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Editor

Renji Remesan

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Biography

- Renji holds a basic degree in Agriculture Engineering from Kerala Agricultural University, India.

- Renji received the M.Tech Degree in Water Resources Development and Management from the Indian Institute of Technology Kharagpur (IITKgp) and the Ph.D. Degree in Civil engineering from the University of Bristol.

- His Ph.D. research investigated data modelling Issues in hydroinformatics giving more emphasis to modelling of hydrological processes.

- Renji now working in Cranfield University as a Research Fellow in a NERC – MOES funded Changing Water Cycle – South Asian Project - MICCI

- Dr Remesan's current research activities focus on hydrological modelling in glacier catchments, data based modelling in hydrology and numerical weather modelling.

Research Interest

- Real–time flood forecasting

- Rainfall–runoff modeling

- Hydroinformatics and soft computing in hydrology

- Regional climatic modeling –WRF

- Integrated Catchment modelling – SWAT

Publications

- Remesan R, Bellerby T, Holman I, Frostick L .2014. WRF Model Sensitivity to Choice of Parameterization over 'York Flood 1999'. Theoretical and Applied Climatology (in press)

- Remesan R, Han D. 2014. Evaluation of Mathematical Models with utility Index: A case study from hydrology. Artificial Intelligence Techniques in Earth and Environmental Sciences. Springer Verlag, NY (book chapter)

- Remesan R, Bellerby T, Frostick L. 2014. Hydrological modelling using data from monthly GCMs in a regional catchment. Hydrological Processes.: DOI: 10.1002/hyp.9872

- Soundharajan, B., Adeloye, A.J. and Remesan, R. 2013. Assessing climate change impacts on operation and characteristics of Pong reservoir, Beas (India). IAHS Red book publication 362. (book chapter)

- Ishak A, Han D, Remesan R, Srivastava PK and Islam T. 2013 Error correction modelling of wind speed through hydro-meteorological parameters and mesoscale model: A Hybrid approach. Water Resources Management 27:1–23: DOI 10.1007/s11269-012-0130-1

- Ishak A, Bray M, Remesan R, and Han D .2012 Seasonal Evaluation of Rainfall Estimation by four Cumulus Parameterization Schemes and their Sensitivity Analysis. Hydrological Processes. 26, 1062 – 1078: DOI: 10.1002/hyp.8194.

- Remesan R, Bellerby T. 2012. Sensitivity and dependence of mesoscale downscaled prediction results on different parameterizations of convection and cloud microphysics. Geophysical Research Abstracts Vol. 14, EGU2012-3465

- Remesan R, Bellerby T and Frostick, L.E. 2011. Effects of GCM uncertainty on climate change impacts on regional hydrology of the river Derwent catchment. Geophysical Research Abstracts Vol. 13, EGU2011-1902

- Remesan R, Bellerby T, Ishak A and Han D. 2011. Uncertainties in hydrological prediction using input ensembles from different cumulus parameterization schemes (CPSs). Geophysical Research Abstracts. Vol. 13, EGU2011-1927

- Ishak A, Bray M, Remesan R, and Han D .2010. Estimating Reference Evapotranspiration Using Numerical Weather Modelling. Hydrological Processes. DOI: 10.1002/hyp.7770

- Dash NB, Panda SN, Remesan R and Sahoo N. 2010. Hybrid Neural modelling for Groundwater Level Prediction. *Neural Computing & Applications*. DOI 10.1007/s00521-010-0360-1

- Shamim MA, Remesan R and Han D .2010. Solar radiation estimation in ungauged catchments. *Proceedings of ICE, Water Management*. 163 (7): 349-359 doi: 10.1680/wama.2010.163.7.349

- Remesan R, Ahmadi A, Shamim MA and Han D .2010. Effect of Data Time Interval on Real-time Flood Forecasting. *Journal of Hydroinformatics*.12(4):396–407 doi:10.2166/hydro.2010.063

- Ahmadi A, Han D, Karamouz M and Remesan R. 2009. Input Data Selection for Solar Radiation Estimation. *Hydrological Processes*. 23(19) :2754–2764 DOI: 10.1002/hyp.7372.

- Remesan R, Shamim MA, Han D and Mathew J .2009. Runoff Prediction Using an Integrated Hybrid Modelling Scheme. *Journal of Hydrology* 372(1-4) 48–60, doi:10.1016/j.jhydrol.2009.03.034

- Moghaddamnia A, Remesan R, Kashani MH, Mohammadi M and Han D .2009. Comparison of LLR, MLP, Elman, NNARX and ANFIS Models –with a case study in solar radiation estimation. *Journal of Atmospheric and Solar-Terrestrial Physics* 71 (8-9):975-982. doi:10.1016/j.jastp.2009.04.009

- Piri J, Amin S, Moghaddamnia A, Keshavarz A, Han D and Remesan R. 2009. Daily pan evaporation modelling in a hot and dry climate, *ASCE Journal of Hydrologic Engineering*, 14(8): 803-811 doi:10.1061/(ASCE)HE.1943-5584.0000056

- Shamim MA, Remesan R and Han D .2009. Global Sunshine Duration Estimation on a daily basis using Geostationary Satellite Imagery. *Geophysical Research Abstracts-Vol. 11*, EGU2009-4325-1.

- Shamim MA, Bray M, Ishak AM and Remesan R and Han D. 2009. A hybrid numerical prediction scheme for solar radiation estimation in un-gauged catchments. *EMS Annual Meeting Abstracts*. Vol. 6, EMS2009-28

- Remesan R, Shamim MA, Han D .2008. Model Data Selection using Gamma Test for Daily Solar Radiation Estimation". *Hydrological Processes*. Vol. 22 No. 21, 4301-4309, 2008, DOI: 10.1002/hyp.7044.

- Remesan R and Panda RK. 2008. Groundwater vulnerability assessment, risk mapping, and nitrate evaluation in a small agricultural watershed: Using the DRASTIC model and GIS. *Environmental Quality Management*. 17(4): 53 – 75, DOI: 10.1002/tqem.20187.

- Remesan R, Roopesh MS, Remya N and Preman PS .2007. Wet Land Paddy Weeding – A Comprehensive Comparative Study from South India. *Agricultural Engineering International: the CIGR Ejournal*. Manuscript PM 07 011 (received CIGR Outstanding article Award)

- Remesan R and Panda RK .2007. Groundwater Quality Mapping Using GIS: A Study from India's Kapgari Watershed. *Environmental Quality Management*. 16(3): 41- 60. DOI:10.1002/tqem.20130.

Thank you