

BIODATA OF DR. SHAILESH NAYAK

1. **NAME:** **SHAILESH NAYAK**
Director, National Institute of Advanced Studies, Bangalore, India

Life Trustee, India International Centre, New Delhi

Editor-in-Chief, Journal of the Indian Society of Remote Sensing, Dehradun



2. **DATE OF BIRTH:** August 21, 1953
3. **ADDRESS:** Indian Institute of Science (IISc) Campus
Bengaluru 560012
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4. **BIOGRAPHICAL INFORMATION:**

Subject: Earth System Sciences

Specialization: Oceanography / Remote Sensing

Area(s) of Research: Coastal and Ocean processes, air-sea interaction, natural hazards, coastal geomorphology, geological/geomorphic processes

ii) Academic Qualification:

Sl. No	Degree	Subjects	Class	Year	University
1	Ph. D.*	Geology	-	1980	M. S. University of Baroda Vadodara, Gujarat, India
2	M. Sc.	Geology	First with Distinction	1975	
3	B. Sc.	Geology, Physics, Chemistry	First	1973	

*Geology of the bauxite deposits of Kutch and Valsad districts (Gujarat State) with special reference to their mode of occurrence, genesis and economic utility”

iii) Positions Held

YEAR	INSTITUTE	POSITION HELD
Mar 2018 onwards	National Institute of Advanced Studies, Bengaluru	Director
2019-2025	TERI-School of Advanced Studies, New Delhi	Chancellor
April 2024-26	IIT Gandhinagar, Gujarat	Distinguished Honorary Professor
Jan 2016 to Nov, 2017	36 th International Geological Congress	President
Oct 2015 to Mar 2018	Ministry of Earth Sciences (MoES)	Distinguished Scientist

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Aug 2008 to Aug 2015	Ministry of Earth Sciences (MoES)	Secretary, MoES Chair, Earth Commission
May 2006-2008	Indian National Centre for Ocean Information Centre (INCOIS), MoES	Director
Feb 2001-2006	Space Applications Centre (ISRO)	Group Director, Marine & Water Resources
Jun 1998-2001	Space Applications Centre (ISRO)	Head, Marine & Water Resources
Jan 1978 to Apr 2006	Space Applications Centre (ISRO)	Scientist at SAC, ISRO, Ahmedabad
Mar 1977- Dec 1977	Gujarat Engineering Research Institute	Senior Scientific Asst.

iv) Professional recognitions (honours, awards, prizes, honorary degrees)

a) Fellowships

- Academician, International Academy of Astronautics, Paris
- Fellow, Indian National Science Academy, New Delhi
- Fellow, Indian Academy of Sciences, Bengaluru
- Fellow, The National Academy of Sciences, India, Allahabad
- Fellow, International Society of Photogrammetry and Remote Sensing (ISPRS)
- Honorary Fellow, Indian Society of Remote Sensing, Dehradun
- Honorary Fellow, Ocean Society of India (OSI)
- Honorary Member, The Association of Hydrologists (AHI), Visakhapatnam
- Honorary Member, Society of Geoscientists and Allied Technologies, Bhubaneswar.
- Fellow, Gujarat Academy of Sciences, Ahmedabad
- Fellow, Indian Geophysical Union, Hyderabad
- Fellow, Geological Society of India, Bangalore
- Fellow, Indian Meteorological Society, New Delhi
- Fellow, Indian Society of Geomatics, Ahmedabad
- Fellow, Mineralogical Society of India, Mysore

b) Honorary Degrees

- Honorary Degree of Doctor of Science, Assam University, 2013
- Honorary Degree of Doctor of Science, Andhra University, 2011
- Honorary Degree of Doctor of Science, Amity University, 2014
- Honorary Degree of Doctor of Science, Graphic Era Deemed to be University, Dehradun, 2024

c) Awards

AWARD	YEAR	CONFERRED BY
Brock Gold Medal-2026	2026	International Society for Photogrammetry and Remote Sensing (ISPRS), Czech Republic
INSA Distinguished Lecture Fellowship Award	2025	INSA
'Padma Shri' the civilian honour award	2024	Government of India.
Lifetime Achievement Award	2022	Geospatial World

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Prof. R C. Misra Lifetime Achievement Award 2020	2020	Palaeontological Society of India
Lifetime Achievement Award, India Geospatial Leadership Award	2019	Geospatial Media and Communications, Noida.
Vikram Sarabhai Memorial Award for 2011-12	2012	Indian Science Congress Association, (ISCA), Kolkata
Hari Narain Lifetime Achievement Award in Geosciences-2013	2013	IGU, Hyderabad
Bhaskara Award	2010	Indian Society of Remote Sensing, (ISRS) Dehradun
Web Ratna 09 Platinum Award for Excellence in E-Governance Initiatives for Tsunami Early Warning System Project under the category “Innovative Use of Technology” (Team award)	2010	Dept. of IT and Communications, Government of India
Skoch Challenger Award for Security and Disaster Management (for setting up Tsunami Warning Centre)	2009	Skoch Development Foundation, New Delhi
Indian Space Research Organization's Team Award for Snow and Glacier project	2008	Indian Space Research Organization (ISRO), Bengaluru
Special Achievement in GIS (S.A.G.) Award (for Tsunami Warning Centre)	2008	E.S.R.I., San Diego, USA
Special Mention E-Govt. Projects: INCOIS' Tsunami Warning System	2008	PC Quest. Cyber Media (India) Ltd.
Geospatial Solution of the Year for Tsunami Warning System (Team Award to INCOIS)	2008	Geospatial Today Magazine, Hyderabad
Team Award for Rajiv Gandhi National Drinking Water Mission Project	2007	Indian Space Research Organization (ISRO), Bengaluru
National Mineral Award (Applied Geology)	2005	Ministry of Mines, Govt. of India
Indian National Remote Sensing Award	1994	Indian Society of Remote Sensing, (ISRS) Dehradun
Hari-Om Ashram Prerit Inter-University Smarak Trust Prize for Geology (1981-82)	1982	Physical Research Laboratory (PRL), Ahmedabad
Dinesh Chokshi Memorial prize for highest marks in M. Sc. (Geology) in 1975	1975	M.S. University of Baroda

d) Convocation Addresses and Award Lectures

- From Ocean Science to Blue Economy. BRSI-IBA Global Lecture Series-17, Biotech Research Society, India (BRSI) & International Bioprocessing Association (IBA), May 19, 2025.

