

DEW-DROP

A Scientific Journal of Meteorology and Geo-Physics
Bangladesh Meteorological Department



March 2022

Volume 8 ■ Number 1

DEW-DROP

Contents

Vol. 8, No.1, March 2022

Articles:

Thunderstorm and Its Features Simulation using WRF-ARW Model over Sylhet, BangladeshMd. Azizur Rahman, M. A. K. Mallik, Md. Shameem Hassan Bhuiyan and Mukta Neogi	1-12
Long Term Carbon Dioxide (CO ₂) Emissions over IndiaDharmendra Singh, Md. Abdul Kader and Jogobandhu Some	13-22
Deterministic and Probabilistic Seasonal Prediction of Indian summer monsoon rainfall based on the APCC Multi-model system..... Nachiketa Acharya	23-36
Prediction Capability of Monsoon Depression in the Bay of Bengal and Its Features using Weather Research and Forecasting Model.....Md. Shameem Hassan Bhuiyan, M. A. K. Mallik, Md. Sanaul Hoque Modal, Md. Omar Faruq and Md. Arif Hossain	37-50
Analysis of Heavy Minerals Existence using Multispectral Satellite Imagery in Teknaf Upazila of Bangladesh Farhana Tazneen, A. Z. Md. Zahedul Islam, Md. Abdus Salam, Mohammad Rajib, Md. Masud Karim, and Md. Fahad Hossain	51-57
Remote Sensing Based Assessment of Crop Water Requirement of Boro Rice Using SEBAL Model Nasrin Sultana, Md. Abdus Salam, Tofayel Ahammad and S. M. Abdullah Zahir	58-62
Prediction of a Heavy Rainfall Event of 23 August 2014 over Sylhet, Bangladesh using WRF-ARW Model Md. Omar Faruq, M. A. M. Chowdhury, Md. A. E. Akhter, M. A. K. Mallik, Kawsar Parvin, S. M. Quamrul Hassan, M. Arif Hossain, Md. Habibur Rahman and M. A. Hossen	63-71
The Thermal Response of the Upper Ocean to Very Severe Cyclones over the Bay of Bengal during 1981-2021.....Dipon Roy, Md. Abdus Samad, Muhammad Abul Kalam Mallik and S. M. Quamrul Hassan	72-78
Simulation of a Heat Wave Event using WRF model and Analysis of Heat Stress Index over Bangladesh Shuchi Chaki, M. A. Samad, M. A. K. Mallik and S. M. Quamrul Hassan	79-85
Evolution and Tracks of tropical cyclone in post-monsoon season over Bay of Bengal Md. Nazrul Islam, M. A. E Akhter, K M Abdus Sobahan	86-94
Simulating Storm Surge of Tropical Cyclone “Bulbul” using MRI Model Quazi Aseer Faisal, Muhammad Arif Hossain, S. M. Quamrul Hassan, Towhida Rashid and Javed Meandad	95-106
Study of track and intensity of two tropical cyclones using Advance Weather Research and Forecasting ModelKh. Hafizur Rahman and M. A. Taher	107-112
Climate Projections over Bangladesh Using MPI-ESM-MR Model Himel Bosu, Towhida Rashid, Md Abdul Mannan, Md Bazlur Rashid, Raiyan Ahamed and Md Rakib Hasan	113-121
Sea State Determination using Power Waveforms of Beidou GEO Satellite Direct and Reflected SignalsMohammad Shohidul Islam, S M Injamamul Haque Masum, Md. Aftab Uddin, Sultana Easmin Siddika	122-127
Study of Two Pre-monsoon Thunderstorms that Affected Bangladesh, Bhutan, India and Nepal in 2009 by 3DVAR Data Assimilation in WRF-ARW Model.....Sujit Kumar Debsarma	128-140
Cold wave condition over Bangladesh for the period of 1988-2017.....Nayema Baten, Mohammad Akram Hossain, Md. Habibur Rahman and Md. Asadur Rahman	141-151
An analytical study of Heat Wave occurred over Bangladesh during pre-monsoon of 2021..... Md. Abdul Mannan, Fatima Akter, Md. Bazlur Rashid, Md. Monowar Hossain, SK. Omar Faruque, Sharif Shameem Ara, Afruza Sultana, Sushmita Barua, Samarendra Karmakar and Md. Abdul Mannan Chowdhury	152-160