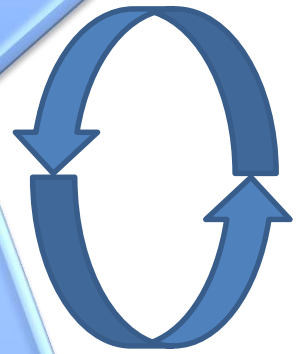



7
KNOWLEDGE
PRODUCTS &
PUBLICATIONS





Knowledge creation, knowledge enhancement, knowledge dissemination and knowledge management have been among the core activities of CSIR-4PI. Ever since its inception, CSIR-4PI has maintained a high knowledge output in terms of publications and other scientific programmes, knowledge synthesis and exchange through conferences, workshops, brain storming sessions, etc.

Inside

- Publications in Journals
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- Participation in Conferences/Symposia/Workshops/Training Programmes
- Conference/Workshops/Seminars/Scientific Meetings at CSIR-4PI
- Invited Talks
- Visitors at CSIR-4PI

Publications in journals

Ajilesh P, **Rakesh V**, Sahoo S K, and **Himesh S**, 2020, Observed and model simulated thermodynamic processes associated with urban heavy rainfall events over the Bangalore city, India, *Meteorological Applications* (Journal of Royal Meteorological Society, UK), (*Meteorological Applications*, 27(1), e1854.).

DeMets C, Merkouriev S and **Jade S**, High-resolution reconstructions and GPS estimates of India–Eurasia and India–Somalia plate motions: 20 Ma to the present. *Geophysical Journal International*, 220(2), 1149-1171, 2020.

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Gogoi R B, Kutty G, **Rakesh V** and Borogain A, Comparison of the Performance of Hybrid ETKF-3DVAR and 3DVAR Data Assimilation Systems on Short-Range Forecasts during Indian Summer Monsoon Season in a Limited-Area Model. *Pure and Applied Geophysics*, 1-20., doi.org/10.1007/s00024-020-02537-6, 2020.

Gouda K C, **Nahak S**, Goswami P, Deterministic Seasonal Quantitative Precipitation Forecasts: Benchmark Skill with a GCM, *Pure and Applied Geophysics*, <https://doi.org/10.1007/s00024-020-02463-7>, 2020.

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Johny A, **Ramesh K V**, Equatorial Indian Ocean Response during Extreme Indian Summer Monsoon Years Using Reliable CMIP5 Models, *Ocean Sci. J. Springer publication* 55, 17–31, 10.1007/s12601-020-0006-x , 2020.

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Marndi A, **Patra G K** and **Gouda K C**, "Short-term Forecasting of Wind Speed using Time Division Ensemble of Hierarchical Deep Neural Networks" *Bulletin of Atmospheric Science and Technology*, Springer Vol 1, 91–108, <https://doi.org/10.1007/s42865-020-00009-2>, 2020.

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Nekrasova A K, Kossobokov, V G, **Parvez I A** and Tao X, Unified Scaling Law for Earthquakes as Applied to Assessment of Seismic Hazard and Associate Risks. *Izvestiya, Physics of the Solid Earth*. 56, 83-94, DOI:10.1134/S1069351320010097, 2020.

Niranjana R, **Anil Kumar V** and Sheen S, “Darknet Traffic Analysis and Classification using Numerical AGM and Mean Shift Clustering Algorithm”, *SN Computer Science*, Springer, Vol 1. Issue 1, 2020.

Raj E E, **Ramesh K V** and Rajkumar R, El Niño–Southern Oscillation (ENSO) Impact on Tea Production and Rainfall in South India, *Journal of applied meteorology and climatology American Meteorological Society* 59, 651-664, Online 10.1175/JAMC-D-19-0065.s1, 2020.

Rajendran K, Gadgil S and **Surendran S**, Monsoon Season Local Control on Precipitation over Warm Tropical Oceans, *Meteorology and Atmospheric Physics (MAP)*, Vol 54, 1315-1328, 2019.

Ray J D, **Vijayan M S M** and Kumar A, Noise characteristics of GPS time series and their influence on velocity uncertainties. *Journal of Earth System Science*, 128(6), 146, 2019.

Ray J D, **Vijayan M S M**, Godah W and Kumar A, Investigation of background noise in the GNSS position time series using spectral analysis—A case study of Nepal Himalaya. *Geodesy and Cartography*, 68(2), 2019.

Sahoo S K, Ajilesh P P, **Gouda K C**, **Himesh S**, Impact of land-use changes on the genesis and evolution of extreme rainfall event: a case study over Uttarakhand, India, *Theoretical and Applied Climatology*, 140,3, 915-926, <https://doi.org/10.1007/s00704-020-03129-z>, 2020.

