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(as a Foreign National from India)

Career Objective

To work with an organization that offers a challenging career, where my professional knowledge and potential can be utilized to the maximum in attaining the organizational goals, which in turn contributes to my excellence.

Academic Pursuit

- **Ph.D.** (**Meteorology and Oceanography**): Department of Meteorology & Oceanography, Andhra University, Visakhapatnam, India, 2017 [Thesis entitled "**The Role of Atmosphere-Ocean Coupled Climate System: Prediction of Winter precipitation and Temperatures over Northwest India**"]

- **M.Sc** (**Physical Oceanography**): Department of Meteorology & Oceanography, Andhra University, Visakhapatnam, India, 2006

- **B.Ed** (**Physical and Mathematical Sciences**):D.S.N. College of Education, Anakapalle, Andhra University, India, 2007

- **B.Sc** (**Mathematics, Physics, and Chemistry**): A.M.A.L College, Anakapalle, Andhra University, Visakhapatnam, India, 2003

Short-term Courses Attended

- Short-term ICTP course "**Artificial Intelligence for Detection and Attribution of Climate Extremes**" during 20th June-1st July 2022.

- Short-term course on "**Recent Advances in AI & ML for Climate Sciences"** during 13-15 November 2021 organized by Technology Innovation Hub (TIH), Indian Statistical Institute (ISI), Kolkata in association with IEEE GRSS Kolkata Chapter.

- Certificate course on "**Regional Climate Projections: Statistical Downscaling through R**" organized by the Centre for Climate Research & Studies of South Asian Institute for Advanced Research and Development (SAIARD) in association with India Meteorological Department, Kolkata, Govt. of India held on 05 - 27th December 2020.

- Short-term course on "**Development of Climatic Risk Management tools in Agriculture using Extended Range Forecast**", Organized by India meteorological department (IMD), Ministry of Earth Sciences, Govt. of India, Department of Agriculture corporation and Farmers Welfare (DAC&FW), Ministry of Agriculture, India and IIT Bhubaneswar, during Dec 2015.

- Global Initiative of Academic Networks (GIAN) short-term course on "**Climate Change: Science, Impact and Adaptation**" at IIT Bhubaneswar from Ministry of Human Resource Development (HRD), Govt. of India, during Dec 2016. has

- Global Initiative of Academic Networks (GIAN) short term course on "**Extreme Weather and Climate Variability: Observation, Understanding and Prediction**" at IIT Bhubaneswar, from Ministry of Human Resource Development (HRD), Govt. of India, during Dec 2016.

- 18thIIRS Outreach course on "**Basics of Remote Sensing, Geographical Information System & Global Navigation Satellite System**" at IIRS, ISRO, Dehradun, India, during Aug- Nov2016.

- 19thIIRS Outreach course on "**Remote Sensing and GIS Applications in Carbon Forestry**" at IIRS, ISRO, Dehradun, India, during Feb-Mar 2017.

- **Postgraduate Certificate course** in Building Resilience to Climate Change Part-I: "**Science, Impact, and Vulnerability**" and Part-II: "**Approaches to Adaptation**" from United Nations University, Tokyo, Japan, 2014

Work Experience

- **Mar 2021- Till date** : **UCAR Associate Scientist-I** at NOAA Center for Weather and Climate Prediction, NCEP EMC, University Research Court, College Park, MD, USA.

- **Feb 2021-Mar 2021** : **Research Scientific Assistant** at Jackson School of Geological Sciences, the University of Texas at Austin, Texas, USA.

- **Feb 2020- Feb 2021** : **UCAR Visiting Scientist** at NOAA Center for Weather and Climate Prediction, NCEP, CPC, International Desks, University Research Court, College Park, MD, USA.

- **Apr 2019 – Jan 2020** : **Project Scientist-C**, Indian Institute of Tropical Meteorology (IITM) Pune, Ministry of Earth Sciences, Govt. of India.

- **Dec 2015-Mar 2019** : **Project Scientist**, School of Earth, Ocean and Climate Sciences, Indian Institute of Technology (IIT) Bhubaneswar, India.

- **Oct 2013-Dec 2015** : **Project Associate**, School of Earth, Ocean and Climate Sciences, Indian Institute of Technology (IIT) Bhubaneswar, India.

- **Jul 2013-Oct 2013** : **Junior Research Fellow**, Department of Meteorology and Oceanography, Andhra University, Visakhapatnam, India.

- **Oct 2012-Jul 2013** : **Senior Research Fellow**, Department of Meteorology and Oceanography, Andhra University, Visakhapatnam, India.

- **Sep 2009-Oct 2012** : **Senior Research Fellow**, Center for Atmospheric Science, Indian Institute of Technology (IIT) Delhi, India

- **Jun 2006- Sep 2009** : **Physics lecturer**, Ushodaya Junior and Degree Colleges, Chodavaram, Andhra University, Visakhapatnam.

Awards/ Honors

- **UCAR Special Recognition Award** on 14th March 2022 with the amount of 2000 USD for contributions to the CPAESS Program through exemplary work for NOAA NCEP Environmental Modeling Center (EMC), College Park, MD, USA.

- **India Meteorological Society (IMS) Biennial Award-2019-20** (**Formerly B.N. Desai**) for Best Paper published in Monsoon Research study "**Characteristics of various Rainfall events over South Peninsular India during Northeast Monsoon using High-resolution gridded dataset**" which was published in Theoretical and Applied Climatology

- **Research Excellence Award-2020** from Society of Institute of Scholars for the study "**Impact of Climate Variability On Various Rabi Crops Over Northwest India**" which was published in Theoretical and Applied Climatology.