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- Climate Change: Implications & Way Forward. Plenary Talk. National Seminar on Current Trends in Atmospheric and Oceanic Processes related to Climate Change Studies (Curtain Raise), Andhra University, Visakhapatnam. September 18, 2024.
- Himalayan Environment: A need for Preservation. Inaugural talk at the Global Summit, Himalaya Calling 2024: Global Summit for Challenges and Opportunities in the Himalayan Region, UPES, Dehradun, 9 September 2024
- Wetland Ecosystems and Climate Risks: Policy and Governance. 1st Bimonthly Online Lecture Series, Association of Quaternary Researchers, India, INQUA 2027, MoES, Delhi, 7 September 2024
- Earth Observation From Space : Benefits for Humanity. Karunakaran Memorial Lecture, ESSO-National Centre for Earth Science Studies, Thiruvananthapuram August 28, 2024.
- Observing Earth from Space: Benefits for Humanity. Keynote Address. 7th INAE-NAEK Workshop on Current Status and Cooperation Plan of Satellites for Observing the Earth. August 19, 2024.
- India's Space Saga for Earth System Science & Blue Economy. Keynote Talk at the Workshop on Application of Space Technology for Earth System ESSO-INCOIS & ISRO-NRSC, August 6, 2024.
- Climate Change and Sustainability. Keynote Speech at the International Conference on Political Dynamics, Technological Breakthroughs, and Social Innovations: Building an International Network towards a Sustainable Future, Christ (Deemed to be University), Bengaluru, July 24, 2024
- Vision of Earth System Science. Foundation Day Lecture, CSIR – Fourth Paradigm Institute (CSIR-4PI), Bengaluru, 15 July 2024.
- Sustainable Groundwater Management for Water Security. Keynote Address at the National Conference on “Sustainable Groundwater Management for Water Security,” Karnataka Science and Technology Academy, Bengaluru, June 19, 2024.
- Antarctica and Climate Change. 46th Antarctic Treaty consultative meeting (ATCM-46) and the 26th Committee for Environmental protection (CEP) meeting at Hyatt-Lulu Bolgatty International Convention Centre, Kochi organised by NCPOR, Goa, 21 May 2024
- Benefits of Earth System Science in India. Golden Jubilee IOE Distinguished Lecture, Centre for Earth, Ocean & Atmospheric Sciences, Hyderabad University, Hyderabad. April 15, 2024.
- Importance of Earth System Science. 2nd Nanabhoy Moos Foundation Lecture, Indian Institute of Geomagnetism, Navi Mumbai. April 1, 2024
- Keynote Address on Scientific challenges and Opportunities for a Sustainable Blue Economy, at the Fifth G20 RIIG Meeting, Research and Innovation Initiative Gathering (RIIG): Diu, Min. of Earth Sciences, GoI. May 18, 2023.
- Space Sector in India – Role of Diplomacy and Economy. 63rd National Security and Strategic Studies Course, National Defence Collage, New Delhi. Feb 23, 2023.
- Blue Economy Development. Keynote Address at Engineers Conclave – 2022. Indian Space Research Organisation and Indian National Academy of Engineers (INAE), Thiruvananthapuram. Oct 13, 2022.

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- A Scientific Drilling in Koyna: An Experiment to Understand Triggered Earthquakes. Key note address at the 3rd Inter. Virtual Workshop on Global Seismology & Tectonics – 2022. CSIR-NEIST, Jorhat. September 20, 2022.
- From Ocean Science to Blue Economy. PRL ka Amrut Vyakhyaan, PRL Platinum Jubilee Year Celebrations, Ahmedabad. Sep 7, 2022.
- The Himalaya in the 21st Century – Ecology, Environment and Geopolitics. American Chemical Society (ACS), Webinar. Jul 19, 2022.
- Towards Blue Economy: An Indian Perspective. Plenary Talk. International Indian Ocean Science Conference (IIOSC-2022), March 14, 2022.
- Towards Heralding an Era of Blue Economy. Plenary Talk. Oceans 2022, IEEE Oceanic Engineering Society & Marine Technology Society, IIT- Madras, Chennai, February 22, 2022.
- Towards Understanding of Triggered Earthquakes. Second Prof. Jai Krishna Memorial Lecture, IIT-Roorkee, October 13, 2021.
- Earth System Science Research in India: Opportunities and Challenges. Workshop on Remote Sensing and GIS-based Disaster Mitigation and Management – Building Resilient Infrastructure, Promoting Sustainable Industrialization and Fostering Innovation, Chandigarh University. September 2, 2021.
- Preserving the Himalayan System: A Need for Cooperation. Prof. R. C. Misra Memorial Lecture. Paleontological Society of India. Lucknow. April 19, 2021
- Goals for Geoscience Research for Coming Decades. Dr. Hari Narain Memorial Lecture, Association of Exploration Geophysicists, Wadia Institute of Himalayan Geology, Dehradun. December 2, 2021.
- Addressing Natural Hazards -A Perspective. Technology and Innovation for Building Resilience to Disasters. 5th World Congress on Disaster Management, IIT-Delhi. November 25, 2021.
- Role of Remote Sensing for National Development. Foundation day lecture, CSIR-National Geophysical Research Institute (CSIR-NGRI), Hyderabad, 26 September 2020.
- Role of Remote Sensing in Weather and Climate Forecasting. Deliver popular talk in the Virtual Symposium on Tropical Meteorology (TROPMET-2020) organized by Indian Meteorological Society (IMS), Delhi and Northeastern Space Applications Centre (NESAC), Shillong, December 16, 2020
- Earth System Science for Self-reliant India and Global Welfare. Virtual Indian International Science Festival 2020, Indian National Centre for Ocean Information Services, Hyderabad, December 13, 2020
- Remote Sensing for National Development: The Legacy of Dr. Vikram Sarabhai. Foundation Day Lecture, ESSO-Indian Institute of Tropical Meteorology, Pune. November 17, 2020
- CSIR Foundation Day Lecture. Remote Sensing for National Development: the legacy of Dr Vikram Sarabhai. CSIR-NGRI, Hyderabad. September 26, 2020.
- Building from Scratch: The Tsunami Warning System. Valedictory Address at Project Management Practitioners Conference 2018: Architecting Project Management for Value Creation, PMI Bangalore Chapter, Bengaluru, July 14, 2018

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- Convocation Address, Barkatulla Vishwavidyalaya, Bhopal, Feb. 24, 2018
- Convocation Lecture, 5th Convocation of the Indian Institute of Space Science and Technology, September 14, 2017.
- Convocation Lecture, 35th Convocation of the *Deen Dayal Upadhyay Gorakhpur University*, March 25, 2017
- K. D. Malaviya Memorial Lecture, Probing Deep Earth: A Perspective, R & D Meet of ONGC Institutes and KDMPIE Foundation Day, *K. D. Malaviya Institute of Petroleum Exploration, Dehradun*, December 19, 2016
- Towards Blue Economy: Role of GIS, First Dr. Roger Tomlinson Memorial Talk, *ESRI India Technologies Ltd. Delhi*, December 3, 2015
- Plenary Talk: Earth Observations to Services: An Indian Perspective. XXXIII. International Society of Photogrammetry and Remote Sensing Congress. Plenary-1, Prague. July 13, 2016.
- Distinguished Lecture on Public Policy for Integrating Geo-Science Research to Societal Benefits: The Indian Perspective, 2015 AOGS Conference, *Asia Oceania Geoscience Society, Singapore*, August 6, 2015
- Plenary Lecture on Opportunities and Challenges in Earth System Science Research in India, XII *International Symposium on Antarctic Earth Science, Scientific Committee on Antarctic Research, Goa*, July 13, 2015
- India's Global Engagement in Earth System Science, Vikram Sarabhai Memorial Lecture, *Indian Society of Remote Sensing*, December 9, 2014
- Towards Stewardship of Oceans, 23rd Vikram Sarabhai Memorial Lecture, *Indian Society of Remote Sensing, Andhra University, Visakhapatnam*. December 5, 2013
- P.R. Pisharoty Memorial Lecture, Kerala Congress on Earth System Science: perspective, January 29, 2012
- 48th Convocation Address, *Shivaji University, Kolhapur*, January 25, 2012
- Earth System Science: A Perspective, Platinum Jubilee Lecture, Earth System Science Session, 99th Science Congress, *Bhubaneswar*, January 4, 2012
- 79th Convocation Address, Climate Change and Humanity, ***Annamalai University***, November 9, 2011
- Prof. R. Vaidyanathan Lecture, *Geological Society of India*, on Remote Sensing for Coastal Geomorphology, Visakhapatnam, September 26, 2011
- Managing Earth System Geospatially. Todarmal Lecture Series, XXX *INCA International Congress, Dehradun*, November 10, 2010
- *Indian Society of Geomatics* Millennium Lecture, Impact of Climate Change on Coastal Zone, Ahmedabad, February 4, 2010
- H. Sidique Memorial Lecture and Gold Medal of Indian Geophysical Union, "Ocean and Society", *Wadia Institute of Himalayan Geology, Dehradun*, October 5, 2009
- *Birbal Sahni Institute of Paleobotany* Foundation Day Lecture, 'Towards Climate Information and Services', Lucknow, September 10, 2009
- 26th Convocation Address, *Gandhigram University, Gandhigram*, on 'Earth Science and Rural Development', July 18, 2009
- *Indian Society of Remote Sensing* Pisharoty Memorial Lecture, The Planet Earth: Finite Resources and Civilizations, April 24, 2009, Ahmedabad