Sharada M K, **Devasena C K** and Swathi P S, Iron limitation study in the North Indian Ocean using model simulations, *J. Earth Syst. Sci.*, 129:93 (pp.1-16), <https://doi.org/10.1007/s12040-020-1361-9>, 2020.

Shyamasundar L B, **Anil Kumar V** and Jhansi Rani P, “Fine-tuning Resource Allocation of Apache Spark Distributed Multinode Cluster for Faster Processing of Network-trace Data”, *International Journal of Advanced Computer Science and Applications (IJACSA)*, Vol. 10, Issue. 11, 2019.

Varghese S J, **Surendran S** and **Rajendran K** and Kitoh A, Future projections of Indian summer monsoon under multiple RCPs using a high resolution global climate model multiforcing ensemble simulations, *Climate Dynamics*, Vol 54, 1315-1328, 2020.

Patent Filed

Anil Kumar V and Das D, Method and Device for Detection of Malicious SCTP Receiver Terminal, European Union Patent, No. EP 3 103 237 B1, 19, Feb. 2020.

Publications in Books/Proceedings

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Devi R and Gouda K C, Spatio-temporal variability of Summer Temperature over India, Proceedings of TROPMET-2019, National Symposium on Land, Ocean and Atmosphere Interactive Processes in the context of weather and climate, 11-14 Dec 2019, 282pp.

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Erukova E A, Lokoshchenko M A and **Gouda K C**, Study of surface temperature anomalies in major cities of India, Proceedings of Proceedings of All-Russian Conference: "M.A. Petrosyants and Russian Meteorology", Moscow, Russia, 21-22 Nov 2019.

Gouda K C and Patra D, Assessment of climate change-migration dynamics, Proceedings of National conference on Coastal Ocean-Atmosphere Science & Technology (COAST 2020), Berhampur University, Odisha 2020.

Gouda K C, Lokoshchenko M A, **Himesh S, Sahoo S K, Samatray P, Singh P**, Alekseeva N F, Elansky L I, Erukova T, Ye A, Anton A V, Bogdanovich (2019), Assessment of Heat wave Dynamics over India and Russia, Proceedings of TROPMET-2019, National Symposium on Land, Ocean and Atmosphere Interactive Processes in the context of weather and climate, 11-14 Dec 2019, 285pp.


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Lenka S, Joseph C M and **Gouda K C**, Association of large scale dynamics and regional rainfall during South West Monsoon season over India, Proceedings of TROPMET-2019, National Symposium on Land, Ocean and Atmosphere Interactive Processes in the context of weather and climate, 11-14 Dec 2019, 280pp.

Lokoshchenko M A, Alekseeva L I, Elansky N F, Erukova E A, Bogdanovich A Yu and **Gouda K C**, Hazardous weather events and "heat islands" in the largest cities of India and Russia, Proceedings of All-Russian Conference: "M.A. Petrosyants and Russian Meteorology", Moscow, Russia, 21-22 Nov 2019.

Lokoshchenko M A, Alekseeva L I, **Gouda K C**, Elansky N F, Bogdanovich A Y. Thunderstorms in Moscow and India: climatic patterns, long-term changes, effects on air composition and comparison of conditions, Proceedings of 19th meeting of the IAC Coordinating Commission for Air Navigation, Baku, Azerbaijan, 03-05 April 2019.

Lokoshchenko M A, Mel'nichuk, Alexander Y. and **Gouda K C**, Squalls in Russian and Indian cities, Proceedings of EGU conference, 21, Viena, Austria, 7-12 April 2019.



Marndi A, Patra G K, Chlorophyll Prediction Using Ensemble Deep Learning Technique Progress in Computing, Analytics and Networking, Vol 1119, Advances in Intelligent Systems and Computing (AISC) Book Series, Springer, 2020.

Mohapatra G N and Purwar S, Cluster analysis of spatial and temporal variability of homogeneous rainfall region over meteorological subdivision of India. Proceedings of TROPMET-2019 Andhra University, Visakhapatnam 11 -14 December 2019.

Mohapatra G N, Purwar S and Rakesh V, Simulation and validation of Extreme rainfall events with meso-scale model with different initial condition over Bangalore city, Proceeding of TROPMET 2019, Andhra University, Visakhapatnam 11 -14 December 2019.