- **Best Citizen of India Award-2017** from International Publishing House, New Delhi for Scientific contribution to the Science & Technology.

- **India Achiever's Award-2021-22** from the Indian Achievers Forum for Achievement and Contribution in Nation Building.

- Stood second in the quiz contest organized by **India Meteorological Society (IMS)** on the occasion of WMO day on 23rd March 2017.

- **All India 26th Rank** in Council of Scientific & Industrial Research- University Grants Commission National Eligibility Test (**CSIR-UGC NET**), June 2011 in Earth, Atmospheric, Ocean and Planetary Sciences.

Membership Of Professional Societies

- IMS Associate member of American Meteorological Society (AMS).
- Life Member of South Asian Meteorological Association.
- Life member of Indian meteorological society (LM-1827).
- Life Member of Ocean Society of India (LM-566).
- Life Member of Association of Hydrologists of India (LM-549-852).
- Life Member of Indian Society of Remote Sensing (L-5822).
- Life member of Association of Agrometeorologists (LM-769).
- Life member of the Indian Science Congress Association (L41762)
- Life Member of Institute of Scholars (InSc2019E1F0).

Reviewer of Journals:

1. Agricultural and Forest Meteorology
2. Artificial Intelligence for the Earth Systems
3. Atmospheric and Climate Sciences (ACS)
4. Climate Dynamics
5. Climate Research
6. Computers and Electronics in Agriculture
7. Current Sciences
8. Dynamics of Atmospheres and Oceans
9. Global and Planetary Change
10. INSC International Journal
11. International Journal of Agriculture Sciences
12. International Journal of Climatology
13. Journal of Agrometeorology
14. Journal of Climate
15. Journal of Earth System Sciences
16. Journal of Environmental Pollution and Management (JEPM)
17. Journal of Geophysical Research-Atmosphere
18. Journal of Geophysical Research-Oceans
19. Journal of Basic and Applied Sciences

20. Land
21. Mausam
22. Meteorology and Atmospheric Physics
23. Modeling Earth Systems and Environment
24. Natural Hazards
25. Nature Scientific Reports
26. Physics and Chemistry of the Earth
27. Pure and Applied Geophysics
28. Saudi Journal of Biological Sciences
29. Stochastic Environmental Research and Risk Assessment
30. Sustainability
31. Theoretical and Applied Climatology

Computer Skill /Hands-On Experience

1. Excellent working knowledge of computer (MS-DOS, MS-Office, Matlab, Rstudio, Python, CDO, Grads, GIS, Ferret, Linux operating system, HPC system, FORTRAN, and C language).

2. Hands-on experience in data analysis of Observation and Model Outputs (AOGCMs (IPCC models) and GCMs (IRI products)) and Diagnostic studies of models. More experience in statistical post-processing techniques to improve the prediction skill of weather and climate forecasts at various spatial and temporal scales.

Real-Time Forecast Experience

1. Real-time forecast of Extended Range Forecast of Temperature and Rainfall on at Meteorological sub-divisional level over India and Dissemination to Agriculture institutions through IMD, since 2009.

2. Development of Extended Range forecast system (ERFS) and Application for Climate Risk Management in Agriculture.

Ex-India Visit

1. Visited USA as UCAR Visiting Scientist at NOAA Center for Weather and Climate Prediction, NCEP CPC International Desks, University Research Court, College Park, MD, USA from Feb-2020 to Feb-2021.
2. Visited USA as Research Scientist at Jackson School of Geological Sciences, University of Texas, Austin (Feb-2021 to March 2021).
3. Visited USA as UCAR Associate Scientist-I at NOAA Center for Weather and Climate Prediction, NCEP EMC, University Research Court, College Park, MD, USA from Feb-2021 to Till date.
4. Visited Sri Lanka as Guest faculty of UN-CECAR Training Course on "Climate Change Downscaling Approaches and Applications" at Sri Lanka Institute of Information Technology (SLIIT), Sri Lanka organized by United Nation University (UNU), Tokyo, Japan 30th March 2015-4th April 2015.

The Domain of Work Interested

- Dynamical and Statistical downscaling Approaches.
- Monsoon prediction and variability studies
- Statistical Post-Processing Methods on GCMs products
- Climate change studies using climate models and observations, multi-model climate change projections
- Use of Artificial Neural Networks/Machine Learning for prediction and data analysis
- Extended Range Prediction of extreme weather events like heavy rainfall events, heat/cold waves, cyclogenesis, etc.

- Climate change impacts weather and climate extreme events (droughts and floods, Cold and Heatwaves) at a regional level.
- Role of SST bias in the simulation of continental weather and climate
- Studies on Atmosphere-Ocean Coupled process and the impact on Atmospheric and Oceanic parameters.
- Model Diagnostics and Bias correction methods.
- Application development of weather and climate prediction for various climate risk management sectors.

Recent Publications in National & International Reputed Journals

1. **M.M.Nageswararao**, M.C.Sannan, A.K.Sahai, K.R. Baswanth Kumar, Susmita Joesph, and M.Anji Reddy (2023) District-Level Seasonal Rainfall Characteristics over Andhra Pradesh and its Global Teleconnections in Changing Climate. Journal of Basic and Applied Sciences, 19,1-19, https://doi.org/10.29169/1927-5129.2023.19.01

2. Vasundhara Barde, **M.M. Nageswararao**, U.C. Mohanty and R.K. Panda (2023) Performance of the CORDEX-SA regional climate models in simulating Summer Monsoon Rainfall and Future Projections over East India. Pure and Applied Geophysics, https://doi.org/10.1007/s00024-022-03225-3 .

