Curriculum Vitae of Dr. Abhilash. S

Name : Dr. ABHILASH. S

Address (Official) : Department of Atmospheric Sciences

Cochin University of Sci. & Technology

Fine Arts Avenue, Cochin 682 016

Kerala State, India

Age and Date of Birth : 42 Years, 28-05-1979

Phone (Office) : 0484-2353662 Mobile : 9561642841

E-mail :abhimets@gmail.com



1. Educational Qualifications:

Sl. No	Degree	Year of	Subjects	University	Marks	Class/
		Passing			Obtained	Division
1	Ph.D	2009	Atmospheric	Cochin University of		
			Sciences	Science and Technology		
2	M.Sc	2002	Meteorology	Cochin University of	76.3%	Distinction
				Science and Technology		(First Rank)
3	B.Sc	1999	Physics	Kerala University	83.1%	Distinction

2. Scientific and Academic Career:

Sl. No	Position held	Institution	Period
1	CSIR Research Fellow	Cochin University of Science and Technology (CUSAT)	2002-2007
2	Senior Research Scientist	Flagstone Reinsurance Bermuda Pvt Ltd.	2008-2009
3	Scientist C	Indian Institute of Tropical Meteorology	2009-2013
4	Visiting Scientist	University of Miami, USA	2014 - 2015
5	Visiting Scientist	National Center for Atmospheric Research, USA	2014 (Jun)- 2014 (Aug)
6	Scientist D	Indian Institute of Tropical Meteorology	2014 - 2016
7	Assistant Professor	CUSAT	2016 - Continuing
8	Associate Director	Radar Center, CUSAT	2019-2021
9	Director	Radar Center, CUSAT	2021-Continuing

3. Honors and Fellowships:

- SAARC Scientist medal for the research work on the Assimilation of IMD Doppler Radar Wind observations in a Mesoscale model for the short range prediction of Convective storms (2007).
- Indian Meteorological Society (IMS) award on Weather and Climate Services (Formerly Bhavanarayana Award) (2017).
- Outstanding Young Faculty award 2019 from Cochin University of Science and Technology (2019).
- T. Peter memorial award for the outstanding contribution for the "Climate services to Fisherman"
- Council for Scientific and Industrial Research (CSIR) Fellowship (2002). Qualified National Educational Test (NET)-Eligibility for Lectureship, conducted by University Grant Commission (UGC/CSIR). (2002).
- Prof. R. Ananthakrishnan Endowment Prize for Topper in MSc Meteorology.
- Best participant award in SERC School on Aviation Meteorology at Air Force Administrative College (AFAC), Coimbatore.
- UGC-BSR Startup Grant for conducting research on Cyclogenesis Prediction.

4. Research Profile:

Profile Pages:

<u>CUSAT</u>:http://das.cusat.ac.in/portal_password/show_faculty_member_abhilash.html <u>IITM:</u> http://www.tropmet.res.in/Dr.%20Abhilash.%20S.-89-Scientist

Research Gate Page:

https://www.researchgate.net/profile/S_Abhilash

Google Scholar Profile: https://scholar.google.co.in/citations?user=zjwT8xIAAAAJ&hl=en

Total Citations : 1687 H-Index : 20 i10-Index : 38

Title of PhD Thesis:

"Tropical Mesoscale Convective Systems and associated Energetics : observational and Modeling Studies"

RG Score: 35.16

5. Major Research Areas and Interests:

- i Climate modeling and Climate Dynamics
- ii Dynamical Prediction of Indian summer Monsoon
- iii Tropical Cyclones, Clouds and Convection dynamics
- iv Radar data assimilation

6. Important Scientific Contributions:

- Played a key role in the development of an operational extended range prediction (ERP) system using an indigenously developed multi model ensemble known as CFS based Grand Ensemble Prediction System (CGEPS). This is the unique extended range prediction system operationally implemented for the first time in the world. This system is now widely used for agriculture and water resource advisories. The same system is further adopted by India Meteorological Department (IMD) for operational extended range prediction over Indian region. The above contributions significantly helped to meet the prime objectives of the National Monsoon Mission Program.(Ref: Abhilash etal., (2015), Journal of Applied Meteorology and Climatology)
- A bias correction technique is also operationally implemented in the MME framework. The atmospheric component, GFS is forced with Bias corrected forecasted SST of CFSv2 for the Extended Range Prediction. (*Ref: Abhilash etal.*, (2015), *Atmospheric Science Letter*)
- Actively involved in the operational Implementation of the monitoring system of Large scale
 Low frequency Monsoon Intra-seasonal Oscillations (MISO) using a low dimensional metric.
 (Ref: Abhilash etal., (2018), Climate Dynamics)
- Indian Doppler Weather Radar observations are incorporated in the operational assimilation system for the first time. Developed observational pre-processors for Radar data assimilation in 3DVAR system of MM5 and WRF for the direct assimilation of radar reflectivity and radial velocity. (Ref: Abhilash etal., (2012), Pure and Applied Geophysics.)
- Played a key role in the **Development of improved Cyclogenesis Potential Parameters** for the prediction of genesis, track and intensity of Tropical Cyclones and contributing to the development of the extended range prediction system for the cyclogenesis, pre-genesis track and intensity forecast.(**Ref:** Ganesh, S. S., Sahai, A. K., **Abhilash, S etal:** (2020), **Earth and Space Science, PhD work of the student**)
- Contributed to the successful implementation of the indigenously developed 205 MHz ST Radar facility at CUSAT and Playing a Key role as **Director of Advanced Centre for Atmospheric Radar Research (ACARR), CUSAT** for further making the centre as a world class centre of excellence in "Observations and Modeling".
- Leading the modeling group for developing regional prediction systems, fine tuning the models
 for capturing extreme events, developing customized and value added forecast products for
 different stake holders. Developing various bias correction, signal amplification and calibration
 techniques for developing a robust regional ensemble prediction system. (Ref: Max Martin,
 Abhilash S, etal., (2021), Weather, Climate and Society. Joint collaboration with University of
 Sussex)
- Playing a key role in the development of an **novel hybrid signal processing schemes for ST radar in separating the clear air and rain echoes** and successfully implemented for the first time in the 205 Mhz frequency. (Ref: R. Dhanya, A. Pradeep, C. S. Abhiram Nirmal, **Abhilash. S etal.**, (2022), IEEE Geoscience and Remote Sensing Letters. PhD work of the student)

Research Projects Handled and Associated with:

Funding Agency	Project Title	Total Grant	Role	Status
UGC	Development of an Improved Cyclogenesis Potential Parameter over North Indian Ocean and Probabilistic Prediction of Cyclogenesis using a Multi Model Ensemble Prediction System.	10.0 Lakhs	PI	Completed
ISRO	Understanding the Physical processes associated with Tropical Intraseasonal Oscillations and Cyclogenesis over Indian Ocean Region using SCATSAT-1 Data	36.0 Lakhs	PI	Completed
MoES	Thunderstorm Understanding and Experimental Real-time Prediction (THUNDER) (Conditionally Accepted)	43.4 Lakhs	Co-PI	Completed
MoES	Monitoring of Extremes over Indian region on short, medium, extended and seasonal scale: Identification of Key physical processes and its representation in models.	40.7 Lakhs	PI	Completed
SERB-DST	Bias-Corrected High Resolution Future Projections of the Distribution of Rainfall over Peninsular India in Response to Warming Climate	30.5 Lakhs	PI	Completed
DST	Studies on the Tropospheric Features and Stratosphere Troposphere Coupling Processes over the Monsoon region using Stratosphere Troposphere (ST) Radar at Cochin	2000.0 Lakhs	Coordi nator	Completed
MoES	Center of excellence in observational and modeling studies (Support for ACARR)	935.0 Lakhs	PI	Ongoing
DST	High-Resolution Climate Modeling For Southern Peninsular India	76.0 Lakhs	Co-PI	Ongoing
MoES and University of Miami, USA	Understanding bias errors and addressing physics errors in the CFSv2 model to improve monsoon prediction	200.0 Lakhs	Coordi nator	Completed
University of Sussex, UK	Consultancy service for producing customized weather forecast for Fishers	10.0 Lakhs	Consult ant	Ongoing
Hume Centre for Ecology and Wildlife Biology, Wayanad	Consultancy service for producing customized weather forecast for Farmers and Disaster Management of Wayanad District	1.50 Lakhs	Consult ant	Ongoing

