

ISBN	978-93-88122-14-6
Website	www.veltech.edu.in
Received	01-May-2020
Article ID	NISDCE105

VOL	01
eMail	nisdce@veltech.edu.in
Accepted	16-May-2020
eAID	2020.nisdce.105

EVALUATION OF DROUGHT RISK ASSESSMENT BASED ON SOIL MOISTURE IN KANCHIPURAM DISTRICT, TAMILNADU, INDIA - A GIS APPROACH

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ABSTRACT: Droughts are one among the major and unpredictable disasters. The impacts are categorized as agricultural, meteorological, hydrological and socio-economic. They affect the major regions and cause tremendous effects both naturally and artificially. The present study deals with the evaluation of drought based on different drought Indices with a GIS perspective. One of the key variable factor in the study is soil moisture which alters the climatic and hydrologic factors. To aid the study, the soil moisture is analyzed through gravimetric analysis and Arduino software. The software determines both analytical and digital outputs. Spatial and Non Spatial data were also collected to uplift the accuracy of soil moisture. The study was aimed at the comparison of spatio-temporal variations of the soil moisture and the drought risk assessment drought using composite drought indices.

Keywords: Drought, Soil Moisture, GIS, Spatio-Temporal Variation, Drought Indices

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