3. **M.M. Nageswararao**, Yuejian Zhu, Vijay Tallapragada and Meng-Shih Chen (2022) Prediction skill of GEFSv12 in depicting Monthly Rainfall and Associated Extreme Events over Taiwan during Summer Monsoon. **Weather and Forecasting,**. https://doi.org/10.1175/WAF-D-22-0025.1.

4. **M. M. Nageswararao**, Yuejian Zhu, and Vijay Tallapragada(2022) Prediction Skill of GEFSv12 for Southwest Summer Monsoon Rainfall and Associated Extreme Rainfall Events on Extended Range scale over India. **Weather and Forecasting**, 37(7), 1135–1156, https://doi.org/10.1175/WAF-D-21-0184.1.

5. **M. M. Nageswararao**, Yuejian Zhu, and Vijay Tallapragada (2022) Predictability of summer monsoon extreme rainfall events over Taiwan using NCEP GEFSv12 reforecast. **Extended Summary, Climate Prediction S&T Digest, 46th NOAA Climate Diagnostics and Prediction Workshop, Virtual Online,** 76-82, https://doi.org/10.25923/rj6c-rk11

6. Narayana Reddy Karrevula, Dandi A. Ramu, **M. M. Nageswararao**, and A. Suryachandra Rao (2022) Inter-annual variability of pre-monsoon surface air temperatures over India using the North American Multi-Model Ensemble models during the global warming era. Theoretical and Applied Climatology, 151,133–151, https://doi.org/10.1007/s00704-022-04269-0

7. Hong Guan, Yuejian Zhu, Eric Sinsky, Bing Fu, Wei Li, Xiaqiong Zhou, Xianwu Xue, Dingchen Hou, Jiayi Peng, **M. M. Nageswararao**, Vijay Tallapragada, Thomas M. Hamill, Jeffrey S. Whitaker, Gary Bates, Philip Pegion, Sherrie Frederick, Matthew Rosencrans, and Arun Kumar (2022) GEFSv12 reforecast dataset for supporting subseasonal and hydrometeorological applications. **Monthly Weather Review**, https://doi.org/10.1175/MWR-D-21-0245.1

8. **M.M.Nageswararao**, P.Sinha, U.C. Mohanty, and S.Mishra (**2020**) Occurrence of More Heat Waves Over the Central East Coast of India in the Recent Warming Era. **Pure and Applied Geophysics**, 177(2): 1143–1155, https://doi.org/10.1007/s00024-019-02304-2

9. **M.M.Nageswararao,** P.Sinha, U.C. Mohanty, R.K.Panda and G.P. Dash (**2019**) Evaluation of District level Rainfall characteristics over Odisha using High-resolution gridded dataset (1901–2013). **SN Applied Sciences**, 1 (10), 1:1211, https://doi.org/10.1007/s42452-019-1234-5

10. **M.M. Nageswararao**, M. C. Sannan, U.C. Mohanty (**2019**) Characteristics of various Rainfall events over South Peninsular India during Northeast Monsoon using High-resolution gridded dataset. **Theoretical and Applied Climatology**, 137(3-4):2573–2593, https://doi.org/10.1007/s00704-018-02755-y

11. **M.M. Nageswararao**, U.C. Mohanty, A.P. Dimri, Krishna K. Osuri (**2018**): Probability of occurrence of monthly and seasonal winter precipitation over Northwest India based on antecedent monthly precipitation. **Theoretical and Applied Climatology**,132(3-4):1247–1259, https://doi.org/10.1007/s00704-017-2171-0, ISSN: 0177-798X

12. **M. M. Nageswararao**, U. C. Mohanty, S. S. V. S. Ramakrishna, A. P. Dimri (**2018**): An intercomparison of observational precipitation data sets over Northwest India during winter. **Theoretical and Applied Climatology**, 132(1-2): 181–207, https://doi.org/10.1007/s00704-017-2083-z

13. **M. M. Nageswararao**, B. S. Dhekale and U. C. Mohanty (**2018**): Impact of climate variability on various Rabi crops over Northwest India. **Theoretical and Applied Climatology**, 131(1-2):503–521, https://doi.org/10.1007/s00704-016-1991-7, ISSN: 0177-798X

14. B. S. Dhekale, **M. M. Nageswararao**, A. Nair, U. C. Mohanty, D. K. Swain, K. K. Singh, T. Arunbabu (**2018**): Prediction of Kharif Rice yield at Kharagpur using Disaggregated Extended Range Rainfall Forecasts. **Theoretical and Applied Climatology**, 133(3-4):1075–1091, https://doi.org/10.1007/s00704-017-2232-4, ISSN: 0177-798X

15. **M. M. Nageswararao**, U. C. Mohanty, Krishna K. Osuri, S. S. V. S. Ramakrishna (**2016**): Prediction of Winter Precipitation over Northwest India using Ocean Heat Fluxes. **Climate Dynamics,** 47 (7-8):2253–2271, https://doi.org/10.1007/s00382-015-2962-x , ISSN: 0930-7575