8. Countries Visited as part of Professional Career:

No	Country name	Purpose	Duration
1	University of Victoria BC, Canada	Attend SPARC 3rd general	09-12 August, 2004
		council Meeting	
2	Kyoto University, Japan	International CPEA	20-23 March 2007
		Symposium	
3	Institute of Bandung, Indonesia	4th Kyoto University	22 July to 4th August,
		International Summer	2007
		school	
4	Halifax, Canada	Training on WRF Model,	10 June to 1 July 2008
		High Performance	
		Computing, Parallel	
		Processing	
5	Macao, China	Fifth International	28-31 October, 2013
		workshop on Monsoons	
		(IWM-V)	
6	Hong Kong Observatory, Hong Kong	WMO Training workshop	1 November, 2013
		on Monsoons	
7	National Center for Atmospheric	Visiting scientist	10 June to 20 August,
	Research (NCAR), Boulder, Colorado,		2014
	USA		
8	University of Miami, USA	Post-Doctoral Research	March 2014 to April
		Scholar	2015
9	ICTP, Italy	Advanced school and	23 November to 4
		workshop on sub seasonal	December, 2015
		prediction	
10	Qingdao National Laboratory, China	CLIVAR open science	19-23 September, 2016
		conference	
11	University of Stirling, Scotland, UK	IUKWC water Center	19-21 June, 2017
		conference	
12	University Corporation for	WMO conference on sub-	16-21 September 2018
	Atmospheric Research (UCAR),	seasonal to seasonal	
	Boulder, Colorado, USA	prediction	

9. Member in Professional Bodies and Research Committees

	Role	Institution/Government
1	Expert Member	Forecast and verification team, Extended Range Prediction, MoES , Govt. of India .
2	Expert Member	Committee for recommending effective response to potential Cyclone related Disasters in Future, Constituted by Govt. of Kerala.
3	Expert Member	Committee for recommending effective response to potential monsoon related disasters in future, Constituted by Govt. of Kerala.
4	Member	"Research Advisory Council of Integrated Rural Technology Centre (IRTC)" Mundur, Palakkad funded by Kerala State Council for Science, Technology and Environment (KSCSTE)
5	Expert Member	"Upgrading the existing 'Weather forecasting system' purchased under 'VARSAMANA', project of India Meterological Department (IMD)", Ministry of Earth Sciences (MoES), Govt. of India
6	Member	"Program Execution committee on Science Technology Research and Applications" by Institute for Advanced Research in Science (IARSc), Bangalore
7	Member	Advisory committee of project "Facilitating Multilevel Climate Governance in Kerala" by World Institute of Sustainable Energy (WISE)
8	Expert Member	"Committee on Environment and Climate Change" by Kerala State Biodiversity Board, GoK
9	Member	"Working group on state level sustainable development goal (SDG)-13" consitiuted by Kerala State Council for Science Technology and Environment., GoK
10	Associate Editor	Academic Journal of Ocean Sciences, International Association of Scientists and Researchers
11	Editorial board member	Ocean Digest, A quarterly news Letter of Ocean Society of India
12	Secretary	Indian Meteorological Society, Cochin Chapter
13	Member	American Meteorological Society
14	Member	Indian Meteorological Society
15	Member	Indian Radar Society
16	Organizing Secretary	International symposium on Tropical Meteorology (Intromet 21) on Changing Climate: Consequences and Challenges (INTROMET-C4)

10. Academic activities and man power development.

- Recognized as Ph.D guide at Pune University, Pune and Cochin University of Science and Technology, Cochin. At present guiding 6 students for their PhD program. Guided 2 students for their M.Tech dissertation.
- ➤ Handled physical meteorology classes for the Ph.D scholars and early career scientist at the Center for Advanced Training (CAT), MoES and IITM, Pune.
- ➤ Handled Numerical Weather Prediction classes for the trainee officers of Indian Navy at SNOM, Cochin.
- ➤ Worked as expert faculty in conducting training for Meteorologist/Scientists at the MET training facility of IMD.
- Worked as external examiner for conducting various theory and practical examinations of various universities.

11. Guidance provided for:

M.Tech/MSc Dissertation : 8 (Completed)
Ph.D : 3 (Completed)
Ph.D : 5 (On-going)

12. Publication Summary:

Total number of publications in **peer-reviewed journals with High Impact Factor**: 83

Cumulative **Impact Factor**: 272.2

Books/Book Chapters/Policy Report with **ISSN/ISBN number**: 15

Popular Articles/Interviews in Malayalam: 45

Popular Lectures/Invited Talks: 178

Publication list in Peer-reviewed Scopus Indexed International Journals **Total Number of Publications with Impact Factor: 71**

Cumulative Impact Factor: 217.656

	Average Impact Factor: 217.050					
SI. No	Authors & Title	Journal & DOI/Volume	Impact Factor	Year		
76	Thomas, L., Abhilash , S. & Pattathil, V. "The unsung role of SST in simulating mesoscale events: an evaluation of August 2018 extreme rainfall over Kerala using WRF model. "	Theor Appl Climatol (2022). https://doi.org/10.10 07/s00704-022- 04308-w	3.409	2022		
75	M. C. Neethu Mohan, B. Paul, V. Rakesh, R. Rebello, P. Mohanan and S. Abhilash , "EMD based Intermittent and Ground clutter Removal in Radar Windprofilers,"	IEEE Transactions on Geoscience and Remote Sensing, doi: 10.1109/TGRS.2022.3 223386.	8.125	2022		
74	Baburaj, P. P, S. Abhilash , P. Vijaykumar, C.S. Abhiram Nirmal, K. Mohankumar, A.K. Sahai. "Concurrent cyclogenesis in the Northern Indian Ocean and Monsoon Onset over Kerala in response to different MJO phases"	Atmospheric Research, https://doi.org/10.10 16/j.atmosres.2022.1 06435	5.965	2022		
73	Krishnakumar E K, Abhilash S , Syam Sankar, Vijaykumar P, Santosh K R, Sreenath A V , "Contrasting Regional Responses of Indian Summer Monsoon Rainfall to Exhausted Spring and Concurrently Emerging Summer El Niño Events "	Advances in Atmospheric Sciences, doi: 10.1007/s00376-022- 2114-2	3.900	2022		
72	Baiju Dayanandan, Ajay P, Pritam Das Mahapatra, Abhilash S , Lakhima Chutia, Binita Pathak, Issa Al-Amri, Ahmed Al-Harrasi, "Regime shift in aerosol optical depth and long-term aerosol radiative forcing implications over the Arabian Peninsula Region"	Atmospheric Environment, 283, https://doi.org/10.10 16/j.atmosenv.2022. 119298	5.755	2022		
71	Rakesh, V, Sreekumar H, C. Sivan, M.G. Manoj, S. Abhilash , Binu Paul, K. Unnikrishnan, K. Mohanakumar, R. Sumesh Chandran: "Impact of the Hunga Tonga-Hunga Ha'apai volcanic eruption on the changes observed over the Indian near-equatorial ionosphere"	Advances in Space Research, https://doi.org/10.10 16/j.asr.2022.07.004	2.611	2022		
70	Ajil Kottayil, K Prajwal, M V Devika, S Abhilash , K Satheesan, Roshny Antony, Viju O. John & K Mohanakumar: "Assessing the quality of Aeolus wind over a tropical location (10.04 N, 76.9 E) using 205 MHz wind profiler radar"	International Journal of Remote Sensing, 43:9, 3320-3335, DOI: 10.1080/01431161.2 022.2090871	3.151	2022		
69	Varadarajan, R., Haridas, S., Manoj, M. G., Rebello, R., Paul, B., Unnikrishnan, K., Abhilash. S , K. Mohankumar (2022). "Ionospheric nighttime F-region irregularities during geomagnetically quiet conditions as observed with 205 MHz VHF radar at an equatorial trough station, Cochin."	Journal of Geophysical Research: Space Physics, 127, e2021JA030129. https://doi.org/10.10 29/2021JA030129	2.811	2022		
68	C. Sivan, V. Rakesh, M.G. Manoj, K. Satheesan, S. Abhilash , K. Mohanakumar, "Detection of the impact of a tropical cyclonic system on the dynamics and energetics of the atmosphere using	Journal of Atmospheric and Solar-Terrestrial	1.735	2022		