Radhika T V, Sathisha, **Gouda K C**, Priority Based Virtual Machine Allocation and Scheduling for Security in Cloud Computing, Smart Intelligent Computing and Applications, Ed. Suresh Chandra Satapathy, Vikrant Bhateja, J. R. Mohanty and Siba K. Udgata, Springer, 2020.

Ramesh K V and Rakesh V, Prediction of crop pest and diseases using advanced tools Predictive analytics for crop Biology and Breeding UAS, Bangalore Vol 1. P No.6, 2020.

Sahoo S K, Himesh S and Gouda K C, Simulation of a Heavy Rainfall Event over Megacity of Bengaluru using coupled WRF-UCM Model, Proceedings of TROPMET-2019, National Symposium on Land, Ocean and Atmosphere Interactive Processes in the context of weather and climate, 11-14 Dec 2019, 64pp.

Sahoo S K, Renulatha, **Himesh S and Gouda K C**, Impact of land-use change in simulation of extreme rainfall over India, Proceedings of National conference on Coastal Ocean-Atmosphere Science & Technology (COAST 2020), 28 -29 Feb 2020, Berhampur University, Odisha, 2020.

Samantaray P and Gouda K C, Understanding the mechanism of cloudburst events over India, Proceedings of National conference on Coastal Ocean-Atmosphere Science & Technology (COAST 2020), Berhampur University, Odisha, 28 -29 Feb2020.

Sumana S and Himesh S, A High resolution simulation of hydro-meteorological variables in an integrated WRF-hydro modeling set up: a case study over Cauvery River Catchment, 11th -14th Dec 2019, Proceedings of Tropmet-2019, Andhra University.

Sumana S, and Himesh S, A Coupled WRF-Hydro framework to simulate the hydro-meteorological variables during Kodagu flood event 2018: impact of enhanced hydrological parameterization, 22-23, Nov, 2019, 8th APHW International Conference on “Emerging Technologies on Urban water Management-2019, IIT Roorkee.

Suresh M, **Anil Kumar V** , Sethumadhavan M, Amritha P P, Exploitation of HTTP/2 Proxies for Cryptojacking”, In the proceedings of 7th International Symposium on Security in Computing and Communications, vol. 1208, Communications in Computer and Information Science, Springer, December, 2019.

Swathi P S, Indira N K and Ramonet M, Estimation of Carbon dioxide fluxes between land,ocean and atmosphere during 2006-2011 with a 4-D variational assimilation scheme and special reference to Asia in Climate Change and Green Chemistry of CO2 Sequestration, Edited by Malti Goel, T. S. Satyanarayana and D. P. Agrawal, Springer Nature, 2020

Internal Reports

Gupta S V, **Parvez I A**, Ankit, Khan P K and Chandra R (2019). Site effects investigation in Srinagar city of Kashmir basin using H/V spectral ratio and its inversion. CSIR-4PI internal report RR CM 1901.

Mir R R, **Parvez I A** and Gaur V K (2019). Shear wave velocity structure beneath north-western Himalaya and adjoining areas. CSIR-4PI internal report RR CM 1902.

Presentations in Conferences/Symposia/Workshops/Seminars

Ankit, **Parvez I A**, Mir R R and Gaur V K, Seismic anisotropy beneath the Kashmir Himalayas: Insights from Shear wave splitting, 36th International Geological Congress (IGC-2020), Delhi, India (abstract accepted).

Gouda K C, Presented and Participated Young Scientist Conference at IISF-2019 in the theme “Swastha Bharat” held at Kolkata during 5-8 Nov 2019.

Gupta S V, **Parvez I A**, Ankit, Khan P K and Chandra R, Site specific microzonation in Srinagar city of Kashmir basin from ambient noise measurements, 36th International Geological Congress (IGC-2020), Delhi, India (abstract accepted).

Jade S, GNSS based landslide hazard, Invited presentation, Workshop on Modelling fault zone induced surface mass transport in Himalayan orogenic terrains for the study of fault related areas in Himalayan towns, 16-18 March 2020, Birla Institute of Technology, Mesra, Ranchi, India.

Jade S, Parvez I A, Ashish, Vivek C G, Pavithra N R, Natural Hazards Estimation, 5th India International Science Festival (IISF), Kolkatta, 5-8 November 2019.

Jade S, To Quantify earthquake hazard and risk in Kashmir valley and adjoining regions using a logically integrated set of geo-scientific investigations, Invited presentation, Discussion meeting on Himalayan Geodynamics and Geohazards, CSIR-NGRI, 16 March 2020.

Kumar V A, DST sponsored Workshop on sensor networks, IoT and Internet of Everything, Aizawl, Mizoram, 11-13, September 2019.

