

INDIAN SOCIETY OF REMOTE SENSING

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Dated: April 29, 2022

Dr. Prakash Chauhan President, ISRS Director, NRSC (ISRO), Hyderabad

Dr. Jayaprakash V. Thomas 1st Vice President, ISRS Associate Director, EDPO, ISRO HQ., DOS, Bangalore

Dr. Adarsh Kumar 2nd Vice President, ISRS, Associate Professor, Amity University, Noida

Dr. Praveen K. Thakur, Secretary, ISRS Head WRD, IIRS (ISRO), Dehradun

Dr. Som Kumar Sharma, Joint Secretary, ISRS Associate Professor, PRL, DOS, Ahmedabad

Dr. Poonam S. Tiwari, Treasurer, ISRS, Scientist/Engineer SF, IIRS (ISRO), Dehradun

Shri Nilesh Desai, Ex-Officio President, ISRS Director, SAC (ISRO), Ahmedabad

Dr. Shailesh Nayak, Chief Editor, JISRS, Director, NIAS Bengaluru & Former Secretary, MOES.

Member Academia, Prof Bharat Lohani, Professor, Department of Civil Engineering, IIT Kanpur, India

Member Industry, Ms., Megha Datta, Director- Market Development, AGI, India Dr. Prakash Chauhan President, ISRS

Sub: Bidding for ISPRS Technical Commission - III on Remote Sensing (2022-2026)

Dear Dr. CHRISTIAN HEIPKE

Greetings from ISRS, India!

This is in reference to the organizing of ISPRS Technical Commission - III on Remote Sensing (2022-2026) which is one of the activity of ISPRS and Indian Society of Remote Sensing (ISRS) will be honoured to organize such a prestigious activity.

Indian Society of Remote Sensing (ISRS) represents India in ISPRS as the Ordinary Member (Category 8). The main objective of ISRS is towards the advancement, dissemination and application of remote sensing, photogrammetry, image processing and geospatial technology in the field of survey, planning and management of natural resources by promoting interaction among all persons, bodies, institutions and industries.

ISRS have the privilege to Preside over the five Technical Commissions till date, besides taking lead roles as Chairs and Co-chairs of working groups of TCs. It has also conducted two Summer School programs to promote advance space technologies to students and researchers. These TCs include (i) Sensors, Platforms and Imagery (1996-2000), (ii) Resource and Environmental Monitoring (2000-2004), (iii) Geo-Databases and Digital Mapping (2004-2008), (iv) Remote Sensing Applications and Policies (2012-2016) while currently holding TC V Education & Outreach (2016-2022) for which ISRS have successfully hosted the Mid-Term Symposium during November 2018. The symposium was a grand success as it was attended by a large number of participants.

Moreover, today India is in the list of few countries who are leading the world in the field of space research and Earth observation. The Indian Remote Sensing (IRS) system is one of the largest constellation of remote sensing satellites for civilian use in operation today in the world. Data from the IRS satellites is received by several countries and disseminated all over the world. ISRO established various methodologies for natural resource mapping, disaster management, climate and environment support services etc. using satellite remote sensing and geospatial technologies. All these geospatial services are disseminated through web-portals like BHUVAN, VEDAS, MOSDAC etc. for visualization and modeling purposes.

Some of the unique achievements of ISRO which have been institutionalized by Govt. of India, are forest cover mapping (transferred to Forest Survey of India) and crop production and forecasting (transferred to Mahalanobis National Crop Forecast Centre) at national level.

Having played strong roles in ISPRS activities and vast experience to host and conduct the prestigious ISPRS Technical Commissions, we would like to jointly bid for Technical Commission on Remote Sensing with Turkey. The proposed team members of TC-III will be myself as President, Dr. Sultan Kocamann as Vice President and Dr. Sameer Saran as Secretary. The brief resume of the proposed TC-III council members is attached for your ready reference.