16. **M. M. Nageswararao**, U. C. Mohanty, Archana Nair, S. S. V. S. Ramakrishna (**2016**): Comparative Evaluation of Performances of Two Versions of NCEP Climate Forecast System in Predicting Winter Precipitation over India. **Pure and Applied Geophysics**, 173 (6): 2147–2166, https://doi.org/10.1007/s00024-015-1219-2, ISSN: 0033-4553

17. **M. M. Nageswararao**, U. C. Mohanty, S. Kiran Prasad, Krishna K. Osuri, S. S. V. S. Ramakrishna (**2016**): Performance evaluation of NCEP climate forecast system for the prediction of winter temperatures over India. **Theoretical and Applied Climatology,** 126(3-4):1–15, https://doi.org/10.1007/s00704-015-1588-6, ISSN: 0177-798X

18. **M. M. Nageswararao**, U. C. Mohanty, S. S. V. S. Ramakrishna, Archana Nair, S. Kiran Prasad (**2016**): Characteristics of winter precipitation over Northwest India using High-resolution gridded dataset (1901–2013). **Global and Planetary Change**, 147:67–85, DOI: http://dx.doi.org/10.1016/j.gloplacha.2016.10.017, ISSN: 0921-8181

19. Palash Sinha, **M.M Nageswararao**, Guru Prasad Dash, Archana Nair and U.C. Mohanty (**2019**): Pre-monsoon Rainfall and Surface Air Temperature Trends over India and its global linkages. **Meteorology and Atmospheric Physics**, 131(4): 1005–1018, https://doi.org/10.1007/s00703-018-0621-6

20. U.C. Mohanty, **M.M. Nageswararao**, P. Sinha, A. Nair, A. Singh, R.K. Rai, S.C. Kar, K.J. Ramesh, K.K. Singh, K. Ghosh, L.S. Rathore, R. Sharma, A. Kumar, B.S. Dhekale, R.K.S. Maurya, R.K. Sahoo and G.P. Dash (**2019**): Evaluation of Performance of Seasonal Precipitation Prediction at Regional Scale over India. **Theoretical and Applied Climatology**, 135(3-4):1123–1142, https://doi.org/10.1007/s00704-018-2421-9

21. V.U. Barde, **M.M. Nageswararao**, U.C. Mohanty, R.K. Panda and M. Ramadas (**2020**) Characteristics of summer monsoon rainfall over East India by using high gridded rainfall dataset (1901-2016). **Theoretical and Applied Climatology,** 141: 1511–1528, https://doi.org/10.1007/s00704-020-03251-y

22. M. C. Sannan, **M.M.Nageswararao,** and U.C. Mohanty (**2020**) Performance Evaluation of CORDEX-South Asia simulations for Future projections of Northeast Monsoon Rainfall over South Peninsular India. **Meteorology and Atmospheric Physics**, https://doi.org/10.1007/s00703-019-00716-2

23. Javed Akhter, Raju Mandal, Rajib Chattopadhyay, Susmitha Joseph, Avijit Dey, **M. M. Nageswararao**, D. R. Pattanaik, A. K. Saha (**2021**) Kharif rice yield prediction over Gangetic West Bengal using IITM-IMD extended range forecast products. Theoretical and Applied Climatology, https://doi.org/10.1007/s00704-021-03679-w, http://n2t.net/ark:/85065/d7r214n6

24. Dandi A. Ramu, Prasanth A. Pillai, Jasti S. Chowdary, D. Srinivas, G.Srinivas, K. KoteswaraRao, **M. M. Nageswararao** (**2021**) Inter-annual variability and skill of tropical rainfall and SST in APCC seasonal forecast models. **Climate Dynamics,** https://doi.org/10.1007/s00382-020-05487-w, http://n2t.net/ark:/85065/d7rx9gdv

25. U.C. Mohanty, P. Sinha, M.R. Mohanty, R.K.S. Maurya, **M.M.Nageswararao**, D.R. Pattanaik (**2019**) A Review on the monthly and seasonal forecast of the Indian summer monsoon. **Mausam**, 70 (3): 425-442. https://mausamjournal.imd.gov.in/index.php/MAUSAM/article/view/223

26. Raghu Nadimpalli, Krishna K. Osuri, Sujata Pattanayak, U. C. Mohanty, **M. M. Nageswararao**, S. Kiran Prasad (**2016**): Real-time prediction of movement, intensity, and a storm surge of very severe cyclonic storm Hud-Hud over Bay of Bengal using High-resolution dynamical models. **Natural Hazards**, 81(3): 1771-1795, https://doi.org/10.1007/s11069-016-2155-x

27. Mohanty, U.C.; Nachiketa Acharya; Ankita Singh; Archana Nair; M.A.Kulkarni; S.K. Dash; S.C. Kar; A.W. Robertson; A.K. Mitra; L.S. Rathore; K.K Singh; D.R. Pattanaik; Dalip Singh; Surajit Chattopadhyay; R.K. Rai; **M. M. Nageswararao**; P.Sinha, R.K.Pal; A.K. Mishra (**2013**): Real-time Experimental Extended Range Forecast System (ERFS) for Indian summer Monsoon Rainfall: A case study for Monsoon 2011. **Current Science**, 104(6): 856-870, ISSN 0011-3891 https://www.jstor.org/stable/24092099?seq=1#metadata_info_tab_contents