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- *Indian Geological Congress 12th Foundation Lecture of IGC on Tsunami warning System for the Indian Ocean, 16th Convention of the Indian Geological Congress, National Geophysical Research Institute, Hyderabad, February 2, 2009*
- *Indian National Cartographic Association (INCA), Dr. S.P. Chatterjee Memorial Lecture on, 'Remote Sensing and GIS for Coastal Zone Management', November 22, 2007, Visakhapatnam*

v) Membership of Academic/Professional Bodies:

- Life Member, Astronautical Society of India (ASI), Bangalore
- Life Member, Indian Geological Congress (IGC), Roorkee
- Life Member, Indian Society of Geomatics (ISG), Ahmedabad
- Life Member, Indian Society of Remote Sensing (ISRS), Dehradun
- Life Member, Mangrove Society of India (MSI), Goa
- Life Member, Meteorological Society of India (MSI), New Delhi
- Life Member, Ocean Society of India (OSI)

5. INTELLECTUAL PROPERTY, TECHNOLOGICAL INNOVATIONS, NEW PRODUCTS ETC.

- Conceptualized, installed and operationalized the Tsunami Early Warning system for India.
- Algorithms and software for retrieving bio-geo-chemical parameters from ocean colour sensors have been provided to many institutions in the country.
- Satellite based technique for identifying potential fishing grounds has been operationally being utilized by the Indian National Centre for Ocean Information Services (INCOIS) for providing forecast to fishermen for the entire Indian coast.
- GIS-based model for selecting suitable sites for brackish water aquaculture.

6. MAJOR R & D PROJECTS/PROGRAMS IMPLEMENTED.

As the Director of the National Institute of Advanced Studies (NIAS), Bengaluru, providing leadership towards integrating multidisciplinary research output towards sustainable development, conceptualize sustainability and developing policy framework for 'Blue Economy'.

As the President of the International Geological Congress (IGC-2020) provided leadership to organize scientific activities, logistics and finances as well as interaction with the International Union of Geosciences.

As a Distinguished Scientist, Ministry of Earth Sciences (MoES), mainly focused on scientific aspects understanding triggered earthquakes and their impact on society, guidance for developing the flood warning system for Chennai, providing direction and guidance for polar research in India and organizational and coordination issues for implementing international Indian Ocean Expedition.

As the Secretary, MoES, Dr. Shailesh Nayak has initiated new programmes /centres/activities relating to global change and use of earth system science for overall societal benefits. Name a few, monsoon mission, severe weather, Arctic research, evolution of Himalayas, earthquake research, ocean biogeochemistry, ocean

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ecosystem including modelling, multi-hazard warning system, marine resources and Antarctica data base organization and management, web- and location-based services, building HPC infrastructure, development of human resources, etc. Due to his efforts, the forecast for weather, climate and hazards has improved considerably. A Centre for Climate Change Research in Pune, National Centre for Seismology, Delhi and Coastal Research Centre, Chennai, have been established. A Training School for Climate and Earth System has been set up in Pune. A National Vision document on the role Earth Sciences in addressing national issues was prepared. He also led an expert group for setting up National-GIS which is now under implementation.

As the Project Director, Early Warning System for Tsunami and Storm Surge, (May 2006 -Oct 2007) planned and implemented an Early Warning System in ESSO-Indian National Centre for Ocean Information Services (INCOIS), Hyderabad, involving network of seismic stations, tidal stations, bottom pressure recorders, and real time analysis of data, modelling of travel time, propagation of tsunami wave and inundation and generation of high-resolution bathymetry and coastal topography data. The work involved direction, guidance, coordination of three departments/ministries and fourteen national institutions involving more than three hundred scientists to design, develop and making such system operational in record time of 18 months at a cost of Rs. 80 crores. Two major R & D projects, on the tectonic modelling of the Andaman Trench and History of Tsunami was conceptualized and was implemented through CSIR-NGRI, PRL, ESSO-NCAOR, IITs and academic institutions. The capability of India was demonstrated in international fora. One of the major achievements was that the project was executed without any increase in the time or cost of the project.

As the Director of ESSO-INCOIS, initiated activities in operational oceanography and provided direction and guidance for the societal services in the field of Potential Fishing Zone (PFZ) and Ocean State Forecast (OSF) Advisories. The success of PFZ advisories is around 74 per cent and led to savings in time and fuel. The OSF is being widely used by shipping, Coast Guards, and the Indian Navy. A project on 'Chlorophyll Monitoring of the Indian Ocean' was conceptualized and implemented using MODIS/OCM data to monitor ecosystem health and will provide input for ecosystem modelling.

As the Project Director, Argo Project, ESSO-INCOIS, organized activities related to deployment of ARGO floats in the Indian Ocean, reception and processing data in near real time, quality checks, generation of products and applications. Various applications of Argo data are developed.

At the Space Applications Centre (SAC), Indian Space Research Organisation (ISRO), Conceptualized, executed, and guided and provided leadership to following national level projects by involving many national and state level institutions in the field of coastal and marine environment.

Principal Investigator, Coastal Studies during Jan. 2004-April 2006, (inventory, zonation of coral reefs and mangroves, coastal geomorphology, sea level rise, shoreline change, coastal zone information system), , and Snow and Glacier Studies (snow monitoring, glacier inventory and retreat, mass balance, information system) Funded by the Ministry of Environment and Forests, Govt. of India (Rs. Thirty crores).

Focal Point, Meteorology and Oceanography Programme (funded by ISRO), and Satellite Coastal and Oceanographic Research. Funded by the Dept. of Ocean

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Development, GOI. 2003 to 2006, Biological and Geological Oceanography component and Development of Cal Val site in the Lakshadweep Sea (Rs. Five crores).

Deputy Project Director, Satellite Coastal and Oceanographic Research, Funded by the Dept. of Ocean Development, GOI. Indian Remote Sensing Satellite (IRS) – P4 OCM Utilisation, ISRO. 1998-2003. Development of algorithms for retrieving bio-geo-chemical parameters from Ocean Colour Monitor (OCM), its validation and operationalization, development of methodology for application of OCM data for fisheries and coastal processes (Rs. 7 Crores).

Focal Point. Development Plans of Kachchh District. Preparation of land and water resources development plans. 2001-2004 (Rs. 2.25 crores).

Deputy Project Director, Integrated Coastal and Marine Area Management Project, Funded by the Dept. of Ocean Development. GOI. 1998-2003. Development of methodology for eco-geomorphological zonation of mangroves and coral reefs using Indian Remote Sensing data (Rs. 1 Crore).

Principal Investigator, Coastal Zone Development. Joint project SPARRSO, Bangladesh and ISRO. Funded BY UN-ESCAP. 1997-2000. Transfer of technology to SPARRSO for coastal studies and specifically selection of brackish water aquaculture sites.

Principal Investigator, IRS P3 Validation Experiment – Ocean. Joint Project DLR, Germany and ISRO. 1995-98. Development of algorithms for retrieving bio-geo-chemical parameters and standardizing validation procedures using MOS-B data (Rs. 30 Lakhs).

