



सत्यमेव जयते

पृथ्वी विज्ञान मंत्रालय  
**MINISTRY OF EARTH SCIENCES**

शोध पत्रों का प्रकाशन  
**Publications of Research Papers  
2019**

पृथ्वी विज्ञान मंत्रालय  
**Ministry of Earth Sciences**

भारत सरकार

**Government of India**

पृथ्वी भवन, लोधी रोड  
Prithvi Bhawan, Lodhi Road

नई दिल्ली - 110003

New Delhi - 110003

website: [www.moes.gov.in](http://www.moes.gov.in)

The Ministry of Earth Sciences (MoES), Government of India, is mandated to provide services for weather, climate, ocean and coastal state, hydrology, seismology, and natural hazards; to explore and harness marine living and non-living resources in a sustainable manner for the country and to explore the Arctic, Antarctic and the Himalayas. The MoES implements the various programs through the following schemes:

Scheme Name	Abbreviation
ACROSS	Atmospheric, Climate Science and Services
O-SMART	Ocean - Services, Modelling, Application, Resources and Technology
PACER	Polar Science and Cryosphere Research
SAGE	Seismology and Geosciences
REACHOUT	Research, Education, Training and Outreach
DOM	Deep Ocean Mission

The MoES is network of the following institutes:

Abbreviation	Institute Name	Location	Website
Subordinate Offices			
IMD	India Meteorological Department	New Delhi	<a href="https://mausam.imd.gov.in/">https://mausam.imd.gov.in/</a>
NCMRWF	National Centre for Medium Range Weather Forecasting	Noida, Uttar Pradesh	<a href="https://www.ncmrwf.gov.in/">https://www.ncmrwf.gov.in/</a>
Attached Offices			
CMLRE	Centre for Marine Living Resources & Ecology	Kochi, Kerala	<a href="https://www.cmlre.gov.in/">https://www.cmlre.gov.in/</a>
NCS	National Center for Seismology	New Delhi	<a href="https://seismo.gov.in/">https://seismo.gov.in/</a>
NCCR	National Centre for Coastal Research	Chennai, Tamil Nadu	<a href="https://www.nccr.gov.in/">https://www.nccr.gov.in/</a>
Autonomous			
NCPOR	National Centre for Polar and Ocean Research	Goa	<a href="https://ncpor.res.in/">https://ncpor.res.in/</a>
INCOIS	Indian National Centre for Ocean Information Services	Hyderabad, Telangana	<a href="https://incois.gov.in/">https://incois.gov.in/</a>
IITM	Indian Institute of Tropical Meteorology	Pune, Maharashtra	<a href="https://www.tropmet.res.in/">https://www.tropmet.res.in/</a>
NIOT	National Institute of Ocean Technology	Chennai, Tamil Nadu	<a href="https://www.niot.res.in/">https://www.niot.res.in/</a>
NCESS	National Centre for Earth Science Studies	Thiruvananthapuram, Kerala	<a href="https://www.ncess.gov.in/">https://www.ncess.gov.in/</a>

**Note:** The Ministry of Earth Sciences uploads year-wise publications on its website at [www.moes.gov.in/publication](http://www.moes.gov.in/publication) which is a curated list of publications and journal titles. The publications enlisted in this document are already available individually in the public domain. These have been published after a rigorous international peer review process by domain experts. The primary objective of uploading a summarised year-wise list of publications is to provide the public and scholars with a ready summary list of academic journals that may offer valuable and credible sources for their research and reference

## MoES Publications 2019

	ACROSS	OSMART	PACER	SAGE	TOTAL
<b>Total no. of Publications</b>	257	101	40	28	<b>426</b>

### ACROSS (IITM+IMD+NCMRWF)

1.	Aas W., Mortier A., Bowersox V., Cherian R., Faluvegi G., Fagerli H., Hand J., Klimont Z., Galy-Lacaux C., Lehmann C.M.B., Myhre C.L., Myhre G., Olivie D., Sato K., Quass J., Rao P.S.P., et.al., 2019, Global and regional trends of atmospheric sulfur, <b>Scientific Reports</b> , 9:953, DOI:10.1038/s41598-018-37304-0, 1-11
2.	Abhilash S., Krishnakumar E. K., Vijaykumar P., Sahai A.K., B. Chakrapani B., Gopinath G., 2019, Changing characteristics of droughts over Kerala, India: Inter-annual variability and trend, <b>Asia-Pacific Journal of Atmospheric Sciences</b> , 55, DOI:10.1007/s13143-018-0060-9, 1-17
3.	Acharya R. Chattopadhyay S., 2019, OMNI (Ocean Moored buoy Network for northern Indian Ocean Buoy System - A critical component of ocean observational programme of ESSO Earth System Science Organization, Ministry of Earth Sciences, Government of India, <b>Journal of Indian Geophysical Union</b> , 23, 1, 101-105.
4.	Ali K., Acharja P., Trivedi D.K., Kulkarni R., Pithani P., Safai P.D., Chate D.M., Ghude S., Jenamani R.K., Rajeevan M., 2019, Characterization and source identification of PM2.5 and its chemical and carbonaceous constituents during Winter Fog Experiment 2015-16 at Indira Gandhi International Airport, Delhi, <b>Science of the Total Environment</b> , 662, DOI:10.1016/j.scitotenv.2019.01.285, 687-696
5.	Ali K., Trivedi D.K., Chate D.M., Beig G., Acharja P., Trimbake H.K., 2019, PM2.5, PM10 and surface ozone over Lumbini Protected Zone, Nepal, during monsoon season of 2012, <b>Journal of Earth System Science</b> , 128:88, DOI:10.1007/s12040-019-1118-5, 1-13
6.	Allis E., Thépaut J-N, Buontempo C., Kolli R.K., Okia W.M., Arheimer B., Ali A., Dehaspe J., Birkel C., 2019, Copernicus joining forces with WMO on GFCS, <b>WMO Bulletin</b> , 68, 5-13
7.	Anand V., Korhale N., Rathod A., Beig G., 2019, On processes controlling fine particulate matters in four Indian megacities, <b>Environmental Pollution</b> , 254:113026, Pt. A, DOI:10.1016/j.envpol.2019.113026, 1-5
8.	Andrea I Flossmann., Manton Michael, Ali Abshaev, Brintjes Roelof, Murakami Masataka, Prabhakaran Thara, Yao Zhanyu, 2019, Review of Advances in Precipitation Enhancement Research, <b>Bulletin of the American Meteorological Society</b> , 100, DOI:10.1175/BAMS-D-18-0160.1, 1465-1480
9.	Araujo-Pradere E., Weatherhead E., Dandenault P.B., Bilitza D., Wilkinson P., Coker C., Akmaev R., Beig G., et.al., 2019, Critical Issues in Ionospheric Data Quality and Implications for Scientific Studies, <b>Radio Science</b> , 54, DOI:10.1029/2018RS006686, 1-15
10.	Arora A., Siddharth Kumar, 2019, What makes protracted El Niño to last longer than canonical El Niño?, <b>Theoretical and Applied Climatology</b> , 136, DOI:10.1007/s00704-018-2503-8, 587-603
11.	Attada R., Dasari H.P., Chowdary J.S., Yadav R.K., Knio O., Hoteit I., 2019, Surface air temperature variability over the Arabian Peninsula and its links to circulation patterns, <b>International Journal of Climatology</b> , 39, DOI:10.1002/joc.5821, 445-464

12.	Attada R., Parekh A., Ravi Kumar K., Nagaraju C., Chowdary J.S., Rao Nagarjuna D., Evaluation of Upper Tropospheric Humidity in WRF Model during Indian Summer Monsoon, <b>Asia-Pacific Journal of Atmospheric Sciences</b> , 55, November 2019, DOI:10.1007/s13143-018-0090-3, 575-588
13.	Bajaj K., Thomas R., Yadav A., Datye A., Chakraborty S., 2019, Hydrological linkages between different water resources from two contrasting ecosystems of western peninsular India: a stable isotope perspective, <b>Isotopes in Environmental and Health Studies</b> , , DOI:10.1080/10256016.2019.1666121, 1-19
14.	Bal P.K., Mitra A.K., 2019, Summer Monsoon Climate Simulations over BIMSTEC Countries Using RegCM4 Regional Climate Model, <b>Journal of Earth System Science</b> , 128:173
15.	Balaji B., Paul B., Banerjee D.S., Sanikommu S., Paul A., 2019, Ensemble based regional ocean data assimilation system for the Indian Ocean: Implementation and evaluation, <b>Ocean Modelling</b> , 143: 101470, DOI:10.1016/j.ocemod.2019.101470, 1-18
16.	Balakrishnan K., Dey S., Gupta T., Dhaliwal R.S., Brauer M., Cohen A.J., Stanaway J.D., Beig G. et.al. India State-Level Disease Burden Initiative Air Pollution Collaborators, 2019, Impact of air pollution on deaths, disease burden, and life expectancy across the states of India: the Global Burden of Disease Study 2017, <b>Lancet</b> , 3, DOI:10.1016/S2542-5196(18)30261-4, e26-e39
17.	Banerjee P., Satheesh S.K., Krishna Moorthy K., Nanjundiah R.S., Nair V.S., 2019, Long-range transport of mineral dust to the Northeast Indian Ocean: Regional versus remote sources and the implications, <b>Journal of Climate</b> , 32, DOI:10.1175/JCLI-D-18-0403.1, 1525-1549
18.	Barton E.J., Taylor C.M., Parker D.J., Turner A.G, Belusic D., Boing S.J., Brooke J.K., Harlow R.C., Harris P.P., Hunt K., Jayakumar A., Mitra A.K., 2019, A case study of land-Atmosphere coupling during monsoon onset in Northern India, <b>Quarterly Journal of the Royal Meteorological Society</b> , DOI:10.1002/qj.3538.
19.	Beig G., Srinivas R., Parkhi N.S., Carmichael G.R., Singh S., Sahu S.K., Rathod A., Maji Sujit, 2019, Anatomy of the winter 2017 air quality emergency in Delhi, <b>Science of the Total Environment</b> , 681, DOI:10.1016/j.scitotenv.2019.04.347, 305-311
20.	Benke M., Takle J., Pai D.S., Rao Suryachandra A., 2019, Analysis of Monsoon Mission Coupled Forecasting System (MMCFS) model simulations of sub-division scale temperatures over India for the hot weather season (April–June), <b>Journal of Earth System Science</b> , 128: 182, DOI:10.1007/s12040-019-1178-6, 1-22
21.	Bera S., Prabha T.V., 2019, Parameterization of entrainment rate and mass-flux in continental cumulus clouds: Inference from large eddy simulation, <b>Journal of Geophysical Research: Atmospheres</b> , DOI:10.1029/2019JD031078, 1-13
22.	Bera S., Prabha T.V., Malap N., Patade S., Konwar M., Murugavel P., Axisa D., 2019, Thermodynamics and microphysics relation during CAIPEEX-I, <b>Pure and Applied Geophysics</b> , DOI:10.1007/s00024-018-1942-6, 1-18
23.	Bhan S.C., Shankar Anand, Mishra R., Shilpashree G.S., 2020, Meteorological conditions Associated with AES/JE Outbreak 2019 in Bihar, <b>Indian Journal of Public Health Research and Development</b> , 11, 7, 765-771
24.	Bikkina S., Andersson A., Kirillova E.N., Holmstrand H., Tiwari Suresh, Srivastava A.K., Bisht D.S., Gustafsson A., 2019, Air quality in megacity Delhi affected by countryside biomass burning, <b>Nature Sustainability</b> , 2, DOI:10.1038/s41893-019-0219-0, 200-205
25.	Biswas M.S., Ghude S.D., Gurnale D., Thara Prabhakaran, Mahajan A.S., 2019,

	Simultaneous observations of nitrogen dioxide, formaldehyde and ozone in the Indo-Gangetic Plain, <b>Aerosol and Air Quality Research</b> , 19, DOI: 10.4209/aaqr.2018.12.0484, 1749-1764
26.	Brunamonti S., Füzér L., Jorge T., Poltera Y., Oelsner P., Meier S., Dirksen R., Naja M., Fadnavis S., Karmacharya J., Wienhold F.G., Luo B.P., Wernli H., Peter T., 2019, Water vapor in the Asian summer monsoon anticyclone: Comparison of balloon-borne measurements and ECMWF data, <b>Journal of Geophysical Research: Atmospheres</b> , 124, July 2019, DOI:10.1029/2018JD030000, 7053-7068
27.	Buchunde P., Safai P.D., Mukherjee S., Leena P.P., Siingh D., Meena G.S., Pandithurai G., 2019, Characterisation of particulate matter at a high-altitude site in southwest India: Impact of dust episodes, <b>Journal of Earth System Science</b> , 128:237, DOI:10.1007/s12040-019-1265-8, 1-18
28.	Bushair M.T., Prashant Kumar, Gairola R.M., 2019, Evaluation and assimilation of various satellite-derived rainfall products over India, <b>International Journal of Remote Sensing</b> , 40, 14, 5315-5338.
29.	Chance R.J., Tinel L., Sherwen T., Baker A.R., Bell T., Brindle J., Campos M.L.A.M., Croot P., Ducklow H., Peng He, Hopkins F., Hoogakker B., Hughes C., Jickells T.D., Loades D., Macaya D.A.R., Mahajan A.S., Malin G., Phillips D., Roberts I., Roy R., Sarkar A., Sinha A.K., Song X., Winkelbauer H., Wuttig K., Yang M., Peng Z., Carpenter L.J., 2019, Global sea-surface iodide observations, 1967–2018, <b>Scientific Data</b> , 6:286, DOI:10.1038/s41597-019-0288-y, 1-8
30.	Chattopadhyay N., Sahai A.K., Guhathakurta P., Dutta S., Srivastava A.K., Attri S.D., Balasubramanian R., Malathi K., Chandras S., 2019, Impact of observed climate change on the classification of agroclimatic zones in India, <b>Current Science</b> , 117, DOI: 10.18520/cs/v117/i3/480-486, 480-486
31.	Chattopadhyay R., Joseph S., Abhilash S., Mandal R., Dey A., Phani R., Ganesh S., Kaur M., Pattanaik D.R., Sahai A.K., 2019, Understanding the intraseasonal variability over Indian region and development of an operational extended range prediction system, <b>Mausam</b> , 70, 31-56
32.	Chattopadhyay R., Dixit S.A., Goswami B.N., 2019, Modal Rendition of ENSO Diversity, <b>Scientific Reports</b> , 9:14014, DOI:10.1038/s41598-019-50409-4, 1-11
33.	Chattopadhyay R., Thomas A., Phani R., Joseph S., Sahai A.K., 2019, Study on the capability of the NCEP-CFS model in simulating the frequency and intensity of high-intensity rainfall events over Indian region in the high and low resolutions, <b>Modeling Earth Systems and Environment</b> , 5, DOI:10.1007/s40808-018-0520-3, 85-100
34.	Chaudhari H.S., Hazra A., Pokhrel S., Saha Subodh Kumar, Taluri S.S., 2019, Simulation of extreme Indian summer monsoon years in Coupled Model Intercomparison Project Phase 5 models Role of cloud processes, <b>International Journal of Climatology</b> , 39, DOI:10.1002/joc.5851, 901-920
35.	Choudhury B.A., Saha Subodh Kumar, Konwar M., Sujith K., Deshamukhya A., 2019, Rapid drying of Northeast India in the last three decades: Climate change or natural variability?, <b>Journal of Geophysical Research</b> , 124, DOI:10.1029/2018JD029625, 227-237
36.	Chowdary J.S, Hu K., Srinivas G., Kosaka Y., Wang L., Koteswara Rao K., 2019, Eurasian jet streams as conduits for East Asian monsoon variability, <b>Current Climate Change Reports</b> , 5, DOI: 10.1007/s40641-019-00134-x, 233-244
37.	Chowdary J.S., Patekar D., Srinivas G., Gnanaseelan C., Parekh A., 2019, Impact of the Indo-Western Pacific Ocean Capacitor mode on South Asian summer monsoon rainfall, <b>Climate Dynamics</b> , 53, August 2019, DOI:10.1007/s00382-019-04850-w, 2327-2338

38.	Chowdary J.S., Srinivas G., Du Y., Gopinath K., Gnanaseelan C., Parekh A., Singh P., 2018, Month-to-month variability of Indian summer monsoon rainfall in 2016: role of the Indo-Pacific climatic conditions, <b>Climate Dynamics</b> , DOI:10.1007/s00382-018-4185-4, 1-15
39.	Chowdhuri Subharthi, McNaughton K.G., Prabha T.V., 2019, Empirical scaling analysis of heat and momentum cospectra above the surface friction layer in a convective boundary layer, <b>Boundary Layer Meteorology</b> , 170, DOI:10.1007/s10546-018-0397-8, 257-284
40.	Chowdhuri Subharthi, Prabha T.V., 2019, Evaluation of the dissimilarity in heat and momentum transport through quadrant analysis for an unstable atmospheric surface layer flow, <b>Environmental Fluid Mechanics</b> , 19, DOI:10.1007/s10652-018-9636-2, 513-542
41.	Courtney J.B., Langlade S., Sampson C.R., Knaff J.A., Birchard T., Barlow S., Kotal S.D., Kriat T., Lee W., Pasch R., Shimada U., 2019, Operational Perspectives on Tropical Cyclone Intensity Change Part-1 Recent Advances in intensity guidance, <b>Tropical Cyclone Research &amp; Review</b> , 8, 3, 123-133.
42.	Danish M., Tripathy G.R., Panchang R., Gandhi N., Prakash S., 2019, Dissolved boron in a brackish-water lagoon system (Chilika lagoon, India): Spatial distribution and coastal behaviour, <b>Marine Chemistry</b> , 214:103663, DOI:10.1016/j.marchem.2019.103663, 1-13
43.	Das A.K., Kundu P.K., Bhowmik S.K.R., Rathee M., 2019, Performance evaluation of WRF model with different cumulus parameterizations in forecasting monsoon depressions, <b>Mausam</b> , 70, 3, 501-522.
44.	Das S.K., Kolte Y., Murali Krishna U.V., Deshpande S.M., Jha A.K., Pandithurai G., 2019, Estimation of layer-averaged rain rate from zenith pointing Ka-band radar measurements using attenuation method, <b>IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing</b> , 12, DOI:10.1109/JSTARS.2019.2929327, 3178 - 3183
45.	Das S.S., Suneeth K.V., Ratnam M.V., Girach I. A., Das Subrata Kumar, 2019, Upper tropospheric ozone transport from the sub-tropics to tropics over the Indian region during Asian summer monsoon, <b>Climate Dynamics</b> , 52, DOI:10.1007/s00382-018-4418-6, 4567-4581
46.	Dasari S., Andersson A., Bikkina S., Holmstrand H., Budhavant K., Satheesh S., Asmi E., Kesti J., Backman J., Salam A., Bisht D.S., Tiwari S., Hameed Z., Gustafsson O., 2019, Photochemical degradation affects the light absorption of water-soluble brown carbon in the South Asian outflow, <b>Science Advances</b> , 5, DOI: 10.1126/sciadv.aau8066, 1-11
47.	De S., Agarwal N.K., Hazra A., Chaudhari H.S., Sahai A.K., 2018, On unravelling mechanism of interplay between cloud and large scale circulation: a grey area in climate science, <b>Climate Dynamics</b> , DOI:10.1007/s00382-018-4211-6, 1-22
48.	De S., Sahai A.K., 2019, Was the earliest documented account of tornado dynamics published by an Indian scientist in an Indian journal, <b>Weather</b> , 10:1002, DOI:10.1002/wea.3485, 1-4
49.	Deb Burman P.K., Sarma D., Morrison R., Karipot A., Chakraborty S., 2019, Seasonal variation of evapotranspiration and its effect on the surface energy budget closure at a tropical forest over north-east India, <b>Journal of Earth System Science</b> , 128:127, DOI: 10.1007/s12040-019-1158-x, 1-21
50.	Debnath G.C., Das G.K., Devi S.S., Singh C., 2019, Summer monsoon onset over Andaman & Nicobar Islands Objective criteria for operational forecaster, <b>Mausam</b> , 70, 1, 121-132.
51.	Deep A., Pandey C.P., Nandan H., Purohit K.D., Singh N., Singh J., Srivastava A.K., Ojha N., 2019, Evaluation of ambient air quality in Dehradun city during 2011-2014 , <b>Journal of Earth System Science</b> , 128:96, DOI:10.1007/s12040-019-1092-y, 1-14
52.	Deepa J.S., Gnanaseelan C., Mohapatra S., Chowdary J.S., Karmakar A., Kakatkar R., Parekh A., 2019, Tropical Indian Ocean decadal sea level response to the Pacific Decadal Oscillation