Marndi A, Patra G K, Chlorophyll Prediction In Different Regions Of Arabian Sea Using Deep Learning Technique”, National Symposium on Land, Ocean and Atmosphere Interactive Processing in Context of Weather and Climate, Tropmet 2019, Vishakhapatnam.

Mir R R, **Parvez I A** and Gaur V K. Crustal structure beneath North-Western Himalaya and adjoining areas, 36th International Geological Congress (IGC-2020), Delhi, India (abstract accepted).

Parvez I A and **Ashish**, Probabilistic seismic hazard analysis for Jammu & Kashmir, India, 36th International Geological Conference, Abstract no. 6430-5898, March, 2020, Delhi, India.

Prasad and Kantha Rao: Response of vegetation growth to the climatic parameters in different districts of Andhra Pradesh, TROPMET-2019, Andhra University, Vishakhapatnam.

Prasad and Kantha Rao: Seasonal and inter-annual variability of soil moisture over different regions in India using long term ESA CCI merged product, MICRORAD-2020, IFAC-CNR, Florence, Italy.

Purwar S and Mohapatra G N, Cluter Analysis of Identified Homogeneous rainfall region over meteorological Subdivision of India, Proceedings of COAST-2020, Department of Marine Sciences, 28 -29 Feb 2020, Berhampur University, Odisha.

Rajendran K, Surendran S and Varghese S J, Multiforcing ensemble projection based climate change information over Kerala for adaptation strategies, International Conference on Impact of Climate Change on Hydrological Cycle, Ecosystem, Fisheries and Food Security (CLIMFISHCON 2020), 11-14 Feb 2020, KUFOS, Cochin, Kerala.

Sapna G and **Jade S,** Comparison between the geodetic and seismic strain rate in the Garhwal Kumaun Himalaya, 36th International Geological Congress (IGC-2020), Delhi, India (abstract accepted).

Senthilkumar V, Represented CSIR-4PI Activities, Mega Science, Technology and Industry Expo, IISF 2019, Kolkata, 5th -8th November 2019.

Senthilkumar V, Singh R K and Kumar J, Indigenous Software for Penta-Graphene Nanotube Structure, Young Scientist Conference, IISF-2019, 06th November 2019.

Silpa K, Earnest A, Mixed Response To Megathrust Ruptures: Lithospheric Deformation In The Indo-Australian Slab, International Conference on Frontiers in Marine Sciences - Challenges and Prospects (MARICON), 16-20 December 2019, Cochin University, Kochi, Kerala.

Varghese S J, Surendran S and K. Rajendran K, A. Kitoh, Factors behind projected changes in Indian Summer Monsoon under multiple RCP scenarios, International Conference on Frontiers in Marine Science: Challenges and Prospects (MARICON 2019), 16-20 Dec 2019, CUSAT, Cochin, Kerala.

Varghese S J, Surendran S, Ajithkumar B, **Rajendran K,** Kitoh A, Rice yield changes in Kerala due to climate change, International Conference on Impact of Climate Change on Hydrological Cycle, Ecosystem, Fisheries and Food Security (CLIMFISHCON 2020), 11-14 Feb 2020, KUFOS, Cochin, Kerala.

Vivek C G, Kumar S S R, Shrungeshwara T S, **Jade S,** GNSS velocities of continuous sites in Indian subcontinent, International Global Navigation Satellite Systems (IGNSS) 2020 University of New South Wales, Sydney, 5-7 February, 2020.

Conferences/Symposia/Workshops/Seminars attended

Ashapura Marndi

“National Science Communication Orientation Training Programme”, CSIR-AMPRI, Bhopal, 22-23 August 2019.

Gouda KC

India International Science Festival held at Kolkata during 5-8 Nov 2019 in 4 themes of CSIR Meeting on “Precision Agriculture for Small Indian Farmers” held at CSIR 4PI on 9th August 2019.

Discussion/Brainstorming Meeting on Big Data, AI, ML and All That held at Infosys Leadership Institute, Mysuru 3-4 June 2019.

Indo-French Living Lab concept workshop, July 2nd 2019 (CSIR 4PI)

Himesh S

Indo-French Living Lab concept workshop, July 2nd 2019 at IISC, bengaluru

Mohapatra G N

Indo-French Living Lab concept workshop, July 2nd 2019 at IISC, bengaluru

Attended National Conference on Coastal Ocean-Atmosphere Science & Technology (COAST-2020) and presented a paper “Cluter Analysis of Identified Homogeneous rainfall region over meteorological Subdivision of India” Department of Marine Sciences, Berhampur University 28th -1st March, 2020, Odisha.