28. R. K. Pal, N. S. Murty, **M. M. Nageswararao**(**2012**): The response of wheat to temperatures as simulated with CERES-wheat model in Tarai region. **Journal of Agrometeorology** 14 (2): 163-166, ISSN, 0972-1665, http://agrimetassociation.org/journal.php/response-of-wheat-to-temperatures-as-simulated-with-ceres-wheat-model-in-tarai-region

29. U. C. Mohanty, P. Sinha; M. A. Kulkarni; N. Acharya; A. Singh; A. Nair, **M. M.Nageswararao**(2011), Extended Range forecasting of Monsoon, Monsoon MonographVolume-2, Chapter-10; Mausam, 413-467, http://imetsociety.org/wp-content/pdf/docs/MM2.pdf

30. A. Solomon.; P. Rao, **M.M.Nageswararao** (2013) Statistical downscaling of daily temperature and rainfall data from global circulation models: In South Wollo zone, North Central Ethiopia. J. Res. Sci. Tech. 2, 27–39, https://www.yumpu.com/en/document/read/46873075/statistical-downscaling-of-daily...

31. R.K. Pal, **M.M.Nageswaraao**, N.S. Murty (2013) Agro-meteorological Indices to Predict Plant Stages and Yield of Wheat for Foot Hills of Western Himalayas. International Journal of Agriculture and Food Science Technology. 4 (9), 909-914, https://www.ripublication.com/ijafst_spl/ijafstv4n9spl_11.pdf

32. R.K.Pal, **M. M. Nageswararao**, A.S. Nain, R. Sumanan (2012) Temperature effect on wheat (cv WH-542) as simulated with CERES-wheat model for different sowing environments. J Environment & Ecology 30(4A):1541–1545 ISSN 0970–0420, https://drive.google.com/file/d/1jGPc4BxNShsAbFHmQ5cCgpyKba0Wm6TC/view

33. R.K. Pal, N.S. Murty, **M.M.Nageswararao** (2012) Evaluation of yield: dry matter accumulation and leaf area index in wheat (Triticum aestivum L.) genotypes as affected by different sowing environments Environ. Ecol., 30 (2012), pp. 1469-1473, https://www.cabdirect.org/cabdirect/FullTextPDF/2013/20133051479.pdf

34. **M. M. Nageswara Rao**, U. C Mohanty, P. Sinha, R.K Pal (2012) Predicting winter temperatures over india different versions of NCEP climate forecast system and their evalution. Proceedings of international symposium on cryosphere and climate change, published by Defence Research & Development Organisation, Snow & Avalanche Study Establishment (SASE) Manali, India, https://www.researchgate.net/publication/280976079_Predicting_winter_temperature...

35. R.K. Pal, Padmakar Tripathi, **M.M.Nageswararao** (2012) Validation of CERES-Wheat Model for Growth Parameters of Wheat in Eastern Uttar Pradesh. Environment & Ecology, 40(4A), 1434-1438, https://drive.google.com/file/d/1hBgFVxcL3TYqLKduDiK8g5_jNNIqtRMa/view

36. R.K. Pal, **M.M.Nageswararao**, N.S. Murty (2013) Effectiveness of Weather Generators in Stipulations of Crop Production in Foot Hills of Western Himalayas. Environment & Ecology, 31(3), 1326-1330, https://www.cabdirect.org/cabdirect/abstract/20143107974

37. **M.M. Nageswararao**, Atul Kumar Sahai, Susmitha Joseph (2021) Relation between Occurrence of Heat Waves and Antecedent Southwest Summer Monsoon Rainfall. 101st American Meteorological Society Annual Meeting, http://n2t.net/ark:/85065/d78055pj , https://ams.confex.com/ams/101ANNUAL/meetingapp.cgi/Paper/382969

38. R.K. Pal, Padmakar Tripathi, **M.M.Nageswararao** (2013) Prediction of Growth and Yield Attributes of Wheat Using Statistical Regression Model in Eastern Uttar Pradesh. Environment & Ecology, 30(4A), 1439-1444, https://www.cabdirect.org/cabdirect/abstract/20133051472

39. V. B. Sunkara, **M. M. Nageswara Rao**, V. Jitendra, and A. D. Rao (2012) Anomalous distribution of fresh water during the southwest monsoon along the east coast of India. Current Development in Oceanography, 5 (2), 75-88, http://www.pphmj.com/abstract/7333.htm

40. R.K. Pal, **M.M.Nageswararao**, N.S. Murty (2013). Simulation of impact of projected climate change and Strategic intervention to minimize their adverse effect on wheat. International Journal of Agriculture and Food Science Technology. 4(9): 867-872, https://www.ripublication.com/ijafst_spl/ijafstv4n9spl_05.pdf

41. R. K. Pal , **M.M.Nageswararao**,N.S Murty (2013) Relative temperature disparity and wheat yield as influenced by sowing environments and genotypes in Tarai Region of Uttarakhand. Environment and Ecology, 31(2B): 979-983, https://www.cabdirect.org/cabdirect/abstract/20133306971

42. R.K. Pal, N.S. Murty, Ranjan Rajeev, A.K. Gupta, **M.M.Nageswararao** (2012) Performance and variability for yield and yield contributing characters of winter wheat in tarai region of Uttarakhand. Environ Ecol 30 : 1464—1468, https://www.cabdirect.org/cabdirect/abstract/20133051478

Book/Book Chapters Published

1. U.C. Mohanty, P. Sinha, **M.M.Nageswararao**, D. Swain, and K.K. Singh (**2023**) Application of Monthly and Seasonal Forecast for Climate Risk Management in Agriculture. Springer Nature publication (**Accepted**)

2. U. C. Mohanty, **M. M. Nageswararao**, Palash Sinha Ankita Singh, Archana Nair, Nachiketa Acharya (**2023**), Monthly and Seasonal Forecast of Precipitation and Temperature over India for Agrometeorological Applications. Springer publications **(Accepted)**.