	forcing, <b>Climate Dynamics</b> , 52, DOI:10.1007/s00382-018-4431-9, 5045-5058
53.	Devara P.C.S., Vijayakumar K., Sonbawne S.M., Giles D.M., Holben B.N., Rao S.V.B., Jayasankar C.K., 2019, Study of aerosols over Indian subcontinent during El Nino and La Nina events: Inferring land-air-sea interaction, <b>International Journal of Environmental Sciences and Natural Resources</b> , 16:555948, DOI:10.19080/IJESNR.2019.16.555948
54.	Devaraj S., Tiwari S., Ramaraju H.K., Dumka U.C., Sateesh M., Parmita P., Shivashankara G.P., 2019, Spatial and temporal variation of atmospheric particulate matter in Bangalore: A technology-intensive region in India, <b>Archives of Environmental Contamination and Toxicology</b> , 77, DOI:10.1007/s00244-019-00643-8, 214-222
55.	Devisetty H.K., Jha A.K., Das S.K., Deshpande S.M., Murali Krishna U.V., Prasad M.K., Pandithurai G., 2019, A case study on bright band transition from very light to heavy rain using simultaneous observations of collocated X- and Ka-band radars, <b>Journal of Earth System Science</b> , 128:136, DOI:10.1007/s12040-019-1171-0, 1-10
56.	Dey Avijit, Chattopadhyay R., Sahai A.K., Mandal R., Joseph S., Phani R., Abhilash S., 2019, Operational tracking method for the MJO using Extended Empirical Orthogonal Functions, <b>Pure and Applied Geophysics</b> , 176, DOI:10.1007/s00024-018-2066-8, 2697-2717
57.	Dhangar N., Vyas S.S., Guhathakurta P., Mukim S., Balasubramanian R., Chattopadhyay N., 2019, Drought monitoring over India using multi-scalar standardized precipitation evapotranspiration index, <b>Mausam</b> , 70, 4, 833-840.
58.	Dhar R.B., Chakraborty S., Chattopadhyay R., Sikdar P.K., 2019, Impact of land-use/land-cover change on land surface temperature using satellite data: A case study of Rajarhat Block, North 24-Parganas District, West Bengal, <b>Journal of the Indian Society of Remote Sensing</b> , 47, DOI:10.1007/s12524-019-00939-1, 331-348
59.	DiCapua G., Kretschmer M., Runge J., Alessandri A., Donner R.V., van den Hurk B., Vellore R.K., Krishnan R., Coumou D., 2019, Long-lead statistical forecasts of the Indian summer monsoon rainfall based on causal precursors, <b>Weather and Forecasting</b> , 34, DOI:10.1175/WAF-D-19-0002.s1, 1377-1394
60.	Dumka U.C., Kaskaoutis D.G., Devara P.C.S., Kumar R., Kumar S., Tiwari S., Gerasopoulos E., Mihalopoulos N., 2019, Year-long variability of the fossil fuel and wood burning black carbon components at a rural site in southern Delhi outskirts, <b>Atmospheric Research</b> , 216, DOI:10.1016/j.atmosres.2018.09.016, 11-25
61.	Dutta D., Routray A., Preveen Kumar D., George J.P., 2019, Regional data assimilation with the NCMRWF Unified Model (NCUM): Impact of doppler weather radar radial wind, <b>Pure and Applied Geophysics</b> , 176, DOI:10.1007/s00024-019-021597, 4575-4597.
62.	Dutta Devajyoti, Routray A., Preveen Kumar D., George J.P., Singh Vivek, 2019, Simulation of a heavy rainfall event during southwest monsoon using high-resolution NCUM-modeling system: a case study, <b>Meteorology and Atmospheric Physics</b> , 131, 1035-1054
63.	Dutta S., Narkhedkar S.G., Mukhopadhyay P., Yadav M., Sunitha Devi, 2019, Use of large-scale atmospheric energetics for understanding the dynamics of contrasting Indian summer monsoon rainfall in different years, <b>Meteorology and Atmospheric Physics</b> , 131, DOI:10.1007/s00703-018-0610-9, 1-12
64.	Dutta S., Sandhu G., Narkhedkar S.G., Devi Sunitha, 2019, Climatology of energetics of cyclones over Indian seas, <b>Journal of Atmospheric Science Research</b> , 2, DOI:10.30564/jasr.v2i1.266, 1-9
65.	Dwivedi S., Uma R., Lakshmi Kumar T.V., Narayanan M.S., Pokhrel S., Kripalani R.H., 2019, New spatial and temporal indices of Indian summer monsoon rainfall, <b>Theoretical and</b>

	<b>Applied Climatology</b> , 135, DOI:10.1007/s00704-018-2428-2, 979-990
66.	Fadnavis S., Müller R., Kalita G., Rowlinson M., Rap A., Li J-L.F., Gasparini B., Laakso A., 2019, Impact of recent changes in Asian anthropogenic emissions of SO <sub>2</sub> on sulfate loading in the upper troposphere and lower stratosphere and the associated radiative changes, <b>Atmospheric Chemistry and Physics</b> , 19, DOI:10.5194/acp-19-9989-2019, 9989–10008
67.	Fadnavis S., Sabin T.P., Roy C., Rowlinson M., Rap A., Vernier J.-P., Sioris C.E., 2019, Elevated aerosol layer over South Asia worsens the Indian droughts, <b>Scientific Reports</b> , 9:10268, DOI:10.1038/s41598-019-46704-9, 1-11
68.	Fletcher J., Parker D.J., Turner A.G., Menon A., Martin G.M., Birch C.E., Mitra A.K., Mrudula G., Hunt K.M., Taylor C.M., Houze R.A., Brodzik S.R., Bhat G.S., 2019, The dynamic and thermodynamic structure of the monsoon over southern India: new observations from the INCOMPASS IOP, <b>Quarterly Journal of the Royal Meteorological Society</b> , DOI:10.1002/qj.3439.
69.	Gadgil S., Rajendran K., Pai D.S., 2019, A new rain-based index for the Indian summer monsoon rainfall, <b>Mausam</b> , 70, 3, 485-500.
70.	Ganai M., Mukhopadhyay P., Phani Murali Krishna R., Abhik S., Halder M., 2019, Revised cloud and convective parameterization in CFSv2 improve the underlying processes for northward propagation of Intraseasonal oscillations as proposed by the observation-based study, <b>Climate Dynamics</b> , 53, DOI:10.1007/s00382-019-04657-9, 2793–2805
71.	Ganai, M., Krishna, R. P. M., Tirkey, S., Mukhopadhyay, P., Mahakur, M., & Han, J.Y., 2019, Impact of modified fractional cloud condensate to precipitation conversion parameter in revised simplified Arakawa-Schubert convection parameterization scheme on the simulation of Indian summer Monsoon and its forecast application on an extreme rainfall event over Mumbai, <b>Journal of Geophysical Research</b> , 10.1029, DOI:10.1029/2019JD030278
72.	Ganesh S.S., Abhilash S., Sahai A.K., Joseph S., Chattopadhyay R., Mandal R., Dey A., Phani R., 2019, Genesis and track prediction of pre-monsoon cyclonic storms over North Indian Ocean in a multi-model ensemble framework, <b>Natural Hazards</b> , 95, DOI:10.1007/s11069-018-3522-6, 823-843
73.	Gangopadhyay A., Kanase R., Mohan G., Halder M., Deshpande M., Mukhopadhyay P., Srinivasan J., 2019, Use of a weather forecast model to identify suitable sites for new wind power plants in Karnataka, <b>Current Science</b> , 117, DOI:10.18520/cs/v117/i8/1345-1347, 1347-1353
74.	Gawhane R.D. , Rao P.S.P. , Budhavant K., Meshram D.C. , Safai P.D., 2019, Anthropogenic fine aerosols dominate over the Pune region, Southwest India, <b>Meteorology and Atmospheric Physics</b> , 131, DOI:10.1007/s00703-018-0653-y, 1497–1508
75.	Ghanekar S.P. , Bansod S.D., Narkhedkar S.G., Kulkarni Ashwini, 2019, Variability of Indian summer monsoon onset over Kerala during 1971-2018, <b>Theoretical and Applied Climatology</b> , 138, DOI:10.1007/s00704-019-02853-5, 729-742
76.	Ghodpage R.N., Taori A., Gurav O.B., Patil P.T., Gurubaran S., SiinghD., Naniwadekar G.P., 2019, Observation of mesospheric wave using collocated OH airglow temperature and radar wind measurements over Indian low latitude, <b>Advances in Space Research</b> , 64, DOI:10.1016/j.asr.2019.04.029, 1865-1875
77.	Ghosh S., Bhatla R., Mall R.K., Srivastava P.K., Sahai A. K., 2019, Aspect of ECMWF downscaled Regional Climate Modeling in simulating Indian summer monsoon rainfall and dependencies on lateral boundary conditions , <b>Theoretical and Applied Climatology</b> , 135, DOI:10.1007/s00704-018-2432-6, 1559-1581



78.	
79.	Gnanamoorthy P., Selvam V., Ramasubramanian R., Chakraborty S., Prमित D., Karipot A., 2019, Soil organic carbon stock in natural and restored mangrove forests in Pichavaram south-east coast of India, <b>Indian Journal of Geo-Marine Science</b> , 48, 801-808
80.	Gnanamoorthy P., Selvam V., Ramasubramanian R., Nagarajan R., Chakraborty S., Deb Burman P.K., Karipot A., 2019, Diurnal and seasonal patterns of soil CO <sub>2</sub> efflux from the Pichavaram mangroves, India, <b>Environmental Monitoring and Assessment</b> , 191: 258, DOI: 10.1007/s10661-019-7407-2, 1-12
81.	Gnanaseelan C., Chowdary J.S., 2019, The Indo-Western Pacific climate variability and the impacts on Indian summer monsoon: Two decades of advancement in India, <b>Mausam</b> , 70, 731-752
82.	Govardhan G., Sateesh S.K., Krishna Moorthy K., Nanjundiah R., 2019, Simulations of black carbon over the Indian region: improvements and implications of diurnality in emissions, <b>Atmospheric Chemistry and Physics</b> , 19, DOI:10.5194/acp-19-8229-2019, 8229–8241
83.	Hakim Z.Q., Archer-Nicholls S., Beig G., Folberth G.A., Sudo K., Abraham N.L., Ghude S., Henze D., 2019, Evaluation of tropospheric ozone and ozone precursors in simulations from the HTAPII and CCMI model intercomparisons – a focus on the Indian Subcontinent, <b>Atmospheric Chemistry and Physics</b> , 19, DOI:0.5194/acp-19-6437-2019, 6437-6458
84.	Hakkim H., Sinha V., Chandra B.P., Kumar A., Mishra A.K., Sinha B., Sharma G., Pawar H., Sohnpaul B., Ghude S.D., Pithani P., Kulkarni R., Jenamani R.K., Rajeevan M., 2019, Volatile organic compound measurements point to fog-induced biomass burning feedback to air quality in the megacity of Delhi, <b>Science of the Total Environment</b> , 689, DOI:10.1016/j.scitotenv.2019.06.438, 295-304
85.	Heming J.T., Prates F., Bender M.A., Bowyer R., Cangialosi J., Caroff P., Coleman T., Doyle J.D., Dube A., Faure G., Fraser J., Howell B.C., Lgarashi Y., Cowan R.M.T., Mahapatra M., Moskaitis J.R., Murtha J., Rivett R., Sharma M., Short C.J., Singh A.A., Tallapragada V., Titley H.A., Xiao Y., 2019, Review of recent progress in tropical cyclone track forecasting and expression of uncertainties, <b>Tropical cyclone Research and Review</b> , 8, 4, 181-218
86.	Hermes J.C., Masumoto Y., Beal L.M., Roxy M.K., Vialard J. and co-authors, 2019, Sustained ocean observing system in the Indian Ocean for climate related scientific knowledge and societal needs, <b>Frontiers in Marine Science</b> , 6:355, DOI: 10.3389/fmars.2019.00355, 1-21
87.	Hingmire D., Vellore R.K., Krishnan R., Ashtikar N.V., Singh Bhupendra B., Sabade S., Madhura R.K., 2019, Widespread fog over the Indo-Gangetic plains and possible links to boreal winter teleconnections, <b>Climate Dynamics</b> , 52, DOI:10.1007/s00382-018-4458-y, 5477-5506
88.	Jain Shipra, Jain A.R., Mandal T.K., 2019, Appearance of the persistently low tropopause temperature and ozone over the Bay of Bengal region, <b>Meteorology and Atmospheric Physics</b> , 131, 1, 81-88.
89.	Jayakumar A., Sethunadh J., Francis T., Mohandas S., Rajagopal E.N., 2019, Impact of Cartosat-1 orography in 330 m Unified Model forecast, <b>Current Science</b> , 116, 5, 816-822 .
90.	Jha Ambuj K., Kalapureddy M.C.R., Devisetty H.K., Deshpande S.M., Pandithurai G., 2019, Case study on large-scale dynamical influence on bright band using cloud radar during the Indian summer monsoon, <b>Meteorology and Atmospheric Physics</b> , 131, DOI:10.1007/s00703-018-0583-8, 505-515

91.	Johny C.J., Singh S.K., Prasad V.S., 2019, Validation and impact of SCATSAT-1 Scatterometer winds, <b>Pure and Applied Geophysics</b> , DOI:10.1007/s00024-019-02096-5.
92.	Joseph S., Sahai A. K., Phani M.K., Mandal R., Dey Avijit, Chattopadhyay R., Abhilash S., 2019, Skill evaluation of extended range forecast of rainfall and temperature over meteorological subdivisions of India, <i>Weather and Forecasting</i> , 34, December, DOI:10.1175/WAF-D-18-0055, 81-101
93.	Jyoti J., Swapna P., Krishnan R., Naidu C.V., 2019, Pacific modulation of accelerated south Indian Ocean sea level rise during the early 21st Century, <b>Climate Dynamics</b> , 53, DOI:10.1007/s00382-019-04795-0, 4413-4432
94.	Kad P., Parekh A., Karmakar A., Chowdary J.S., Gnanaseelan C., 2019, Recent changes in the summer monsoon circulation and their impact on dynamics and thermodynamics of the Arabian Sea, <b>Theoretical and Applied Climatology</b> , 136, DOI:10.1007/s00704-018-2493-6, 321-331
95.	Kakatkar R., Gnanaseelan C., Chowdary J., Deepa J.S., Parekh A., 2019, Biases in the Tropical Indian Ocean subsurface temperature variability in a coupled model, <b>Climate Dynamics</b> , 52, DOI:10.1007/s00382-018-4455-1, 5325-5344
96.	Kalra S., Kumar S., Routray A., 2019, Simulation of Heavy Rainfall Event along East Coast of India using WRF Modeling system: Impact of 3DVAR Data Assimilation, <b>Modeling Earth Systems and Environment</b> , 5, 245–256
97.	Kar S.C., 2019, On the reliability of medium-range probabilistic rainfall predictions over river basins in India, <b>Mausam</b> , 70, 2, 215-232
98.	Kedia S., Das Subrata Kumar, Islam S., Hazra A., Kumar Naveen, 2019, Aerosols impact on the convective and non-convective rain distribution over the Indian region: Results from WRF-Chem simulation, <b>Atmospheric Environment</b> , 202, DOI:10.1016/j.atmosenv.2019.01.020. , 64-74
99.	Kedia S., Vellore R.K., Islam S., Kaginalkar A., 2019, Study of Himalayan extreme rainfall events using WRF Chem, <b>Meteorology and Atmospheric Physics</b> , 131, DOI:10.1007/s00703-018-0626-1, 1133-1143
100.	Kim I-W, Oh J., Woo S., Kripalani R.H., 2019, Evaluation of precipitation extremes over the Asian domain: observation and modelling studies, <b>Climate Dynamics</b> , 52, DOI:10.1007/s00382-018-4193-4, 1317-1342
101.	Kimothi S., Kumar A., Thapliyal A., Ojha N., Soni V.K., Singh Narendra, 2019, Climate predictability in the Himalayan foothills using fractals, <b>Mausam</b> , 70, 2, 357-362.
102.	Kishore N., Srivastava A. K., Nandan H., Pandey C.P., Agrawal S., Singh N., Soni V.K., Bisht D.S., 2019, Tiwari Suresh, Srivastava M.K, Long-term (2005–2012) measurements of near-surface air pollutants at an urban location in the Indo-Gangetic Basin, <b>Journal of Earth System Science</b> , 128, DOI:10.1007/s12040-019-1070-4, 55:1-13
103.	Kolhe A.R., Ralegankar S.D., Safai P.D., Aher G.R., 2019, Absorption properties of black carbon aerosols over environmentally distinct locations in south-western India: Temporal, spectral characterization and source apportionment, <b>Journal of Atmospheric and Solar Terrestrial Physics</b> , 189, DOI:10.1016/j.jastp.2019.03.010, 1-17
104.	Krishna R.K., Ghude S., Kumar Rajesh, Beig G., Kulkarni Rachana, Nivdange S., Chate D., 2019, Surface PM <sub>2.5</sub> estimate using satellite-derived Aerosol Optical Depth over India, <b>Aerosol and Air Quality Research</b> , 19, DOI:10.4209/aaqr.2017.12.0568, 25-37
105.	Krishna R.K., Panicker A.S., Yusuf A.M., Beig G., 2019, On the contribution of particulate matter (PM <sub>2.5</sub> ) to direct radiative forcing over two urban environments in India, <b>Aerosol and</b>