Project Leader: Land Use Mapping of Coastal Regulation Zone, Funded by the Ministry of Environment and Forests, GOI. 1993-1997. Developed techniques to delineate high tide line and low tide line using satellite data and generated database for the entire country's coastline on 1:25,000 scale and GIS based model for classifying coastal zone for managing coastal zone (Rs. 30 Lakhs).

Principal Investigator, Coastal Studies, Funded by the Dept. of Ocean development, GOI. 1990-1995. Developed methodology for identifying coral reef features and generated data base on coral reef, mangroves and areas under erosion and deposition on 1: 50,000 scale for the entire country's coastline (Rs. 50 Lakhs).

Project Leader, Coastal Land Use Mapping for Brackish Water Aquaculture Site Selection, Remote Sensing Application Mission, Funded by the Ministry of Agriculture, GOI. 1990-94. Generated data base on coastal land use on 1:50,000 scale and developed a model to integrate satellite-based information within *situ* information on ecology, infrastructure, etc. to select sites for brackish water aquaculture (Rs. 30 Lakhs).

Project Leader, Coastal Environment, Remote Sensing Applications Mission (RSAM), Funded by the Ministry of Environment and Forests, Govt. of India (GOI). 1988-92. Generated database on coastal wetland/landform and shoreline changes on 1:250,000 scale for the entire country's coastline (Rs. 18 Lakhs).

Principal Investigator, Monitoring of Coastal Environment, Indian Remote Sensing Utilization Programme (IRS-UP), ISRO. 1984-1990. Developed methodology and classification system for identifying coastal wetland and landform and shoreline change. Prepared a detailed manual for the same (Rs. 32 Lakhs).

Principal Investigator, Coastal Morphology: A Case Study in the Gulf of Khambhat. End-to-End Experiment, National Natural Resources Management System, Indian Space Research Organisation (ISRO). 1983.

7. LIST OF TEN IMPORTANT PUBLICATIONS

(Total publications: ~250, Total Citations: ~ 6739, h-index: 44, i10-index: 131)

1. **Nayak, S.** and Srinivasa Kumar, T. 2011. *Tsunami Watch and Warning Centres*; In Encyclopedia of Solid Earth Geophysics. In: Gupta, Harsh K. (ed.), Springer Dordrecht, Vol. 2, pp. 1498-1505 (invited contribution)
2. Srinivaskumar, T., Mahendra, R.S., **Nayak, S.**, Radhakrishnan, K., Sahu, K.C. 2010. *Coastal vulnerability assessment for Orissa State, East Coast of India*. Jour. of Coastal Research. 26(3):523-534. (Cited 499 times)
3. **Nayak, S.** 2009. *Application of Remote Sensing and GIS for Coastal Zone Management*. In the Manual of Geographic Information Systems (ed. M. Madden), The American Society for Photogrammetry and Remote Sensing, Bethesda, MD. pp. 1075-1094 (Invited contribution)
4. **Nayak, S.** and Bahuguna, A. 2001. *Application of remote sensing data to monitor mangroves and other coastal vegetation in India*. Indian Jour. Of Marine Sciences. 30(4): 195-213 (cited 177 times).
5. Chauhan, P., Mohan, M., Sarangi, R. K., Beenakumari, **Nayak, S.** and Matondkar, S. G. P. 2002 *Surface chlorophyll a estimation in the Arabian Sea using IRS P4 Ocean Colour Monitor (OCM) satellite data*. Inter. Jour. of Remote Sensing. 23(8):1663-1676. 2002 (cited 107 times)
6. Vinaychandran, P. N., Chauhan, P., Mohan, M. and **Nayak, S.** 2004. *Biological response of sea around Sri Lanka to summer monsoon*. Geophysical Research Letters, 31: L01302. 2004. (cited 212 times)
7. **Nayak, S.**, Sarangi, R. K. and Rajawat, A. S. 2001. *Application of IRS P4 OCM data to study impact of cyclone on coastal environment of Orissa*. Current Science, 80(9):1208-1213. 2001. (cited 103 times).
8. Solanki H.U., Dwivedi R.M., and **Nayak S.** Somvanshi, V.S., Gulati, D.K. 2003. *Fishery forecast using OCM Chlorophyll concentration and ACHRR SST: Validation results off Gujarat Coast, India*. Inter. Jour. Remote Sensing 24 (18): 3691-3699. 2003. (cited 111 times).
9. **Nayak, S.** and Sahai, B 1985. *Coastal morphology: a case study in the Gulf of Khambhat*. Inter. Jour. of Remote Sensing, 6 (3 & 4): 559-567. 1985. (cited 119 times).

10. **Nayak, S.** 2017. Coastal zone management in India – present status and future needs. *Geo-spatial Information Science*, 20 (2): 289. (Cited 102 times).

8. ACADEMIC AND RESEARCH ACTIVITIES

8.1 CURRENT ASSIGNMENTS

Governing Board/Research Advisory Committees

- Mentor, CSIR-National Geophysical Research Institute (CSIR-NGRI), and Member, NGRI-CSIR Society
- Chair, Research Advisory Committee, ESSO-National Centre for Polar and Ocean Research, Goa. (2017 onwards)
- Chair, Research Advisory Committee, Wadia Institute of Himalayan Geology, Dehradun (2019 onwards)
- Chair, Research Advisory Committee, ESSO-National Centre for Coastal Research, Chennai (2019 onwards).
- Chair, Research Advisory Committee, CSIR-Geophysical Research Institute, Hyderabad (Sep 2023 onwards)
- Chair, Project Advisory Committee, Koyna Deep Borehole Research, Ministry of Earth Sciences, Govt. of India (2020 onwards).
- Co-Chair, Monsoon Mission-III, Ministry of Earth Sciences, GOI, New Delhi (2022 onwards)
- Member, Governing Board, Indian National Space Promotion and Authorisation Center (IN-SPACE), Ahmedabad (2021 onwards).
- Member, Deep Ocean Council (DOC) under Deep Ocean Mission, Ministry of Earth Sciences, Delhi (2022 onwards)
- Member, Governing Board, Indian Council of World Affairs (ICWA), New Delhi (2018 onwards).
- Member, Board of Governors, Foundation for Ecological Security (FES), Anand (2018 onwards)
- Member, Research Advisory Board, JK Lakshmipat University, Jaipur (2017 onwards).
- Member, CSIR Society, New Delhi.
- Life Member, Association of Quaternary Researchers, Birbal Sahni Institute of Palaeosciences, Lucknow, Sept 2024
- Distinguished Honorary Professor, IIT Gandhinagar, Gujarat, April 2024 (2 yrs)
- Member, Planning Board, Indian Maritime University, Chennai

Professional Committees

- Chair, Blue Flag India National Jury, Blue Flag India, Pune (2018 onwards)
- Chair, National Nitrogen Steering Committee, MoEF, Gol, Delhi (2021 onwards)
- Honorary Scientific Consultant, Office of the Principal Scientific Adviser (PSA), Govt. of India (2016 onwards)

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- Member, Indian National Commission for cooperation with UNESCO (INCCU), New Delhi. Sub-commission on Natural Sciences (2020 onwards).

Editorial Board

- Editor-in-Chief, Journal of the Indian Society of Remote Sensing, Dehradun (2019 onwards)
- Editorial Board Member, Jour. Geospatial Information Science, Wuhan University, China. Taylor and Francis (2017 onwards).

