the SMAP Level-4 surface and root-zone soil moisture product using assimilation diagnostics. *Journal of Hydrometeorology*, 18(12), 3217–3237. <https://doi.org/10.1175/JHM-D-17-0130.1>
- Reichle, G. De Lannoy, R. D. Koster, W. T. Crow, J. S. Kimball, & Q. Liu. (2020). *SMAP L4 Global 3-hourly 9 km EASE-Grid Surface and Root Zone Soil Moisture Analysis Update, Version 5*. NASA National Snow and Ice Data Center Distributed Active Archive Center. <https://nsidc.org/data/SPL4SMAU/versions/5>
- Restrepo-Posada, P. J., & Eagleson, P. S. (1982). Identification of independent rainstorms. *Journal of Hydrology*, 55(1–4), 303–319. [https://doi.org/10.1016/0022-1694\(82\)90136-6](https://doi.org/10.1016/0022-1694(82)90136-6)
- Rientjes, T. H. M., Muthuwatta, L. P., Bos, M. G., Booij, M. J., & Bhatti, H. A. (2013). Multi-variable calibration of a semi-distributed hydrological model using streamflow data and satellite-based evapotranspiration. *Journal of Hydrology*, 505, 276–290. <https://doi.org/10.1016/J.JHYDROL.2013.10.006>
- Rostami, N., & Khalighi, S. (2016). *Calibration of loss estimation methods in HEC-HMS for simulation of surface runoff (case study: Amirkabir dam watershed*,

- Iran). <https://www.researchgate.net/publication/289917089>
- Rwetabula, J., De Smedt, F., & Rebhun, M. (2012). Simulation of hydrological processes in the Simiyu River, tributary of Lake Victoria, Tanzania. *Water SA*, 38(4), 623–632. <https://doi.org/10.4314/wsa.v38i4.18>
- Samady, K. (2017). Continuous Hydrologic Modeling For Analyzing The Effects Of Drought On The Lower Colorado River In Texas. *Dissertations, Master's Theses and Master's Reports*. <https://doi.org/10.37099/mtu.dc.etr/460>
- Sarkar, A., Kumar, R., Sarkar, A., & Kumar, R. (2012). Artificial Neural Networks for Event Based Rainfall-Runoff Modeling. *Journal of Water Resource and Protection*, 4(10), 891–897. <https://doi.org/10.4236/JWARP.2012.410105>
- Schaffenberg, W., & Fleming, M. (2013). Hydrologic Modeling System HEC-HMS, User Manual: Version 4.0. *US Army Corps of Engineers, Hydrologic Engineering Center HEC*, 609.
- Sheffield, J., & Wood, E. F. (2007). Characteristics of global and regional drought, 1950–2000: Analysis of soil moisture data from off-line simulation of the terrestrial hydrologic cycle. *Journal of Geophysical Research: Atmospheres*, 112(D17). <https://doi.org/10.1029/2006JD008288>
- Shelton, S., & Lin, Z. (2019). Streamflow Variability in Mahaweli River Basin of Sri Lanka during 1990–2014 and Its Possible Mechanisms. *Water 2019, Vol. 11, Page 2485*, 11(12), 2485. <https://doi.org/10.3390/W11122485>
- Singh, W. R., & Jain, M. K. (2015). Continuous Hydrological Modeling using Soil Moisture Accounting Algorithm in Vamsadhara River Basin, India. *Journal of Water Resource and Hydraulic*, 4(4), 398–408. <https://doi.org/10.5963/JWRHE0404011>
- Sirisena, M. (2008). Basin scale drought management in Kirindi Oya River system. *Kirindi Oya Project Office, Sri Lanka*. Retrieved on June, 20, 2015.
- Solari, S., & Losada, M. A. (2012). A unified statistical model for hydrological variables including the selection of threshold for the peak over threshold method. *Water Resources Research*, 48(10), 10541.