	<b>Air Quality Research</b> , 19, DOI:10.4209/aaqr.2018.04.0128, 399-410
106.	Krishna R.P.M., Rao S.A., Srivastava A., Kottu H.P., Pradhan M., Pillai P., Dandi R.A., Sabeerali C.T., 2019, Impact of convective parameterization on the seasonal prediction skill of Indian summer monsoon, <b>Climate Dynamics</b> , 53, DOI:10.1007/s00382-019-04921-y, 6227-6243
107.	Krishnan R., Sabin T.P., Madhura R.K., Vellore R.K., Mujumdar M., Sanjay J., Nayak S., Rajeevan M., 2019, Non-monsoonal precipitation response over the Western Himalayas to climate change, <b>Climate Dynamics</b> , 52, DOI:10.1007/s00382-018-4357-2, 4091-4109
108.	Kulkarni J.R., Morwal S.B., Deshpande N.R., 2019, Rainfall enhancement in Karnataka state cloud seeding program Varshadhare 2017, <b>Atmospheric Research</b> , 219, DOI:10.1016/j.atmosres.2018.12.020, 65-76
109.	Kulkarni R., Jenamani R.K., Pithani P., Konwar M., Nigam N., Ghude S.D., 2019, Loss to Aviation Economy Due to Winter Fog in New Delhi during the Winter of 2011-2016, <b>Atmosphere</b> , 10:198, DOI:10.3390/atmos10040198, 1-10
110.	Kumar Amit, Singh Virendra, Mukherjee Sunil, Singh Randhir, 2019, Quality assessment of Outgoing Longwave Radiation (OLR derived from INSAT-3D Imager Impact of GSICS correction, <b>Mausam</b> , 70, 2, 309-320. 0.278
111.	Kumar Ashok, Sridevi Ch, Durai V.R., Singh K.K., Mokhopadhyay P., Chattopadhyay N., 2019, MOS guidance using a neural network for the rainfall forecast over India, <b>Journal of Earth System Science</b> , 128:130, DOI:10.1007/s12040-019-1149-y, 1-12
112.	Kumar S., Srivastava A.K., Pathak V., Bisht D.S., Tiwari S., 2019, Surface solar radiation and its association with aerosol characteristics at an urban station in the Indo-Gangetic Basin: Implication to radiative effect, <b>Journal of Atmospheric and Solar Terrestrial Physics</b> , 193: 105061, DOI:10.1016/j.jastp.2019.105061, 1-9
113.	Kumari R., Mayoor M., Mahapatra S., Parhi P.K., Singh H.P., 2019, Estimation of Rainfall-Runoff Relationship And Correlation of Runoff with Infiltration Capacity and Temperature over East Singhbhum District of Jharkhand, <b>International Journal of Engineering and Advanced Technology</b> , 9, DOI:10.35940/ijrte. B3216.129219, 461-466
114.	Latha R., Murthy B.S., Vinayak B., 2019, Aerosol-induced perturbation of surface fluxes over different landscapes in a tropical region, <b>International Journal of Remote Sensing</b> , 40, DOI:10.1080/01431161.2018.1523586, 8203-8221
115.	Leena P.P., Pandithurai G., Gayatri K., Murugavel P., Ruchith R.D., Sakharam S., Dani K.K., Patil C., Dharmaraj T., Patil M.N., Thara Prabhakaran, 2019, Analysing the characteristic features of a pre-monsoon thunderstorm event over Pune, India, using ground-based observations and WRF model, <b>Journal of Earth System Science</b> , 128:108, DOI:10.1007/s12040-019-1136-3, 1-15
116.	Mahajan A.S., Tinel L., Hulswar S., Cuevas C.A., Wang S., Ghude S., Naik R.K., Mishra R.K., Sabu P., Sarkar A., Anilkumar N., Lopez A.S., 2019, Observations of iodine oxide in the Indian Ocean marine boundary layer: A transect from the tropics to the high latitudes, <b>Atmospheric Environment: X</b> , 1, DOI:10.1016/j.aeaoa.2019.100016, 1-10
117.	Mahajan A.S., Tinel L., Sarkar A., Chance R., Carpenter L.J., Hulswar S., Mali P., Prakash S., Vinayachandran P.N., 2019, Understanding Iodine Chemistry over the Northern and Equatorial Indian Ocean, <b>Journal of Geophysical Research: Atmospheres</b> , 124, DOI:10.1029/2018JD029063, 8104-8118
118.	Mandal R., Joseph S., Sahai A.K., Phani R., Dey A., Chattopadhyay R., Pattanaik D.R., 2019, Real time extended range prediction of heat waves over India, <b>Scientific Reports</b> , 9, DOI:10.1038/s41598-019-45430-6, 1-11

119.	Martin G.M., Brooks M.E., Johnson B., Milton S.F., Webster S., Jayakumar A., Mitra A.K., Rajan D., Hunt K.M.R., 2019, Forecasting the monsoon on daily to seasonal timescales in support of a field campaign, <b>Quarterly Journal of the Royal Meteorological Society</b> , DOI:10.1002/qj.3620.
120.	Mittal R., Tewari M., Radhakrishnan C., Ray P., Singh T., Nickerson A.K., 2019, Response of tropical cyclone Phailin (2013) in the Bay of Bengal to climate perturbations, <b>Climate Dynamics</b> , DOI: 10.1007/s00382-019-04761-w.
121.	Mohanty U.C., Nageswararao M.M., Sinha P., Nair A., Singh A., Rai R.K., Kar S.C., Ramesh K.J., Singh K.K., Ghosh K., Rathore L.S., Sharma R., Kumar A., Dhekale B.S., Maurya R.K.S., Sahoo R.K., Dash G.P., 2019, Evaluation of performance of seasonal precipitation prediction at regional scale over India, <b>Theoretical and Applied Climatology</b> , 135, 1123-1142
122.	Mohanty U.C., Sinha P., Mohanty M.R., Maurya R.K.S., Nageswara Rao M.M., Pattanaik D.R., 2019, A review on the monthly and seasonal forecast of the Indian summer monsoon, <b>Mausam</b> , 70, 3, 425-442.
123.	Mohapatra M., 2019, Cyclone warning systems in India A review, <b>Mausam</b> , 70, 4, 635-666. 0.278
124.	Momin I.M., Mitra A.K., Waters J., Martin M. J., Rajagopal E.N., 2019, Impact of Altika Sea level anomaly data on a variational assimilation system, <b>Journal of Coastal Research</b> , DOI:10.2112/S189-0xx.1.
125.	Morwal S.B., Padmakumari B., Narkhedkar S.G., Reddy Y.K., Maheskumar R.S., Pandithurai G., Kulkarni J.R., 2019, Statistical characteristics of the cloud cells in the categories of pre-convective, convective-initiation and convective-enhancement in the contrasting monsoon seasons over the rain-shadow region of peninsular India , <b>Climate Dynamics</b> , 53, DOI:10.1007/s00382-019-04857-3, 2355-
126.	Mounesh, Patil C.S., 2019, Hypsometric analysis of the Ghataparabha Sub Basin of Krishna River Basin, Karnataka, India, <b>International Journal for Research in Applied Science and Engineering Technology</b> , 7, V, 2288-2293.
127.	Mukherjee S., Hazra A., Kumar, Kireet Kumar, Nandi S.K., Dhyani P.P., 2019, Simulated projection of ISMR over Indian Himalayan region: assessment from CSIRO-CORDEX South Asia experiments, <b>Meteorology and Atmospheric Physics</b> , 131, DOI:10.1007/s00703-017-0547-4, 63-79
128.	Mukhopadhyay P., Prasad V.S., Krishna R.P.M., Deshpande M., Ganai M., Tirkey S., Sarkar S., Goswami T., Johny C.J., Roy K., Mahakur M., Durai V.R., M Rajeevan, 2019, Performance of a very high-resolution global forecast system model (GFS T1534) at 12.5 km over the Indian region during the 2016–2017 monsoon seasons, <b>Journal of Earth System Science</b> , 128, DOI:10.1007/s12040-019-1186-6, 1-18
129.	Munksgaard N.C., KuritaN., Sánchez-Murillo R., Ahmed N., Araguas L., Balachew D.L., Bird M.I., Chakraborty S., ...et al., 2019, Data Descriptor: Daily observations of stable isotope ratios of rainfall in the tropics, <b>Scientific Reports</b> , 9:14419, DOI:10.1038/s41598-019-50973-9, 1-7
130.	Murali Krishna U.V., Das S.K., Uma K N., Pandithurai G., 2019, Retrieval of convective available potential energy from INSAT-3D measurements: comparison with radiosonde data and its spatial-temporal variations, <b>Atmospheric Measurement Techniques</b> , 12, DOI:10.5194/amt-2018-203, 777-790
131.	Nade D.P., Potdar S.S., Pawar R.P., Mane S.T., Chandra S., Taori A., Siingh D., 2019, Total column ozone, precipitable water content and aerosol optical thickness over Atigre village, a tropical station: First observations, <b>MAPAN-Journal of Metrology Society of India</b> , 34,

	DOI:10.1007/s12647-019-00314-y
132.	Nageswararao M.M., Sinha P., Mohanty U.C., Panda R.K., Dash G.P., 2019, Evaluation of district level Rainfall characteristics over Odisha using High-resolution gridded dataset (1901–2013), <b>SN Applied Sciences</b> , 1:1211, DOI :10.1007/s42452-019-1234-5
133.	Nalini K., Sijikumar S., Valsala V., Tiwari Y.K., Ramachandran R., 2019, Designing surface CO2 monitoring network to constrain the Indian land fluxes, <b>Atmospheric Environment</b> , 218:117003, DOI:10.1016/j.atmosenv.2019.117003, 1-11
134.	Nandankar P.K., 2019, Air quantity impact assessment due to Koradi thermal power plant, <b>Mausam</b> , 70, 1, 171-174.
135.	Nandargi S.S., Mahto S.S., 2019, Frequency and intensity of tropical disturbances over the Indian region and its neighboring seas with associated rainfall during the monsoon season: A perspective, <b>Engineering Reports</b> , 1: e12069, DOI:10.1002/eng2.12069, 1-18
136.	Neal R., Robbins J., Dankers R., Mitra Ashis K., Jayakumar A., Rajagopal E.N., Adamson G., 2019, Deriving optimal weather pattern definitions of the representation of precipitation variability over India, <b>International Journal of Climatology</b> , DOI:10.1002/joc.6215.
137.	Nidheesh A.G., Lengaigne M., Vialard J., Izumo T., Unnikrishnan A.S., Krishnan R., 2019, Natural decadal sea-level variability in the Indian Ocean: lessons from CMIP models, <b>Climate Dynamics</b> , 53, DOI:10.1007/s00382-019-04885-z, 5653–5673
138.	Nikumbh A., Padmakumari B., Sunil Sneha, 2019, Cloud fraction retrieval and its variability during daytime from ground-based sky imagery over a tropical station in India, <b>Journal of Atmospheric and Solar Terrestrial Physics</b> , 190, DOI:10.1016/j.jastp.2019.05.002, 74–83
139.	Oulkar S., Siingh D., Saha U., Kamra A.K., 2019, Distribution of lightning in relation to topography and vegetation cover over the dry and moist regions in the Himalayas, <b>Journal of Earth System Science</b> , 128:180, DOI:10.1007/s12040-019-1203-9, 1-17
140.	Panicker A.S., Sandeep K., Gautam A.S., Gandhi N., Beig G., Nainwal H.C., Rao P.S.P., Safai P.D., Das S., Waghmare V., 2019, Chemical composition and isotopic signatures of ice and snow over a Himalayan Glacier (Satopanth) in India, <b>SN applied sciences</b> , 1:1166, DOI:10.1007/s42452-019-0966-6, 1-7
141.	Panicker A.S., Sandeep K., Negi R.S., Gautham A.S., Bhist D.S., Beig G., Murthy B.S., Latha R., Singh S., Das S., 2019, Estimates of carbonaceous aerosol radiative forcing over a semiurban environment in Garhwal Himalayas, <b>Pure and Applied Geophysics</b> , 176, November 2019, DOI:10.1007/s00024-019-02248-7, 5069-5078
142.	Patade S., Kulkarni G., Patade S., Deshmukh A., Dangat P., Axisa D., Fan J., Pradeepkumar P., Prabha T.V., 2019, Role of liquid phase in the development of ice phase in monsoon clouds: Aircraft observations and numerical simulations, <b>Atmospheric Research</b> , 229, DOI:10.1016/j.atmosres.2019.06.022, 157-174
143.	Patel N., Sharma S., Joshi V., Kumar P., Ojha N., Kumar K.N., Chandra H., Beig G., 2019, Observations of middle atmospheric seasonal variations and study of atmospheric oscillations at equatorial regions, <b>Journal of Atmospheric and Solar Terrestrial Physics</b> , 193:105066, DOI:10.1016/j.jastp.2019.105066, 1-9
144.	Pathak H.S., Satheesh S.K., Nanjundiah R.S., Moorthy K.K., Lakshmiarahan S., Babu S.N.S., 2019, Assessment of regional aerosol radiative effects under the SWAAMI campaign – Part 1: Quality-enhanced estimation of columnar aerosol extinction and absorption over the Indian subcontinent, <b>Atmospheric Chemistry and Physics</b> , 19, DOI:10.5194/acp-19-11865-2019, 11865–11886
145.	Pattanaik D.R., Sahai A.K., Mandal R., Muralikrishna R.P., Dey A., Chattopadhyay R., Joseph S., Tiwari A.D., Mishra V., 2019, Evolution of operational extended range forecast

	system of IMD : Prospects of its applications in different sectors, <b>Mausam</b> , 70, 233-264
146.	Pervez S., Verma M, Tiwari Suresh, Chakrabarty R. K., Watson J. G., Chow J. C., Panicker A. S., Deb M. K., Siddiqui M. N., Pervez Y. F., 2019, Household solid fuel burning emission characterization and activity levels in India, <i>Science of the Total Environment</i> , 654, November, DOI:10.1016/j.scitotenv.2018.11.019, 493–504
147.	Pillai P.A., Nair R.C., Vidhya C.V., 2019, Recent changes in the prominent modes of Indian Ocean dipole in response to the tropical Pacific Ocean SST patterns, <b>Theoretical and Applied Climatology</b> , 138, DOI: 10.1007/s00704-019-02875-z, 941-951
148.	Pithani P., Ghude S.D., Chennu V.N., Kulkarni R.G., Steeneveld G-J., Sharma A., Thara P., Chate D.M., Gultepe I., Jenamani R.K., Madhavan R., 2019, WRF model prediction of a dense fog event occurred during the winter fog experiment (WIFEX), <b>Pure and Applied Geophysics</b> , 176, DOI:10.1007/s00024-018-2053-0, 1827–1846
149.	Pithani P., Ghude S.D., Prabhakaran Thara, Karipot A., Hazra A., Kulkarni R., Chowdhuri Subharthi, Resmi E.A., Konwar M., Murugavel P., Safai P.D., Chate D.M., Tiwari Y., Jenamani R.K., Rajeevan M., 2019, WRF model sensitivity to choice of PBL and microphysics parameterization for an advection fog event at Barkachha, rural site in the Indo-Gangetic basin, India, <b>Theoretical and Applied Climatology</b> , 136, DOI:10.1007/s00704-018-2530-5, 1099-1113
150.	Prasanna K., Singh P., Chowdary J.S. , Naidu C.V. , Parekh A., Gnanaseelan C., Ramu Dandi, 2019, Northeast monsoon rainfall variability over the southern Peninsular India associated with multiyear La Niña events, <b>Climate Dynamics</b> , 53, DOI:10.1007/s00382-019-04927-6, 6265-6291
151.	Preethi B., Ramya R., Patwardhan S.K., Mujumdar M., Kripalani R.H., 2019, Variability of Indian summer monsoon droughts in CMIP5 climate models, <b>Climate Dynamics</b> , 53, August 2019, DOI:10.1007/s00382-019-04752-x, 1937-1962
152.	Purnadurga G., Lakshmi Kumar T.V., Koteswara Rao K., Barbosa H., Mall R.K., 2019, Evaluation of evapotranspiration estimates from observed and reanalysis data sets over Indian region, <b>International Journal of Climatology</b> , 39, DOI: 10.1002/joc.6189, 1-10
153.	Rai A., Saha Subodh K., Sujith K., 2019, Implementation of snow albedo schemes of varying complexity and their performances in offline Noah and Noah coupled with NCEP CFSv2, <b>Climate Dynamics</b> , 53, DOI:10.1007/s00382-019-04632-4, 1261–1276
154.	Raj Deepak S.N. , Chowdary J.S. , Dandi Ramu A., Srinivas G., Parekh A., Gnanaseelan C., Yadav R.K, 2019, Impact of multiyear La Niña events on the South and East Asian summer monsoon rainfall in observations and CMIP5 models, <b>Climate Dynamics</b> , 52, DOI:10.1007/s00382-018-4561-0,6989–7011
155.	Rajavel M., Khare Prakash, Sahu M.L., Prasad J.R., 2019, District level weather forecast verification in Chhattisgarh, <b>Mausam</b> , 70, 4, 841-852. 0.278
156.	Rajput A.S.D., 2019, India aims for national policy on scientific social responsibility, <b>Nature</b> , 574, DOI:10.1038/d41586-019-03294-w, 634
157.	Rajput A.S.D., 2019, Scientific Writing: The predicament of weather and climate scientists in India, <b>Bulletin of the American Meteorological Society</b> , 100, DOI:10.1175/BAMS-D-17-0072.1, 399-402
158.	Rajput A.S.D., India’s Scientific Social Responsibility Policy, <b>Current Science</b> , 117, November 2019, 1562
159.	Ramarao M.V.S., Sanjay J., Krishnan R., Mujumdar M., Bazaz A., Revi A., 2019, On observed aridity changes over the semiarid regions of India in a warming climate, <b>Theoretical and</b>