3. U.C Mohanty, P. Sinha, **M.M. Nageswararao**, S.C.Kar, K.J. Ramesh, K.K. Singh, K. Ghosh, D.R.Pattanaik, R. Sharma, A. Nair, A. Singh, N. Acharya, R.K. Rai, A. Kumar, B.S.Dhekale, R.K.S.Maurya, P.R. Tiwari, M.Mohanty, (**2018**) Scientific documentation on Extended RangeForecast System For Climate Risk Management in Agriculture, Indian Institute ofTechnology Bhubaneswar.

4. U.C.Mohanty, P. Sinha, **M. M. Nageswararao**, A. Kumar, R.K. Rai, A. Nair, A. Singh, N.Acharya, (**2018**), ERFS User Guide and Code, Indian Institute of Technology Bhubaneswar.

5. U.C.Mohanty, **M. M. Nageswararao**, P. Sinha, K.K. Singh, B.S.Dhekale, K. Ghosh, D.K.Swain, R.K . Rai, A. Kumar, N. Awasthi, (**2018**) ERFS Forecast: Climate Risk Management in Agriculture, Scientific Documentation, and User Manual, Indian Institute of Technology Bhubaneswar.

6. U. C. Mohanty, P. Sinha; M. A. Kulkarni; N. Acharya; A. Singh; A. Nair, **M. M. Nageswararao** (**2011**), Extended Range forecasting of Monsoon, **Monsoon Monograph Volume-2**, Chapter-10; Mausam, 413-467.

Presentations/Invited Talks in Conferences/Training-Workshops:

1. Oral Presentation entitled "**Machine Learning Technique on GEFSv12 Reforecast products for Summer Maximum Temperature Ensemble Probabilistic Forecasts over Taiwan**" in the 103rd AMS Annual meeting: 22nd Conference on Artificial Intelligence for Environmental Science, during 8-12th January 2023. https://ams.confex.com/ams/103ANNUAL/meetingapp.cgi/Paper/413217

2. Oral presentation entitled "**Predictability of Summer Extreme Maximum Temperatures over Taiwan by using NOAA NCEP GEFSv12 Reforecast Products**" in the 47th Annual Climate Diagnostics and Prediction Workshop Logan, Utah, October 25–27, 2022

3. Oral presentation entitled "**Predictability of Atmospheric Rivers and Associated Winter Precipitation over Northwest USA using NOAA NCEP GEFSv12 reforecast**" in the AR Recon Workshop 2022, Scripps Seaside Forum, La Jolla, CA, USA, 24-26 October 2022

4. Oral presentation entitled "**Artificial Neural Network on GEFSv12 Reforecast products for Summer Rainfall forecast on Extended Range over CONUS**" in the 1st KMA-NOAA Workshop on AI for Weather and Climate Gwangju, Korea 19-21 October 2022Oral presentation entitled "**Predictability of Summer Monsoon Monthly Rainfall and Associated Extreme events over Taiwan by using NCEP GEFSv12 Model**" in the 7th WMO International Workshop on Monsoons (IWM-7) during 22-26th March-2022 at New Delhi, India.

5. Oral presentation entitled "**Effect of Climate Change on various Rainfall events and its global teleconnections over South Peninsular India during Northeast monsoon**" in the 38-39th National Seminar on Hydrology with Focal theme on Changing Climate and Extreme Hydrological Events during 25-26 Febrauary-2022 at Andhra University, Visakhapatnam, India.

6. Oral Presentation entitled "**Neural Network–Based Postprocessing for GEFSv12 Reforecast Products and Intercomparision with Existing Calibration Methods**", in the 102nd AMS meeting: 31st Conference on Weather Analysis and Forecasting (WAF)/27th Conference on Numerical Weather Prediction (NWP) during **23-27th January 2022**.

7. Oral Presentation entitled "**Predictability of Extreme Rainfall Events over India during Summer Monsoon Season by using NCEP GEFSv12 Model in the Present Global Warming Era**",in INTROMET-2021, Cochin University of Science and Technology, Cochin, India, Virtual, 23-26 November 2021.

8. Poster presentation entitled "**Prediction skill of GEFSv12 in depicting Monthly Rainfall and Associated Extreme Rainfall Events overTaiwan during Summer Monsoon Season**" in the 46th NOAA CDPW workshop, Virtual, 26-28th October 2021.

9. Oral presentation entitled "**The Relationship between of Antecedent Indian Summer Monsoon Rainfall and Occurrence of Pre-monsoon Heatwaves over India**" in the 101st AMS meeting: 34th conference on Climate change and Variability during **09-15th January 2021**.

10. Oral presentation entitled "**Effect of Climate Change on various Rainfall events and its global teleconnections over South Peninsular India during Northeast monsoon**" in Tropmet-2020 at NESAC Shillong, Meghalaya, India during **14-17 December-2020**.

11. Invited talk on "**A study on Northeast Monsoon over South Peninsular India under influences of climate change: Past, Present, and Future**" in the International Conference on "Possibilities and Prospects of Climate Research & Studies in the contemporary Era" organized by SAIARD **12th December 2020**.