Ramesh KV

Integrated hybrid analytic platform for sustainable crop management, Brainstorming Session on “*Big Data Analytics in Agriculture*”, December 18, 2019, National Agricultural Science Centre (NASC), ICAR, New Delhi.

Applications of Differential Equations in Design and Development of Systems Dynamics Modelling, 3rd April 2019, Department of Mathematics, School of Advanced Sciences, Vellore Institute of Technology

Rajendran K

Associate Editor of JESS, Publication Committee Meeting, Indian Academy of Science, Bangalore, 7 June 2019.

30th mid-year meeting of Indian Academy of Science, CSIC building, Indian Institute of Science, Bangalore, 28-29 June 2019.

JESS Editorial board meeting as Associate Editor of JESS, 85th annual meeting of the Indian Academy of Science, Central University of Hyderabad, 7 November 2019.

Sridevi Jade

Workshop on Modelling fault zone induced surface mass transport in Himalayan orogenic terrains for the study of fault related areas in Himalayan towns, 16-18 Match 2020, Birla Institute of Technology, Mesra, Ranchi, India.

Discussion meeting on Himalayan Geodynamics and Geohazards, CSIR-NGRI, 16 March 2020

Invited Talks

Anil Earnest

Revisiting the Seismogenic Characteristics Of Stable Continental Interiors: The Case Of Three Indian Events, International Conference on Frontiers in Marine Sciences - Challenges and Prospects (MARICON), 16-20 December 2019, Cochin University, Kochi.

Anil Kumar V

Watching Dark IP Address Space: The Gain and Pain, C-DAC Technology Conclave, C-DAC, Pune, 4-6 April, 2019.

The Evolution and Sophistication of DoS/DDoS Attacks on the Internet, National Power Training Institute, Ministry of Power, Government of India, Hotline Training Centre, Bangalore, 2-6 December, 2019.

IoT and Botnets, DST sponsored Workshop on sensor networks, IoT and Internet of Everything, Aizawl, Mizoram, 11-13 September 2019.

Ashapura Marndi

Application of Deep Learning in Atmospheric and Oceanic Studies” in Workshop on Environmental Modelling: Resolving Complexes for Predictable Tomorrow”, CSIR-NEERI, Nagpur, 7-8 Aug 2019

Gouda K C

High Impact weather event simulation”, Scientific seminar at LMSU, Moscow, 23rd October 2019


Heat-wave analysis and simulation”, Scientific seminar at Obukhov Institute of Atmospheric Physics, 24th October 2019

Multi-scale modeling of hydro-meteorological disasters in India, Centers of meteorological measurements, 25th October 2020

Dynamical modeling frame work for extreme weather event simulation”, Centre of High meteorological mast in Obninsk, 29th October 2020

Extreme temperature analysis over India”, Central Aerological Observatory in Dolgoprudnyi, 30th October 2019.

Seasonal monsoon prediction and its application to agriculture sector” , LIVING LAB PROJECT Towards climate-smart and Nutrition-sensitive Food System in India, Interdisciplinary Centre for Water Research” (ICWaR) at the Indian Institute of Science (IISc), 23-25 Sep 2019.



Bigdata research in weather and climate study workshop on, “Resolving Complexities for redictable Tomorrow:” and Workshop on “Environmental Modelling” held at CSIR NEERI, Nagpur during 7-8 August 2019

Assessment of Heat wave Dynamics over India and Russia” in TROPMET-2019, Proceedings of TROPMET-2019, National Symposium on Land, Ocean and Atmosphere Interactive Processes in the context of weather and climate, 11-14 December 2019 , Andhra University, Visakhapatnam.

Monsoon Modelling” in National conference on Coastal Ocean-Atmosphere Science & Technology (COAST 2020), 28-29 Feb 2020, Berhampur University, Odisha

G K Patra

Security and Privacy Concerns of Fleets of Drone: Potential Solutions”, Autonomous AIR Vehicles – Technologies and Applications 2020, Bangalore, 8-10 January 2020

Blockchain: The Greatest Application of Cryptography in Recent Times, an understanding through crypto currency”, National Workshop on Cryptology, Bangalore, 26-28 September 2019

Blockchain: The Innovation that is Transforming Society”, CSIR Sponsored Two day Seminar on Emerging Advancements in Blockchain Technology & Cryptocurrency, Dindigul, 12-13 July 2019.

