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# Assessment of Hydrological Response of Pahang River Basin

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## Abstract

Pahang is Peninsular Malaysia's largest province, covering 35960 square kilometers. Pahang River is also the longest river on the Malaysia Peninsula and flows 459 kilometers through Pahang state. The river empties into the South China Sea from the upstream of Tembeling River. Floods that occur in Pahang basin as a result of a mixture of natural and human causes, as well as natural factors such as heavy monsoon rainfall by northeast monsoon. The overflowing of the Pahang River caused most of flooding in the lower areas of Pahang River Basin. Precipitation and runoff records from 1980 to 2020 were analyzed to determine the hydrological pattern and response of Pahang River Basin. The basin has an average rainfall of approximately 2,189 mm (1,596.41mm-2,493.36 mm). Extreme rainfall during the northeast monsoon season. The rainfall data gathered appears to be sufficiently accurate and reliable based on double mass plot which to check the consistency of streamflow station where the ( $r^2 > 99\%$ ). The streamflow pattern showed very good response to the recorded rainfall values. As such, it can be concluded that the hydrological network established in the Pahang River Basin seems to be satisfactory. © 2023 American Institute of Physics Inc.. All rights reserved.

## Author keywords

Flood; Hydrology; Pahang River; Rainfall Analysis; Statistical Analysis

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