Professional Societies

- President, Indian Geophysical Union (2014 onwards)
- President, Mangrove Society of India (2016 onwards)
- Member, Current Science Association General Body (Feb 2020 onwards)

International

- Regional Representative for Asia, International Society for Photogrammetry and Remote Sensing (ISPRS)
- Member, International Science Advisory Committee, ISPRS
- Member, Steering Committee, 2nd International Indian Ocean Expedition (IIOE-2).
- Member, Fellow Selection Committee, ISPRS.
- Member, Board of Trustees, International Society of Photogrammetry and Remote Sensing (ISPRS) Foundation

8.2 PREVIOUS ASSIGNMENTS

Governing Board/Research Advisory Committees

- Chair, Research Council, National Institute of Oceanography. Goa (2008-2015)
- Chair, Research Council, CSIR-National Environmental Engineering Research Institute, Nagpur.
- Chair, Research Council, Wadia Institute of Himalayan Geology (WIHG), Dehradun.
- Chair, Research Advisory Committee, Centre for Earth Science Studies, Thiruvananthapuram (2007-14)
- Chair, Governing Body, Birbal Sahni Institute of Paleobotany, Lucknow (2010-2014)
- Chair, Governing Board, Gujarat Energy Research and Management Institute, Gandhinagar (2013-2015)
- Member, Scientific Advisory Committee to the Prime Minister (2008-14)
- Member, Scientific Advisory Committee to the Cabinet (2008-15)
- Member, Governing Council, The Energy Research Institute, Delhi. (2013-2023).
- Member, Governing Board, Research, and Information System for Developing Countries (RIS), New Delhi

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- Member, Science and Engineering Research Board, Ministry of Science and Technology, GoI (2010-2015).
- Member, Board of Governors, IISER, Pune; IISER, Kolkata
- Member, Research Advisory Committee, Centre for Mathematical Modelling and Computer Simulation, Bangalore (2007 - 2008)
- Member, Scientific Research Advisory Board, Nansen Environmental Research Centre-India, Kochi (2007 onwards)
- Member, Scientific Advisory Committee, Institute of Seismological Research, Gandhi Nagar (2007-2008)
- Member, Research Advisory Committee, Wadia Institute of Himalayan Geology, Dehradun (2003-06)
- Member, Coastal Protection and Development Advisory Committee (CPDAC), Ministry of Water Resources, GoI. (1999-2008)
- Member, Programme Advisory Committee, Earth Sciences (PAC-ES) – Dept. of Science and Technology, GOI (2004-07, 1998-2001)

Professional Committees

- Member, International Science Council (ISC) National Committee for Scientific Committee on Antarctic Research (SCAR), INSA, 1 Janu 2026 to 31 Dec. 2028.
- Chair, National Expert Panel (NEP) of the Methane Monitoring and Mitigation Technologies (M3T), DST, GOI, India, May 2025 onwards
- Chair, External Expert Committee (EEC) to examine, evaluate, shortlist, grade and recommend proposals under FCP 2.0 and Pilot Plant Categories of CSPS-2024
- Planning Board Member, Indian Maritime University, Chennai, Jan 2025 onwards
- Member, Project Monitoring and Evaluation Committee (PMEC) for the Project 'Venture for IAG (Industry, Academia and Government) collaboration in S&T to Augment its Access and Reach (VISTAAR)'. Office of PSA, GoI, 2025 Jan onwards
- Member, Technology Advisory Group (TAG) for the Empowered Technology Group (ETG), Office of PSA, Govt of India, Delhi, Dec. 2024 onwards
- Chair, To review, supervise and provide overarching guidance to Administrative Staff College of India, Hyderabad (ASCI) engaged carrying out benchmarking of CWPRS, Pune, 9 Oct 2024
- Member, Selection screening committee of Bhatnagar Fellowship Scheme. CSIR-DSIR, GOI, 23 Aug.
- Chairman, Contribution of a National Coordination Committee on INQUA 2027, BSIP, Lucknow
- Chair, DBT-Technology Transfer Committee for patents/technologies emanating from DBT-funded projects, 2yrs from April 2024 onwards
- Chairman, GIS Academia Council of India (GACI), ESRI India Technologies Private Limited, Noida, April 2025 onwards
- Chair, Standing Committee on Meteorology and Ocean Resources, National Natural Resources Management System, Planning Commission, GOI (August 2008-2015)

BIODATA OF DR. SHAILESH NAYAK

- Chair, Expert Group on National Geospatial Policy (NGP), Department of Science and Technology (DST), New Delhi (2018-2020)
- Chair, Vikram Sarabhai Centenary Celebrations Committee, Indian Space Research Organization, Bengaluru (Dec. 2017-2019)
- Chair, National SCAR Committee, Indian National Science Academy, New Delhi (2016-2019)
- Chair, Project Appraisal and Monitoring Committee, Ocean Science and Resources. Ministry of Earth Sciences (2015-2018).
- Chair, National Organising Committee, International Symposium on the Indian Ocean ' Dynamics of the Indian Ocean: Perspective and Retrospective' to Celebrate 50th Anniversary of Completion of International Indian Ocean Expedition (IIOE) and Golden Jubilee of CSIR-National Institute of Oceanography (NIO), Goa. November 30- December 4, 2015.
- Chair, Review of Autonomous Bodies (INCOIS and NIOT) , MoES, Delhi, 2021
- Chair, Thematic Group (TG-STI) on Policy Governance, PSA and DST, Govt. Of India.
- Chair, High Level Committee (HLC) for Merging of CSIR Laboratories CSIR -4PI, CSIR-NISCAIR, CSIR-NISTADS as per Apex Committee Proposal (2020).
- Chair, Monitoring Committee of CSIR Mission 'Safety & Security of Vital Installations', New Delhi.
- Chair, Committee of Experts to Review DST-Policy Research Centres, Department of Science and Technology (DST), New Delhi (2018 onwards)
- Chair, National Resources Data Management System, Department of Science & Technology (2009-2015).
- Chair, Committee to Review the Issues related to Coastal Regulation Zone Notification, 2011. Ministry of Environment and Forests, GoI. Formed in June 17, 2014. Submitted Report to the H'ble Minister, Ministry of Environment and Forests on January 19, 2015
- Chair, Standardization of Methodology for Demarcation of HTL/LTL, Ministry of Environment and Forests, GoI
- Chair, National GIS Interim Core Group, Planning Commission, GOI. Oct, 2011
- Chair, Task Force on Procedures from Mapping Technology, GOI, 2010
- Chair, Committee to Review the Issues related to Coastal Regulation Zone Notification, 2011. Ministry of Environment and Forests, GoI. Formed in June 17, 2014. Submitted Report to the H'ble Minister, Ministry of Environment and Forests on January 19, 2015
- Chair, Standardization of Methodology for Demarcation of HTL/LTL, Ministry of Environment and Forests, GoI
- Chair, National GIS Interim Core Group, Planning Commission, GOI. Oct, 2011
- Chair, Task Force on Procedures from Mapping Technology, GOI, 2010
- Coordinator, Review Committee, Centre of Atmospheric and Oceanic Sciences (CAOS), Centre for Earth Sciences (CEaS) and Divecha Centre for Climate Change (DCCC) at IISc, Bangalore (2018)
- Member, National Coastal Zone Authority, Ministry of Environment and Forest, Govt. of India (2017-2022)