	wind profiler radar"	Physics, DOI:10.1016/j.jastp.2 022.105896		
67	Sreenath A V, Abhilash S , K Vijayakumar, and Brian Mapes (2022) "West coast India's rainfall is becoming more convective".	npj Climate and Atmospheric Science, DOI:10.1038/s41612- 022-00258-2	8.624	2022
66	Pritam Das M, S Abhilash and Ruchith. R. D (2022) "Aerosol Distribution during Spring and Summer and its relationship with Inter-Annual Variability of Summer Monsoon Rainfall Over Indian Region"	Geocarto International, DOI: 10.1080/10106049.2 022.2058622	4.065	2022
65	R. Dhanya, A. Pradeep, C. S. Abhiram Nirmal, S. Abhilash , K. Mohankumar and P. Mohanan, "A Novel Hybrid Approach for the Identification of Clear Air and Rain Echoes in the 205 MHz ST Radar Spectrum,"	IEEE Geoscience and Remote Sensing Letters, DOI: 10.1109/LGRS.2022.3 149149.	3.966	2022
64	K.K. Baiju, Shinoj Parappurathu, S. Abhilash , C. Ramachandran, P.S. Swathi Lekshmi, Praveen Padmajan, Shelton Padua, Thomson Kaleekal, "Achieving governance synergies through institutional interactions among non-state and state actors in small-scale marine fisheries in India"	Marine Policy,https://doi.org /10.1016/j.marpol.20 22.104990.	4.173	2022
63	Baburaj. P. P, S. Abhilash , C.S. Abhiram Nirmal, A.V. Sreenath, K. Mohankumar, A.K. Sahai, Increasing incidence of Arabian Sea cyclones during the monsoon onset phase: Its impact on the robustness and advancement of Indian summer monsoon	Atmospheric Research, https://doi.org/10.10 16/j.atmosres.2021.1 05915.	5.369	2022
62	Max Martin, Abhilash S , Vijaykumar Pattathil, Harikumar R, NT Niyas, TM Balakrishnan Nair, Yatin Grover, and Filippo Osella., Should I stay or should I go? South Indian artisanal fishers' precarious livelihoods and their engagement with categorical ocean forecasts	Weather, Climate and Society, DOI: https://doi.org/10. 1175/WCAS-D-20- 0044.1	2.746	2022
61	Sreenath, A. V., Abhilash, S ., and Vijaykumar, P. Variability in lightning hazard over Indian region with respect to El Niño-Southern Oscillation (ENSO) phases	Nat. Hazards Earth Syst. Sci., 21, https://doi.org/10.51 94/nhess-21-2597- 2021	4.345	2021
60	A.V. Sreenath, Neelam Malap, S. Abhilash, Gayatri Urankar Kulkarni, Thara Prabhakaran, Precipitation processes over Indian region under different environmental conditions from in situ measurements	Atmospheric Research, 262, https://doi.org/10.10 16/j.atmosres.2021.1 05775.	5.369	2021
59	M.G. Manoj, Sivan C., Rakesh V., Rejoy Rebello, Abhilash S. , Mohankumar K. Atmospheric response to the annular solar eclipse of 26 December 2019 over Cochin, India,	Advances in Space Research, 68(9), https://doi.org/10.10 16/j.asr.2021.07.001	2.152	2021
58	P. Vijaykumar, S. Abhilash, A.V. Sreenath, U.N. Athira, K. Mohanakumar, B.E. Mapes, B. Chakrapani, A.K. Sahai, T.N. Niyas, O.P. Sreejith. Kerala floods in consecutive years - Its association with mesoscale cloudburst and structural changes in monsoon clouds over the west coast of India	Weather and Climate Extremes, 33, https://doi.org/10.10 16/j.wace.2021.1003 39	5.338	2021
57	Syam Sankar, P. Vijaykumar, S. Abhilash , K. Mohanakumar. Influence of the strongest positive Indian Ocean Dipole and an El	Dynamics of Atmospheres and	1.319	2021

	Niño Modoki event on the 2019 Indian summer monsoon	Oceans, 95, https://doi.org/10.10 16/j.dynatmoce.2021 .101235		
56	Mukhopadhyay, P., Bechtold, P., Zhu, .Krishna, R. P. M., Kumar, S., Ganai, M., Tirkey, S., Goswami, T., Mahakur, M., Deshpande, M., Prasad, V. S., Johny, C.J., Mitra, A., Ashrit, R., Sarkar, A., Sarkar, S., Roy, K., Andrews, E., Kanase, R., Malviya, S., Abhilash, S., Domkawle, M., Pawar, S. D., Mamgain, A., Durai, V. R., Nanjundiah, R. S., Mitra, A. K., Rajagopal, E. N., Mohapatra, M., & Rajeevan, M. Mechanism for Extreme Rain Events in Kerala, India	Bulletin of the American Meteorological Society, Notes Section, May 2021, https://doi.org/10.11 75/BAMS-D-20- 0094.1	9.384	2021
55	U.N. Athira, S. Abhilash and R.D. Ruchith. Role of unusual moisture transport across Equatorial Indian Ocean on the extreme rainfall event during Kerala flood 2018	Dynamics of Atmospheres and Oceans, 95, https://doi.org/10.10 16/j.dynatmoce.2021 .101225	1.319	2021
54	Mukhopadhyay, P., Bechtold, P., Zhu, Abhilash, S., Domkawle, M., etal. Unravelling the mechanism of extreme (more than 30 sigma) precipitation during August 2018 and 2019 over Kerala, India	Weather and Forecasting https://doi.org/10. 1175/WAF-D-20-0162.1	2.950	2021
53	Sivan. C, V. Rakesh., S. Abhilash. , K. Mohanakumar: Evaluation of Global Reanalysis Winds and High Resolution Regional Model Outputs with the 205 MHz Stratosphere-Troposphere Wind Profiler Radar Observations	Quarterly Journal of the Royal Meteorological Society, https://doi.org/10.1 002/qj.4041	3.471	2021
52	Shahi, N.K., Rai, S., Sahai, A.K., S. Abhilash (2021): Prediction of dominant daily modes of the Indian summer monsoon in the NCEP GFS model.	Meteorol Atmos Phys https://doi.org/10.10 07/s00703-021- 00793-2	2.204	2021
51	Saranya. S, Abhilash. S , Joseph. S, Kaur. M, A. Dey, R. Mandal, R. Phani, R. Chattopadhayay, D. R. Pattanaik and A. K. Ssahai: A review of the development and implementation of a tropical cyclone prediction system for North Indian Ocean in a multimodel ensemble framework	Mausam, 72, 1 (January 2021), 57-76	0.21	2021
50	Sreenath. A. V and Abhilash. S : Convection over the eastern equatorial Indian Ocean and Iranian branch of Asian summer monsoon anticyclone modulates the wet and dry phases of summer monsoon rainfall over Kerala.	Int.J Climatol. , https://doi.org/10.10 02/joc.7042	4.063	2021
49	M. Mohapatra, D.S. Pai, A.K. Saha, S. Abhilash etal : Contribution of Monsoon Mission to operational advances: Short to medium range, extended range and seasonal forecasts.	The CLIVAR Exchanges, DOI: 10.36071/clivar.79.2 020		2020
48	Girish Gopinath, U. Surendran, S. Abhilash etal: Assessment of drought with a real-time web-based application for drought management in humid tropical Kerala, India	Environmental Monitoring and Assessment,DOI:10.1 007/s10661-020- 08665-9	1.903	2020
47	Athira,U. N and S. Abhilash: Ocean-Atmosphere Coupled	Climate Dynamics,	4.486	2020