With kind regards,

(Prakash Chauhan) President, ISRS

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Dr. CHRISTIAN HEIPKE
President,
International Society for Photogrammetry and
Remote Sensing
Leibniz University Hannover,
GERMANY

Biodata of

DR PRAKASH CHAUHAN Director, National Remote Sensing Centre (NRSC), ISRO, Hyderabad

Dr Prakash Chauhan (born on 15.05.1969) is obtained his postgraduate degree in Applied Geophysics from University of Roorkee (now Indian Institute of Technology (IIT), Roorkee) and Ph. D. in Physics from Gujarat University, Ahmedabad. Prior to joining National Remote Sensing Centre (NRSC), Hyderabad, he was the Director at the Indian Institute of Remote Sensing (IIRS), Dehradun since April 2018. He joined Indian Space Research Organisation (ISRO) in 1991 at Space Applications Centre, Ahmedabad as scientist and since than working for the applications of Space Technology including Remote Sensing technology for Geosciences, Atmospheric and Oceanic process studies, Natural resources management for ocean and land resources. He initiated research activities for planetary remote sensing at Space Applications Centre to study solar system objects mainly Earth's Moon and Mars, through Indian planetary missions. He also served as Group Director at Space Applications Centre, Ahmedabad for Biological and Planetary Sciences Group during 2014 to 2018.

His major achievements are in the area of Earth Observation applications including development of algorithms for ocean colour parameter retrieval, marine living resource assessment, aerosol remote sensing for space based air quality monitoring, river and reservoir water level estimation using space borne altimeters and coastal zone management. More recently he has been working to use satellite remote sensing data for understanding the climate response of Himalayan Cryosphere and Air Quality assessment from Space.

He has done lead work in using the hyperspectral satellite data for Indian Planetary Missions such as Chandrayaan-2 and Chandrayaan-1 for lunar surface composition mapping. He had been the Principal Investigator for Infrared Imaging spectrometer (IIRS) instrument on-board Chandrayaan-2 mission. He also led a team scientist for scientific analysis of data from Mars Orbiter Mission (MOM) instruments. More recently his work on Chandryaan-2 IIRS spectrometer data has resulted in unambiguous detection of H₂O and OH on the surface of the Moon. His findings have conclusively established presence of water molecules at different location on the Moon.

As Director of Indian Institute of Remote Sensing (IIRS), Dehardun, Dr Chauhan spearheaded activities for research and capacity building in the field of applications of Remote Sensing and Geoinformatics technology for societal applications in India, he is actively providing guidance and support for international organisations like CSSTEAP-UN in conducting space technology courses for Earth System Science. As project director of

ISRO-DMS (Advance Techniques & Capacity Building) coordinated international charter activities to provide remote sensing inputs for disaster management.

As Director of UN affiliated Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP), he has significantly contributed towards capacity building for Space Applications in Asia and the Pacific region along with UNOOSA. New innovative digital learning platforms such as MOOCs and on-line courses are introduced to continue the CSSTEAP activities despite COVID pandemic.

He is currently serving as Chair of the Working Group of Whole at STSC of UNCOPUS. He has also served as Chair for CEOS working group on Capacity Building and Data democracy (WGCapD) for the year 2018-19. He is executive member of International Ocean Colour Co-ordination Group (IOCCG) and representing ISRO. He has also represented ISRO at CEOS as Co-Chair for Ocean Colour Virtual Constellation (OCR-VC). He had also been member of prestigious NASA-ISRO Planetary Science working group.

He has been awarded prestigious Prof. P.R. Pisharoty memorial award for the year 2004 by Indian Society of Remote Sensing, Hari Om Ashram Prerit Dr. Vikarm Sarabhai Research Award by Physical Research Laboratory (PRL), Ahmedabad for 2009, ISRO merit award by Indian Space Research Organistaion in 2010 and Satish Dhawan award by ISRS, Dehradun for 2016. He has published more than 150 peer review papers in national and international journals and he is currently fellow of the *National Academy of Science (NASI)*, *Allahabad*, *Indian Society of Remote Sensing and Indian Social Science Academy*.