BIODATA OF DR. SHAILESH NAYAK

- Member, Advisory Committee, the preparation of National Environment, Forest and Climate Disaster Management Plan (NEFC-DMP) of MoEFCC, Delhi
- Member, Apex Committee on STI Policy, Technology-led- Innovation Policy Framework 2020, DST, Govt. of India. (Jan 20)
- Member of Strategic Policy Group, Cabinet Secretariat, July 2011.
- Member, CoS on National GIS (2011-13)
- Member, Executive Committee on Climate Change, PMO (2013-2015)
- Member, Consultative Group on Climate Change, Ministry of Environment and Forest, Gol (2012-2015)
- Member, DPRC, Ministry of Environment and Forest (Sci. F to G), Jan. 10, 2014
- Member, DPRC, Department of Information Technology (Sci. E to F), April 4, 2013, July 4, 2013
- Member, Peer Review Committee, DRDO, Sci. F to G, G to H, H to DS. July 5, 2013
- Member, Departmental Peer Review Committee, Extension of Service beyond the Age of Superannuation, DRDO. July 30, 2013
- Member, GIS Advisory Board, National GIS Mission (2013-2014)
- Member, National Steering Committee on Climate Change, MoEF
- Member, implementation of Modified FCS in Organizations under Ministry of Water Resources
- Member, Search-cum-Selection Committee, CSIR
- Member, Programme Advisory Committee on Natural Resources Management and Climate Change, MSSRF, Chennai
- Member, National Bio-resource Board, Delhi
- Visitor's Nominee, Selection Committee for Selection of Professors/Associate Professors/Asst. Professors, IIT-Bombay
- Adviser, Interview Board (Additional Director General, P & A, G. S. I.), UPSC, New Delhi. November 9, 2015
- Member, Expert Committee of NRDMS Programme, DST, New Delhi (2007-2008)
- Member, Committee to update and develop Curricula in RS, GIS, GPS and allied subjects, DOS, Bangalore
- Member, Gujarat Coastal Zone Authority, Gandhinagar
- Member, Expert Group on SAR Interferometer, Department of Science & Technology, Gol (2002-2006)
- Member, Sub-Group I on Cyclone Early Warning System, NDMA
- Chair, Assessment Board, National Institute of Hydrology, Roorkee. Jan. 17, 2014
- Chaired Book Discussion Programme on Rao, U. R. India's Rise as a Space Power. New Delhi: Foundation Books, 2014. Bagla, Pallav & Subhadra Menon. Reaching for the Stars: India's Journey to Mars and Beyond. New Delhi: Bloomsbury, 2014. At India International Centre, New Delhi, April 8, 2015
- Radio Talk on Exploring the Unexplored Antarctica. National Channel, All India Radio. June 17, 2015

Award Committees

- Chair, GeoSmart India Awards Committee, Geospatial, December 17, 2015
- Chair, Bhatnagar Prize Award Committee for Earth Science, Sep. 4, 2015

BIODATA OF DR. SHAILESH NAYAK

- Chair, Award Committee, Indian Society of Geomatics, Ahmedabad
- Member, Apex Committee for DRDO Awards, 2012.
- Member, Advisory Board, State Awards in Science, M. P.
- Member, expert Committee, UNESCO Kalinga Prize for Popularizing of Science
- Member Award Making Committee, Ministry of Mines, GOI. January 21, 2014
- Member, Selection Committee for NASI-Reliance Industries Platinum Jubilee Awards Application Oriented Innovation
- Member, Scrutiny Committee for Selection of Fellows, NASI, Allahabad
- Member, Selection screening committee of Bhatnagar Fellowship Scheme. CSIR-DSIR, GOI.

Professional Societies

- President, Federation of Indian Geoscientists Association, Hyderabad (2014-2017)
- President, Indian Geophysical Union (2014-2016, 2016-2018, 2020-2022)
- President, Indian Society of Geomatics (2010-14)
- President, Indian Meteorological Society (2012-14)
- President, Indian Society of Remote Sensing (2008-2010, 2016-2018)
- President, Mangrove Society of India (2016 onwards)
- Member, Council, National Academy of Sciences, India (2019-2022).
- Member, CSIR Society (2010-2015)

Editorial Board

- Member, Editorial Advisory Board, GIS Development
- Member of Editorial Board, Indian Journal of Marine Science, National Institute of Scientific Communications (2001-2004), Delhi and Geospatial Today, Hyderabad
- Member, Editorial Board. Proceedings of the Symposium on Engineering Applications of Remote Sensing and Recent Advances, Indore.
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International

- Chair, Executive Board, Regional Integrated Multi-Hazard Early Warning System (RIMES) for Africa and Asia (2010-2015).
- Chair, Indian Ocean – Global Ocean Observing System (IO-GOOS). (2006-2012)
- Chair, Indian Ocean Observing System Resource Forum (IRF) (2009-2013)
- Vice Chair, Intergovernmental Coordinating Group on Indian Ocean Tsunami Warning System (ICG-IOTWS), (2007-2011)
- President, International Society of Photogrammetry and Remote Sensing (ISPRS), Technical Commission IV on ‘Geo-databases and Digital Mapping’ (2004-2008).
- Secretary, International Society of Photogrammetry and Remote Sensing (ISPRS), Technical Commission VII on Resource and Environmental Monitoring

and Chairman, ISPRS WG VII/3 on 'Integrated Monitoring System for Resource Management' (2000-2004).

- Co-ordinated various activities of ISPRS Technical Commission I on 'Sensors, Platforms and Imagery.' (1996-2000).
- Co-Chair, Core Committee for Hosting International Geological Congress in 2020 in India
- Represented India at Intergovernmental Global Ocean Observing System (I-GOOS), 2006-2008
- Represented ISRO at the International Ocean Colour Co-ordinating Group (IOCCG). 2001-2004
- Member, Integrated Global Ocean Observing System (IGOS) – Coastal Theme. 2003-2006.
- Member, International Expert Committee, Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, China (2013 onwards)
- Member, OGC Global Advisory Council, USA
- Executive Committee Member, Partnership for Observation of Global Ocean (POGO), 2006-07.
- Organized an international training program on "Remote Sensing of Ocean Colour: Techniques & Applications", sponsored by IOCCG, POGO and ISRO during February 12-23, 2001, at SAC Nine participants from abroad and eleven participants from India attended the training program.
- Faculty Member in a Training Course on "Ocean Colour", Asian Institute of Technology, Organized by NASDA, Bangkok, Thailand, December 2000
- Faculty member in a training course on "Remote Sensing and GIS for Coastal Applications", organized by SEAMEO BIOTROP at Bogor, Indonesia during October 20-29, 2001. Delivered lectures and conducted tutorials on Ocean Colour
- A Pre-Conference Training Module on Ocean Colour was organized during PORSEC 2000 during Nov. 30 - Dec.2, 2000 at Goa. An interactive CD-ROM was developed.
- Organized a Tutorial on 'Integrated Coastal Zone Management', Pre-symposium Tutorial, ISPRS TC VII Symp. December 2, 2002

9. INVITED TALKS

Related to Earth system science research and societal benefits, Blue Economy, Future Earth, Changing climate, Climate resilience, Impact of climate on coastal environment, Climate information and services, Stewardship of Oceans, Ocean observations and services, Ocean biology and coastal processes, Energy from oceans, Arctic and Antarctica, Himalayan glaciers, Polar science and climate, Geoscience and public policy, Scientific drilling, Monsoon Mission, Forecasting monsoon, Monsoon variability, Disaster and risk reduction, Ocean hazards, Tsunami warning system, Earthquake Risk, Bhuj earthquake, High impact weather, Landslides, Oil spills, Remote sensing Applications, Geographic Information System ((GIS), GIS policy, Data sharing, Ocean data and management, Ocean colour remote sensing, OCEANSAT, Remote sensing applications to fisheries, Remote sensing and coastal zone regulations,, Integrated coastal zone management, Coastal and

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marine biodiversity, Coastal Mapping, Coastal geomorphology, Space technology for water cycle, Water quality, etc.