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	processes in the Tropical Indian Ocean Region prior to Indian Summer Monsoon Onset over Kerala	DOI: 10.1007/s00382-020- 05499-6		
46	Athira,U. N and S. Abhilash and V. sathiyamoorthy: Distinct atmosphere-ocean coupling processes on the onset phase of Indian summer monsoon during 2017 and 2018 as revealed through SCATSAT-1 and its comparison with CFSv2	International Journal of Remote Sensing, DOI: 10.1080/01431161.2 020.1767827	2.976	2020
45	Saranya Ganesh, S., Sahai, A. K., Abhilash, S., Joseph, S., Kaur, M., & Phani, R. (2020). An improved cyclogenesis potential and storm evolution parameter for North Indian Ocean.	Earth and Space Science, doi.org/10.1029/202 0EA001209	2.90	2020
44	Baburaj, P. P., S. Abhilash , etal., : On the epochal variability in the frequency of cyclones during the pre-onset and onset phases of the monsoon over the North Indian Ocean	Adv. Atmos. Sci. doi.org/10.1007/s00 376-020-9070-5	2.583	2020
43	M. Mohapatra, D.S. Pai, A.K. Saha,S. Abhilash etal : Contribution of Monsoon Mission to operational advances: Short to medium range, extended range and seasonal forecasts.	The CLIVAR Exchanges, DOI: 10.36071/clivar.79.2 020		2020
42	Kaur M., Krishna R., Joseph S., D Avijit,, Abhilash S. : Dynamical downscaling of a multi-model ensemble prediction system: Application to tropical cyclones	Atmospheric Science Letters, DOI:10.1002/asl.971	1.879	2020
41	Abhilash S., etal., : Changing Characteristics of Droughts over Kerala, India: Inter-Annual Variability and Trend	Asia-Pacific Journal of Atmospheric Sciences. doi: 10.1007/s13143-018- 0060-9.	1.833	2019
40	Suryachandra A. Rao, B. N. Goswami, A. K. Sahai,S. Abhilash, S., etal.: Monsoon Mission: A Targeted Activity to Improve Monsoon Prediction across Scales	Bull. Amer. Meteor. Soc. doi.org/10.1175/BA MS-D-17-0330.1	9.384	2019
39	R Chattopadhyay, S. Joseph, S. Abhilash, etal., : Understanding the intraseasonal variability over Indian region and development of an operational extended range prediction system	Mausam Vol.70, 1, 31-56	0.278	2019
38	S Joseph, A. K. Sahai, S. Abhilash.: Skill Evaluation of Extended-Range Forecasts of Rainfall and Temperature over the Meteorological Subdivisions of India	Weather and Forecasting DOI: 10.1175/WAF-D-18- 0055.1	2.950	2019
37	A. Dey, R. Chattopadhyay, A. K. Sahai, S. Abhilash , 2: An Operational Tracking Method for the MJO Using Extended Empirical Orthogonal Functions	Pure Appl. Geophys DOI 10.1007/s00024- 018-2066-8	1.460	2018
36	Saranya G. S., Abhilash, S. , et al.: Genesis and track prediction of pre-monsoon Cyclonic Storms over North Indian Ocean in a Multi-Model Ensemble framework	Natural Hazards DOI: 10.1007/s11069-018- 3522-6.	3,656	2018
35	Abhilash S , etal., : Role of Enhanced Synoptic Activity and its Interaction with Intra-seasonal oscillations on the lower extended range prediction skill during 2015 monsoon season	Climate Dynamics DOI: 10.1007/s00382-018- 4089-3.	4.486	2018
34	Saranya G. S., Sahai, A. K., Abhilash, S. , et al. : A new approach to improve the track prediction of tropical cyclones over North	Geophysical Research Letters.	4.5	2018

	Indian Ocean.	doi10.1029/2018GL0 77650.		
33	K. Mohanakumar, K. R. Santosh, P. Mohanan,S. Abhilash: A versatile 205 MHz stratosphere troposphere radar at Cochin – scientific applications	Current Science Vol. 114	0.756	2018
32	N. K. Shahi, Shailendra Rai, A. K. Sahai and S. Abhilash : Intraseasonal variability of the South Asian monsoon and its relationship with the Indo-Pacific sea surface temperature in the NCEP CFSv2	International Journal of Climatology DOI: 10.1002/joc.5349	3.928	2017
31	A.K. Sahai , R Chattopadhyay, Susmitha Joseph, R. Phani and S. Abhilash, 2017: Extended Range Prediction System and its Application	Vayu Mandal, 42(2)		2017
30	P. Vijaykumar, , S. Abhilash , , etal., : Distribution of cloudiness and categorization of rainfall types based on INSAT IR brightness temperatures over Indian subcontinent and adjoining oceanic region during south west monsoon season	Journal of Atmospheric and Solar-Terrestrial Physics DOI:10.1016/j.jastp.2 017.06.017	1.503	2017
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1	Someshwar Das; S. Abhilash and Munmun Das Gupta, 2006: Simulation of Nor'westers using Doppler weather radar wind observations in a mesoscale model.		117/12.6 94006;	2006

13. Outreach Activities:

- 1 Writing a regular column in Mathrubhumi Weekly on "Climate". (കാലാവസ്ഥയെ സംബന്ധിച്ചു ലളിതമായി സാധാരണക്കാരിൽ അവബോധം സൃഷ്ട്ടിക്കുവാൻ മാതൃഭൂമി ആഴ്ലാതിപ്പിൽ ഇടർച്ചയായി ലേഖനം എഴുത്മനം.)
- 2 Attending weather and Climate related debates in various visual media. (കാലാവസ്ഥ സംബന്ധിച്ചു നടക്കുന്ന ചാനൽ ചർച്ചകളിൽ സജ്ജീവമായി പങ്കെടുക്കുന്നം.)

13.1 Popular Articles:

- 1 Abhilash. S, 2019: The Climate Factor, Appeared in Frontline, September 2019.
- 2 **അഭിലാഷ്. എസ്,** പി. വിജയകമാർ, എ.വി.ശ്രീനാഥ്**, 2019: അസ്ഥിരമാകന്ന മൺസൂണം കേരളത്തിലെ അതിതീവ്രമാകന്ന മഴയും.** Appeared in Ezhuthu Magazine Monthly, September 2019.
- 3 അഭിലാഷ്. എസ്, **2019**: കേരളത്തിന്റെ കാലാവസ്ഥാനുഭവങ്ങൾ : മൺസൂൺ മുതൽ മൺസൂൺ വരെ, Appeared in ശാസ്തഗതി (കേരള ശാസ്ത സാഹിത്യ പരിഷദ് പ്രസിദ്ധീകരണം), August 2019.
- 4 അഭിലാഷ്. എസ്**, 2019**: കാലാവസ്ഥാവൃതിയാനത്തിന്റെ രൂക്ഷഫലങ്ങൾ. Appeared in Prasadhakan Monthly, May 2019.
- 5 **അഭിലാഷ്. എസ്, 2019: കാലാവസ്ഥയും ഭൂപ്രകൃതിയും.** Appeared in നമ്മൾ ജനങ്ങൾ (കേരള ശാസ്ത സാഹിത്യ പരിഷദ്, എറണാകളം പ്രസിദ്ധീകരണം), April 2019.
- 6 **അഭിലാഷ്. എസ്, 2018: അതിതീവ്ര മഴയും മനുഷ്യന്റെ കൈയ്യൊപ്പും**: Appeared in **ശാസൂകേരളം** (കേരള ശാസൂ സാഹിത്യ പരിഷദ് പ്രസിദ്ധീകരണം), November 2018.
- 7 അഭിലാഷ്. എസ്, 2018: ഓഖി നൽകന്ന കാലാവസ്ഥാ മാറ്റത്തിന്റെ മുന്നറിയിപ്പ്: Appeared in ശാസ്തൃഗതി (കേരള ശാസ്ത സാഹിത്യ പരിഷദ് പ്രസിദ്ധീകരണം), January 2018.
- 8 അഭിലാഷ്. എസ്, **2017**: ഇനിയും വരും ഇതുപോലെ ചുഴലികൾ: Appeared in മാതൃഭൂമി ആഴ്ചപ്പതിപ്പ്, 2017 December 31.
- 9 **അഭിലാഷ്. എസ്, 2017: മൺസൂൺ പ്രവചനത്തിലെ വെല്ലുവിളികൾ: ശാസ്തകേരളം** (കേരള ശാസ്ത സാഹിത്യ പരിഷദ് പ്രസിദ്ധീകരണം), July 2017.