Sultan KOCAMAN obtained her Ph.D. degree from the Group of Photogrammetry and Remote Sensing at ETH Zurich Institute of Geodesy and Photogrammetry, Switzerland in 2009. She has academic and practical experience in the domains of photogrammetry, remote sensing, and Geographical Information Systems. She has several publications (over 130 scientific papers from which ca. 40 in peer-reviewed journals) in the fields of optical and radar remote sensing, geometric and radiometric calibration and validation of airborne and satellite optical sensors, application of machine learning algorithms to complex geo-environmental problems such as geological and meteorological hazards, biodiversity conservation, land valuation, crowdsourced geodata and citizen science, geovisualization and smart cities, GeoAI, and WebGIS design and development. She has project coordination and consultancy experience in several international projects. Her collaborations with government and space agencies and research institutes include European Space Agency (ESA), EUMETSAT, MeteoSwiss, Japan Aerospace Exploration Agency (JAXA), MeteoSwiss, TUBITAK (The Scientific and Technological Research Council of Turkey) Space Technologies Research Institute, IIRS & ISRO, India; and Ministry of Environment and Urbanization, Turkey; General Directorate of Land Registry and Cadastre, Turkey, and EU COST Action (CA15212).

She is currently Assoc. Prof. Dr. at Hacettepe University, Dept. of Geomatics Engineering in Ankara, Turkey and visiting scientist at ETH Zurich, Institute of Geodesy and Photogrammetry, Switzerland (until September 2022). She has been charing ISPRS WG V/3 on Promotion of Regional Collaboration in Citizen Science and Geospatial Technology since 2016. She was also formerly an ISPRS Student Consortium Coordinator and former Chair of Photogrammetry Commission at Turkish Chamber of Geomatics Engineers.

DR. SAMEER SARAN SCIENTIST/ENGINEER 'SG'

Head, Geoinformatics Department, Indian Institute of Remote Sensing (IIRS)
Indian Space Research Organisation (ISRO)
Dept. of Space, Govt. of India

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Peer-recognition

- National Coordinator, Indian Bio-resource Information Network (IBIN)
- Course Director (GFM): IIRS –ITC JEP GFM, The Netherlands
- Deputy General Secretary, Asian Association of Remote Sensing (AARS)
- ISPRS Co-Chair TC V
- Former Vice President, Indian Society of Remote Sensing (ISRS) (2019-2021)

Specialization

Distributed GIS, 3D CityModels, Geohealth, Decision Support System and Spatial Databases

Education

- M.Sc in Physics & PhD in Geoinformatics
- Applied Research from Wageningen University, The Netherlands

Awards & Honors:

- NATIONAL GEOMATICS AWARD IN TECHNOLOGY 2017 was given by Indian Society of Geomatics during Asian Conference of Remote Sensing 2017 and Annual Convention of Indian Society of Remote Sensing and Indian Society of Geomatics held at New Delhi during Oct 23-27, 2017 for significant contribution in geomatics.
- Recipient of National Award for Science and Technology Communication for 2017 on popularization of remote sensing and geospatial based maps through electronic medium.
- AARS INNOVATION AWARD 2017 for 'Total turnkey solution for Swachh Bharat Abhiyan (SBA): A citizen centric approach for governance ' at ACRS 2017 held during Oct 2017 in New Delhi (Co-author)
- INDIAN NATIONAL GEOSPATIAL AWARD 2011: The award was given by Indian Society of Remote Sensing during Annual Convention of Indian Society of Remote Sensing and National Symposium held at Bhopal during 9-11 Nov., 2011 for significant contribution in geoinformatics.
- ISRO ASI Team Award 2009 "The award has been announced by Chairman, ISRO and Secretary, Department of Space for "Bhuvan Web Application Development"
- ISRO Team Excellence Award 2009 "The award has been announced by Chairman, ISRO and Secretary, Department of Space for "Development and Realization of BHUVAN Indian EO visualization"

Phd Supervision: 8 completed and 3 ongoing

Published more than 80 papers in peer-reviewed national and international journal