- a. International: ~ 50
- b. National: ~ 100
- c. Academic Institutes: ~ 50

10. RECOGNIZED PH. D. GUIDE

University	Subject
Andhra University, Vishakhapatnam	Oceanography
Berhampur University, Berhampur	Marine Science
Gujarat University, Ahmedabad	Geology-Remote Sensing
Vikram University, Ujjain	Geology
University of Pune, Pune	Geology
University of Rajasthan, Jaipur	Geology
Mangalore University, Mangalagangothri	Marine Geology & GeoinforMatics
Nirma University, Ahmedabad	Geology, Earth Science

11. NUMBER OF Ph.D.'s GUIDED

Name	Topic	Year of Award	University
Sumisha Velloth	Habitat Classification of Coral Reefs of India using Multispectral and Hyperspectral Remote Sensing Data	2015	Mangalore University, Mangalore
Janaki Janak Desai	Applications of Remote Sensing Techniques and GIS to Study Fluvio-Geomorphology and Evolution of Ganga River covering parts of Uttar Pradesh, India	2014	Gujarat University, Ahmedabad
Mini Raman	Estimating Primary Production in the Arabian Sea using Satellite Derived Data	2014	Mangalore University,
Thomaskutty A.V.	Study of Sediment Dynamics along the Coastal Waters off Karnataka based on Remote Sensing and GIS Techniques	2012	Mangalore University
Navin Kumar Bollu	A Remote Sensing and GIS Mineral Prognostic Study in parts of SE Rajasthan	2009	Vikram University, Ujjain
Ramanuj Banerjee	Seismic Hazard Zonation of Kachchh Area Using Remote Sensing	2009	Pune University
R. K. Sarangi	Impact of surface feature changes on phytoplankton variability in seas off southern part of the Indian peninsula: a remote sensing approach	2008	Berhampur University
A. S. Rajawat	Reconstruction, evolution, and significance of paleo-drainage network in Western	2006	Vikram Univ, Ujjain

Rajasthan: an investigation based on multi-sensor satellite data and GIS.

Devendra Kumar	Application of satellite-derived terrain parameters for the geomorphic and structural studies in the Jharia coal field, Jharkhand.	2006	Rajasthan University, Jaipur
Yashwant Pradhan	Circulation and dispersal pattern in the Bay of Bengal – a study based on satellite derived ocean colour applications	2005	Berhampur University Berhampur
B. Deshmukh	Geomorphological study of coral reefs in a part of Gulf of Kachchh using remote sensing data	2004	Vikram University, Ujjain

1. CHAIR IN INTERNATIONAL CONFERENCES

1. Moderator. Climate Change Adaptation in Coastal Areas & other Sectors. Side Event at the Twenty-first Session of the Conference of Parties, Paris. Society for Integrated Coastal Zone Management, Ministry of Environment, Forest and Climate Change. December 9, 2015
2. Launch of IIOE -2 and Closing Session. Symposium on the Indian Ocean ' Dynamics of the Indian Ocean: Perspective and Retrospective' to Celebrate 50th Anniversary of Completion of International Indian Ocean Expedition (IIOE) and Golden Jubilee of CSIR-National Institute of Oceanography (NIO), Goa. December 4, 2015
3. Historical climate trends and climate change projections. Workshop on Climate Change Projections, Vulnerability and Adaptation under the aegis of Third National Communication. Ministry of Environment and Forests and Climate Change. October 28, 2015
4. Geopolitics of the Polar Region. International Conference on Geopolitics of Arctic-Antarctic-Himalaya, LIGHTS Research Foundation (Learning in Geography, Humanities and Science), New Delhi. September 29, 2015
5. Make in India. Brain-Storming Meeting on Radar Meteorology. IISc and ESSO-IMD, Bangalore. September 26, 2015
6. Panel Discussion and Closing Session. WMO 3rd International Monsoon Heavy Rainfall Workshop. ESSO-IMD. New Delhi. September 24, 2015
7. President, Federation of Geoscience Associations, Hyderabad (2014-17)
8. President, Indian Union of Geophysics, Hyderabad (2014-17)
9. Plenary Session on Future Earth. ISPRS Technical Commission Mid Term Symposium on 'Operational Remote Sensing Applications: Opportunities, Progress and Challenges. ISRS and ISG, Hyderabad. December 9, 2014
10. Oceans and Monsoons, International Conference on 'Celebrating the Monsoon' IISC, July 26, 2007, Bangalore
11. POGO Business, 8th POGO Meeting, Qingtao, China, January 19, 2007
12. "Implementation Strategy for Coastal Module of GOOS." 3rd Regional GOOS Forum, Cape Town, South Africa, November 14-17, 2006
13. Remote Sensing, 4th Annual Meeting of IO-GOOS, Zanzibar, October 10-12, 2006

14. Early Warning System for various marine hazards – Present Status” at the International Conference on Marine hazards and opportunities”, July 3, FICCI, Chennai
15. Silver Jubilee Symposium on Antarctica Expedition, May 25-26, 2006

PUBLICATIONS

RESEARCH PAPERS

1. **Shailesh Nayak** (2026). Towards the Stewardship of the Third Pole: The Himalaya. Editorial, *J Indian Soc Remote Sens* (2026). <https://doi.org/10.1007/s12524-025-02415-5>
2. PC Mohammed Munzil, Prince Prakash, R R Rao, Hasibur Rahaman, Aneesh A Lotlikar, T M Balakrishnan Nair, M Ravichandran and **Shailesh Nayak** (2026). Observed anomalous chlorophyll-a bloom in the northern Arabian Sea during winter 2008 *Environ. Res. Commun.* 8 (2026) 015023 <https://doi.org/10.1088/2515-7620/ae39b>
3. **Shailesh Nayak**, 2025. Sustainable Coastal Zone Management in India. *Jour. Geol. Soc. India*, 101 (6) : 942–946.
4. **Shailesh Nayak**, 2025. Guest Editorial: From excellence to eminence: the Indian tsunami early warning centre. *Current Science*, 128 (2): 123-124.
5. **Shailesh Nayak**, 2025. Editorial: Towards Developing the National Earth Observation System. *Journal of the Indian Society of Remote Sensing* (2025) 53:1–3,
6. **Shailesh Nayak**, 2024. From ocean science to sustainable blue economy. Special Section: Blue Economy, *Current Science*, 126(2): 155-160. 25 January 2024
7. Raman M and **Shailesh Nayak**, 2023. Remote Sensing-Based Estimation of Primary Production in the Arabian Sea. In: Tripathy, S.C., Singh, A. (eds) *Dynamics of Planktonic Primary Productivity in the Indian Ocean*. Springer, Cham. https://doi.org/10.1007/978-3-031-34467-1_11
8. **Shailesh Nayak**, 2023. Regional Cooperation to Preserve the Himalayan System. *National Security, Vivekananda International Foundation*, 6(1):25-45. DOI: <http://doi.org/10.32381/NS.2023.06.01.2>
9. Raman, M., **Nayak, S.** (2023). Remote Sensing-Based Estimation of Primary Production in the Arabian Sea. In: Tripathy, S.C., Singh, A. (eds) *Dynamics of Planktonic Primary Productivity in the Indian Ocean*. Springer, Cham. https://doi.org/10.1007/978-3-031-34467-1_11
10. **Nayak, S.** 2023. Towards stewardship of oceans: Role of G20 countries. Guest Editorial: *Current Science*, 124(9): 1019-1020.
11. **Nayak, S.** 2022. Earth Science for Sustainable Development Goals. Special Issue. *The Jour. of Indian Geophysical Union*, 26 (4): 245-373.