	<b>Applied Climatology</b> , 136, DOI:10.1007/s00704-018-2513-6, 693-702
160.	Rana M., Mittal S.K., Beig G., 2019, Enhanced ozone production in ambient air at Patiala semi-urban site during crop residue burning events, <b>MAPAN-Journal of Metrology Society of India</b> , 34, DOI:10.1007/s12647-019-00315-x, 273-288
161.	Rana M., Mittal S.K., Beig G., Rana P., 2019, Impact of crop residue burning (CRB) on the diurnal and seasonal variability of the ozone and PM levels at a semi-urban site in the north-western Indo-Gangetic plain, <b>Journal of Earth System Science</b> , 128:166, DOI:10.1007/s12040-019-1164-z, 1-16
162.	Ranade A., Singh N., 2019, Equatorially/globally conditioned meteorological analysis of heaviest monsoon rains over India during 23–28 July 2005, <b>Meteorology and Atmospheric Physics</b> , 131, DOI:10.1007/s00703-018-0613-6, 919-944
163.	Rani S.I., Taylor R., Sharma P., Bushair M.T., Jangid B.P., George J.P., Rajagopal E.N., 2019, Assimilation of INSTAD-3D imager water vapour clear sky brightness temperature in the NCMRWF's assimilation and forecast system, <b>Journal of Earth System Science</b> , DOI:10.1007/s12040-019-1230-6.
164.	Rao S.A., Goswami B.N., Sahai A.K., Rajagopal E.N., Mukhopadhyay P., Rajeevan M., Nayak S., Rathore L.S., Shenoj S.S.C., Ramesh K.J., Nanjundiah R.S., Ravichandran M., Mitra A.K., Pai D.S., Bhowmik S.K.R., Hazra A., Mahapatra S., Saha S.K., Chaudhari H.S., Joseph S., Pentakota S., Pokhrel S., Pillai P.A., Chattopadhyay R., Deshpande M., Krishna R.P.M., Siddharth Renu, Prasad V.S., Abhilash S., Pani, 2019, Monsoon Mission : A targeted activity to improve monsoon prediction across scales, <b>Bulletin of the American Meteorological Society</b> , 100, DOI:10.1175/BAMS-D-17-0330.1.
165.	Rao Suryachandra A., Pillai P.A., Pradhan M., Srivastava A., 2019, Seasonal prediction of Indian summer monsoon in India: The past, the present and the future, <b>Mausam</b> , 70, 265-276
166.	Raut B.A., Reeder M.J., Jakob C., Seed A.W., 2019, Stochastic space-time downscaling of rainfall using event-based multiplicative cascade simulations, <b>Journal of Geophysical Research: Atmospheres</b> , 124, DOI:10.1029/2018JD029343, 3889-3902
167.	Ravi Kumar K., Attada R., Dasari H.P., Vellore R.K., Abualnaja Y.O., Ashok K., Hoteit I., 2019, On the Recent Amplification of Dust Over the Arabian Peninsula During 2002–2012, <b>Journal of Geophysical Research: Atmospheres</b> , DOI:10.1029/2019JD030695, 1-10
168.	Ravindra K., Singh T., Mor S., Singh V., Mandal T.K., Bhatti M.S., Gahlawat S.K., Dhankhar R., Mor S., Beig G., 2019, Real-time monitoring of air pollutants in seven cities of North India during crop residue burning and their relationship with meteorology and transboundary movement of air, <b>Science of the Total Environment</b> , 690, DOI:10.1016/j.scitotenv.2019.06.216, 717-729
169.	Reddy M.V., Mitra Ashis K., Momin I.M., Mitra Ashim K., Pai D.S., 2019, Evaluation and inter-comparison of high-resolution multi-satellite rainfall products over India for the southwest monsoon period, <b>International Journal of Remote Sensing</b> , 40, 12, 4577-4603.
170.	Resmi E.A., Murugavel P., Gurnule Dinesh, Balaji B., Leena P.P., Varghese Mercy, Nair Sathy, Chowdhuri Subharthi, Tiwari Y., Karipot A., Thara Prabhakaran, 2019, Observed diurnal and intraseasonal variations in boundary layer winds over Ganges valley, <b>Journal of Atmospheric and Solar Terrestrial Physics</b> , 188, DOI:10.1016/j.jastp.2019.03.012, 11-25
171.	Robertson A. W., Acharya N., Goddard L., Pattanaik D.R., Sahai A.K., Singh K.K., Ghosh K., Agarwal A., Buizer J.L., 2019, Subseasonal forecasts of the 2018 Indian summer monsoon over Bihar, <b>Journal of Geophysical Research: Atmospheres</b> , 124, DOI:10.1029/2019JD031374, 13861-13875
172.	Robertson A.W., Moron V., Vigaud N., Acharya N., Greene A.M., Pai D.S., 2019, Multi-scale variability and predictability of Indian summer monsoon rainfall, <b>Mausam</b> , 70, 2, 277-

	292. 0.278
173.	Rohini P., Rajeevan M., Mukhopadhyay P., 2019, Future projections of heat waves over India from CMIP5 models, <b>Climate Dynamics</b> , 53, DOI:10.1007/s00382-019-04700-9, 975-988
174.	Routray A., Dutta D., George J.P., 2019, Evaluation of Track and Intensity Prediction of Tropical Cyclones over North Indian Ocean using NCUM Global Model, <b>Pure and Applied Geophysics</b> , 176, 1, 421-440
175.	Routray A., Singh Vivek, Gupta A., Dutta D., George J.P., 2019, Impact of Vortex Initialization in prediction of Tropical Cyclones over Bay of Bengal with NCUM Model, <b>Marine Geodesy</b> , 42, 2, 201-226
176.	Roxy M.K., Dasgupta P., McPhaden M.J., Suematsu T., Zhang C., Kim D., Twofold expansion of the Indo-Pacific warm pool warps the MJO life cycle, <b>Nature</b> , 575, November 2019, DOI:10.1038/s41586-019-1764-4, 647-651
177.	Roy I., Gagnon A.S., Siingh D., 2019, Evaluating ENSO teleconnections using observations and CMIP5 models, <b>Theoretical and Applied Climatology</b> , 136, DOI:10.1007/s00704-018-2536-z, 1085-1098
178.	Roy S.S., Mohapatra M., Tyagi A., Bhowmik S.K.R., 2019, A review of Nowcasting of convective weather over the Indian region, <b>Mausam</b> , 70, 3, 465-484. 0.278
179.	Sabeerali C.T., Ajayamohan R.S., Rao Suryachandra A., 2019, Loss of predictive skill of Indian summer monsoon rainfall in NCEP CFSv2 due to misrepresentation of Atlantic zonal mode, <b>Climate Dynamics</b> , 52, DOI:10.1007/s00382-018-4390-1, 4599-4619
180.	Safai P.D., Ghude S., Pithani P., Varpe S., Kulkarni R., Todekar K., Tiwari S., Chate D.M., Prabhakaran T., Jenamani R.K., Rajeevan M.N., 2019, Two-way relationship between aerosols and fog: A case study at IGI Airport, New Delhi, <b>Aerosol and Air Quality Research</b> , 19, DOI:10.4209/aaqr.2017.11.0542, 71-79
181.	Saha Subodh K., Hazra A., Pokhrel S., Chaudhari H.S., Sujith K., Rai A., Rahaman H., Goswami B.N., 2019, Unraveling the mystery of Indian Summer Monsoon prediction: Improved estimate of predictability limit, <b>Journal of Geophysical Research: Atmospheres</b> , 124, DOI:10.1029/2018JD030082, 1962-1974
182.	Sahana A.S., Pathak A., Roxy M.K., Ghosh S., 2019, Understanding the role of moisture transport on the dry bias in indian monsoon simulations by CFSv2, <b>Climate Dynamics</b> , 52, DOI:10.1007/s00382-018-4154-y, 637-651
183.	Saheed P.P., Mitra A.K., Momin I.M., Rajagopal E.N., Hewitt H.T., Keen A.B., Milton S.F., 2019, Arctic Summer Sea-Ice Seasonal Simulation with a Coupled Model: Evaluation of Mean Features and Biases, <b>Journal of Earth System Science</b> , 128, 16, 1-12
184.	Sahu M.L., Dewangan P.L., 2019, Case study on severe thunderstorm activity over Chhattisgarh on 21 <sup>st</sup> May, 2016, <b>Mausam</b> , 70, 2, 363-370.
185.	Sahu S.K., Tyagi B., Pradhan C., Beig G., 2019, Evaluating the variability, transport and periodicity of particulate matter over smart city Bhubaneswar, a tropical coastal station of eastern India, <b>SN Applied Sciences</b> , 1:383, DOI:10.1007/s42452-019-0427-2, 1-12
186.	Sanap S.D., Priya P., Sawaisarje G.K., Hosalikar K.S., 2019, Heavy rainfall events over southeast peninsular India during northeast monsoon: Role of El Niño and easterly wave activity, <b>International Journal of Climatology</b> , 39, DOI:10.1002/joc.5926, 1954-1968
187.	Sanikommu S., Deep Sankar, Balaji B., Paul B., Paul A., Chakraborty K., Hoteit I., 2019, Impact of dynamical representational errors on an Indian ocean ensemble data assimilation system, <b>Quarterly Journal of Royal Meteorological Society</b> , 145, DOI:10.1002/qj.3649, 3680-3691



188.	Sarkar A., Dutta D., Chakraborty P., Dutta S.K., Majumdar S., Payra S., Bhatla R., 2019, Influence of cumulus convection and cloud microphysics parameterizations on the prediction of Western Disturbances, <b>Meteorology and Atmospheric Physics</b> , 132, 413-426
189.	Sarkar R., 2019, Meso Analysis and Nowcasting of Severe Local Storms with Squall at Kolkata (Alipore that occurred in 2013, <b>Paripex – Indian Journal of Research</b> , 8, 9, 122-126.
190.	Sarma D., Baruah K.K., Chakraborty S., Karipot A., Baruah R., 2019, Impact of ecosystem respiration on carbon balance in a semi-evergreen forest of Northeast India, <b>Current Science</b> , 116, DOI:10.18520/cs/v116/i5/751-757, 751-757
191.	Sasane S.A., Jadhav A.S., Barik R., Krishnakumar K.G., Raghavswamy V., 2019, Application of spatial technology in malaria information infrastructure mapping with climate change perspective in Maharashtra, India, <b>Mausam</b> , 70, 4, 787-806.
192.	Sateesh M., Soni V.K., Raju P.V.S., Prasad V.S., 2019, Analysis of absorption characteristics and source apportionment of carbonaceous aerosol in arid region of western India, <b>Earth Systems and Environment</b> , DOI:10.1007/s41748-019-00122-z.
193.	Sawaisarje G.K., Khare P., Chaudhari H.S., Puviarasan N., Ranalkar M.R., 2019, Easterly wave activity and associated heavy rainfall during the pre-monsoon season of 2005, <b>Meteorology and Atmospheric Physics</b> , 131, DOI:10.1007/s00703-017-0575-0, 313-327
194.	Seo H., Subramanian A.C., Song H., Chowdary J.S., 2019, Coupled effects of ocean current on wind stress in the Bay of Bengal: Eddy energetics and upper ocean stratification, <b>Deep Sea Research Part II</b> , 168, DOI:10.1016/j.dsr2.2019.07.005, 1-14
195.	Sethunadh J., Jayakumar A., Mohandas S., Rajagopal E.N., Nagulu A.S., 2019, Impact of Cartosat-1 orography on weather prediction in the high resolution NCMRWF Unified Model, <b>Journal of Earth System Science</b> , 128, 110, DOI: 10.1007/s12040-019-1133-6.
196.	Sharma A., Ojha N., Pozzer A., Beig G., Gunthe S. S., 2019, Revisiting the crop yield loss in India attributable to ozone, <b>Atmospheric Environment: X</b> , 1:100008, DOI:10.1016/j.aeaoa.2019.100008, 1-8
197.	Sharma Priti, Rani S.I., Gupta M.D., 2019, Monitoring the Satellite Observations Assimilated at NCMRWF, <b>Vayumandal</b> , 45, 1, 26-36
198.	Shekhar S., Kumaresan S., Chakraborty S., Sundaramanickam A., Balachandar K., 2019, Total organic carbon profile in water and sediment in coral reef ecosystem of Agatti Island, Lakshadweep Sea, <b>Indian Journal of Geo-Marine Science</b> , 48, 936-942
199.	Siddharth Kumar, Arora A., 2019, On the connection between remote dust aerosol and Indian summer monsoon, <b>Theoretical and Applied Climatology</b> , 137, DOI:10.1007/s00704-018-2647-6, 929-940
200.	Singh A., Gandhi N., Ramesh R., 2019, Surplus supply of bioavailable nitrogen through N <sub>2</sub> fixation to primary producers in the eastern Arabian Sea during autumn, <b>Continental Shelf Research</b> , 181, DOI:10.1016/j.csr.2019.05.012, 103-110
201.	Singh C., Das S., Akre R., 2019, Unprecedented extremely heavy rainfall over Gujarat during 20-26 June, 2015, <b>Mausam</b> , 70, 3, 581-588.
202.	Singh Deepti, Ghosh S., Roxy M.K., McDermid S., 2019, Indian summer monsoon: Extreme events, historical changes, and role of anthropogenic forcings, <b>WIREs Climate Change</b> , 10:e571, DOI:10.1002/wcc.571, 1-35
203.	Singh Randhir, Ohja P.S., Puviansan N., Singh Virendra, 2019, Impact of GNSS Signal Delay Assimilation on Short Range Weather Forecasts Over the Indian Region, <b>Journal of</b>

	<b>Geophysical Research - Atmospheres</b> , 124, 17-18, 9855-9873.
204.	Singh S., Valsala V., Prajeesh A.G., Balasubramanian S., On the variability of Arabian Sea mixing and its energetics, <b>Journal of Geophysical Research: Oceans</b> , November 2019, DOI:10.1029/2019JC015334, 1-20
205.	Singh Sanjeev Kumar, Prasad V.S., 2019, Evaluation of precipitation forecasts from 3D- Var and Hybrid GSI-Based system during Indian summer monsoon 2015, <b>Meteorology and Atmospheric Physics</b> , 131, DOI:10.1007/s00703-018-0580-y, 455–465
206.	Singh V.P., Khedikar S., Verma I.J., 2019, Improved yield estimation technique for rice and wheat in Uttar Pradesh, Madhya Pradesh and Maharashtra States in India, <b>Mausam</b> , 70, 3, 541-550.
207.	Singla V., Mukherjee S. , Pandithurai G., Dani K.K., Safai P.D., 2019, Evidence of organonitrate formation at a high altitude site, Mahabaleshwar, during the pre-monsoon season, <b>Aerosol and Air Quality Research</b> , 19, DOI:10.4209/aaqr.2018.03.0110, 1241–1251
208.	Singla V., Mukherjee Subrata, Kashikar A.S., Safai P.D., Pandithurai G., 2019, Black carbon: source apportionment and its implications on CCN activity over a rural region in Western Ghats, India, <b>Environmental Science and Pollution Research</b> , 26, DOI:10.1007/s11356-019-04162-w, 7071-7081
209.	Sinha A., Kumari A., Mahapatra S., Singh H.P., Bharti B., 2019, Temporal Rainfall Variability and its Correlation with Temperature over Ranchi, Jharkhand, <b>International Journal of Engineering and Advanced Technology</b> , 9, DOI: 10.35940/ijeat.B3429.129219, 1099-1104
210.	Sinha M., Jha S., Chakraborty P., 2019, Indian Ocean wind speed variability and global teleconnection patterns, <b>Oceanologia</b> , 62, 2, 126-138
211.	Sinha N., Chakraborty S., Chattopadhyay R., Goswami B.N., Mohan P.M., Parua D.K., Sarma D., Datye A., Sengupta S., Bera S., Baruah K.K., 2019, Isotopic investigation of the moisture transport processes over the Bay of Bengal, <b>Journal of Hydrology X</b> , 2, DOI:10.1016/j.hydroa.2019.100021, 100021:1-12
212.	Sinha N., Chakraborty S., Mohan P.M., 2019, Modern rain-isotope data from Indian island and the mainland on the daily scale for the summer monsoon season, <b>Data in Brief</b> , 23:103793, DOI:10.1016/j.dib.2019.103793, 1-8
213.	Sinha N., Chattopadhyay R., Chakraborty S., 2019, Bay of Bengal branch of Indian Summer Monsoon and its association with spatial distribution of rainfall patterns over India, <b>Theoretical and Applied Climatology</b> , 137, DOI:10.1007/s00704-018-2709-9, 1895-1907
214.	Sobel A.H., Lee C., Camargo S.J., Mandli K.T., Emanuel K.A., Mukhopadhyay P., Mahakur M., 2019, Tropical cyclone hazard to Mumbai in the recent historical climate, <b>Monthly Weather Review</b> , 147, DOI:10.1175/MWR-D-18-0419.1, 2355-2366
215.	Somaru Ram, Singh H.N., Yadav R.K., Srivastava M.K. , Tree rings-width study of western Himalaya and its linkage with boreal spring vapor pressure and wet-day frequency, <b>Journal of the Indian Academy of Wood Science</b> , 16, December 2019, DOI:10.1007/s13196-019-00243-y, 103-109
216.	Somaru Ram, Yadav R.K., Singh H.N., Srivastava M.K., 2019, Tree ring-width study from North Sikkim region of India in relation to heat and moisture index: A case study, <b>Journal of Indian Geophysical Union</b> , 23, 271-278
217.	Sonawane K., Pattanaik D.R., Pai D.S., 2019, Inter-annual variability of Indian monsoon rainfall in the JMA's seasonal ensemble prediction system in relation to ENSO and IOD,

	<b>Mausam</b> , 70, 4, 767-780.
218.	Sooraj K.P., Terray P., Masson S., Cr��tat J., 2019, Modulations of the Indian summer monsoon by the hot subtropical deserts: insights from coupled sensitivity experiments, <b>Climate Dynamics</b> , 52, DOI:10.1007/s00382-018-4396-8, 4527-4555
219.	Sreekanth T.S., Varikoden H., Mohan Kumar G., Resmi E.A., 2019, Microphysical features of rain and rain events during different seasons over a tropical mountain location using an optical disdrometer, <b>Scientific Reports</b> , 9:19083, DOI:10.1038/s41598-019-55583-z, 1-15
220.	Sreekanth T.S., Varikoden Hamza, Resmi E.A., Mohan Kumar G., 2019, Classification and seasonal distribution of rain types based on surface and radar observations over a tropical coastal station, <b>Atmospheric Research</b> , 128, DOI:10.1016/j.atmosres.2018.11.012, 90-98
221.	Sreeush M. G., Saran R., Valsala V., Pentakota S., Prasad K.V.S.R., Murtugudde R., 2019, Variability, trend and controlling factors of Ocean acidification over Western Arabian Sea upwelling region, <i>Marine Chemistry</i> , 209, December, DOI:10.1016/ j.marchem.2018.12.002, 14-24
222.	Srinivas G., Chowdary J.S., Gnanaseelan C., Parekh A., Dandi Ramu, Siva Rama Prasad K.V., Naidu C.V., 2019, Impact of differences in the decaying phase of El Nino on South and East Asia summer monsoon in CMIP5 models, <b>International Journal of Climatology</b> , 39, DOI:10.1002/joc.6168, 5503-5521
223.	Srivastava A.K., Revadekar J.V., Rajeevan M., 2019, State of the Climate in 2018 : South Asia, <b>Bulletin of the American Meteorological Society</b> , 100, S236-S237
224.	Srivastava Ankur, Pradhan M., Goswami B.N., Rao Suryachandra A., 2019, Regime shift of Indian summer monsoon rainfall to a persistent arid state: external forcing versus internal variability, <b>Meteorology and Atmospheric Physics</b> , 131, DOI 10.1007/s00703-017-0565-2, 211-224
225.	Srivastava G., Chakraborty A., Nanjundiah R.S., 2019, Multidecadal see-saw of the impact of ENSO on Indian and West African summer monsoon rainfall, <b>Climate Dynamics</b> , 52, DOI:10.1007/s00382-018-4535-2, 6633-6649
226.	Srivastava P., Dey Sagnik, Srivastava A.K., Singh Sachchidanand, Tiwari Suresh, 2019, Suppression of aerosol-induced atmospheric warming by clouds in the Indo-Gangetic Basin, northern India, <b>Theoretical and Applied Climatology</b> , 137, DOI:10.1007/s00704-019-02768-1, 2731-2741
227.	Stammer D., Bracco A., AchutaRao K., Beal L., Bindoff N.L., Braconnot P., Cai W., Chen D., Collins M., Danabasoglu G., Dewitte B., Farneti R., Fox-Kemper B., Fyfe J., Griffies S.M., Jayne S.R., Lazar A., Lengaigne M., Lin X., Marsland S., Minobe S., Monteiro P.M.S., Robinson W., Roxy M.K., Rykaczewski R.R., Speich S., Smith I.J., Solomon A., Storto A., Takahashi K., Toniazzo T., Vialard J., 2019, Ocean climate observing requirements in support of climate research and climate information, <b>Frontiers in Marine Science</b> , 6:444, DOI:10.3389/fmars.2019.00444, 1-18
228.	Subramanian A.C., Balmaseda M.A., Centurioni L., Chattopadhyay R., Cornuelle B.D., DeMott C., Flatau M., Fujii Y., Giglio D., Gille ST, Hamill TM, Hendon H, Hoteit I, Kumar A, Lee J-H, Lucas AJ, Mahadevan A, Matsueda M, Nam S, Paturi S, Penny SG, Rydbeck A, Sun R, Takaya Y, Tandon A, Todd RE, Vitart F, Yuan D and Zhang C., 2019, Ocean observations to improve our understanding, modeling, and forecasting of subseasonal-to-seasonal variability, <b>Frontiers in Marine Science</b> , 6:427, DOI: 10.3389/fmars.2019.00427
229.	Sujith K., Saha Subodh K., Rai A., Pokhrel S., Chaudhari H.S., Hazra A., Murtugudde R., Goswami B.N., 2019, Effects of a multilayer snow scheme on the global teleconnections of the Indian summer monsoon, <b>Quarterly Journal of Royal Meteorological Society</b> , 145, DOI:10.1002/qj.3480, 1102-1117