	Popular Lectu	ures/Invited Talks		
SI. No	Authors & Title	Program and Organizers	Nature of Talk	Date/ Month/Year
154	Abhilash. S "Climate Change and Extinction Crisis"	Refresher Course in Geography for Higher Secondary School Teacher Transformation Programme Geography, organized by Govt College Chittur	Resource Person	01/03/2023
153	Abhilash. S "Climate Change : Redefining our relationship with Nature"	Workshop on Biodiversity organized by St. Xaviers college for Woman, Aluva	Invited Talk	27/02/2023
152	Abhilash. S "Climate Injustice and Equitable Action"	Research forum talk series by Cochin University Research Scholars Association (CURSA), CUSAT	Invited Talk	24/02/2023
151	Abhilash. S " Socioeconomic impacts of climate change and risk reduction"	Faculty Induction Programme organized by UGC-Human Resource Development Centre (HRDC), University of Calicut (Session 2)	Resource Person	23/02/2023
150	Abhilash. S "Monsoon and Tropical Cyclones in a changing climate"	Faculty Induction Programme organized by UGC-Human Resource Development Centre (HRDC), University of Calicut (Session 1)	Resource Person	23/02/2023
149	Abhilash. S "Tracking Extreme Weather events using Satellite and Radar Remotesensing"	Seminar on "Application of geospatial technologies for local self government planing" organized by Kerala State Remotesensing and Environment Center	Invited Talk	13/02/2023
148	Abhilash. S "Role of indigenous knowledge in mitigating climate crisis"	"Mathrubhumi International Literature Festival organized by Mathrubhumi at Trivandrum	Invited Talk	04/02/2023
147	Abhilash. S "The socioeconomic vulnerability of climate change & the relevance of peoplecentered action in risk reduction"	"International Conference on "Policy responses to Disaster Management : Resilience and Recovery" at Department of Sociology, University of Kerala	Invited Talk	03/02/2023
146	Abhilash. S "How to Make Kerala Resilient from Disasters"		Invited Talk	31/01/2023 (AN)
145	Abhilash. S "Climate Change: Challenges and Opportunities"	Albertian Knowledge Summit, organized by Department of Physics, St. Alberts College, Ernakulam	Invited Talk	31/01/2023 (FN)
144	Abhilash. S "Science of Climate Change"	Campaign on Climate change and Kuttanad organized by Kerala Shastra Sahitya Parishad, Alappuzha	Invited Talk	28/01/2023
143	Abhilash. S "Why Southeast Arabian Sea is becoming a hot spot for Severe Cyclonic Storms and Mini-Cloudbursts"	5th International Conference on Disaster, Risk and Vulnerability- 2023 (DRVC 2023) organized by School of Environmental Sciences, Mahatma Gandhi University	Keynote Address	19/01/2023
142	Abhilash. S "Sciences of Climate and Climate Change"	National Workshop Organized by District Institute of Education and	Invited Talk	18/01/2023

		Technology (DIET), Kozhikode		
141	Abhilash. S "Climate Change and Social Vulnerability"	Kerala Literature Fest (KLF- 2023)organized by DC Books Foundation at Calicut	Invited Talk	14/01/2023
140	Abhilash. S "Climate Change Hazard in Kerala and Rsik Reduction"	Young Scholars Meet organized jointly by Kerala Shastra Sahitya Parishad and KILA	Invited Talk	06/01/2023
139	Abhilash. S "Climate Change, Global Warming and Disasters"	Kesari Sahityothswavam, at North Paravoor, Ernakulam	Public Lecture	30/12/2022
138	Abhilash. S "Climate Change and Sustaibaility"	Youth camp Organized by National Service Scheme, at Vennala Govt. Higher Secondry School	Invited Talk	27/12/2022
137	Abhilash. S "Meteorological and Climatological Factors of Landslides"	Annual interdiciplinary accdemic meet on "Landslides" organized by School of Earth System Sciences, Kerala University	Invited Talk	20/12/2022
136	Abhilash. S "Climate Change and Uncertainities: Challenges in Water Resource Management"	National training program on "Climate change and Water Resource Management" organized by CWRDM, Calicut	Invited Talk	19/12/2022
135	Abhilash. S "Likely Impacts of Climate Change in Kerala"	International Climte Conference organized by South Asian People s Action on Climate Crisis (SAPACC) at Calicut	Invited Talk	18/12/2022
134	Abhilash. S "Climate Change and challenges in Numerical Weather Prediction"	Officers trainig program of Greater Noida Productivity Council (GNPC) on ""Climate Change and Atmospheric modelling for Weather forecasting"	Invited Talk	17/12/2022
133	Abhilash. S "Challenges in the monitoring and Prediction of Monsoon"	Faculty Induction Program, organized by UGC-HRD-Calicut University	Resource Person	09/12/2022
132	Abhilash. S "Is Southeast Arabian Sea becoming a hotspot for Deep Convective Clouds and Severe Cyclonic Storms"	Faculty Induction Program, organized by UGC-HRD-Calicut University	Resource Person	08/12/2022
131	Abhilash. S "Climate Action for Cochin City: Issues and Challenges"	Conference on 'Advancing climate action in Kochi, through Institutionalising Ched as Centre for Climate Action' organized by C-HED and WRI	Invited Talk	05/12/2022
130	Abhilash. S "Extreme Events and Health Issues"	5 th Amrita International Public Health Conference organized by Amrita Vishwa Vidhyapeedam	Invited Talk	03/12/2022
129	Abhilash. S "Role of Air-Sea Interaction process on the Onset, Active and Break Phases of the monsoon and its radical Changes during recent Decades"	TROPMET symposium organized by IMS and IISER Bhopal	Invited Talk	29/11/2022
128	Abhilash. S "Impact of Climate Change on Bidiversity and Nature-Based Solutions"	State Youth Conference organized by Green Movement for Kerala and Dynamic Action, Thriuvalla	Invited Talk	27/11/2022
127	Abhilash. S "Impact of Climate Change on Indian Cities: Towards Climate-Just Cochin"	Urban Action School 2022 Towards Climate Just Cities	Invited Talk	22/11/2022

		organized by Action Aid and Rosa Luxemberg at KILA, Thrissur		
126	Abhilash. S "Likely impacts of Climate change in Kerala and possible response through Land use Planning"	Training on "Risk Informed Master Plans for LSGD Planning/DDMA officials in Pamba River Basin" by KILA, LSGD, Thrissur	Invited Talk	17/11/2022
125	Abhilash. S "Climate extremes in Kerala and Role of Decentralized Early Warnings"	National seminar on "Climate change and Agriculture" Organized by Newmans College, Thodupuzha	Invited Talk	16/11/2022
124	Abhilash. S "Role of Decentralized Multi Weather Hazard Early Warning System for Disaster Risk Reduction"	National seminar on "Disaster Risk Reduction" Organized by CWRDM, Calicut	Invited Talk	14/11/2022
123	Abhilash. S "Technological Innovations to Address Climate Change"	Tech-Talent training program for SC/ST students of model residential school organized by State Institute of Education and Technology (SIET), Kerala,	Lead Talk	02/11/2022
122	Abhilash. S "Science of Climate Change"	Climate Change Conference organized by Kerala Shatra Sahitya Parishad, Calicut	Invited Talk	30/10/2022
121	Abhilash. S "Climate crisis and Climate Justice"	Environmental Seminar Organized by Malankara Orthodox Church, Parumala, Kerala	Key note Address	29/10/2022
120	Abhilash. S "Towards creating climate resilient Kochi"	Workshop on Urban Sustainability and Smart City Event organized by India-EU Urban Partnership (IEUP) project	Invited Talk	26/10/2022
119	Abhilash. S "Weather analysis and Forecasting"	"Residential creative workshop for Higher Secondry School Teachers on Kerala School Weather Stations" organized by Samagra Shiksha Kerala	Invited Talk	23/10/2022
118	Abhilash. S "Technology Innovations to meet Climate Challenges"	IEEE Day's theme Theme Talk: "Leveraging Technology for a Better Tomorrow" Organized by IEEE Kerala Section	Invited Talk	04/10/2022
117	Abhilash. S "Montreal Protocol: Global Cooperation Protecting Life on Earth"	Ozone Day Lecture organized by Forestry Club, Govt. HSS, Mukkannur, Aluva	Invited Talk	16/09/2022
116	Abhilash. S "Early Warning for Early Action : Responding to Alerts"	Training to Fire and Rescue Officers, Kerala Fire and Rescue Dept.	Invited Talk	26/08/2022
115	Abhilash. S "Accelerating Extinction Risk due to Climate Change"	Seminar Jointly organized by Dept. of Zoology, Dept. of Chemistry, Dept. of Botany and Breakthrough Science Society at St Teresas College, Ernakulam	Invited Talk	11/08/2022
114	Abhilash. S "Introduction to Meteorology and Weather Prediction"	Webinar organized by CUSAT for Meida	Invited Talk	06/08/2022
113	Abhilash. S "Impact Based Forecast System: Challenges in the prediction of Urban floods and Landslides"	Invited talk in First Kerala State Climate Change Stakeholders Consultation Workshop (KCCSCW- 1) organized by Govt. of Kerala	Invited Talk	02/08/2022

