

# **HIGH IMPACT WEATHER EVENTS AND THEIR PREDICTION OVER THE SAARC REGION**

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## ***About the Book:***

The SAARC Region due to its geo-physical features like high mountains, plateaus, vast oceans, is vulnerable to extreme/severe weather events such as heavy rains, floods, droughts, tropical cyclones and its associated surges, lightning and severe thunderstorms, gusts/squalls, dry convective storms/dust storms, maritime thunderstorms, heat and cold waves etc. Western disturbances play an important role in winter rains over the northern parts of the SAARC Region. The seasonal weather cycles with a unique monsoon period of rains over SAARC regions are mainly due to permanent and semi-permanent synoptic features, which produce variability in the rainfall distribution on spatial and temporal basis. Prediction of heavy rainfall is one of the many challenging problems for operational meteorologist, but it is very important for issuing timely and accurate warning for the agencies engaged in disaster preparedness and mitigation. As the climate changes over the coming years, the likelihood of extreme and perhaps high –Impact weather and climate events will change most when natural and anthropogenic effects combine. The book is compilation of papers contributed by researchers and scientists from SAARC nations and deals with high-impact weather conditions, their prediction and the consequent impacts on the society in the SAARC region. This book deals with recent advances in our understanding and prediction of Cyclone, Severe Thunderstorms, Squalls, Heat and Cold Waves and Heavy Rainfall ,based on the latest observational and NWP modelling platform. The chapters are authored by leading experts both in research and operational fields. The book reviews research work, future needs, forecasting skills and societal impacts of above extreme weather events and is relevant to weather forecasters, managers, graduate students and provides high-quality reference material for the users.

**Co-Published with Springer and sold and distributed by them in all countries excepting SAARC region.**

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