230.	Sukanya P., Kalapureddy M.C.R., 2019, Cloud microphysical profile differences pertinent to monsoon phases: inferences from a cloud radar, <b>Meteorology and Atmospheric Physics</b> , 131, DOI:10.1007/s00703-019-00666-9, 1723–1738
231.	Sun Q., Du Y., Zhang Y., Feng M., Chowdary J.S., Chi J., Qiu S., Yu W., 2019, Evolution of sea surface salinity anomalies in the southwestern tropical Indian Ocean during 2010-2011 influenced by a negative IOD event, <b>Journal of Geophysical Research-Oceans</b> , 124, DOI:10.1029/2018JC014580, 3428-3445
232.	Sunilkumar K., Yatagai A., Masuda M., 2019, Preliminary evaluation of GPM-IMERG rainfall estimates over three distinct climate zones with APHRODITE, <b>Earth and Space Science</b> , 6, DOI:10.1029/2018EA000503, 1321-1335
233.	Suthinkumar P.S., Babu C.A., Varikoden H., 2019, Spatial Distribution of Extreme Rainfall Events during 2017 Southwest Monsoon over Indian Subcontinent, <b>Pure and Applied Geophysics</b> , 176, DOI: 10.1007/s00024-019-02282-5, 5431–5443
234.	Tejavath C.T., Ashok K., Chakraborty S., Ramesh R., 2019, PMIP3 narrative of modulation of ENSO teleconnections to the Indian summer monsoon by background changes in the Last Millennium, <b>Climate Dynamics</b> , 53, DOI:10.1007/s00382-019-04718-z, 3445–3461
235.	Thakur M.K., Lakshmi Kumar T.V., Koteswara Rao K., Barbosa H., Brahmananda Rao V., 2019, New perspective in understanding rainfall from satellites over a complex topographic region of India, <b>Scientific Reports</b> , 9:15610, DOI:10.1038/s41598-019-52075-y, 1-10
236.	Tinmaker M.I.R., Ghude S.D., Chate D.M., 2019, Land-sea contrasts for climatic lightning activity over Indian region, <b>Theoretical and Applied Climatology</b> , 138, DOI:10.1007/s00704-019-02862-4, 931-940
237.	Tirkey S., Mukhopadhyay P., Krishna R.P.M., Dhakate A., Salunke K., 2019, Simulations of monsoon intraseasonal oscillation using Climate Forecast System Version 2: Insight for horizontal resolution and moist processes parameterization, <b>Atmosphere</b> , 10:429, DOI:10.3390/atmos10080429, 1-20
238.	Tiwari G., Routray A., Kumar Sushil, Panda J., Jain I., 2019, A High-Resolution Mesoscale Model Approach to Reproduce Super Typhoon Maysak (2015) over Northwestern Pacific Ocean, <b>Journal of Earth System Science and Environment</b> , 03, 101-112
239.	Trott C.B., Subrahmanyam B., Roman-Stork H.L., Murty V.S.N., Gnanaseelan C., 2019, Variability of intraseasonal oscillations and synoptic signals in sea surface salinity in the Bay of Bengal, <b>Journal of Climate</b> , 32, DOI:10.1175/JCLI-D-19-0178.1, 6703-6728
240.	Turner A.G., Bhat G.S., Martin G.M., Parker D.J., Taylor C.M., Mitra A.K., Tripathi S.N., Milton S., Rajagopal E.N., Evans J.G., Morrison R., Pattnaik S., Sekhar M., Bhattacharya B.K., Madan R., Govindankutty M., Fletcher J.K., Willetts P.D., Menon A., Marsham J.H., the INCOMPASS team, Hunt K.M.R., Chakraborty T., George G., Krishnan M., Sarangi C., Belušić D., Garcia-Carreras L., Brooks M., Webster S., Brooke J.K., Fox C., Harlow R.C., Langridge J.M., Jayakumar A., Böing S.J., Halliday O., Bowles J., Kent J., O'Sullivan D., Wilson A., Woods C., Rogers S., Smout-Day R., Tiddeman D., Desai D., Nigam R., Paleri S., Smith A.S.M., Anderson D., Bauguitte S., Carling R., Chan C., Devereau S., Gratton G., MacLeod D., Nott G., Pickering M., Price H., Rastall S., Reed C., Trembath J., Woolley A., Volonté A., New B., 2019, New interaction of convective organisation with monsoon precipitation, atmosphere, surface and sea: the 2016 INCOMPASS field campaign in India, <b>Quarterly Journal of the Royal Meteorological Society</b> , DOI: 10.1002/qj.3633.
241.	Uma K.N., Das S.K., 2019, Do the stability indices indicate the formation of deep convection?, <b>Meteorology and Atmospheric Physics</b> , 131, DOI:10.1007/s00703-017-0550-9, 1-10
242.	Umakanth U., Vellore R.K., Krishnan R., Choudhury A.D., Bisht J.S.H., Di Capua G.,

	Coumou D., Donner R.V., 2019, Meridionally extending anomalous wave train over Asia during breaks in the Indian summer monsoon, <b>Earth Systems and Environment</b> , 3, DOI:10.1007/s41748-019-00119-8, 353-366
243.	Utsav B., Deshpande S.M., Das Subrata K., Pandithurai G., Niyogi D., 2019, Observed vertical structure of convection during dry and wet summer monsoon epochs over the Western Ghats, <b>Journal of Geophysical Research</b> , 124, DOI:10.1029/2018JD028960, 1352-1369
244.	Varghese M., Prabha Thara V., Murugavel P., Anu A. S., Resmi E. A., Dinesh G., Jaya Rao Y., Nagare B., Safai P. D., Nair Sathy, K. Nandakumar, Vishnu R., Bhavani Kumar Y., 2019, Aerosol and cloud droplet characteristics over Ganges Valley during break phase of monsoon: A case study, <b>Atmospheric Research</b> , 220, DOI:10.1016/j.atmosres.2019.01.013, 125-140
245.	Varikoden H., Revadekar J.V., Kuttippurath J., Babu C.A., 2019, Contrasting trends in southwest monsoon rainfall over the Western Ghats region of India, <b>Climate Dynamics</b> , 52, DOI:10.1007/s00382-018-4397-7, 4557-4566
246.	Veeranjaneyulu Ch., Deo A.A., 2019, Study of upper ocean parameters during passage of tropical cyclones over Indian seas, <b>International Journal of Remote Sensing</b> , 40, DOI:10.1080/01431161.2019.1573336, 4683-4723
247.	Victor N.J., Siingh D., Panneerselvam C., Elango P., Samy V.S., 2019, Fair-weather potential gradient and its coupling with ionospheric potential from three Antarctic stations: Case studies, <b>Journal of Atmospheric and Solar Terrestrial Physics</b> , 184, DOI:10.1016/j.jastp.2019.01.004, 5-17
248.	Victor N.J., Siingh D., Singh R.P., Singh R., Kamra A.K., 2019, Diurnal and seasonal variations of radon ( <sup>222</sup> Rn) and their dependence on soil moisture and vertical stability of the lower atmosphere at Pune, India, <b>Journal of Atmospheric and Solar terrestrial Physics</b> , 195:105118, DOI:10.1016/j.jastp.2019.105118, 1-14
249.	Vishnu S., Sanjay J., Krishnan R., 2019, Assessment of climatological tropical cyclone activity over the north Indian Ocean in the CORDEX-South Asia regional climate models, <b>Climate Dynamics</b> , 53, DOI:10.1007/s00382-019-04852-8, 5101–5118
250.	Yadav R., Sahu L., Beig G., Tripathi N., Jaaffrey S.N.A., Maji S., 2019, Role of local meteorology on ambient particulate and gaseous species at an urban site of western India, <b>Urban Climate</b> , 28, DOI:10.1016/j.uclim.2019.01.003, 100449
251.	Yadav R., Sahu L.K., Tripathi N., Pal D., Beig G., Jaaffrey S.N.A., 2019, Investigation of emission characteristics of NMVOCs over urban site of western India, <b>Environmental Pollution</b> , 252, DOI:10.1016/j.envpol.2019.05.089, 245-255
252.	Yadav R.K., Roxy M.K., 2019, On the relationship between north India summer monsoon rainfall and east equatorial Indian Ocean warming, <b>Global and Planetary Change</b> , 179, DOI:10.1016/j.gloplacha.2019.05.001, 23-32
253.	Yadav Seema, Bhattacharya P., Srivastava Kuldeep, 2019, Analysing long term seasonal and annual trends for precipitation and temperature in Central India, <b>Mausam</b> , 70, 3, 523-532.
254.	Yang L., Mukherjee S., Pandithurai G., Waghmare V., Safai P.D., 2019, Influence of dust and sea-salt sandwich effect on precipitation chemistry over the Western Ghats during summer monsoon, <b>Scientific Reports</b> , 9:19171, DOI:10.1038/s41598-019-55245-0, 1-13
255.	Yang L., Pandithurai G., Chate D.M., Rao P.S.P., Waghmare V., Iyer U., 2019, Evidence of precedent wind role on controlling PM1 wet scavenging of aerosols during monsoon rain events, <b>Atmospheric Environment</b> , 201, DOI: 10.1016/j.atmosenv.2018.12.041, 265-277
256.	Zachariah J., Babu C.A., Varikoden H., 2019, Dynamics of westward propagation and

	intensification of Lakshadweep low in the southern Arabian Sea, <b>Ocean Dynamics</b> , 69, DOI:10.1007/s10236-019-01263-5, 519-528
257.	Zhang K., Manuelpillai D., Raut B., Deletic A., Bach P.M., 2019, Evaluating the reliability of stormwater treatment systems under various future climate conditions, <b>Journal of Hydrology</b> , 568, DOI:10.1016/j.jhydrol.2018.10.056, 57-66

## Other Publications

- Beal L.M., Vialard J., Roxy M.K. et al., 2019, Executive Summary, **IndOOS-2: A roadmap to sustained observations of the Indian Ocean for 2020-2030**, CLIVAR-4/2019, DOI:10.36071/clivar.rp.4-1.2019, I-VIII
- Chowdary J.S, Hu K., Srinivas G., Kosaka Y., Wang L, Koteswara Rao K., 2019, Eurasian jet streams as conduits for East Asian monsoon variability, **Current Climate Change Reports**, DOI: 10.1007/s40641-019-00134-x, 1-12
- Climate Research and Services, India Meteorological Department, **Monsoon Report-2019**, Met Monograph No. ESSO/IMD/Synoptic Met/02(2019)/24
- Climate Research and Services, India Meteorological Department, **The Probable Maximum Precipitation (PMP) Atlas for Indus river Basin**, Met Monograph No. ESSO/IMD/Hydrology/ATL/01(2019)/07
- David A. Randall, J. Srinivasan, Ravi S. Nanjundiah and P. Mukhopadhyay, 2019, **Current Trends in the Representation of Physical Processes in Weather and Climate Models**, Nature Springer, ISBN 978-981-13-3395-8, <https://doi.org/10.1007/978-981-13-3396-5>
  - Goswami B.B., Khouider B., Phani R., Mukhopadhyay P., Majda A.J., Stochastic Multi-cloud Model (SMCM) Convective Parameterization in the CFSv2: Scopes and Opportunities, [https://doi.org/10.1007/978-981-13-3396-5\\_8](https://doi.org/10.1007/978-981-13-3396-5_8), 157-181
  - Mukhopadhyay P., Phani Murali Krishna R., Abhik S., Ganai M., Kumar Roy, Challenges of Improving the Stratiform Processes in a Coupled Climate Model with Indian Monsoon Perspective, [https://doi.org/10.1007/978-981-13-3396-5\\_12](https://doi.org/10.1007/978-981-13-3396-5_12), 219-229
  - Rajagopal E.N., Mitra A.K., Gupta M.D., George J.P, Ashrit R., Sarkar A., Jayakumar A., Current and Future Activities in Unified Modelling and Data Assimilation at NCMRWF, 231-251.
- Kaur M., Phani R., Joseph S., Sahai A.K., Mandal R., Dey A., Chattopadhyay R., Bias-Correction and Dynamical Downscaling Strategy to Improve the Prediction of Extreme Weather Events on Extended Range, **IITM Research Report**, RR-145, ESSO/IITM/SERP/SR/01(2019)/196, January 2019
- Kulkarni A.A., Rekha N., Guhathakurta P., Patwardhan S.K., Gadgil S., 2019, **Report on Delineation of the Meteorological Subdivisions of the states of the Indian peninsula**
- Kumar B., Manapragada M., Suresh N., 2019, High Level File System and Parallel I/O Optimization of DNS Code, In: Majumdar A., Arora R. (eds) **Software Challenges to Exascale Computing**, Springer Nature, Communications in Computer and Information Science Series, Vol 964, pp. 21-31 [doi.org/10.1007/978-981-13-7729-7\\_2](https://doi.org/10.1007/978-981-13-7729-7_2).

- Mukhopadhyay P., Prasad V.S., Krishna R.P.M., Deshpande M., Ganai M., Tirkey S., Sarkar S., Goswami T., Johny C.J., Kumar Roy, Mahakur M., Durai V.R., Rajeevan M., 2019, Performance of Very High Resolution Global Forecast System Model (GFS T1534) at 12.5km over Indian Region during 2016-2017 Monsoon Seasons, **IITM Research Report, RR-146**, ISSN: 0252-1075, ESSO/IITM/MM/SR/02(2019)/197.
- Prabhu A., Mandke S.K., 2019, Indian rainfall and Eurasian snow climatology in CMIP5 historical simulations, **WCRP- CAS/JSC Working group on Numerical Experimentation Blue Book**, <http://wgne.meteoinfo.ru/publications/wgne-blue-book/>, 9-13
- Prabhu A., Mandke S.K., 2019, Future change of annual cycle of Indian rainfall and Eurasian snow in the CMIP5 models, **WCRP- CAS/JSC Working group on Numerical Experimentation Blue Book**, <http://wgne.meteoinfo.ru/publications/wgne-blue-book/>, 7-11
- RSMC-Tropical Cyclones, New Delhi, **Report on cyclonic disturbances over north Indian Ocean during 2018**, No. ESSO/IMD/CWD Report-01(2019)/09
- Sabin T.P., 2019, Climate Change and the Indian Monsoon, **Geography and You**, 19(18), 4-9
- Sahai A.K., 2019, Chattopadhyay R., Joseph S., Extended Range Forecast, **Geography and You**, 19, 18, 16-21
- Secretariat of the World Meteorological Organization, **Tropical Cyclone Operational Plan for the Bay of Bengal and the Arabian Sea**, Tropical Cyclone Programme Report No. TCP-21, Ed 2019. <http://www.rsmcnewdelhi.imd.gov.in/images/pdf/publications/tcp-21/tcp-21-2019.pdf>
- Srivastava A.K., Bisht D.S., Tiwari S., 2019, Aerosol Characteristics in the UTLS over the Indian Summer Monsoon Region: A Potential Connection with Boundary Layer Pollution, Book Chapter in Gautam A.S., Kandari T. (eds) **Advancement in Basic and Applied Sciences**, Ed. , ISBN: 978-93-84866-90-7, 1-20
- Victor N.J., Chandra S., Siingh D., 2019, Lightning, global electric circuit and climate, Book Chapter in Srivastava P.K., Singh S.K., Mohanty U.C., Murty T. (eds.), **Techniques for Disaster Risk Management and Mitigation**, Geophysical Monograph Series , Vol. 244, American Geophysical Union, John Willy & Sons, Inc., 109-123.