112	Abhilash. S "Challenges for Integrated Early Warnings and Disaster Risk Reduction in a Changing Climate"	Invited talk in Short Term Course on "Disaster Management & Climate Change-I", HRDC, Kannur University	Invited Talk	27/07/2022
111	Abhilash. S "Climate change and Extreme weather events"	Invited talk in Short Term Program on Disaster Management, organized by Human Resource Development Centre, University of Hyderabad	Invited Talk	25/07/2022
110	Abhilash. S "Global warming and Extinction Crisis"	Invited memorial talk in the Kerala Shastra Sahitya Parishad, Malappuram	Invited Talk	15/07/2022
110	Abhilash. S "Climate Change: Challenges & Oppurtunities"	International Symposium on Threat and Mitigation (ISTM-2022) organized by St. Joseph's College Devagiri, Calicut	Invited Talk	07/07/2022
109	Abhilash. S "Climate Emergency: Challenges & Solutions"	Green Kerala Summit organized by SSF Kerala	Invited Talk	26/06/2022
108	Abhilash. S "Earths climate : Past, Present and Future"	Tech Talent program organized by State Insititute of Educational Technology, Govt. of. Kerala	Invited Talk	08/06/2022
107	Abhilash. S "Wreaking Weather Havoc in Kerala & The Climatic Factors"	webinar on World Environment Day 2022 organized by Kerala Law Academy, Thiruvananthapuram	Invited Talk	05/06/2022
106	Abhilash. S "Recent Meterological Disasters in Kerala: The Climate Factors"	National Symposium on Hydrological Impacts of Climate Chanhe and Land Use Change on Water Resources of River Basins in Kerala organized by CWRDM, Calicut	Invited Talk	28/05/2022
105	Abhilash. S "Climate Profile of Kerala: Challenges in Monitoring Prediction and Management"	Presentstion done at Cochin Mayors office in front of the Italian Delegations from Messina City.	Invited Talk	26/05/2022
104	Abhilash. S "Climate change and Existence of Eco-systems"	Innaugural Address in the Annual conference of Kerala Sasthra Sahithya Parishad, Calicut District	Invited Talk	21/05/2022
103	Abhilash. S "People centric Early Wraning Systems"	Training Pogram for Citizen Weather Group at Koipuram Grama Panchayath (LSGD), Koipuram	Invited Talk	17/05/2022
102	Abhilash. S "Climate Change and Challenges in Disaster Management"	Seminar Organized by Bishope Jerome Institute, Kollam	Invited Talk	06/05/2022
101	Abhilash. S "Weather Monitoring and Prediction"	National workshop on "Emerging Trends In Emergency Management", Organized by Kerala Fire and Rescue Sevices , Govt. of Kerala	Invited Talk	29/04/2022
100	Abhilash. S "Understanding Disaster Risk : Cloudburst"	Webinar organized by Sendai Framework for Disaster Risk Reduction by Kerala Disaster Management Authority.	Invited Talk	19/04/2022
99	Abhilash. S "Multi hazard early warning system for recurrent weather extremes over	National seminar on Floods and land slides : Problems of Disaster	Invited Talk	25/03/2022

	Kerala"	prevention and Mitigation in Kerala" organized by Department of Political Science, University of Kerala		
98	Abhilash. S, "Climate Extremes and Adaptation Challenges"	Workshop on "Living with Climate Change: Understanding the impacts of global warming, improvising adaptations and lessening the repercussions through skill training workshop" organized by Fatima Mata National College, Kollam	Invited Talk	12/03/2022
97	Abhilash. S, "Underastanding the Coastal Weather Bulletins and Services"	Training on "Weather and Climate services for Fishers" jointly organized by CUSAT, Sussex University, UK and Radion Monsoon	Lead Talk	12/03/2022
96	Abhilash. S, "Introduction to Climate modeling and Challenges"	Course on "Remote Sensing and GIS for Land and Ocean Observations, and Climate Modelling" organized by KUFOS, Cochin	Lead Talk	11/03/2022
95	Abhilash. S, "Is Southeast Arabian Sea becoming new Hot Spots for Deep Clouds and Severe Cyclonic Storms?"	National E-Symposium on "Changing climate and extreme events: impacts, mitigation & Role of oceans" organized by IMS Pune	Invited Talk	22/02/2022
94	Abhilash. S, "Climate Change & Disaster Management"	Thematic subject presentation in the Young Investers Program (YIP) by Kerala Deevelopment and Innovation Startegy Council (K- DISC)	Invited Talk	25/01/2022
93`	Abhilash. S, "Rapid Arabian Sea Warming and Challenges to Sustainable Marine Ecosystem, Safety and Livelihood of Coastal Communities"	National Seminar On Reorienting the strategies towards sustainable aquaculture and fisheries Organized by Keral University of fisheries and Ocean Studies	Invited Talk	07/01/2022
92	Abhilash. S, "Climate Change and Waste Management"	Seminar on Solid Waste Management organized by Kunnamkulam Municipality	Invited Talk	`29/12/2021
91	Abhilash. S, "Climate change and Extreme weather events"	Short Term Program on Disaster Management organized by Human Resource Development Centre University of Hyderabad	Invited Talk	16/12/2021
90	Abhilash. S, "Global warming and extinction crisis"	Refresher Course in Environmental Studies is organized by the Human Resource Development Centre, Madurai Kamaraj University	Invited Talk	15/12/2021
89	Abhilash. S, "Challenges in Predicting and Managing the Risk of Extreme Weather Events"	International Virtual Symposium on "Outcomes of the Conference of the Parties 26 (COP26), Madurai Kamaraj University	Plenary Talk	11/12/2021
88	Abhilash. S, "Cloudbursts and Cyclones"	Pampamandan, Chenganur	Popular Lecture	08/12/2021
87	Abhilash. S, "Climate change: Science and Environment"	Janasamskriti, New Delhi	Popular Lecture	03/12/2021

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86	Abhilash. S, "Mini Cloudburts: A harbinger of Global Warming Response in Kerala"	The Institute of Engineers, Kochi Chapter	Invited Talk	30/11/2021
85	Abhilash. S, "Climate change and Disaster Risk"	Social Democratic Party of India (SDPI), Kerala	Popular Lecture	27/11/2021
84	Abhilash. S, "Why weather becoming more extreme"	Short term course in Disatser management and Ckimate Change by UGC-HRD, Kannur University	Invited Talk (Resource person)	13/11/2021
83	Abhilash S, " Climate change and Island Protection"	Vypin Block Panchayath	Training for LSGD, Vypin	15/11/2021
82	Abhilash. S, " Cliamte change and Extinction crisis"	FDP on Climate change by University of Delhi	Invited Talk (Resource person)	02/11/2021
81	Abhilash. S, "Climate change and Extreme Weather Events"	Vaikom Management Associaation	Popular Lecture	30/10/2021
80	Abhilash. S, "Climate change: Key messages from IPCC AR6"	Kerala Shastra Sahitya Parishad (KSSP), Calicut	Invited Talk	26/10/2021
79	Abhilash. S, "IPCC AR6: How Kerala should be prepared"	Kerala Shastra Sahitya Parishad (KSSP), Kerala State	Invited Talk	28/09/2021
78	Abhilash. S, "Healing the hole and Climbing up a hill"	Ozone day Celebrations, St. Thomas College, Pathanamthitta	Invited Talk	20/09/2021
77	Abhilash. S, "Uncertainties in Numerical Weather Prediction"	Ozone day Celebrations, ToCH Institute of Science and Technology	Invited Talk	16/09/2021
76	Abhilash. S, "Lessons from Montreal Protocol for Climate Action"	Ozone day Celebrations, University of Kerala	Invited Talk	16/09/2021
75	Abhilash. S, "Climate change, extreme weather events and Challenges in Disaster Risk Reduction"	FDP on Disaster Mangement, MES college, Malpuram	Invited Talk	09/09/2021
74	Abhilash. S, "Weather Forecasting and Weather news"	Workshop, Trivandrum Social Service Society (TSSS)	Invited Talk	04/09/2021
73	Abhilash. S, "Rains and Clouds"	Hume Centre, Wayanad	Children Talk	27/08/2021
72	Abhilash. S, "Climate change and Challenges"	Kerala Shastra Sahitya Parishad (KSSP), Chunakkara	Invited Talk	30/07/2021
71	Abhilash. S, "Global Warming and its Impacts"	Short Term Course on Disaster Management conducted by UGC- Human Resource Development Centre (HRDC), University of Calicut	Invited Talk	26/02/2021
70	Abhilash. S, "Climate Change & Challenges in Attaining Sustainable Development Goals"	Short Term Course on Disaster Management conducted by UGC- Human Resource Development Centre (HRDC), University of Calicut	Invited Talk	03/03/2021
69	Abhilash. S, "Climate change and disaster risk reduction"	Webinar series conducted by M S Swaminathan Botanical Garden	Invited Talk	13/03/2021
68	Abhilash. S, "Climate Change and Extreme Weather Events"	UGC-Human Resource Development Centre (HRDC), Kannur University	Invited Talk	17/03/2021
67	Abhilash. S, "Global warming and Extreme weather events"	Webinar conducted by MES College, Marampally	Invited Talk	04/03/2021

