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IOP Conference Series: Earth and Environmental Science • *Open Access* • Volume 1022, Issue 1 • 17 May 2022 • Article number 012072 • 6th International Conference on Civil and Environmental Engineering for Sustainability, IConCEES 2021 • Virtual, Online • 15 November 2021 through 16 November 2021 • Code 179385

Document type

Conference Paper • *Bronze Open Access*

Source type

Conference Proceedings

ISSN

17551307

DOI

10.1088/1755-1315/1022/1/012072

Publisher

Institute of Physics

Original language

English

Volume Editors

Rahmat S.N., Rahman N.A., Termida N.A., Khamidun M.H., Jailani J., Talib Z.A., Noor N.M., Samsudin E.M., bin Sabil A., Buhari R., Mohd Siraj S.M., Yaman S.K.

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Comparative assessment of reference crop evapotranspiration models and its sensitivity to

Statistical modelling of extreme temperature in Peninsular Malaysia




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Abstract

Extreme temperature events bring significant effects on the environment and society. Consequently, investigating the best fit for extreme temperature data is important for hydrological study and event forecasting. The main aim of this study is to determine the best fit probability distribution for monthly and annual extreme temperatures. The maximum temperature data at monthly and annual time scales were obtained from MMD (Malaysia Meteorological department). The temperature data for 40 years were fitted to the 10 probability distributions for each station. The parameters of the distributions were estimated by the maximum likelihood method and L-moment method. Besides,

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three goodness of fit tests, namely Kolmogorov-Smirnov (K-S), Anderson-Darling (A2) and Chi-Squared Error (CSE) test were applied to evaluate the performances of the distributions. The best fit distribution was selected based on the lowest test scores from the summation of the three goodness of fit tests. The results of this study showed that Generalized Extreme Value distribution was selected as the best-fit distribution, followed by Log-Pearson 3, 3 Parameter Lognormal, Generalized Log Logistic and Gamma distributions. The results of this study can be used as a reference for development planners, agricultural sector, water management agencies in hydrological planning and disaster management. © Published under licence by IOP Publishing Ltd.

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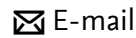
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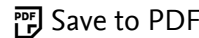
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Kabiri, R, Ramani, B, Chan, A

Estimation of Climate Change Impacts on Frequency of Precipitation

Extremes Case Study: Klang Watershed

(2012) *Malaysia IPCBEE (Hong Kong)*, 49, pp. 144-149. Cited 2 times.

- 2 Ng, C.K., Ng, J.L., Huang, Y.F., Tan, Y.X., Mirzaei, M.
Tropical rainfall trend and stationarity analysis
(2020) *Water Science and Technology: Water Supply*, 20 (7), pp. 2471-2483. Cited 12 times.
<https://watermark.silverchair.com/ws020072471.pdf?>
doi: 10.2166/ws.2020.143
View at Publisher
-
- 3 Aitkenhead, I., Kuleshov, Y., Watkins, A.B., Bhardwaj, J., Asghari, A.
Assessing agricultural drought management strategies in the Northern Murray–Darling Basin ([Open Access](#))
(2021) *Natural Hazards*, 109 (2), pp. 1425-1455. Cited 7 times.
www.wkap.nl/journalhome.htm/0921-030X
doi: 10.1007/s11069-021-04884-6
View at Publisher
-
- 4 Supian, N M., Hasan, H
Selecting the probability distribution of annual maximum temperature in Malaysia
(2021) *ITM Web Conf*, 36, p. 01010. Cited 2 times.
-
- 5 Salleh, N H. M., Hasan, H
Generalized Pareto distribution for extreme temperatures in peninsular Malaysia
(2018) *Sci Int (Lahore)*, 30, pp. 63-67. Cited 2 times.
-

□ 6 Athulya, P S., James, K C.
Best fit probability distributions for monthly radiosonde weather data
(2017) *Int. J. Adv. Manage. Technol. Eng. Sci*, 7 (12).
24 31

□ 7 Anumandla, S, Dyuthi, S R., Desai, S
(2017) *Probability distribution for monthly precipitation data in India*
arXiv, 1, p. 23.