<https://doi.org/10.1029/2011WR011475>

- Stillman, S., & Zeng, X. (2018). Evaluation of SMAP soil moisture relative to five other satellite products using the climate reference network measurements over USA. *IEEE Transactions on Geoscience and Remote Sensing*, 56(11), 6296–6305. <https://doi.org/10.1109/TGRS.2018.2835316>
- Suman, S., Srivastava, P. K., Petropoulos, G. P., Pandey, D. K., & O'Neill, P. E. (2020). Appraisal of SMAP operational soil moisture product from a global perspective. *Remote Sensing*, 12(12), 1977. <https://doi.org/10.3390/rs12121977>
- Tavakol, A., Rahmani, V., Quiring, S. M., & Kumar, S. V. (2019). Evaluation analysis of NASA SMAP L3 and L4 and SPoRT-LIS soil moisture data in the United States. *Remote Sensing of Environment*, 229, 234–246. <https://doi.org/10.1016/j.rse.2019.05.006>
- Tramblay, Y., Bouvier, C., Martin, C., Didon-Lescot, J.-F., Todorovik, D., & Domergue, J.-M. (2010). Assessment of initial soil moisture conditions for event-based rainfall–runoff modelling. *Journal of Hydrology*, 387(3), 176–187. <https://doi.org/10.1016/j.jhydrol.2010.04.006>
- Ud Din, A. M. (2018). *Analysis of the Effect of Loss and Baseflow Methods and Catchment Scale on Performance of HEC-HMS Model for Kelani River Basin , Sri Lanka. June.*
- USACE. (2008). Hydrologic modeling system (HEC-HMS) application guide: version 3.1. 0. *Institute for Water Resources, Davis.*
- Valent, P., Szolgay, J., & Rivero, C. (2013). Assessment of The Uncertainties of a Conceptual Hydrologic Model By Using Artificially Generated Flows. *Slovak Journal of Civil Engineering*, 20(4), 35–43. <https://doi.org/10.2478/V10189-012-0020-9>
- Vereecken, H., Huisman, J. A., Bogena, H., Vanderborght, J., Vrugt, J. A., & Hopmans, J. W. (2008). On the value of soil moisture measurements in vadose zone hydrology: A review. *Water Resources Research*, 44(4). <https://doi.org/10.1029/2008WR006829>

- Vrugt, J. A., Gupta, H. V., Dekker, S. C., Sorooshian, S., Wagener, T., & Bouten, W. (2006). Application of stochastic parameter optimization to the Sacramento Soil Moisture Accounting model. *Journal of Hydrology*, 325(1–4), 288–307. <https://doi.org/10.1016/j.jhydrol.2005.10.041>
- Westerberg, I. K., Guerrero, J. L., Younger, P. M., Beven, K. J., Seibert, J., Halldin, S., Freer, J. E., & Xu, C. Y. (2011). Calibration of hydrological models using flow-duration curves. *Hydrology and Earth System Sciences*, 15(7), 2205–2227. <https://doi.org/10.5194/HESS-15-2205-2011>
- Wheater, H., Sorooshian, S., & Sharma, K. D. (2008). Hydrological modelling in arid and semi-arid areas. *Hydrological Modelling in Arid and Semi-Arid Areas*.
- Wöhling, T., Samaniego, L., & Kumar, R. (2013). Evaluating multiple performance criteria to calibrate the distributed hydrological model of the upper Neckar catchment. *Environmental Earth Sciences* 2013 69:2, 69(2), 453–468. <https://doi.org/10.1007/S12665-013-2306-2>
- Xuefeng, C., & Alan, S. (2009). Event and Continuous Hydrologic Modeling with HEC-HMS. *Journal of Irrigation and Drainage Engineering*, 135(1), 119–124. [https://doi.org/10.1061/\(ASCE\)0733-9437\(2009\)135:1\(119\)](https://doi.org/10.1061/(ASCE)0733-9437(2009)135:1(119))
- Xuereb, K., & Green, J. (2012). Defining Independence of Rainfall Events with a Partial Duration Series Approach. *Hydrology and Water Resources Symposium 2012, 34th*, 169–176.
- Yang, H., Xiong, L., Ma, Q., Xia, J., Chen, J., & Xu, C. Y. (2019). Utilizing satellite surface soil moisture data in calibrating a distributed hydrological model applied in humid regions through a multi-objective Bayesian hierarchical framework. *Remote Sensing*, 11(11), 1335. <https://doi.org/10.3390/rs11111335>
- Zeinivand, H. (2015). Comparison of interpolation methods for precipitation fields using the physically based and spatially distributed model of river runoff on the example of the Gharesou basin, Iran. *Russian Meteorology and Hydrology* 2015 40:7, 40(7), 480–488. <https://doi.org/10.3103/S1068373915070079>
- Zhai, P., Pirani, A., Connors, S., Péan, C., Berger, S., Caud, N., Chen, Y., Goldfarb,

- L., Gomis, M., Huang, M., Leitzell, K., Lonnoy, E., Matthews, J., Maycock, T., Waterfield, T., Yelekçi, O., Yu, R., Zhou, B., Bellouin, N., ... Zickfeld, K. (2021). *IPCC, 2021: Climate Change 2021: The Physical Science Basis*. <https://www.ipcc.ch/>
- Zhang, X., Zhang, T., Zhou, P., Shao, Y., & Gao, S. (2017). Validation Analysis of SMAP and AMSR2 Soil Moisture Products over the United States Using Ground-Based Measurements. *Remote Sensing*, 9(2), 104. <https://doi.org/10.3390/rs9020104>
- Zhuo, L., & Han, D. (2017). Hydrological Evaluation of Satellite Soil Moisture Data in Two Basins of Different Climate and Vegetation Density Conditions. In *Advances in Meteorology*. <https://www.hindawi.com/journals/amete/2017/1086456/>