## OSMART

(NIOT+INCOIS+NCCR+CMLRE)

1.	Amol P., Vinayachandran P.N., Shankar D., Thushara V., Vijith V., Chatterjee A., Kankonkar A., 2019, Effect of freshwater advection and winds on the vertical structure of chlorophyll in the northern Bay of Bengal, <b>Deep-Sea Research Part II: Topical Studies in Oceanography</b> , DOI:10.1016/j.dsr2.2019.07.010
2.	Anburajan L., Meena B., Sreelatha T., Vinithkumar N.V., Kirubakaran R., Dharani G., 2019, Ectoine biosynthesis genes from the deep sea halophilic eubacteria, <i>Bacillus clausii</i> NIOT-DSB04: Its molecular and biochemical characterization, <b>Microbial Pathogenesis</b> , 144, 105-116

3.	Anburajan L., Meena B., Vinithkumar N.V., Kirubakaran R., Dharani G., 2019, Functional characterization of a major compatible solute in Deep Sea halophilic eubacteria of active volcanic Barren Island, Andaman and Nicobar Islands, India, <b>Infection, Genetics and Evolution</b> , 73, 261-265.
4.	Aneesh Kumar K.V., Sibi T. Baby, Dhaneesh K.V., Manjebraayakath H., Saravanane N., Sudhakar. M., 2019, Stranding record of dwarf sperm whale <i>Kogia sima</i> in Lakshadweep Archipelago, India and its genetic analogy by molecular phylogeny, <b>Thalassas: An International Journal of Marine Sciences</b> , DOI:10.1007/s41208-018-0115-9, 1-7
5.	Aneesh Kumar K.V., Sileesh M., Rajeeshkumar M.P., Bineesh K.K., Hashim M., Saravanane N., Sudhakar M., Fricke R., 2019, New record of <i>Bembradium Magnoculum</i> (Actinopterygii: Scorpaeniformes: Plectrogeniidae) from the north-eastern Indian Ocean, <b>Acta Ichthyologica et Piscatoria</b> , 49, 3, DOI: 10.3750/AIEP/02573, 269-274
6.	Ashin K., Girishkumar M.S., Suprit K., Thangaprakash V.P., 2019, Observed Upper Ocean Seasonal and Intraseasonal Variability in the Andaman Sea, <b>Journal of Geophysical Research: Oceans</b> , 124, 10, 6760-6786.
7.	Baduru B., Paul B., Banerjee D.S., Sanikommu S., Paul A., 2019, Ensemble based regional ocean data assimilation system for the Indian Ocean: Implementation and evaluation, <b>Ocean Modelling</b> , 143:101470.
8.	Bittig H.C., Maurer T.L., Plant J.N., Wong A.P., Schmechtig C., Claustre H., Trull T.W., Bhaskar T.V.S.U., Boss E., Dall'Olmo G., Organelli E., Poteau A., Johnson K.S., Hanstein C., Leymarie E., Le Reste S.L., Riser S.C., Rupan A.R., Taillandier V., Thierry V., Xing X., 2019, A BGC-Argo guide: Planning, deployment, data handling and usage, <b>Frontiers in Marine Science</b> , 6:502, .
9.	Busireddy N.K.R., Ankur K., Osuri K.K., Sivareddy S., Niyogi D., 2019, The response of ocean parameters to tropical cyclones in the Bay of Bengal, <b>Quarterly Journal of the Royal Meteorological Society</b> , DOI: 10.1002/qj.3622
10.	Chakraborty K., Kumar N., Girishkumar M.S., Gupta G.V.M., Ghosh J., Udaya Bhaskar T.V.S., Thangaprakash V.P., 2019, Assessment of the impact of spatial resolution on ROMS simulated upper-ocean biogeochemistry of the Arabian Sea from an operational perspective, <b>Journal of Operational Oceanography</b> , 12, 2, 116-142.
11.	Chakraborty K., Lotliker A.A., Majumder S., Samanta A., Baliarsingh S.K., Ghosh J., Madhuri P.P., Saravanakumar A., Sarma N.S., Rao B.S., Shanmugam P., 2019, Assessment of model-simulated upper ocean biogeochemical dynamics of the Bay of Bengal, <b>Journal of Sea Research</b> , 146, 63-76.
12.	Chakraborty K., Maity S., Lotliker A.A., Samanta A., Ghosh J., Masuluri N., Swetha N., Bright R.P., 2019, Modelling of marine ecosystem in regional scale for short term prediction of satellite-aided operational fishery advisories, <b>Journal of Operational Oceanography</b> , 12, Sup.2, S157-S175.
13.	Chakraborty K., Nimit Kumar, Girishkumar M.S., Gupta G.V.M., Ghosh J., Udaya Bhaskar T.V.S., Thangaprakash V.P., 2019, Assessment of the impact of spatial resolution on ROMS simulated upper-ocean biogeochemistry of the Arabian Sea from operational perspective, <b>Journal of Operational Oceanography</b> , 12, 2, 116-142.
14.	Chatterjee A., Praveen kumar B., Prakash S., Singh P., 2019, Annihilation of the Somali upwelling system during summer monsoon, <b>Scientific Reports</b> , 9:7598
15.	Danish M., Tripathy G.R., Panchang R., Gandhi N., Prakash S., 2019, Dissolved boron in a brackish-water lagoon system (Chilika lagoon, India): Spatial distribution and coastal behaviour, <b>Marine Chemistry</b> , 214:103663, DOI:10.1016/j.marchem.2019.103663, 1-13



16.	Das I., Hazra S., Das S., Giri S., Maity S., Ghosh S., 2019, Present Status of the Sustainable Fishing Limits for Hilsa Shad in the northern Bay of Bengal, India, <b>Proceedings of the National Academy of Sciences India Section B - Biological Sciences</b> , 89, 2, 525-532.
17.	Deepa K.P., Aneesh Kumar K.V., Oxona K., Nikki R., Bineesh K.K., Hashim M., Saravanane N., Sudhakar M., 2019, Population variations of Opal fish, <i>Bembrops caudimaculata</i> Steindachner, 1876 from Arabian Sea and Andaman Sea: evidence from otolith morphometry, <b>Regional Studies in Marine Science</b> , 25, <a href="https://doi.org/10.1016/j.rsma.2018.100466">https://doi.org/10.1016/j.rsma.2018.100466</a>
18.	Dhanalakshmi S., Kankara R.S., 2019, Assessment on shoreline retreat in response to sea level rise – Chennai coast, <b>Journal of Coastal Research</b> , Special Issue No.89
19.	Dhanalakshmi S., Kankara R.S., Chenthamil Selvan S., 2019, Impact assessment of sea level rise over coastal landforms a case study of Cuddalore coast, south-east coast of India, <b>Environmental Earth Sciences</b> , 78: 494.
20.	Dixit S., Bayyana S., Hashim M., Saravanane N., Sudhakar M., 2019, Polyclad fauna of Agatti Island, Lakshadweep, India: new records and description of two new species, <b>Zootaxa</b> , 4657, 2, DOI: <a href="http://dx.doi.org/10.11646/zootaxa.4657.2.2">http://dx.doi.org/10.11646/zootaxa.4657.2.2</a>
21.	Doss Prakash V., Vedachalam N., Ramesh R., Udaya Prasanth P., Ramesh S., Murugesan M., Murthy K.N.V.V., Ramadass G. A., 2019 Assessment of the effectiveness of the subsea optical wireless communication system in the Arabian sea using field data, <b>Marine Technology Society Journal</b> , 53, 1, DOI:10.4031/MTSJ.53.1.3, 9-19
22.	Ganesh Kumar A., Nivedha Rajan, Kirubakaran, Dharani G., 2019, Biodegradation of crude oil using self-immobilized hydrocarbonoclastic deep sea bacterial consortium, <b>Marine Pollution Bulletin</b> , 146, 741-750
23.	Ganesh Kumar A., Noelin Mathew, Sujitha K., Kirubakaran R., Dharani G., 2019, Genome analysis of deep sea piezotolerant <i>Nesiotobacter exalbescens</i> COD22 and toluene degradation studies under high pressure condition, <b>Scientific Reports</b> , 9: 18724, 2020
24.	Gayathri R., Bhaskaran P.K., Murty P.L.N., 2019, River-tide-storm surge interaction characteristics for the Hooghly estuary, East coast of India, <b>ISH Journal of Hydraulic Engineering</b> , DOI: 10.1080/09715010.2019.1601036, 1-13.
25.	Ghosh S., Karmakar S., Saha A., Mohanty M.P., Ali S., Raju S.K., Krishnakumar V., Sebastian M., Behera M.R., Ashrit R., Murty P.L.N., Srinivas K., Narasimhan B., Usha T., Ramana Murthy M.V., Thiruvengadam P., Indu J., Thirumalaivasan D., George J.P., Gedam S., Inamdar A.B., Murty B.S., Mujumdar P.P., Mohapatra M., Bhardwaj A., Basu S., Nayak S., 2019, Development of India's first integrated expert urban flood forecasting system for Chennai, <b>Current Science</b> , 117, 5, 741-745.
26.	Giri S., Hazra S., Ghosh P., Ghosh A., Das S., Chanda A., Das I., Chakraborty K., Mukhopadhyay A., Maity S., 2019, Role of lunar phases, rainfall, and wind in predicting Hilsa shad ( <i>Tenualosa ilisha</i> ) catch in the northern Bay of Bengal, <b>Fisheries Oceanography</b> , 28, 5, 567-575.
27.	Girishkumar M.S., Thangaprakash V.P., Udaya Bhaskar T.V.S., Suprit K., Sureshkumar N., Baliarsingh S.K., Jofia J., Pant V., Vishnu S., George G., Abhilash K.R., Shivaprasad, S., 2019 Quantifying Tropical Cyclone's Effect on the Biogeochemical Processes Using Profiling Float Observations in the Bay of Bengal, <b>Journal of Geophysical Research: Oceans</b> , 124, 3, 1945-1963.
28.	Goni G.J., Sprintall J., Bringas F., Cheng L., Cirano M., Dong S., Domingues R., Goes M., Lopez H., Morrow R., Rivero U., Rossby T., Todd R.E., Trinanés J., Zilberman N., Baringer M., Boyer T., Cowley R., Domingues C.M., Hutchinson K., Kramp M., Mata M.M., Reseghetti F., Sun C., Udaya Bhaskar T.V.S., Volkov D., 2019, More than 50 years of

	successful continuous temperature section measurements by the global expendable bathythermograph network, its integrability, societal benefits, and future, <b>Frontiers in Marine Science</b> , 6:452.
29.	Harikumar R., 2019, Discernment of near-oceanic precipitating clouds into convective or stratiform based on Z-R model over an Asian monsoon tropical site, <b>Meteorology and Atmospheric Physics</b> , DOI:10.1007/s00703-019-00696-3,1-14.
30.	Hermes J. C, Navaneeth K N, Venkatesan R, et.al., 2019, Sustained ocean observing system in the indian ocean for climate related scientific knowledge and societal needs, <b>Frontiers in Marine Science</b> , 6, 355.
31.	Jampana V., Ravichandran M., Kantha L., Rahaman H., 2019, Modeling slippery layers in the northern Bay of Bengal, <b>Deep-Sea Research Part II: Topical Studies in Oceanography</b> , DOI: 10.1016/j.dsr2.2019.07.004.
32.	Jangir B., Swain D., Ghose S.K., Goyal R., Udaya Bhaskar T.V.S., 2019, Inter-comparison of model, satellite and in situ tropical cyclone heat potential in the North Indian Ocean, <b>Natural Hazards</b> , DOI: 10.1007/s11069-019-03756-4, 1-18
33.	Jayaram C., Udaya Bhaskar T.V.S., Kumar J.P., Swain D., 2019, Cyclone Enhanced Chlorophyll in the Bay of Bengal as Evidenced from Satellite and BGC-Argo Float Observations, <b>Journal of the Indian Society of Remote Sensing</b> , 47, 11, 1875-1882.
34.	Jena B.K., Arunraj K.S., Suseentharan V., Kukadiya Tushar, Karthikeyan T., 2019, Indian coastal ocean radar network, <b>Current Science</b> , 116, 3, 373-378
35.	Jha D.K., RatnamK., Rajaguru S., Dharani G., Prashanthi Devi M., Kirubakaran R., 2019, Evaluation of trace metals quality in seawater and sediments of Nellore, southeast coast of India, by using multivariate and ecological tool, <b>Marine Pollution Bulletin</b> , 146, DOI:10.1016/j.marpolbul.2019.05.044 1-10.
36.	Jyothi L., Joseph S., Suneetha P., 2019, Surface and Sub-surface Ocean Response to Tropical Cyclone Phailin: Role of Pre-existing Oceanic Features, <b>Journal Geophysical Research Oceans</b> , 124, 9, 6515-6530.
37.	Kantha L., Weller R.A., Farrar J.T., Rahaman H., Jampana V., 2019, A note on modeling mixing in the upper layers of the Bay of Bengal: Importance of water type, water column structure and precipitation, <b>Deep-Sea Research Part II: Topical Studies in Oceanography</b> , 168:104643, DOI: 10.1016/j.dsr2.2019.104643.
38.	Karati K.K., Ashadevi C.R., Rasheed K., Vineetha G., Smitha B.R., Vimalkumar K.G., Sari Mol C.N., Sudhakar M., 2019, Influence of the coastal circulation and water-mass characteristics in structuring the zooplankton community of the eastern Arabian Sea, <b>Regional Studies of Marine Science</b> , 31:100761.
39.	Karthikeyan P., Marigoudar S.R., Nagarjuna A., Sharma K.V., 2019, Toxicity assessment of cobalt and selenium on marine diatoms and copepods, <b>Environmental Chemistry and Ecotoxicology</b> , 1, 36-42.
40.	Koushik S., Ramesh CH., Shanmugaraj T., Ramana Murthy M.V., 2019, Assessment on recruitment density of branching corals <i>Montipora digitata</i> (Scleractinia: Acroporidae) in Talairi Island, Gulf of Mannar, <b>International Journal of Fauna and Biological Studies</b> , 6, 4, 38-41
41.	Koushik S., Ramesh Ch., Shanmugaraj T., Ramana Murthy M.V., 2019, <i>In Situ</i> Observation on the mass aggregation of edible sea urchin <i>Stomopneustes variolaris</i> in Shingle Island, Gulf of Mannar, <b>Journal of Life Sciences Research</b> , 6, 1, 5-8.
42.	Krishnamohan K.S., Vialard J., Lengaigne M., Masson S., Samson G., Pous S., Neetu S., Durand F., Shenoi S.S.C., Madec G., 2019, Is there an effect of Bay of Bengal salinity on the

	northern Indian Ocean climatological rainfall?, <b>Deep-Sea Research Part II: Topical Studies in Oceanography</b> , 166, 19-33.
43.	Kumar B.P., D'Asaro E., Suresh kumar N., Ravichandran M., 2019, Widespread cooling of the Bay of Bengal by tropical storm Roanu, <b>Deep-Sea Research Part II: Topical Studies in Oceanography</b> , 168:104652, DOI: 10.1016/j.dsr2.2019.104652.
44.	Kumaraswami M., Dash S.K., Rao G.D., Ramu K., Rao V.R., 2019, Estimation of inherent optical properties using quasi-analytical algorithm along the coastal waters of southeast Arabian Sea, <b>Ocean Dynamics</b> , 69, 8, 925-937
45.	Madan M. Mahanty, Latha G., Edwards Durai P., 2019, Impact of tropical cyclone Vardah on the fish chorus in shallow waters of Southwest Bay of Bengal, <b>Ecological Indicators</b> , DOI:10.1016/j.ecolind.2018.09.012
46.	Madhusudhana S.K., Chakraborty B., Latha G., 2019, Humpback whale singing activity off the Goan coast in the Eastern Arabian Sea, <b>Bioacoustics</b> , DOI:10.1080/09524622.2018.1458248, 1-17
47.	Mahanty M.M., Latha G, Durai P.E., 2019, Impact of tropical cyclone Vardah on the fish chorus in shallow waters of Southwest Bay of Bengal, <b>Ecological Indicators</b> , 96, 288-292.
48.	Majumder S., Balakrishnan Nair T.M., Kiran Kumar N., 2019, Reconstruction of the state space figure of indian ocean dipole, <b>Advances in Intelligent Systems and Computing</b> , 816, 471-482.
49.	Majumder S., Kanjilal P.P., 2019, Application of Singular Spectrum Analysis for Investigating Chaos in Sea Surface Temperature, <b>Pure and Applied Geophysics</b> , 176(8), pp. 3769-3786.
50.	Mandal Samiran, Sil Sourav, Pramanik Saikat, Arunraj K.S., Jena B.K., 2019, Characteristics and evolution of a coastal mesoscale eddy in the Western Bay of Bengal monitored by high-frequency radars, <b>Dynamics of Atmospheres and Oceans</b> , 88: 101107, DOI:10.1016/j.dynatmoce.2019.101107
51.	Meena B., Anburajan L., Sathish T., Das A.K., Vinithkumar N.V., Kirubakaran R., Dharani G., 2019, Studies on diversity of <i>Vibrio</i> sp. and prevalence of hapA, tcpI, st, rtx A&C, acfB, hlyA, ctxA, ompU and toxR genes in environmental strains of <i>Vibrio cholerae</i> from Port Blair bays of South Andaman, India, <b>Marine Pollution Bulletin</b> , 144, 105-116.
52.	Meena B., Anburajan L., Vinithkumar N.V., Kirubakaran R., Dharani G, 2019, Biodiversity and antibacterial potential of cultivable halophilic actinobacteria from the deep sea sediments of active volcanic Barren Island, <b>Microbial Pathogenesis</b> , 132, DOI:10.1016/j.micpath.2019.04.043, 129-136.
53.	Meera K.M, Hashim M., Sanjeevan V.N., Jayasankar J., Ambrose T.V., Sudhakar M., 2019, Systematics and biology of the blue lantern fish, <i>Diaphus coeruleus</i> from the south-eastern Arabian Sea, <b>Journal of the Marine Biological Association of the United Kingdom</b> , DOI:10.1017/S0025315417002004
54.	Midhunshah H., Smitha B.R., Mohamed Hatha A.A., Sudhakar M., 2019, Subsurface chlorophyll Maxima in the North Eastern Arabian sea: Simulation on impact of warming, <b>Ecological Indicators</b> , 110, 105858.
55.	Mishra S.K., Nayak R.K., Mahanty P.C., Seshasai M.V.R., Dadhwal V.K., 2019, Tidal Circulation in the Hooghly Estuary and Adjacent Coastal Oceans, <b>Journal of the Indian Society of Remote Sensing</b> , 47, 4, 705-714.
56.	Mohammed Noushad B., Idrees Babu K.K., Parameswaran U.V., Sureshkumar S., 2019, A new record of sea star <i>Nardoa frianti</i> Koehler, 1910 (Echinodermata: Asteroidea: Ophidiasteridae) from the Arabian Sea, Western Indian Ocean, <b>Journal of the Marine</b>