66	Abhilash. S, etal., "The climate factors on the recent extreme rainfall events over Kerala"	Annual Monsoon E-Workshop jointly organized by Indian Meteorological Society and Savitribai Phule Pune University	Invited Talk	18/01/2021
65	Abhilash. S, "Climate change and Extinction cirsis"	High-end workshop on Solar activities and their influences in the Heliosphere and Planetray Atmospheres conducted by National Institute of Technology, Calicut	Invited Talk	10/03/2021
64	Abhilash. S, "State of the atmosphere and atmospheric stability"	Train the trainers program on "know your atmosphere you ive in" conducted by Institute for Advanced Research in Science (IARSc), Bangalore	Invited Talk	27/03/2021
63	Abhilash. S, "Weather systems of Indian region"	Train the trainers program on "know your atmosphere you ive in" conducted by Institute for Advanced Research in Science (IARSc), Bangalore	Invited Talk	03/04/2021
62	Abhilash. S, "Genesis, Evolution and Future Prospects of the Operational Extended Range Prediction System"	Webinar organized by Indian Meteorological Society, Pune	Invited Talk	26/03/2021
61	Abhilash. S, "Science of Climate Change – Past Climate: Howdo we Detect Climate Change"	FDP on Climate Science" organized by School of Evirnonmental Sciences, CUSAT	Invited Talk	09/11/2020
60	Abhilash. S, "Monsoons in a warming Climate & Climate Projections"	FDP on Climate Science" organized by School of Evirnonmental Sciences, CUSAT	Invited Talk	12/11/2020
59	Abhilash. S, etal., "Recent Meterological Disasaters in Kerala: Challenges in Monitoring and Prediction"	Second International ConferenceonDisaster, Risk and Vulnerability-2020 (DRVC 2020)" organized by School of Environmental Sciences, MG University	Invited Talk	09/10/2020
58	Abhilash. S, "Climate change and Environmental Crisis"	At WMO green School and Orphange, Wayanad	Invited Talk	30/09/2020
57	Abhilash. S, "Climate change and Extreme weather events"	Short Term Programme on Disaster Management conducted by UGC- Human Resource Development Centre University of Hyderabad	Invited Talk	09/09/2020
56	Abhilash. S, "Climate change and Extreme weather events"	Short Term Programme on Disaster Management conducted by UGC- Human Resource Development Centre University of Hyderabad	Invited Talk	09/09/2020
55	Abhilash. S, "Extreme weather events over Kerala"	National seminar organized by Geology Department, MES College Ponnani	Invited Talk	17/08/2020
54	Abhilash. S, "Challenges in Predicting High Impact Extreme Weather Events"	Webinar organized by Deaprtment of Climate Sciences, KUFOS, Kerala	Invited Talk	19/08/2020
53	Abhilash. S, "Climate Crisis & Sixth Extinction"	UL Space club	Popular	18/07/2020

			Talk	
52	Abhilash. S, "Climate challenges for Sustainable Development"	Organized by The Department of Economics and Centre for Research, St.Teresa's College	Invited Talk	02/07/2020
51	Abhilash. S, "Climate Change, Global warming; the challenges before Kerala"	World Environment Day Talk, organized by Kerala Labour Movement (KLM)	Invited Talk	07/06/2020
50	Abhilash. S, "Climate change and Environmental Crisis"	Environment Daya Talk, organized by Shreyas, Batherry and Interagency Group	Invited Talk	05/06/2020
49				
48	Abhilash. S, "Role of Ocean in Climate"	Ocean Day Talk, Organized by Kerala University	Invited Talk	08/06/2020
47	Abhilash. S, "Respect our Oceans & Protect Life on Earth"	Ocean Day Talk, Organized by Centre for Marine Living Resources and Ecology (CMLRE), Ministry of Earth Sciences, Kochi	Invited Talk	08/06/2020
46				
45	Abhilash. S, "Climate change and Extinction threat"	Earth Day Talk, Organized by Kerala Shastra Sahitya Parishad	Popular Talk	22/04/2020
44	Abhilash. S, "Accelerated hydrological cycle under warming climate and Role of extended range prediction system"	International Conference on Impact of Climate Change on Hydrological Cycle and Ecosystem, Fisheries and Food Security, organized by School of Industrial Fisheries, CUSAT	Invited Talk	11/02/2020
43	Abhilash. S , "Can Climate Crisis Drives Sixth Mass Extinction"	Seminar on "National Seminar on Scientific Solutions for Sustainable Rebuilding of Kerala in the Post Flood Scenario", organized by IQAC, Bishop Moore College, Mavelikara	Invited Talk	09/01/2020
42	Abhilash. S, "Climate Change & Challenges in Attaining Sustainable Development Goals"	Seminar on Teaching Sciences in the Amidst of Calamities organized by IQAC, Sree Snkara College, Kalady	Invited Talk	31/12/2019
41	Abhilash. S, "Climate change analysis and projections for Local action plan"	National Workshop on Local Action Plan on Climate Change organized by KILA	Invited talk	29/10/2019
40	Abhilash. S, "Climate Change & Challenges in Weather Prediction"	Physics Association Inauguration of Ansar Women's College, Thrissur	Invited Talk	16/10/2019
39	Abhilash. S, "Environment, Climate Change and Capitalistic Development"	AIPSN Southern Regional Cadre Camp, Integrated Rural Technology Center (IRTC), Palakkad	Invited Talk	13/10/2019
38	Abhilash. S, "Extreme Weather events and Challenges in Weather Prediction"	National Seminar on Interdisciplinary Advancements in Physics, Government College for Women, Thiruvanathapuram	Invited Talk	10/10/2019
37	Abhilash. S, "Climate change and Water Cycle"	Nirmala College, Moovattupuzha	Invited Talk	03/10/2019
36	Abhilash. S, "Ozone and Climate Change"	Ozone day Celebrations, MES Ponnani College, Ponnani	Invited Talk	01/10/2019
35	Abhilash. S, "Climate Change and Climate Extremes over Kerala"	Global Climate Strike organized by March for Science in solidarity with	Popular Talk	28/09/2019