Cognitive Traffic Control for Efficient Intelligent Transportation System”, National Conference on Cognitive Computing 2019, Bangalore, 26-27 April 2019

Artificial Intelligence in Intelligent Transportation System”, Vellore Institute of Technology, Vellore, 19 October 2019

Artificial Intelligence for Societal Applications”, Vellore Institute of Technology, Vellore, 19 October 2019

Himesh S

Analysis of urban heat islands, air pollution dynamics and extreme weather phenomena in India and Russia” at Lomonosov Moscow State University, Department of Meteorology (23rd Oct 2019)

Kantha Rao B

Industrial Expert Lecture: Applications of numerical methods in Engineering, School of Advanced Sciences, Department of Mathematics, VIT (September 21, 2019).

Special Expert Lecture on Mathematics Event (IDEATHON 3.0): Significance of Mathematics in Engineering Problems, Department of Mathematics, VIT (September 21, 2019).

Rajendran K

CFSv2 Simulations, One day National Workshop on CFS modeling approaches, Indian Institute of Tropical Meteorology (IITM), Pune, 29 October 2019.

CFSv2 Forecast 2019, Monsoon Café 2019, Indian Institute of Science, Bangalore, 26 June 2019.

Rakesh V

Data assimilation in mesoscale model to improve short range forecasts during summer monsoon, International Conference on the Asian Summer Monsoon Anticyclone: Gateway of surface pollutants to the stratosphere SRM Institute of Science and Technology, 603203, Chennai, Tamil Nadu, India

Senthilkumar V

Invited Talk titled “Applications of ordinary differential equations in Engineering Technology”, 05.04.2019, VIT, Vellore, Tamilnadu.

Invited Talk titled “Numerical Methods for Scientific and Engineering Computation”, 05.04.2019, VIT, Vellore, Tamilnadu.

Invited Talk titled “Differential Equations and its Applications”, 24.05.2019, MVJCE, Bangalore, Karnataka.

Invited Talk titled “Applications of Differential Equations in Engineering Field”, 18.10.2019, MVJCE, Bangalore, Karnataka.

Invited Talk titled “Applications of Differential Equations in Engineering Science”, 22.10.2019, VIT, Vellore, Tamilnadu.

Invited Talk titled “Research and Development in Linear Algebra”, 22.10.2019, VIT, Vellore, Tamilnadu.

Invited Talk titled “Applications of Numerical Techniques in Engineering and Technology”, 22.10.2019, VIT, Vellore, Tamilnadu.

Invited Talk titled “Applications of Calculus in Engineering and Technology”, 23.10.2019, VIT, Vellore, Tamilnadu.

Conference/Workshops/Seminars at CSIR-4PI

Agritech meeting in Interface Building on 09th Aug 2019.

The meeting was organized to discuss, deliberate and brainstorm on the implementation of the Agritech for small farmers keeping in view of their demand on precision agriculture. The meeting was attended by many agritech experts (ICRA, IIITB and AU Dharwad etc.) with participants from CSIR 4PI. The meeting discussed the different activities, implementation strategies and guiding principles related to the agritech project.

Discussion meeting With Cognizant Leadership Team, 4th October 2019

The meeting was organized to discuss and deliberate on possible collaboration for carrying out research in Internet of Things (IoT). Three members including the Head and the CTO of Connected Products and Practices of Cognizant, India attended the meeting. From CSIR 4PI, Head CSIR 4PI along with HPC team participated and discussed various possibilities. Dr G K Patra, made presentation on the various activities that CSIR-4PI have carried out in the field of security of lightweight devices.

Guest Lectures

Lecture on “**A Monolithic Shift from the Monolith: Towards a Smallest Constellation Configuration for Global Snow Mass Characterization**” 31 Jan 2020, Deborah J Goodings, Professor in Engineering for Global Sustainability, Dept of Civil & Environment Engineering, University of Maryland

Lecture on “**Novel Ultrasound Techniques combined with Immuno therapy to treat Solid Tumors**” 26 Nov 2019, Avinash Eranki, PhD, Sr Research and Development Engg. Fairfax, National Institutes of Health & Children’s National, USA.