12. Invited Keynote lecturer entitled "**Development and Application of Monthly and Seasonal scale forecasts for Climate Risk Management in Agriculture**" in International Training-workshop entitled "Climate Risk Assessment and its Management through Agrometeorological Approaches" at DARS, SKUAST-K, Shalimar, Srinagar, India during **21-30 October 2020**.

13. Invited talk entitled "**The Role of Antecedent Indian Summer Monsoon Rainfall on the Occurrence of Pre-monsoon Heatwaves over India**" at International Research Institute for climate society, Columbia University, New York on **8th September 2020**.

14. Lead talk in training workshop entitled "**Utilization of Monthly and seasonal scale forecast products in crop models in developing crop yield prediction system**" Organized by India meteorological department (IMD), Ministry of Earth Sciences, Govt. of India and IIT Bhubaneswar, **08-12th October 2018**.

15. Lead talk in training workshop entitled "**Integration of of Monthly and seasonal scale ERFS forecast products with crop models for developing CRM Tools** in Agriculture" Organized by India meteorological department (IMD), Ministry of Earth Sciences, Govt. of India and IIT Bhubaneswar, **03-08th May 2018**.

16. Lead talk in training workshop entitled "**Developmemt of CRM Tools in Agriculture and Water resource management using ERFS forecast products**" Organized by India meteorological department (IMD), Ministry of Earth Sciences, Govt. of India, IIT Bhubaneswar and Northeastern Space Application Center (NE-SAC), **13-20th March 2018.**

17. Lead talk in training workshop entitled "**Use of Extended Range forecast for development of CRM tools in Agriculture**" Organized by India meteorological department (IMD), Ministry of Earth Sciences, Govt. of India, IIT Bhubaneswar and University of Agricultural and Horticultural Sciences, SHIVAMOGGA, **24-30th December 2017.**

18. Lead talk in training workshop entitled "**Development and application of Extended Range forecast for Climate risk management in Agriculture**" Organized by India meteorological department (IMD), Ministry of Earth Sciences, Govt. of India, IIT Bhubaneswar, and RVSKVV, Gwalior, **18th Sep 2017**.

19. Oral paper presentation on "**The role of Bay of Bengal cyclonic disturbances on post-monsoon rainfall extremes over India**", Organized by Indian Meteorological Society (IMS-TROPMET-2016), SOA, Bhubaneswar during **December 18-21, 2016**.

20. Lead talk in training workshop entitled **"Operational Techniques for combining Extended and Seasonal scale forecasts and Modeling in Climate risk management in Agriculture**" Organized by PROFESSOR JAYASHANKAR TELANGANA STATE AGRICULTURAL UNIVERSITY, **28th November-03rd December 2016**.

21. Lead talks in training workshop entitled "**Hands-on practice course on Modeling-cum-Climate Risk Management**" Organized by Odisha University of Agriculture & Technology Bhubaneswar **23-29th July 2016.**

22. Lead talks in training workshop entitled " **Modeling on Climate Risk Management using ERFS Products**" Organized by Odisha University of Agriculture & Technology Bhubaneswar **30th May - 10th June 2016.**

23. Lead talk on "**Development of Extended Range Forecast at regional level by using bias-corrected GCM outputs**". UN-CECAR Training Course on "Climate Change Downscaling Approaches and Applications" at Sri Lanka Institute of Information Technology (SLIIT), Sri Lanka & UNU, Tokyo, Japan **30th March 2015-4th April 2015**.

24. Invited lectures in the training workshop on" **Development of Climate Risk Management tools by using Extended Range Forecasts**" at Indian Institute of Technology Bhubaneswar during **15-20th December 2015.**

25. Oral paper presentation on "**Statistical methods for predicting seasonal winter precipitation using empirical relationships**". In Workshops entitled 'Development of Climatic Risk Management tools in Agriculture using Extended Range Forecast", Organized by India meteorological department (IMD), Ministry of Earth Sciences, Govt. of India, Department of Agriculture corporation (DAC), Ministry of Agriculture, India and IIT Bhubaneswar, **15th Dec 2015**.

26. Oral paper presentation in SCOAR 2014 on" **Impact of Climate Change - Successes and Challenges on Ocean and Atmospheric Research**" at Dept. of Meteorology and oceanography, Andhra University, Visakhapatnam, during **9th to 11th October 2014**.

27. Oral paper presentation in International Symposium on "**Cryosphere and climate change**" organized by DRDO, SASE, Manali, India during **April 02-04, 2012**.

28. Oral paper presentation in national seminar on "**Meteorology for socio-economic development**" organized by Indian Meteorological Society (IMS-TROPMET-2011), Hyderabad during **December 14-16, 2011**.

Professional Courses/Training-Workshops Attended:

1. Attended virtually in **103rd AMS Annual meeting** from 8-12th January 2023.

2. Attended virtually in **47th Annual Climate Diagnostics and Prediction Workshop** Logan, Utah, October 25–27, 2022.

3. Attended virtually in **AR Recon Workshop 2022**, Scripps Seaside Forum, La Jolla, CA, USA, 24-26 October 2022

4. Attended virtually in **1st KMA-NOAA Workshop** on AI for Weather and Climate Gwangju, Korea 19-21 October 2022

5. Attended virtually in **7th WMO International Workshop** on Monsoons (IWM-7) from 22-26th March-2022 at New Delhi, India.

6. Attended virtually in **38-39th National Seminar** on Hydrology with Focal theme on Changing Climate and Extreme Hydrological Events during 25-26 February-2022 at Andhra University, Visakhapatnam, India.