□ 8 Mothupi, T, Thupeng, W M., Mashabe, B, Mokoto, B
Estimating extreme quantiles of the maximum surface air temperatures for
the Sir Seretse Khama International Airport using the Generalized Extreme
Value Distribution
(2016) *Am. J. Theo. Appl. Stat*, 5 (6), pp. 365-375. Cited 2 times.

- 9 Lian, C.Y., Huang, Y.F., Ng, J.L., Mirzaei, M., Koo, C.H., Tan, K.W.
A proposed hybrid rainfall simulation model: Bootstrap aggregated classification tree–artificial neural network (BACT-ANN) for the Langat river basin, Malaysia
(2020) *Journal of Water and Climate Change*, 11 (4), pp. 1218-1234. Cited 10 times.
https://watermark.silverchair.com/jwc0111218.pdf?token=AQECAHi208BE49Oan9kKhW_Ercy7Dm3ZL_9Cf3qfKAc485ysgAAA4YwggOCBgkqhkiG9w0BBwagggNzMIIDbwIBADCCA2gGCSqGSIb3DQEHATAeBg!ghkgBZQMEAS4wEQQMBvVhwOf1MxmSts1xAgEQgIIDOZ96fT5CjJNUfQ04YgQM1kS14WabVOFcjc2TTnLiiYJKhaXSUZaju9mLr1Ew0-0RSHHsbkwRv9tR0BIJ8blpaaMWWnC25UNDMpxJSpkYfi4UiP6VZ2nryR-FC2WT9Jm0tVxQOiWGY3REHPn0k8Pt3jLoEKF3X4ePk6Q0ixSnQTV1
doi: 10.2166/wcc.2019.294

View at Publisher
-
- 10 Diong, J Y., Yip, W S., Mat Adam, M K., Chang, N K., Yunus, F, Abdullah, M H.
(2015) *The Definitions of the Southwest Monsoon Climatological Onset and Withdrawal Over Malaysian Region Research Publication No. 3/2015 Selangor Malaysia Meteorological Department*, 1, p. 30.
-
- 11 Goh, E.H., Ng, J.L., Huang, Y.F., Yong, S.L.S.
Performance of potential evapotranspiration models in Peninsular Malaysia ([Open Access](#))
(2021) *Journal of Water and Climate Change*, 12 (7), pp. 3170-3186. Cited 4 times.
<https://watermark.silverchair.com/jwc0123170.pdf>
doi: 10.2166/wcc.2021.018

View at Publisher

- 12 Rahman, A.S., Rahman, A., Zaman, M.A., Haddad, K., Ahsan, A., Imteaz, M.
A study on selection of probability distributions for at-site
flood frequency analysis in Australia ([Open Access](#))

(2013) *Natural Hazards*, 69 (3), pp. 1803-1813. Cited 86 times.
doi: 10.1007/s11069-013-0775-y

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- 13 Ng, J.L., Yap, S.Y., Huang, Y.F., Noh, N.I.F.M., Al-Mansob, R.A., Razman, R.
Investigation of the best fit probability distribution for annual
maximum rainfall in Kelantan River Basin ([Open Access](#))

(2020) *IOP Conference Series: Earth and Environmental Science*, 476 (1), art.
no. 012118. Cited 8 times.

<https://iopscience.iop.org/journal/1755-1315>

doi: 10.1088/1755-1315/476/1/012118

[View at Publisher](#)

- 14 Okorie, I.E., Akpanta, A.C., Ohakwe, J.
The Exponentiated Gumbel Type-2 Distribution: Properties
and Application ([Open Access](#))

(2016) *International Journal of Mathematics and Mathematical
Sciences*, 2016, art. no. 5898356. Cited 13 times.

<http://www.hindawi.com/journals/ijmms/contents/>

doi: 10.1155/2016/5898356

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