In-house seminars/lectures

PhD Thesis Viva Voce “**A Study on Characterization of Seismogenesis Along the Plate Boundary Zones of Himalayan and Indo-Burmese Arcs**” 06 Jan 2020, Sunilkumar T C, Ph.D., CSIR-4PI

PhD Thesis Colloquium on “**Reliability Assessment of Regional Climate Projections and its Application**” 26 Sept 2019, Alfred Johny, Ph.D., CSIR-4PI

PhD Thesis viva-voce “**on Reliable Climate Change Projections over India Through Dynamical Downscaling Using Very High-resolution Regional Climate Model**” 19th Aug 2018, C B Jayasankar, Ph.D., CSIR-4PI

PhD Thesis Open Colloquium on “**Crustal Structure and Quantified Earthquake Hazard of the North-West Himalaya**” 20 Jun 2019, Ramees Raja Mir, CSIR-4PI

Visitors at CSIR-4PI

Dr N Kalaiselvi, Director, CSIE-CECRI, Visited HPC, 10 March 2020

Ms Kavitha Mishra, Raichur, Visited HPC, 10 March 2020

Irfan Rashid, Asst Prof, Geoinformatics Program, School of Earth and Environmental Sciences, University of Kashmir, Srinagar, Meeting with Prof V K Gaur, 04 March, 2020

Shri R Venkatesh, Tech Director, NIC, Bangalore, **Sri Shivakumar**, DPAR (e-Governance), **Dr Lokesh**, HOD, Kidwai, KMIO, **Dr Krishnamurthy**, Kidwai, KMIO, **Dr Madhu**, Asst Prof. Kidwai, **Smt Sudha**, Sr Prog, Kidwai, **Dr Vijay**, Asst Prof. Kidwai, **Mr Chandran**, Project Manager, Kidwai, **Smt Mary**, IT Consultant, Kidwai, TSC Meeting for

procurement of IP Surveillance and Biometric Attendance and Access Control System, 28 Feb 2020

Kireet Kumar Dr, Director, GBPNIHESD and Nodal Officer, NMHS-PMS, Almora, **Prof Shakil Ahmed Romshoo**, Coordinator, and Professor, dept of Earth Sciences, University of Kashmir, **Dr Prashant K Srivastava**, Associate Professor, Institute of Environment and Sustainable Development, Banaras Hindu University, **A P Dimri**, Professor, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, **Ranjan Joshi**, **Dr Sandipan Mukherjee**, **Shri Sourav** GBPNIHESD, **Dr Sreeja**, IIT, Mumabi, Himanshu Kandpal, 13-15 Feb 2020

Mr Gandhi, **Mr Srinivas**, **Mr Prakash N**, Towers Infotech Pvt Ltd, **Mr Rijul Kunjan**, Panasonic Toughbook, Demo of Panasonic Toughbook, 06 February 2020

Dr Roopa, K M, **Mrs Uma A L**, Bangalore Institute of Technology, **Venkatesha P**, Dept of Sc and Humanities, Sri Sairam College of Engineering, Anekal, **Vishvanath MC**, Dept of Mathematics, SJC Institute of Technology, BB Road, Chikkaballapura, Discussion meeting on weather & climate forecast for Karnataka, 28 January 2020

Dr Krishnamurthy, **Smt Sudha**, **Vijay CR**, **Chandran GR**, Kidwai Institute, **Mr Rajeev**, M/s, Octel Networks, Tender Scrutiny Committee Meeting, 24 January 2020

Dr Debi Prasad, IMMT, Bhuvaneshwar, **Dr Sandip Gosh**, NML, Jamshedpur, **Dr Dipayan Sanyal**, CGCRI, Kolkata, **Dr Supriya Saha**, NEIST, Jorhat, **Dr Savithri**, NIIST, Trivandrum, Meeting on application of data Science for material design, 22 January 2020

Dr Goel and Dr Sunil, CSIR, Discussion Meeting, 07 January 2020

Ravichandran, Honorary Scientist, CSIR-4PI, Meeting with Head, 16 December 2019

Dr Raghuram, **Dr Prabha**, **Dr Krishnamurthy**, **Smt Sudha**, **Sri Vijay C R**, **Sri Chandran G R**, Kidwai Memorial Institute of Oncology, Bangalore, KMIO-TSC Meeting, 06 December 2019

Prof. Huggi, Principal, Bijapur Engg College, Bijapur – Meeting with Head, 4PI, 28 November 2019

Annamalai AR, Netgear, Bangalore, Netgear Storage work, 05 November 2019

Dr Adimurthy, **Dr Santosh Koruthu**, **Mr Prakash Raj**, **Mr Avijit Acharya**, **Prof. N Balakrishnan**, TAAI meeting, 10 Oct 2019

Narasimha, **Prahalad**, **LN Raghavendra**, **Biju Uttup**, **Sathya Prakash**, **KP Singh**, Aeronautical Development Establishment, TAAI Meeting, 10 Oct 2019