	<b>Biological Association of India</b> , 60, 2, DOI:10.6024/jmbai.2018.60.2.2056-14, 18-22.
57.	Mohanty P.C., Panditrao S., Mahendra R.S., Kumar H.S., Bharadwaj S.P., Nayak R.K., Ramarao E.P., 2019, Geospatial Assessment of Flood Hazard Along the Tamil Nadu Coast, <b>Journal of the Indian Society of Remote Sensing</b> , 47, 10, 1657-1669.
58.	Mukherjee A., Kalita B.K., 2019, Signature of La Niña in interannual variations of the East India Coastal Current during spring, <b>Climate Dynamics</b> , 53, 1-2, 551-568.
59.	Mukherjee A., Chatterjee A., Francis P.A., 2019, Role of Andaman and Nicobar Islands in eddy formation along western boundary of the Bay of Bengal, <b>Nature Scientific Reports</b> , 9:10152.
60.	Nagarjuna A., Karthikeyan P., Marigoudar S.R., Sharma K.V., 2019, Effect of sublethal gradient concentrations of nickel on postlarvae of <i>Penaeus monodon</i> , <i>Perna viridis</i> and <i>Terapon jarbua</i> : Enzyme activities and histopathological changes, <b>Chemosphere</b> , 237, 124428.
61.	Navaneeth K.N., Martin M.V., Jossia Joseph K., Venkatesan R., 2019, Contrasting Upper Ocean Response of Two Intense Cyclones in Bay of Bengal, <b>Deep Sea Research-Part1</b> , 147, 65-78.
62.	Noujas V., Kankara R.S., 2019, Shoreline Evolution along Vengurla, South Maharashtra Coast Using a Numerical Model, <b>Journal of Coastal Research</b> , Special Issue No.89.
63.	Noujas V., Kankara R.S., Chenthamil Selvan S., 2019, Shoreline management plan for embayed beaches: A case study at Vengurla, west coast of India, <b>Ocean &amp; Coastal Management</b> , 170, 51-59.
64.	Oxona K., Aneesh Kumar K.V., Sileesh M., Nikki R., Rajeesh Kumar M.P., Hashim M., Sudhakar M., 2019, New record of <i>Owstonia kamoharai</i> Endo, Liao and Matsuura, 2015 (Perciformes: Cepolidae) from the northeastern Indian Ocean, <b>Regional Studies in Marine Science</b> , 13:100946.
65.	Padate V.P., Hashim M., Ng P.K.L., 2019, <i>Kasagia sudhakari</i> , a new species of deep-sea spider crab (Crustacea: Brachyura: Majidae) from the southeastern Arabian Sea, <b>Marine Biology Research</b> , 15, 3, 290-296.
66.	Padmanaban V.P., Verma P., Gopal D., Sekar A.K., Kirubakaran R., 2019, Phylogenetic identification and metabolic potential of bacteria isolated from deep sea sediments of Bay of Bengal and Andaman Sea, <b>Indian Journal of Experimental Biology</b> , 57, 561-572
67.	Pradhan U.K., Mohanty P.K., Mishra P., Behera B., Sahoo R.K., 2019, Changes in sediment texture by turtle mass nesting at Rushikulya rookery, <b>Indian Journal of Geo Marine Sciences</b> , 48, 3, 280-282
68.	Prasad S.J., Francis P.A., Balakrishnan Nair T.M., Sheno S.S.C., Vijayalakshmi T., 2019, Oil spill trajectory prediction with high-resolution ocean currents, <b>Journal of Operational Oceanography</b> , DOI:10.1080/1755876X.2019.1606691, 1-17.
69.	Prerna S., Chatterjee A., Mukherjee A., Ravichandran M., Sheno S.S.C., 2019, Wyrтки Jets: Role of intraseasonal forcing, <b>Journal of Earth System Science</b> , 128:21.
70.	Priyanka S, Kirubakaran R., Mary Leema J.T, 2019, Statistical optimization of BG-11 medium for enhanced zeaxanthin productivity in <i>Synechococcus marinus</i> (NIOT-208), <b>International Journal of Pharma and Bio Sciences</b> , 10, 3, DOI:10.22376/ijpbs.2019.10.3.b58-70, 58-70.
71.	Rahaman H., Bharath Raj G.N., Ravichandran M., 2019, Coupled ocean-atmosphere summer intraseasonal oscillation over the Bay of Bengal, <b>Pure and Applied Geophysics</b> , DOI: 10.1007/s00024-019-02275-4

72.	Rahaman H., Venugopal T., Penny S.G., Behringer D.W., Ravichandran M., Raju J.V.S., Sengupta D., 2019, Improved ocean analysis for the Indian Ocean. <b>Journal of Operational Oceanography</b> , 12, 1, 16-33.
73.	Ramesh CH., Koushik S., Shanmugaraj T., Murthy M.V.R., 2019, Impact of toxic Cyanobacteria <i>Lyngbya majuscula</i> and green algae <i>Ulva reticulata</i> blooms in coral reefs of Gulf of Mannar, <b>International Journal of Recent Scientific Research</b> , 10, 9A, 34581-34583.
74.	Ramesh CH., Koushik S., Shanmugaraj T., Murthy M.V.R., 2019, Infestation of Corallivorous gastropod, <i>Drupella cornus</i> (Gastropoda: Muricidae) on corals of Mandapam group of Islands, Gulf of Mannar, India, <b>Journal of Terrestrial and Marine Research</b> , 3, 1, 1-3.
75.	Ramesh CH., Koushik S., Shanmugaraj T., Ramana Murthy M.V., 2019, Baseline survey on coral diseases, stress factors and new threats in coral reefs of Gulf of Mannar marine biosphere, <b>Research Journal of Marine Science</b> , 1, 1, 31-48
76.	Ramesh CH., Koushik S., Shanmugaraj T., Ramana Murthy M.V., 2019, Enhancement of Reef diversity using plastic waste: A Novel way to reduce plastic pollution, <b>Biological Forum</b> , 11, 1, 194-198
77.	Ramesh CH., Koushik S., Shanmugaraj T., Ramana Murthy M.V., 2019, Factors Affecting Coral Reefs in Mandapam Group of Islands in Gulf of Mannar, India, <b>Journal of Wildlife Research</b> , 7, 2, 16-22
78.	Ramesh CH., Koushik S., Shanmugaraj T., Ramana Murthy M.V., 2019, Mortality of sea turtles <i>Chelonia mydas</i> and <i>Lepidochelys olivacea</i> due to entanglement in fishing nets, in Mandapam region, <b>International journal of Current Research</b> , 11, 5, 3660-3662.
79.	Ramesh CH., Koushik S., Shanmugaraj T., Ramana Murthy M.V., 2019, Occurrence of unusual swarm of soldier crab, <i>Dotilla myctiroides</i> (H. Milne Edwards, 1852) in Gulf of Mannar, Southeast Coast of India, <b>Emergent Life science research</b> , 7, 2, 63-66
80.	Roemmich D., Alford M.H., Claustre H., Johnson K.S., King B., Moum J., Oke P.R., Owens W.B., Pouliquen S., Purkey S., Scanderbeg M., Suga T., Wijffels S.E., Zilberman N., Bakker D., Baringer M.O., Belbeoch M., Bittig H.C., Boss E., Calil P., Carse F., Carval T., Chai F., Conchubhair D.O., D'Ortenzio F., Dall'Olmo G., Desbruyères D., Fennel K., Fer I., Ferrari R., Forget G., Freeland H., Fujiki T., Gehlen M., Greenan B., Hallberg R., Hibiya T., Hosoda S., Jayne S., Jochum M., Johnson G.C., Kang K.-R., Kolodziejczyk N., Koertzing A., Le Traon P.Y., Lenn Y.-D., Maze G., Mork K.A., Morris T., Nagai T., Nash J., Garabato A.N., Olsen A., Pattabhi R.R., Prakash S., Riser S., Schmechtig C., Shroyer E., Sterl A., Sutton P., Talley L., Tanhua T., Thierry V., Thomalla S., Toole J., Troisi A., Trull T., Turton J.D., Velez-Belchi P.J., Walczowski W., Wang H., Wanninkhof R., Waterhouse A., Watson A., Wilson C., Wong A.P., Xu J., Yasuda I., 2019, On the future of Argo: A global, full-depth, multi-disciplinary array, <b>Frontiers in Marine Science</b> , 6:439 .
81.	Rohith B., Paul A., Durand F., Testut L., Prerna S., Afroosa M., Ramakrishna S.S.V.S., Sheno S.S.C., 2019, Basin-wide sea level coherency in the tropical Indian Ocean driven by Madden-Julian Oscillation, <b>Nature Communications</b> , 10:1257 .
82.	Sebastian M., Behera M.R., Murt, P.L.N., 2019, Storm surge hydrodynamics at a concave coast due to varying approach angles of cyclone, <b>Ocean Engineering</b> , 191:106437.
83.	Shanmuga Priyaa S., Ramesh S., Ramadass G.A., 2019, Retrieval of Water Quality Parameters of South Andaman Coral Islands using Remotely Operated Underwater Vehicle, <b>Water Science</b> , 33, DOI:10.1080/11104929.2019.1662649.
84.	Sirisha P., Remya P.G., Modi A., Tripathy R.R., Balakrishnan Nair T.M., Venkateswara Rao B., 2019, Evaluation of the impact of high-resolution winds on the coastal waves, <b>Journal of</b>

	<b>Earth System Science</b> , 128:226.
85.	Srichandan S., Baliarsingh S.K., Prakash S., Lotliker A.A., Parida C., Sahu K.C., 2019, Seasonal dynamics of phytoplankton in response to environmental variables in contrasting coastal ecosystems, <b>Environmental Science and Pollution Research</b> , 26, 12, 12025-12041.
86.	Srinivasan R., Rajendran V., Zacharia S., Tata Sudhakar, 2019, A study of Ocean parameters in Bay of Bengal (BoB) using Indigenized drifting buoys, <b>Journal of Earth System Sciences</b> , 128:196, DOI:10.1007/s12040-019-1242-2.
87.	Sulochana G., Francis P.A., Vinayachandran P.N., 2019, Summer monsoon of 2019: understanding the performance so far and speculating about the rest of the season, <b>Current Science</b> , 117, 5, 783-793.
88.	Sumod K.S., Hibin Y., Hashim M., Sanjeevan V.N., 2019, Description of a new species of deep-water snake eel, <i>Ophichthus mcoskeri</i> (Ophichthidae: Ophichthinae) from Andaman Sea, India, <b>Zootaxa</b> , 4686, 1.
89.	Thangaraj Satheeswaran, Purushothaman Yuvaraj, Palani Damotharan, Velmurugan Karthikeyan, Jha D.K., 2019, Gopal Dharani, Thangavel Balasubramanian, Ramalingam Kirubakaran, Assessment of trace metal contamination in the marine sediment, seawater, and bivalves of Parangipettai, southeast coast of India, <b>Marine Pollution Bulletin</b> , 149, 110499
90.	Udhaba Dora G., Kankara R.S, Rasheed K., 2019, Evaluation of the reanalysis wind over the Indian Ocean across the seasonal reversing wind pattern, <b>Indian Journal of Geo Marine Sciences</b> , 48, 1, 75 - 84.
91.	Umesh P. A., Bhaskaran P. K., Sandhya K. G., Balakrishnan Nair T.M., 2019, Numerical simulation and preliminary analysis of spectral slope and tail characteristics using nested WAM-SWAN in a shallow water application off Visakhapatnam, <b>Ocean Engineering</b> , 173, 268-283.
92.	Umesh P.A., Bhaskaran P.K., Sandhya K.G., Nair T.M.B., 2019, Spectral Modelling on the Characteristics of High Frequency Tail in Shallow Water Wave Spectra at Coastal Puducherry, East Coast of India, <b>Pure and Applied Geophysics</b> , 176, 1, 501-524
93.	Ved M., Rizwanahmed B., 2019, Big data analytics in telecommunication using state-of-the-art big data framework in a distributed computing environment: A case study, <b>Proceedings - International Computer Software and Applications Conference</b> , 1: 8754071, 411-416.
94.	Vedachalam N., Ramesh R., Bala Naga Jyothi V., Doss Prakash V., Ramadass G.A., 2019, Autonomous underwater vehicles -challenging developments and technological maturity towards strategic swarm robotics systems, <b>Marine Georesources &amp; Geotechnology</b> , DOI:10.1080/1064119X.2018.1453567
95.	Venkatesan R., Arul Muthiah M., Vengatesan G., Kesavakumar B., Vedachalam N., 2019, Best Practices for increasing data return: Case study from indian ocean observation network, <b>Marine Technology Society Journal</b> , 53, 5, DOI:10.4031/MTSJ.53.5.17, 30-42.
96.	Venkatesan R., Ramesh K., Arul Muthiah M., Vedachalam N., Ramesh P., Atmanand M.A., 2019, Analysis of Drift Characteristic in Barometric Pressure Sensors Used in the Indian Ocean Moored Buoys, <b>Marine Technology Society Journal</b> , DOI:10.1016/j.oceaneng.2018.10.033, 151-156
97.	Venkatesan R., Ramesh K., Arul Muthiah M., Thirumurugan K., Atmanand M.A., 2019, Analysis of drift characteristic in conductivity and temperature sensors used in moored buoy system, <b>Ocean Engineering</b> , 171, 151-156, DOI:10.1016/j.oceaneng.2018.10.033.
98.	Venkatesan R., Vedachalam N., Joseph K.J., Vengatesan G., 2019, Data Returns and Reliability Metrics from the Indian Deep-Ocean Wave Measurement Buoys, <b>Marine Technology Society Journal</b> , 53, 6, 6-20

99.	Vijay P., Girishkumar M.S., Murtugudde R., Ashok K., Ravichandran M., 2019, On the relation between boreal spring position of Atlantic Inter-tropical Convergence Zone and Atlantic Zonal Mode, <b>Journal of Climate</b> , 32, 4767-4781.
100.	Vishnu S., Francis P.A., Ramakrishna S.S.V.S., Shenoi S.S.C., 2019, On the relationship between the Indian summer monsoon rainfall and the EQUINOO in the CFSv2, <b>Climate Dynamics</b> , 52, 1-2, 1263-1281.
101.	Weller R.A., Farrar J.T., Seo H., Prend C., Sengupta D., Lekha J.S., Ravichandran M., Venkatesen R., 2019, Moored observations of the surface meteorology and air–sea fluxes in the northern Bay of Bengal in 2015, <b>Journal of Climate</b> , 32, 549–573, DOI:10.1175/JCLI-D-18-0413.1

### Other Publications

1. Gayathri R., Ranga Rao V., Madeswaran P., Padmavathi V., ManjuPriya R., Arunvel M., Kishore Baabu S.R., 2019, Spatial and Temporal Variability of Some Coastal Water Parameters at Selected Locations on the East Coast of India, In- Murali K., Sriram V., Samad A., Saha N. (eds), **Proceedings of the Fourth International Conference in Ocean Engineering (ICOE2018)**, Lecture Notes in Civil Engineering, 23, <https://doi.org/10.1007/978-981-13-3134-1>
2. Kalyani M., Kiran A.S., Ravichandran V., Suseentharan V., Jena B.K., Ramana Murthy M.V., 2019, Wave Transformation Around Submerged Breakwaters Made of Rubble Mound and Those Made of Geosynthetic Tubes—A Comparison Study for Kadalur Periyakuppam Coast. In: Murali K., Sriram V., Samad A., Saha N. (eds) **Proceedings of the Fourth International Conference in Ocean Engineering (ICOE2018)**, Lecture Notes in Civil Engineering, vol 23. Springer, Singapore, DOI:[https://doi.org/10.1007/978-981-13-3134-3\\_25](https://doi.org/10.1007/978-981-13-3134-3_25)
3. Pradhan U.K., Mishra P., Mohanty P.K., Panda U.S., Murthy M.V.R., 2019, Nearshore hydrodynamics near an open coast harbor at Gopalpur, central east coast of India, In- Murali K., Sriram V., Samad A., Saha N. (eds), **Proceedings of the Fourth International Conference in Ocean Engineering (ICOE2018)**, Lecture Notes in Civil Engineering, 23, DOI:[https://doi.org/10.1007/978-981-13-3134-3\\_17](https://doi.org/10.1007/978-981-13-3134-3_17)
4. Ranga Rao V., Kolli A., Stephen Raju K., Kumaresan D., 2019, Wave Climate and Nearshore Sediment Transport Pattern along the SE Coast of India, In- Murali K., Sriram V., Samad A., Saha N. (eds), **Proceedings of the Fourth International Conference in Ocean Engineering (ICOE2018)**, Lecture Notes in Civil Engineering, 23, [https://doi.org/10.1007/978-981-13-3134-3\\_12](https://doi.org/10.1007/978-981-13-3134-3_12)
5. Sudhakar M., Parameswaran U.V., Aneesh Kumar K.V., Hashim M., Saravanane N., 2019, **Taxonomic Discoveries from the Northern Indian Ocean**, Ministry of Earth Sciences, New Delhi.
6. Sudhakar M., Ramaiah N., 2019, **CMLRE’s Compilation of Recent First Reports and New Species**, E-book, CMLRE, Kochi.

**PACER**

(NCPOR)

1.	Agarwal D.K., Roy P., Prakash L.S., Kurian P.J., 2019, Hydrothermal signatures in sediments from eastern Southwest Indian ridge 63°E to 68°E, <b>Marine Chemistry</b> , DOI:10.1016/j.marchem.2019.103732, 1-16.
2.	Arun B.S., Aswini A.R., Gogoi M.M., Hegde P., Kompalli S.K., Sharma P., Suresh Babu S., 2019, Physico-chemical and optical properties of aerosols at a background site (~4 km a.s.l. in the western Himalayas, <b>Atmospheric Environment</b> , 218:117017, DOI:10.1016/j.atmosenv.2019.117017.
3.	Baltar F., Bayer B., Bednarse N.K., Deppeler S., Escribano R., Gonzalez C.E., Hansman R.L., Mishra R.K., Moran M.A., Repeta D.J., Robinson C., Sintes E., Tamburini C., Valentin L.E., Hernd G.J.L., 2019, Towards integrating evolution, metabolism and climate change studies of marine ecosystems, <b>Trends in Ecology &amp; Evolution</b> , 34, DOI:1016.tree.2019.07.003, 1022-1033.
4.	Chance R.J., Tinel L., Sherwen T., Baker A.R., Bell T., Brindle J., Campos M.L.A.M., Croot P., Ducklow H., Peng He, Hopkins F., Hoogakker B., Hughes C., Jickells T.D., Loades D., Macaya D.A.R., Mahajan A.S., Malin G., Phillips D., Roberts I., Roy R., Sarkar A., Sinha A.K., Song X., Winkelbauer H., Wuttig K., Yang M., Peng Z., Carpenter L.J., 2019, Global sea-surface iodide observations, 1967–2018, <b>Scientific Data</b> , 6:286, DOI:10.1038/s41597-019-0288-y, 1-8.
5.	D'Costa P.M., Kunkolienkar R.S.S., Naik A.G., Naik R.K., Roy R., 2019, The response of <i>Prorocentrum sigmoides</i> and its associated culturable bacteria to metals and organic pollutants, <b>Journal of Basic Microbiology</b> , 59, 10, 979-991.
6.	Feba F., Ashok K., Ravichandran M., 2019, Role of changed Indo-Pacific atmospheric circulation in the recent disconnect between the Indian summer monsoon and ENSO, <b>Climate Dynamics</b> , DOI:10.1007/s00382-018-4207-2, 1-10
7.	Gaddam V.K., Kulkarni A.V., Bjornsson H., Gullapalli S., Ballina M., 2019, Applications of SPOT-7 tri-stereo imagery in deriving the surface topography and mass changes of glaciers in Indian Himalaya, <b>Geocarto International</b> , Online, DOI:10.1080/10106049.2019.1648567, 1-22.
8.	Gopal V., Krishnamurthy R.R., Chakraborty P., Magesh N.S., Jayaprakash M., 2019, Trace element contamination in marine sediments along the southeast Indian shelf following Cyclone Gaja, <b>Marine Pollution Bulletin</b> , 149:110520, DOI:10.1016/j.marpolbul.2019.110520
9.	Halbach L., Vihtakari M., Duarte P., Everett A., Granskog M.A., Hop H., Kauko H.M., Kristiansen S., Myhre P.I., Pavlov A.K., Pramanik A., Tatarek A., Torsvik T., Wiktor J.M., Wold A., Wulff A., Steen H., Assmy P., 2019, Tidewater glaciers and bedrock characteristics control the phytoplankton growth environment in a Fjord in the Arctic, <b>Frontiers in Marine Science</b> , DOI:10.3389/fmars.2019.00254.
10.	Husum K., Howe J.A., Baltzer A., Forwick M., Jensen M., Jernas P., Korsun S., Mittinen A., Mohan R., Morigi C., Prins M., Skirbekk K., Sternal B., Boos M., Dijkstra N., Troelstra S., 2019, The marine sedimentary environments of the Kongsfjorden, Svalbard: an archive of polar environmental change, <b>Polar Research</b> , 38, 3380, DOI:10.33265/polar.v38.3380.
11.	Jampana V., Ravichandran M. Kantha L., Rahaman H., 2019, Modeling slippery layers in the northern Bay of Bengal, <b>Deep-Sea Research Part II</b> , DOI:10.1016/j.dsr2.2019.07.004.
12.	Jawak S.D., Kumar S., Luis A.J., Pandit P.H., Wankhede S., 2019, Seasonal glacier surface velocity fluctuation and contribution of the eastern and western tributary glaciers in Amery



