Assessing the implementation of bias correction in the climate prediction

Nurul Nadrah Aqilah Tukimat
Faculty of Civil Engineering and Earth Resources, Universiti Malaysia Pahang, 26300 Gambang, Pahang
Centre for Earth Resources Research Management (CERRM), Universiti Malaysia Pahang, 26300 Gambang, Pahang

ABSTRACT

An issue of the climate changes nowadays becomes trigger and irregular. The increment of the greenhouse gases (GHGs) emission into the atmospheric system day by day gives huge impact to the fluctuated weather and global warming. It becomes significant to analyse the changes of climate parameters in the long term. However, the accuracy in the climate simulation is always be questioned to control the reliability of the projection results. Thus, the Linear Scaling (LS) as a bias correction method (BC) had been applied to treat the gaps between observed and simulated results. About two rainfall stations were selected in Pahang state there are Station Lubuk Paku and Station Temerloh. Statistical Downscaling Model (SDSM) used to perform the relationship between local weather and atmospheric parameters in projecting the long term rainfall trend. The result revealed the LS was successfully to reduce the error up to 3% and produced better climate simulated results.

KEYWORDS:
Global warming; Rain; Atmospheric parameters; Atmospheric systems