		Global Climate Strike at Trivandrum		
34	Abhilash. S, "World Ozone Day: 32 years and	Ozone Day Celebrations, MES	Invited	24/09/2019
	Healing"	Asmabi College, Kodungalur	Talk	
33	Abhilash. S, "Climate Change and Global	Ozone Day Celebrations, MA	Invited	26/09/2019
	Warming"	College, Kothamangalam	Talk	
32	Abhilash. S, Role of Aerosols in Modulating the	National Seminar, School of	Invited	04/09/2019
	weather and Climate over Indian Region	Environmental Sciences, MG	Talk	
		University, Kottayam		
31	Abhilash. S, "Changing climate and Disasters in	Talk delivered in the nature camp	Invited	03/08/2019
	Kerala"	organized by Deshabhimani,	Talk	
		Wyanadu		
30	Abhilash. S, Climate change and Increasing	SNM College, Malliankara	Invited	29/08/2019
	Climate Extremes over Kerala		Talk	
29	Abhilash. S, "Land use and land cover in a	Kerala Shatra Sahitya Parishad,	Invited	04/05/2019
	changing climate"	Malappuram Dirtict	Talk	
28	Abhilash. S, "Wetlands, their importance & role	World Wetlands Day, at Bharatha	Invited	02/02/2019
	in global climate change"	Matha College, Thrikkakara, Cochin	Talk	
27	Abhilash. S, "Climate change and wetlands"	National Seminar on "Wetland	Invited	01/02/2019
		Conservation", Kerala Agricultural	Talk	
		University, Thrissur		
26	Abhilash. S, "Multi-Scale Variability of Clouds and	International conference on	Invited	18/01/2019
	Convection over Indian Region and its	thunderstorm & lightning in	Talk	
	Representation in Models"	tropics, Organized by Odisha State		
		Disaster Management Authority		
		(OSDMA) and Siksha 'O'		
		Anusandhan (SOA) University		10/01/0010
25	Abhilash. S, "Challenges in the Prediction and	National Seminar On Natural	Invited	10/01/2019
	Management of Climate Extremes and	Disasters & Management Strategies	Talk	
	Associated Disasters"	at Carmel Polytechnic College,		
24	Abhilash. S, "Challenges in water management	Alappuzha Brainstorming workshop on Kerala	Invited	14/09/2018
24	between two Climate Extremes"	flood - 2018 causes, preparedness	Talk	14/09/2016
	Detween two climate Extremes	& mitigation measures held at	I alk	
		Water Resources Development and		
		Management (CWRDM), Kozhikode		
23	Abhilash. S, "Climate extremes and Challenges in	Seminar Organized by Kerala Media	Invited	02/10/2018
20	the Prediction"	Academy and Network of Woman	Talk	02, 10, 2010
	and i rediction	in Media, India at Kerala Media	Tunk	
		Academy, Cochin		
22	Abhilash. S, "Extreme climate events in	Organized by Metro Film Society	Invited	20/10/2018
	Kerala and increasing disasters"	and Vinodha Vayanasala, Cochin	Talk	
21	Abhilash. S, Extreme weather events and	Organized by Kerala Historical	Invited	13/10/2018
	erratic weather in Kerala"	Research Society, Thrisssur	Talk	
20	Abhilash. S, "Climate disasters and	Organized by Marxist	Invited	2018
	solutions"	Samskarika Vedi, Vallikunnu,	Talk	2010
	SOLUTION	, , ,		
10	Abbileah C UCudanania Bu U U	Malapuram.	المدائلة - ا	20/05/2040
19	Abhilash. S, "Cyclogenesis Prediction	National Workshop on Small-scale	Invited	29/05/2018
	Approaches"	Fisheries, Cyclone Ockhi and	Talk	
		Disaster Risk Management,		
		conducted by International		
		Collective in Support of Fishworkers		

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18	Abhilash. S, Recent and Historic Drought of Kerala: Climate change perspectives and possible	(ICSF) Trust National Seminar on Natural Resources Management for	Invited Talk	16/03/2018
	future scenarios	Horticultural Crops under Changing Climatic Conditions (NRMHCCC), Organized by Centre for Water Resources Development and Management (CWRDM), Kozhikode	Taik	
17	Abhilash. S, " Climate Services for sustainable ecosystem"	World Environment Day, Kerala Agricultural University, Thrissur	Invited Talk	05/06/2018
16	Abhilash. S, "The role of Satellite Technology in disaster management and sustainable development"	National Science Day Celebrations- 2018, SNM College, Maliankara, Ernakulam	Invited Talk	28/02/2018
15	Abhilash. S, "Severe Cyclone Ockhi : Facts and Reality",	Sastrayaan, Conducted by Cochin University of Science and Technology.	Invited Talk	27/02/2018
14	Abhilash. S, "Application of Satellite based Remotesensing for Sustainable Marine Eco- System"	Prof. C. T. Mathew Endowment Lecture delivered at Mar Thoma College, Thiruvalla	Invited Talk	16/01/2018
13	Abhilash. S, " World Ozone Day 2017: Celebrating 30 years of the Montreal Protocol "	Ozone day Special lecture delivered at Sree Narayana College, Chempazhanthy, Thiruvananthapuram.	Invited Talk	16/09/2017
12	Abhilash. S, "UNDERSTANDING CLOUDS "	WMO day Special lecture delivered at School of Naval Oceanography and Meteorology, Indian Navy, INS Kochi	Invited Talk	23/03/2017
11	Abhilash. S, A. K. Sahai, K. Mohankumar, John P George and Someshwar Das, "Assimilation of Doppler Weather Radar Radial Velocity and Reflectivity Observations in WRF-3DVAR System for Short-Range Forecasting of Convective Storms"	Indian Radar Conference, iRAD— 2017 organized at IIT Kharagpur	Invited Talk	08/01/2017
10	Abhilash. S, "Changes in the Characteristics of Rainfall over Kerala with Special Reference to Recent Historic Drought Event"	Indo-Dutch International conference in Climate and Atmospheric Sciences & Applications" organized at IIT Delhi	Invited Talk	20/02/2017
9	Abhilash. S, "The role of Meteorology in Urban Planning and Identifying the Renewable energy potential in and around Kochi"	Smart Cities Workshop, Organised by Heidelberg University, Germany and CUSAT	Invited Talk	11/08/2016
8	Abhilash. S, M. Raju, Dey Avijith, Susmitha Joseph, R. Cahttopadyay, R. Phani, S. De, A.K. Sahai, "Role of Enhanced Synoptic Activity and its Interaction with Intra-seasonal oscillations on the lower extended range prediction skill during 2015 monsoon season"	CLIVAR Open Science conference organized by World Climate Research Program (WCRP), Qingdao, China	Invited Talk	18/09/2016
7	Abhilash.S, M.R. Ramesh Kumar and K. R. Baiju, "Linking the climate change induced stress to Marine Productivity and Eco-systems over North Indian Ocean"	4th Retreat of Belmont Forum Research Project Adaptation Research: A Trans-Disciplinary, Transnational, Community and Policy Centred Approach (ARTISTICC) jointly organized by	Invited Talk	05/10/2016

		School of Industrial Fisheries, CUSAT and Belmont Forum		
6	Abhilash. S, "Climate in Kerala : Forecast"	Workshop on climate variability in Kerala: climate change perspectives, organized by Institute for Climate Change Studies	Invited Talk	21/11/2016
5	Abhilash. S, Shailendra Rai, Attada Raju, Muni Krishna, "Exploring S2S Data in Predicting High Impact Weather Events over Indian Region During 2015 Monsoon Season"	Workshop on "Sub seasonal to Seasonal (S2S) Prediction" at ITCP, Trieste, Italy	Contribut ory Talk	04/12/205
4	Abhilash S., Sahai A.K., Borah N., Chattopadhyay R., Joseph S., Sharmila S., B. E. Mapes, M. Rajeevan and A. Kumar, "Development of CFS based Grand Ensemble Prediction System for the Extended Range Forecasting of Indian Summer Monsoon"	American Meteorological Society Annual Meeting, in Phoenix, AZ. USA	Contribut ory Talk	04/01/2015
3	Abhilash S., Sahai A.K., Borah N., Chattopadhyay R., Joseph S., Sharmila S., De S., Goswami B.N, "Prediction and monitoring of Monsoon Intraseasonal Oscillations"	5th International Workshop on Monsoon (IWM-V), Macao, China	Invited Talk	29/10/2015
2	Abhilash S., Sahai A.K., Borah N., Chattopadhyay R., Joseph S., Sharmila S., B. E. Mapes, "Extended-range Forecasting at the Indian Institute of Tropical Meteorology"	17th CMMAP Team Meeting, Fortcollins, Colorado, USA	Invited Talk	06/08/2014
1	Abhilash S., Sahai A.K., Borah N., Chattopadhyay R., Joseph S., Sharmila S, "Extended range weather forecast for AAS"	7th Annual Review Meeting (ARM) of the project on "Integrated Agromet Advisory Service" organized by India Meteorological Department at Maharana Pratap University of Agriculture and Technology, Udaipur	Invited Talk	22/11/2013