CPAESS Discovery Seminars

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Predictability of Extreme Rainfall Events over India during Summer Monsoon Season by using NCEP GEFSv12 Model in the Present Global Warming Era.

DATE: Wed. July 20, 2022

TIME: 11:00 AM - 12:00 PM MDT (VIRTUAL)

WATCH THE LIVE WEBCAST

Dr. Malasala Murali Nageswara Rao is a passionate and hardworking researcher and improvises the Weather and Climate Extreme (Flood, Drought, Heat, and Cold waves) forecasts through Dynamical and Statistical Downscaling Approaches, which are immensely needful for normal citizens to understand the impacts and climate changes and also how it influences crop production.

Indian summer monsoon rainfall (ISMR) from June to September (JJAS) contributes 80% of the total annual rainfall in India and controls the agricultural productivity and economy of the country. Extreme rainfall (ER) events are responsible for floods that cause widespread destruction of infrastructure, economic damage, and loss of life. A forecast of the ISMR and associated ER events on an extended range (beyond the conventional one-week lead time) is vital for the agronomic economy of the country. In the present study, the Raw-GEFSv12 with day-1–16 lead-time rainfall forecasts are calibrated using the quantile (QQ) mapping technique against Indian Monsoon Data Assimilation and Analysis (IMDAA) for further improvement. The present study evaluated the prediction skill of Raw and QQ-GEFSv12 for ISMR and ER events over India by using standard skill metrics.

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