7. Attended virtually in **ICTP Traing-Workshop** "Artificial Intelligence for Detection and Attribution of Climate Extremes" during 20th June-1st July 2022

8. Attended virtually in **102nd AMS Annual Meeting** from 23-27th January 2022.

9. Attended thein **INTROMET-2021**, Cochin University of Science and Technology, Cochin, India, Virtual, 23-26 November 2021.

10. Attended the Training Workshop on "**Recent Advances in AI & ML for Climate Sciences"** during 13-15 November 2021 organized by Technology Innovation Hub (TIH), Indian Statistical Institute (ISI), Kolkata in association with IEEE GRSS Kolkata Chapter.

11. Attended the 46th NOAA CDPW workshop, Virtual, 26-28th October 2021.Actively Participated in "The 4th Taiwan West Pacific Global Forecast System Development Workshop" Virtual Meeting, 15–17 June, 2021Participated in the "**AMS 102nd Annual virtual Meeting**" during 10-15 January 2021.

12. Actively Participated in "**The 4th Taiwan West Pacific Global Forecast System Development Workshop**" Virtual Meeting, **15–17 June 2021**

13. Participated in the "**AMS 101st Annual virtual Meeting**" during **10-15 January 2021**.

14. Attended certificate course on "**Regional Climate Projections: Statistical Downscaling through R**" organized by the Centre for Climate Research & Studies of South Asian Institute for Advanced Research and Development (SAIARD) in association with India Meteorological Department, Kolkata, Govt. of India held **on 05 - 27th December 2020.**

15. Attended the "**virtual NOAA Climate Diagnostics and Prediction Workshop (CDPW)**" conducted at NOAA NCEP, from **20-22 October 2020**

16. Attended the TAMSAT training workshop on "**TAMSAT Satellite Rainfall Estimation and Validation over Africa**" from **06-22nd July 2020**.

17. Attended the Global Heat Health Information Network (GHHIN) Masterclass on "**Setting operational thresholds for Heat Early Warning Systems**" from **02-09th June 2020.**

18. Attended GIAN short-term course on "**Land Surface process in the Tropics in context of high Impact Weather systems and Climate Resiliency**" at IIT Bhubaneswar from **03-10th July 2018**.

19. Attended GIAN short-term course on "**Extreme Weather Events over India: Observations, Assimilation, and Modeling with special focus on Tropical cyclones**" at IIT Bhubaneswar from **18-25th June 2018**.

20. Attended a Workshop on " **Regional Environment & climate in Odisha: Lighting, Thunderstorm, and Heat-Waves**" (RECO-2018 held at Indian Institute of Technology Bhubaneswar from **23-24th March 2018**.

21. Participated in the Brainstorming Workshop **"IT-based real-Time monitoring of Soil, water and Atmospheric Variables for sustainable surface and ground Water Management** " at Indian Institute of Technology Bhubaneswar on **25th March 2017**.

22. Attended Off-Campus 19th IIRS Outreach course on "**Remote Sensing and GIS Applications in Carbon Forestry**" at Indian Space Research Organization, Department of Space, Government of Indian during **Feb-March 2017**.

23. Attended GIAN short-term course on "**Extreme Weather and Climate Variability: Observation, Understanding and Prediction**" at IIT Bhubaneswar from **22nd – 31st December 2016.**

24. Attended GIAN short-term course on "**Climate Change: Science, Impact and Adaptation**" at IIT Bhubaneswar from **1st- 8th December 2016**.

25. Attended Off-Campus 18th IIRS Outreach course on "**Basics of Remote Sensing, Geographical Information System and Global Navigation Satellite System**" at Indian Space Research Organization, Department of Space, Government of Indian during **16 Aug 2018-22nd November 2016.**

26. Attended short term course on "**Development of Climatic Risk Management tools in Agriculture using Extended Range Forecast**", Organized by India meteorological department

(IMD), Ministry of Earth Sciences, Govt. of India, Department of Agriculture corporation (DAC), Ministry of Agriculture, India and IIT Bhubaneswar, during **15-20th Dec 2015.**

27. Attended a post-graduate course in **"Building Resilience to Climate Change Part-I: Science, Impact, and Vulnerability"** from United Nations University, Tokyo, Japan **in 2014**.

28. Attended a post-graduate course in **"Building Resilience to Climate Change Part-II: Approaches to Adaptation**" from United Nations University, Tokyo, Japan **in 2014**.

29. Participated in ICTS program on "**Advanced Dynamical core modeling for atmospheric and ocean circulations"** at NARL, Gadhanki from **18th June to 23rd Feb 2013.**

30. Participated in the second national research conference on "**Climate change**" organized by IIT Delhi, IIT Madras, and CSE during **November 05-06, 2011**.

31. Participated in the SERC School on "**Dynamics on forecasting of the Indian summer monsoon**" at CAS, IIT Delhi from **June 27 to July 20, 2011.**

32. Participated in "**2nd India disaster management congress**" organized by NIDM Delhi during **November 04-06, 2009**.

Weblinks

1. https://staff.ucar.edu/users/murali
2. https://scholar.google.com/citations?user=_eeXVdMAAAAJ&hl=en
3. https://www.researchgate.net/profile/Murali-Malasala

PERSONAL DETAILS

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Date: 14th February 2023

Place: NOAA, College Park, MD

(Dr. M. M. Nageswara Rao)