Agenda of Brainstorming Workshop of Monsoon Mission-II
Venue: NIAS Bengaluru
Date & Time 24-25th January 2024 at 09:30 Hrs

24th January 2024		
09:30 - 10:00	• Welcome remarks by Mission Director • Remarks by SSC Chair • Remarks by SSC Co-Chair • Remarks by SRMC Chair	Dr. R. Krishnan Dr. M. Ravichandran Dr. Shailesh Nayak Prof. Ravi S. Nanjundiah
10:00 - 10:30	Presentation on MM-II Scientific Achievements & GAP Areas by Associate Mission Director	Dr. Suryachandra Rao
10:30– 11:00	Discussion on MM-II Achievements and Gap Areas	All Participants
Tea Break 11:00-11:30		
Short Range Prediction, Chair: Dr. M. Mahapatra		
11:30-11:40	Extreme rainfall: Mechanisms and Prediction	Dr. Sandeep Pattnaik, IIT Bhubaneshwar
11:40-11:50 (IST) 15:10 – 15:20 (JST)	For further understanding of heavy rainfall in Meghalaya Plateau, India	Prof. Fumie Murata, Kochi University Japan. ONLINE
11:50 – 12:00	Forecast skill evaluation of NCUM and IMD GFS and develop a hybrid model for prediction of Extreme events over Northwest India	Dr. PVS Raju, Amity University, Rajasthan
12:00 – 12:10	Interaction between groundwater and soil moisture as a possible avenue to improve extended-range prediction in CFSv2	Prof. Arindam Chakraborty, CAOS, IISc.

Extended Range Prediction Chair: Dr. L. S. Rathore		
12:10 – 12:20	Extra-tropical influence on the sub seasonal variability and its implications on predictability of Indian summer monsoon rainfall	Prof. V. Venugopal, IISc-Bengaluru
12:20 – 12:30	Understanding wind-SST-evaporation feedback over Arabian Sea Basin dynamics on intra seasonal time scales	Prof. P. Suneetha Andhra University
12:30 – 12:40	Pertinence of interacting aerosols in monsoon breaks	Dr. Sajani Surendran, CSIR Institute of 4th PARADIGM, Bangalore
12:40 – 12:50	Intra-seasonal Variability of Monsoon Rainfall over the Gangetic Plain in IITM, IMD, NCMRWF models	Prof. Pradhan Parth Sarthi, Central University of South Bihar ONLINE INDIAN
12:50-13:00 IST GMT - 07:20-07:30	Tropical Cyclone Topics	Prof. Ralf Toumi, Imperial College London ONLINE FOREIGN
Agriculture Sector		
13:00 – 13:10	Forecast Gaps and requirements in the agriculture point of view	Dr. AVM Subba Rao, CRIDA-Hyderabad
13:10 – 13:20	AI-powered analytics to assess forecast reliability and automate agro-met advisory development	Dr. K P C Rao, ICRISAT-Hyderabad
Lunch Break 13:20 – 14:00		
Seasonal Prediction		

Chair: Dr. R. Krishnan		
14:00 – 14:10	Multiscale approach to seasonal -sub-seasonal forecasting of precipitation.	Dr. R. Maheswaran, IIT-Hyderabad
14:10 – 14:20	Investigating the role of Arabian Sea circulation in modulating Indian Summer Monsoon	Dr. Aditi Deshpande SPPU-Pune
14:20 – 14:30	Monsoon Teleconnection in CFSv2	Dr, K Rajendran, & Dr. K. C Gouda, CSIR Institute of 4th PARADIGM, Bangalore
North-East Monsoon		
14:30 – 14:40 (IST) 18:00 – 18:10 (JST)	1) the monsoon onset, and 2) the precipitation prediction and projection in NE Indian region	Prof Toru Terao, Kagawa University, Japan ONLINE FOREIGN
AI/ML **Chair: Prof. Ravi S. Nanjundiah**		
14:40 – 14:50	Untangling complexity in the ISMR teleconnections at the sub-seasonal to decadal scales with the help of nonlinear causal discovery methods and Artificial Intelligence tools	Dr. Suneet Dwivedi, Allahabad University
14:50 – 15:00	Interconnected Research Framework IRFWL for Weather and Location Specific Forecasting by Integrating Numerical Modeling and Machine Learning Techniques	Dr. Jagabandhu Panda, NIT Rourkela
15:00 – 15:10	Understanding the systematic biases in CFSv2 and enhancing the analysis quality using AI and ML methods in a Coupled Data Assimilation framework.	Prof. Pentakota Sreenivas, University of Hyderabad ONLINE INDIAN
15:10 – 15:20	Harnessing Deep Learning for Improved Weather and Hydrological Forecasts	Prof. Ashutosh Sharma, IIT Roorkee

15:20 – 15:30	Relating forecast and satellite precipitation to generate skillful ensemble forecasts at Block/village level through Bayesian Joint Probability and Multiple point geostatistical approach.	Dr. Sanjeev Kumar Jha, IISER-Bhopal
15:30 – 15:40	Prediction of MISO and LPS using deep learning	Prof. Sandeep Sukumaran, IIT Delhi
15:40 – 15:50 (IST) 05:10 – 05:20 (EST)	Seasonal Monsoon Forecasting Gap areas: 1) Predicted spatial distribution of rainfall anomalies at seasonal time scales are not skillful in present day climate models. AI/ML techniques may provide some breakthrough and needs to be explored.6) Teleconnections (e.g IOD, Atlantic, PDO etc.) with ISMR in MMCFS are out of phase or weak, which needs to be addressed.	Prof. Andrew Robertson, Columbia University, USA ONLINE FOREIGN
15:50 – 16:00 (IST) 05:20 – 05:30 (EST)	ML-based Ensemble Quantitative Precipitation Nowcasting/Forecasting	Prof Efthymios Nikolopoulos, University of Rutgers,USA ONLINE FOREIGN
Seasonal Prediction continued		
16:00 – 16:10 (IST) 05:30 – 05:40 (EST)	1.Harvesting internal variations of monsoon variability for seasonal prediction 2. Understanding the diurnal modulation of the Indian Summer Monsoon Rainfall by High (10-20 days) and Low (20-40 days) Frequency Oscillations	Dr. Vasubandhu Misra, Florida State University, USA ONLINE FOREIGN
Tea Break 16:10-16:30		
Chair:		

16:30 - 17:30	Discussion on the Scientific achievements Gap Areas and prospective studies to be considered for MM-III	All Members

Day 2: 25th January 2024		
Chair:		
09:30 – 11:00	Discussion on the GAP Areas and prospective studies...Contd..	All Participants
11:00-11:15	Concluding remarks and vote of thanks	All Participants
Meeting Ends		
Tea Break 11:15-11-30		