	Ice Shelf, East Antarctica, <b>Czech Polar Report</b> , 9, 1, 49-60.
13.	Jawak S.D., Luis A.J., Fretwell P., Convey P., Durairajan U., 2019, Semiautomated detection and mapping of vegetation distribution in the antarctic environment using spatial-spectral characteristics of worldview-2 imagery, <b>Remote Sensing</b> , 11, 16, 1909, DOI:10.3390/rs11161909.
14.	Jawak S.D., Wankhede S.F., Luis A.J., 2019, Explorative study on mapping surface facies of selected glaciers from Chandra basin, Himalaya using WorldView-2 data, <b>Remote Sensing</b> , 11, 10, 1207. .
15.	Jena B., Ravichandran M., Turner J., 2019, Recent reoccurrence of large open-ocean polynya on the Maud Rise seamount, <b>Geophysical Research Letters</b> , 46, 4320–4329. DOI:10.1029/2018GL081482.
16.	Kerkar A.U., Venkataramana V., Tripathy S.C., 2019, Morphometric estimation of copepod carbon biomass in coastal Antarctica: a case study in Prydz Bay, <b>Journal of Crustacean Biology</b> , DOI:10.1093/jcbiol/ruz077, 1–9.
17.	Kumar A., Dutt S., Saraswat,R., Gupta A.K., Clift P.D., Pandey D.K., Yu Z., Kulhanek D.K., 2019, A late Pleistocene sedimentation in the Indus Fan, Arabian Sea, IODP Site U1457, <b>Geological Magazine</b> , DOI:10.1017/S0016756819000396.
18.	Kumar B.P., D'Asaro E., Kumar N.S., Ravichandran M., 2019, Widespread cooling of the Bay of Bengal by tropical storm Roanu, <b>Deep-Sea Research Part II</b> , DOI:10.1016/j.dsr2.2019.104652
19.	Lasitha S., Twinkle D., Kurian J.P., Harikrishnan P.R., 2019, Geophysical evidence for marine prolongation of the Palghat-Cauvery Shear System into the offshore Cauvery Basin, eastern continental margin of India, <b>Journal of Asian Earth Sciences</b> , 184:103981.
20.	Lindbäck K., Moholdt G., Nicholls K.W., Hattermann T., Pratap B., Thamban M., Matsuoka K., 2019, Spatial and temporal variations in basal melting at Nivlisen ice shelf, East Antarctica, derived from phase-sensitive radars, <b>The Cryosphere</b> , 13, 2579–2595.
21.	Mishra R.K., Senga, Y., Nakata K., Mishra S., Sahu B.K., 2019, Spatio-temporal variation of Prochlorococcus and phytoplankton community between the Shimizu coast and Suruga bay, Northwest Pacific Ocean, <b>Regional Studies in Marine Science</b> , 33:100890, DOI:10.1016/j.rsma.2019.100890
22.	Naik R.K., Naik M.M., D'Costa P.M., Shaikh F., 2019, Microplastics in ballast water as an emerging source and vector for harmful chemicals, antibiotics, metals, bacterial pathogens and HAB species: a potential risk to the marine environment and human health, <b>Marine Pollution Bulletin</b> , 149:110525, DOI:10.1016/j.marpolbul.2019.110525
23.	Nair A., Mohan R., Crosta X., Manoj M.C., Thamban M., Marieu V., 2019, Southern Ocean sea ice and frontal changes during the late Quaternary and their linkages to Asian summer monsoon, <b>Quaternary Science Reviews</b> , 213, 93-104.
24.	Nithya C.N., Srinivas Y., Magesh N.S., Kaliraj S., 2019, Assessment of groundwater potential zones in Chittar basin, Southern India using GIS based AHP technique, <b>Remote Sensing Applications: Society and Environment</b> , 15:100248, <a href="https://doi.org/10.1016/j.rsase.2019.100248">https://doi.org/10.1016/j.rsase.2019.100248</a> .
25.	Pandey D.K., Pandey A., Whattam S.A., 2019, Relict subduction initiation along a passive margin in the northwest Indian Ocean, <b>Nature Communications</b> , 10:2248, DOI:10.1038/s41467-019-10227-8. 11.878
26.	Patel L.K., Sharma P., Thamban M., 2019, Spatio-temporal variability of snow water equivalent over the Vestre Broggerbreen and Feiringbreen glaciers, Ny-Ålesund, Svalbard, <b>Journal Of Earth System Science</b> , 128:183, DOI:10.1007/s12040-019-1224-4.

27.	Patil S., Mohan R., Jafar S.A., Gazi S., Choudhari P., Crosta X., 2019, The coccolithophore family Calciosoleniaceae with report of a new species: Calciosolenia subtropicus from the southern Indian Ocean, <b>Micropaleontology</b> , 65, 5, 459-471.
28.	Pottapinjara V., Girishkumar M S, Murtugudde R., Ashok K., Ravichandran M., 2019, On the relation between boreal spring position of Atlantic Inter-tropical Convergence Zone and Atlantic Zonal Mode, <b>Journal of Climate</b> , DOI:10.1175/JCLI-D-18-0614.1.
29.	Pramanik A. Kohler J., Schuler T.V., Pelt W., Cohen L., 2019, Comparison of snow accumulation events on two High Arctic glaciers to model-derived and observed precipitation, <b>Polar Research</b> , 38, 3364.
30.	Pratap B., Sharma P., Patel L., Singh A.T., Gaddam V.K., Oulkar S., Thamban M., 2019, Reconciling high glacier surface melting in summer with air temperature in the semi-arid zone of western Himalaya, <b>Water</b> , 11, 8, 1561.
31.	Rahaman H., Bharath Raj G.N., Ravichandran M., 2019, Coupled Ocean–Atmosphere Summer Intraseasonal Oscillation over the Bay of Bengal, <b>Pure and Applied Geophysics</b> , DOI:10.1007/s00024-019-02275-4.
32.	Sen K., Mukherjee B.K., Manas M., Sen K., Mukherjee S., 2019, Two-stage exhumation of Zildat Ophiolitic Melange rocks, NW Himalaya, India, <b>Himalayan Geology</b> , 40, 2, 182-189.
33.	Shee A., Sil S., Gangopadhyay A., Gawarkiewicz G., Ravichandran M., 2019, Seasonal evolution of oceanic upper layer processes in the northern Bay of Bengal following a single argo float. <b>Geophysical Research Letters</b> , 46, 10, 5369-5377.
34.	Shetye S., Mohan R., Patil S., Jawak S., Nair A., Warriar A., Mahesh B.S., Shirodkar R., 2019, Hidden biogeochemical anomalies under Antarctic fast ice, <b>Regional Studies in Marine Science</b> , 31:100789, DOI:10.1016/j.rsma.2019.100789
35.	Singh A., Krishnan K.P., 2019, The spatial distribution of phytoplankton pigments in the surface sediments of the Kongsfjorden and Krossfjorden ecosystem of Svalbard, Arctic, <b>Regional Studies in Marine Science</b> , 31:100815, DOI:10.1016/j.rsma.2019.100815
36.	Singh A.T., Rahaman W., Sharma P., Laluraj C.M., Patel L.K., Pratap B., Gaddam V.K., Thamban M., 2019, Moisture sources for precipitation and hydrograph component of the Sutri Dhaka Glacier Basin, western Himalaya, <b>Water</b> , 11, 11, 2242; DOI:10.3390/w11112242.
37.	Subha Anand S., Rahaman W., Lathika N., Thamban M., Patil S., Mohan R., 2019, Trace elements and Sr, Nd isotope compositions of surface sediments in the Indian Ocean: An evaluation of sources and processes for sediment transport and dispersal, <b>Geochemistry, Geophysics, Geosystems</b> , DOI:10.1029/2019GC008332.
38.	Sunkara J.R., Botsa S.M., 2019, SnO <sub>2</sub> /Fe <sub>2</sub> O <sub>3</sub> /Ag Nanocomposite via Hydrothermal Approach: A novel highly efficient photodegradation of eosin yellow and brilliant green dyes under visible light irradiation, <b>Chemistry Africa</b> , DOI:10.1007/s42250-019-00086-7.
39.	Thomas F.A., Sinha R.K., Krishnan K.P., 2019, Bacterial community structure of a glacio-marine system in the Arctic (NyÅlesund, Svalbard), <b>Science of the Total Environment</b> , DOI:10.1016/j.scitotenv.2019.135264.
40.	Yadav J.S., Pratap B., Gupta A.K., Dobhal D.P., Yadav R.B.S., Tiwari S.K., 2019, Spatio-temporal variability of near-surface air temperature in the Dokriani glacier catchment (DGC) central Himalaya, <b>Theoretical and Applied Climatology</b> , DOI:10.1007/s00704-018-2544-z, 1-20

## Other Publications

1. Botsa S.M., Rani S.J., 2019, The Importance of Carbon and Water in Agriculture, Book Chapter in **Research Trends in Agriculture Sciences**, Vol 16, Naresh R.K. (eds.), ISBN: 978-93-5335-674-3, DOI:<https://doi.org/10.22271/ed.book.390>, 83-97.
2. Cibichakravarthy B., Venkatachalam S., Prabakaran S.R., 2019, Unleashing Extremophilic Metabolites and Its Industrial Perspectives, Book Chapter in Gupta V.K., Pandey A. (eds.) **New and Future Developments in Microbial Biotechnology and Bioengineering**, Elsevier, <https://doi.org/10.1016/B978-0-444-63504-4.00009-8>, 119-130.
3. Magesh N.S., Elango L., 2019, Spatio-temporal variations of fluoride in the groundwater of Dindigul district, Tamil Nadu, India: a comparative assessment using two interpolation techniques, Book Chapter in: Venkatramanan S., Prasanna M.V., Chung S.Y. (eds.), **GIS and Geostatistical Techniques for Groundwater Science**, Elsevier, 283-296
4. Ningthoujam L.S., Negi S.S., Pandey D.K., 2019, Seismologists search for the Indian Ocean's "missing mass", **Eos**, 100, DOI:10.1029/2019EO120243.

**SAGE**  
(NCESS)

1.	Aneesh T.D., Srinivas Reji, Singh Ajit T., Resmi T.R., Nair A.M., Redkar B.L., 2019, Stable water isotope signatures of dual monsoon precipitation: A case study of Greater Cochin region, south-west coast of India, <b>Journal of Earth System Science</b> , 128:210, DOI:10.1007/s12040-019-1234-2, 1-13
2.	Anoop T.R., Unnikrishnan C.K., Ashok K., Ramachandran K.K., Prakash T.N., 2019, South Asian subtropical low-level jet: influence on regional hydrology and aerosol optical depth, <i>Current Science</i> , 1175, DOI:10.18520/cs/v117/i5/852-858, 852-858.
3.	Arulbalaji P., 2019, Analysis of land use/land cover changes using geospatial techniques in Salem district, Tamil Nadu, South India, <b>SN Applied Sciences</b> , 1:462, DOI:10.1007/s42452-019-0485-5
4.	Arulbalaji P., Sreelash K., Maya K., Padmalal D., 2019, Hydrological assessment of groundwater potential zones of Cauvery River Basin, India: A geospatial approach, <b>Environmental Earth Sciences</b> , 78:667, DOI:10.1007/s12665-019-8673-6
5.	Aung L.T., ... et al., Suresh G., Chen W., Maung P.M., Gahalaut V.K., 2019. A comprehensive assessment of ground motions from two 2016 intra-slab earthquakes in Myanmar, <b>Tectonophysics</b> , 765, 146-160.
6.	Banerji U.S., 2019, Comments on "Geomorphic evidences of tectonic instability during the Late Quaternary Period along southern Saurashtra, western India" by Prizomwala 2018, <b>Arabian Journal of Geosciences</b> , 12:362, DOI:10.1007/s12517-019-4543-5
7.	Bhattacharya S.N., Gahalaut V.K., Pandey N., Pal S., Manhas R., Suresh G., 2019, Source of unusual monochromatic wave packets recorded globally in the seismograms of November 11,

	2018, <b>Current Science.</b> , 117
8.	Borah U.K., Patro P.K., 2019, Estimation of the depth of investigation in the magnetotelluric method from the phase, <b>Geophysics</b> , 84, 6, DOI:10.1190/geo2018-0124.1.
9.	Dailey S.K., Clt P.D., Kulhanek D.K., Blusztajn J., Routledge C.M., Calvès G., O'Sullivan P., Jonell T.N., Pandey D.K., Andò S., Coletti G., Zhou P., Li Y., Neubeck N.E., Bendle J.A.P., Aharonovich S., Grifith E.M., Gurumurthy G.P., Hahn A., Iwai M., Khim B., Kumar A., Kumar A.G., Liddy H.M., Lu H., Lyle M.W., Mishra R., Radhakrishna T., Saraswat R., Saxena R., Scardia G., Sharma G.K., Singh A.D., Steinke S., Suzuki K., Tauxe L., Tiwari M., Xu Z., Yu Z., 2019, Large-scale mass wasting on the Miocene continental margin of western India, <b>Geological Society of America Bulletin</b> , DOI:10.1130/B35158.1.
10.	Ekka M.S., Roy P.N.S., Mishra O.P., 2019, Coda wave seismic structure beneath the Indian Ocean and its implications to Seismotectonics as well as structural heterogeneity, <b>Journal of Asian Earth Sciences</b> , DOI:10.1016/j.jseaes.2019.104104.
11.	Gahalaut V.K., Gahalaut K., Dumka R.K., Chaudhury P., Yadav R.K., 2019, Geodetic evidence of high compression across seismically active Kachchh Paleort, India, <b>Tectonics.</b> , 38, DOI:10.1029/2019TC005496, 3097-3107
12.	Gruetzner J., Jiménez Espejo F.J., Lathika N., Uenzelmann-Neben G., Hall I.R., Hemming S.R., et al., 2019, A new seismic stratigraphy in the Indian-Atlantic Ocean gateway resembles major paleo-oceanographic changes of the last 7 Ma, <b>Geochemistry, Geophysics, Geosystems</b> , 20, DOI:10.1029/2018GC007668, 339–358.
13.	Gupta S., Roy P.N.S., Yadav R.K., Catherine J.K., Burgmann R., Gahalaut V.K., 2019, Anomalous transients in GPS measurements due to induced changes in local site conditions, <b>Journal of Earth System Science</b> , 128, 7, 186
14.	Krishna R.P., Limisha A.T., Arun T.J., Aneesh T.D., Silpa B.L., Sreeraj M.K., Reji Srinivas, 2019, Accumulation trend of heavy metals in the surficial sediments of Muthalapozhi near shore, south west coast of India, <b>International Journal of Scientific and Engineering Research</b> , 10, 6, 1706-1718
15.	Kumar A., Dutt S., Saraswat R., Gupta A., Clt P., Pandey D., Yu Z., Kulhanek D., 2019, A late Pleistocene sedimentation in the Indus Fan, Arabian Sea, IODP Site U1457, <b>Geological Magazine</b> , DOI:10.1017/S0016756819000396, 1-9.
16.	Kundu B., Vissa N.K., Gahalaut K., Gahalaut V.K., Panda D., Malik K., 2019, Influence of anthropogenic groundwater pumping on the 2017 November 12 M7.3 Iran–Iraq border earthquake, <b>Geophysical Journal International</b> , 218, 2, 833-839.
17.	Mall R.K., Srivastava R.K., Banerjee T., Mishra O.P., Bhatt D., Sonkar G., 2019, Disaster risk reduction including climate change adaptation over South Asia: Challenges and ways forward, <b>International Journal of Disaster Risk Science</b> , 10, DOI:10.1007/s13753-018-0210-9, 14-27.
18.	Nair Nithya C., Srinivas Y., Magesh N.S., Kaliraj S., 2019, Assessment of groundwater potential zones in Chittar basin, Southern India using GIS based AHP technique, <b>Remote Sensing Applications: Society and Environment</b> , 15:100248, DOI:10.1016/j.rsase.2019.100248
19.	Pandey A.K., Chingtham P., Prajapati S.K., Roy P.N.S., Gupta A.K., 2019, Recent seismicity rate forecast for North East India: An approach based on rate state friction law, <b>Journal of Asian Earth Sciences</b> , 174, DOI:10.1016/j.jseaes.2018.12.004, 167–176.

20.	Pandey D.K., Pandey A., Whattam S., 2019, Relict subduction initiation along a passive margin in the NW Indian Ocean, <b>Nature Communications</b> , DOI:10.1038/s41467-019-10227-8.
21.	Prajapati S.K., Prakash R., Srivastava H.N., 2019, Monitoring the largest North Korean nuclear explosion 2017, through Indian Seismological Network, <b>Annals of Geophysics</b> , 62, Doi:10.4401/ag-8026.
22.	Prakash R., Singh R.K., Suresh G., Gautam J.L., Prajapati S.K., Srivastava H.N., Source characteristics of the 18 September 2011 Sikkim earthquake and zoning, <b>Annals of Geophysics</b> , 61, 4, SE450, DOI:10.441/ag-7585.
23.	Radhakrishna T., Asanulla R.M., Venkateshwarlu M., Soumya G.S., Prachiti P.K., 2019, Mechanism of rt flank uplt and escarpment formation evidenced by Western Ghats, India, <b>Scientific Reports</b> , 9:10511, DOI:10.1038/s41598-019-46564-3
24.	Routledge C., Kulhanek D., Tauxe L., Scardia G., Singh A., Steinke S., Grfith E.M., Saraswat R., 2019, A revised chronostratigraphic framework for International Ocean Discovery Program Expedition 355 sites in Laxmi Basin, eastern Arabian Sea, <b>Geological Magazine</b> , DOI:10.1017/S0016756819000104, 1-18.
25.	Satpathy R., Steinke S., Singh A., 2019, Monsoon-induced changes in surface hydrography of the eastern Arabian Sea during the early Pleistocene, <b>Geological Magazine</b> , DOI:10.1017/S0016756819000098, 1-11
26.	Sumesh R.K., Resmi E.A., Unnikrishnan C.K., Jash D., Sreekanth T.S., Mol Resmi M.C., Rajeevan K., Nita S., Ramachandran K.K., 2019, Microphysical aspects of tropical rainfall during bright band events at mid and high-altitude regions over southern Western Ghats, India, <b>Atmospheric Research</b> , 227, DOI:10.1016/j.atmosres.2019.05.002, 178-197.
27.	Vandana, Mishra O.P., 2019, Source characteristics of the NW Himalaya and its adjoining region: Geodynamical implications, <b>Physics of the Earth and Planetary Interiors</b> , 294, DOI:10.1016/j.pepi.2019.106277.
28.	Yadav R.K., Gahalaut V.K., Bansal A.K., Sati S.P., Catherine J., Gautam P., 2019. Strong seismic coupling underneath Garhwal–Kumaun region, NW Himalaya, India, <b>Earth and Planetary Science Letters</b> , 506, 8-14.

\*\*\*\*\*