Prof. Puttaraj, Prof Kulkarni, Prof Ahmed, VTU, Recognise CSIR-4PI as Research Centre, 10 Oct 2019

Dr. Onkar Chauhan, Consultant, NIO Goa, Discussions on Marine Ecosystem, 11 Oct – 15 Oct, 2019

Industrial visit to CSIR-4PI from **JSS Academy of Technical Education**, **Students (28 Nos.)**, Dept of Computer Sc. And Engg. 21 August 2019



Amarpal Singh, Intel India, Technical discussion, 20 August 2019

Anil Kumar, NCL, Pune, **Anil Kumar Sharma**, CSIR HQ, **Deepak Kumar**, ASO, CSIR HQ, 29 July 2019 – 10 August 2019

Ahbishek Burman, **Kota Harinarayana**, **SR Patil**, General Aeronautics, 09 August 2019

Ruma Ghosh, **Gayathri**, **Rabi Narayana Sahoo**, **Prof. Viswanathan**, IARI, **Deepak Mishra**, UAS, Dharwad, **Mr Atanu Mandal**, CEERI Pilani, Agritech Meeting, 09 August 2019

Santanu Choudhury, Director, IIT, Jodhpur, **SR Desai**, UAS, Dharwad, **Dr Sahoo R**, IARI, Delhi, **Viswanathan**, IARI, Delhi, **Prof Gayathri**, IIT, Delhi, Prof., **Ruma Ghosh**, IIT Dharwad, **Mr. Atanu Mandal**, CEERI, Pilani – Agritech meeting, 09 August 2019

Dr P Goswami, **Dr Ramammohan TR**, **Geeta Agnihotri**, Visited for conducting Ph.D viva examination, 08 August 2019

Girish Subramanyam, Corel Technology, Kiran Kumar, Mathworks, Pallavi Kar, Mathworks, Meeting with Head, 4PI, 05 August 2019

VS Prakash, KSNDMC, Discussion on cloud seeding, 24 July 2019

Dr Balaji Rajendran, Jt. Director, C-DAC, Bengaluru, ACSIR Meeting, 22 July 2019

Sudip Roy, Head of Research at Akamara, Biomedicine Pvt Ltd., Meeting with Head, 4PI, 19 July 2019

Ajay Nair and Naveen Reddy, Dell – Discussion on on-going project, 16 July 2019

PK Ravindran, Wing Commander – Orientation programme on Cloud Seeding, 10 July 2019

Siddhartha Dr, **Proteem Saikai**, NEIST Jorhat, **Mantu Bhuyan**, NEIST, Sr. Scientist, Jorhat -12-13 July 2019


Prakash Koliwad, **Santosh Unnikrishnan**, **Prafull Yadav**, **Sagar Pokale**, **Vivekand Balijepalli**, **Dr Kapil Dev Sindhu**, IISc, Bangalore and **P K Ravindran**, Wind Commander – Karnataka Aerial Cloud Seeding Operation – Orientation Programme, 10 July 2019

Dr Rajesh Gopakumar, Director of International Centre of Theoretical Sciences to have possible discuss synergies between ICTS and NAL and 4PI

List of Foreign Visitors to CSIR-4PI

Prof. Roger Bilham, Seismologist from University of Colorado, Boulder visited on 24 May 2019

Dr Rakesh Kumar, Director, Vision Technologies, SRI International, Princeton, USA, To discuss vision Tech road Map – Duckietown setup for autonomous vehicular algorithms testing, 10 January 2020



Jeremie Ernest Bourdoncle, Altair Engg Inc., 2685 Marine Way Suite, 1209, Mountain view CA 94043, HCP, 14 Oct 2019

Callan James Fox, 207, Pacific Highway, St. Leonards, NSW 2065, Australia, to discuss on Storage of Data, 09 Sept 2019

Sannikov Aleksandr, Manager, Technical Software tools, Intel, Russia to discuss on software tools for high performance computing, 20 August 2019

Jeffrey Andrew Wiggins, Dell, 120, Adelaide, Toronto, ON M5H, 1T1, Canada, Dell EMC meeting on Benchmark and Sizing, 07 August 2019

Makitov Victor and Sinkevich, Kyathi Climate Modification Consultants, Russia, Karnataka Aerial Cloud Seeding Operation Orientation Programme, 10 July 2019

Rock Edmond Pierre Zadish, INRA – UNH, St. Genes, Champanello, **and Jerome Bove Dr**, Embassy of France in India and **Laurent Michel Lucien Ruiz**, INRA, France, Inst. Francais en Inde, to discuss about living lab PJT and MoU, 02 July 2019