12. **Nayak, S.** 2022. Road to Stockholm+50 and Beyond: Factoring Climate Change Risks in the Wetland Ecosystems Governance: A Policy Look Ahead. *Environmental Policy and Law* 52: 277–288. DOI 10.3233/EPL-219036.
13. **Nayak, S.** 2022. Road to Stockholm+50 and Beyond: Factoring Climate Change Risks in the Wetland Ecosystems Governance: A Policy Look Ahead. (2022). *Environmental Policy and Law* 52: 277–288. DOI 10.3233/EPL-219036.
14. Hegde, V. S., **Nayak, S.**, Huchchannavar, G. K., Krishnaprasad, P. A., Rajawat, A. S., Shalini, G., Jayakumar, S., Gosavi, K. D. and Hegde, L. G. 2022. Meso-scale foreshore evolution in low-energy, storm-dominated tropical west coast of India: Implications for shoreline management. *Jour. of Earth System Science (Indian Academy of Sciences)*. 131:26, <https://doi.org/10.1007/s12040-021-01773-1A>.
15. Sanitha K. Sivadas, Pravakar Mishra, T. Kaviarasan, M. Sambandam, K. Dhineka, M.V. Ramana Murthy, **Nayak, S.** David Sivyer, Danja Hoehn. 2022. Litter and plastic monitoring in the Indian marine environment: A review of current research, policies, waste management, and a roadmap for multidisciplinary action. *Marine Pollution Bulletin*, 176:113424; <http://doi.org/10.1016/j.marpolbul.2022.113424>
16. Mohammad, P., Goswami, A., Chauhan, S. and **Nayak, S.** 2022. Machine learning algorithm-based prediction of land use land cover and land surface temperature changes to characterise the surface urban heat island phenomena over Ahmedabad city, India. *Urban Climate*, 42: 101116. <https://doi.org/10.1016/j.uclim.2022.101116>.
17. Hegde, V. S., **Nayak, S.**, Huchchannavar, G. K., Krishnaprasad, P. A., Rajawat, A. S., Shalini, G., Jayakumar, S., Gosavi, K. D. and Hegde, L. G. (2022). Meso-scale foreshore evolution in low-energy, storm-dominated tropical west coast of India: Implications for shoreline management. *J. Earth Syst. Sci. (Indian Academy of Sciences)*, 31:26. <https://doi.org/10.1007/s12040-021-01773-1>
18. **Nayak, S.** 2021. On the challenge of plastic waste and litter in oceans: some policy reflections. *Environmental Policy and Law*, 51: 235-238. DOI: 10.3233/EPL-210048.
19. **Nayak, S.** 2021. Preface. *Advances in Coastal Research, Special Issue. Jour. of Earth System Science*, 130 212. (Eds. Nayak, S. Ramana Murthy, M. V., Atmanand, M. A., Sharma, K. V. and Maigouadar, S. R.). 2021. Indian Academy of Sciences, Bengaluru & Springer. <https://doi.org/10.1007/s12040-021-01726-8>.
20. **Nayak, S.** and Dixit, S. 2021. Women in leadership: achieving sustainable future in a post-COVID-19 world. *Current Science*, 121(7): 880-881.
21. **Nayak, S.** 2021. Addressing resilience to cyclones – a perspective. Guest Editorial, *Current Science*, 120(2): 247-248.

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22. **Nayak S**, and A Senthil Kumar, 2021. From Guest Editors' Desk. Journal of the Indian Society of Remote Sensing, Vol. 49, pg. 7–8.
23. **Nayak, S.** Ramana Murthy, M. V., Atmanand, M. A., Sharma, K. V. and Maigoudar, S. R. (Eds). 2021. Advances in Coastal Research, Special Issue. Jour. of Earth System Science, 130. Indian Academy of Sciences, Bengaluru & Springer.
24. Senthil Kumar, A., Aparna, N. and **Nayak, S.** 2020. Remembering IRS-1C Mission: The “Game Changer” of Indian Earth Observation Program. Journal of the Indian Society of Remote Sensing, 49(2): 1-14. <https://doi.org/10.1007/s12524-020-01183-8>.
25. **Nayak, S.**, and Chandran, D.S., 2020. Arctic: why India should pursue the North Pole from a science and technology perspective? Current Science, 119(6): 901-904.
26. **Nayak, S.** 2020. Remote Sensing for National Development: The Legacy of Dr. Vikram Sarabhai. Journal of the Indian Society of Remote Sensing, 48(8):1101–1120. <https://doi.org/10.1007/s12524-020-01156-x>
27. Shenoj, S. S. C., Murty, P. L. N., Patanjali Kumar, Ch., Ajay Kumar, B., Sunanda, M. V., Siva Srinivas, K., Padmanabham, J., Dipankar Saikia, Pattabhi Rama Rao, E. and **Nayak, S.** 2020. Are we ready for a major tsunami in the Indian Ocean? Special session on Sustainable Ocean Technologies, Current Science, 118(11): 1753-1759.
28. **Nayak, S.** 2020. Preface Charting a new course for the oceans & Guest Editor, Special session on Sustainable Ocean Technologies, Current Science, 118(11): 1679-1680.
29. **Nayak, S.** 2020. Institutional Report: National Institute of Advanced Studies (NIAS). Proc Indian Natn. Sci. Acad., 86(1): 769-774. DOI: 10.16943/ptinsa/2020/49831
30. **Nayak, S.** 2020. Ocean Science to Services. INCOIS Special Issue: Sentinels of the Seas. GeoGraphy and you, vol 20, issue 6-7 no. 144-145, pg. 4-5 <https://www.geographyandyou.com/shop/product/detail/NDcy>
31. **Nayak, S.** 2020. Charting a new course for Oceans. Preface, Special Section, Current Science (Guest Editor), 118 (11): 1679-1680.
32. **Nayak, S.** 2020. Ocean Science to Services. Sentinels of the Seas. Geography and You (Guest Editor). Vol. 20, Issue 6-7, No. 144-145. pp.4-5.
33. **Nayak, S.** 2020. Towards Blue Economy: a perspective. Indian Jour. of Geoscience, 74 (3): 191-196
34. **Nayak, S.** and Suba Chandran D. 2020. Arctic: why India should pursue the North Pole from a science and technology perspective? Current Science, 119 (6): 901-904
35. **Nayak, S.** (Ed.). 2020. Special Section, Quarter Century of Sustainable Ocean Technologies. Current Science (Guest Editor), 118 (11): 1679-1785

36. S Roy, HK Gupta, B Bansal, **Nayak, S.** 2018. Scientific drilling of 3km-deep Koyna Pilot Borehole, Deccan Traps, India. Geophysical Research Abstracts Vol. 20, EGU2018-11801, EGU General Assembly Conference-2018
37. H.K. Gupta S Nayak. 2017. Investigations of continued reservoir triggered seismicity at Koyna, India. Geological Society Special Publication, 445(1): 151 – 188.
38. Hegde, V S., Nayak, SR., Shalini, G., Gosavi, K.D., Rajawat, A.S. and Ramana, I.V. 2019. OCM derived chlorophyll-a dynamics in the nearshore region of the central west coast of India: Implications for fish catch in the area. J. of Marine Biology & Oceanography, 8:2, pp. 1-6.
39. Krishnan, R., Sabin, T.P., Madhura, R.K., Vellore, R.K., Mujumdar, M., Sanjay, J., **Nayak, S.** and Rajeevan, M. 2019. Non-monsoonal precipitation response over the Western Himalayas to climate change. Climate Dynamics, <https://doi.org/10.1007/s00382-018-4357-2>
40. Goswami, D., Akkiraju, V. V., Mishra, S., Roy, S., Singh, S. K., Sinha, A., Gupta, H., Bansal, B. K. and **Nayak, S.** 2017. Rock strength measurements on Archean basement granitoids recovered from scientific drilling in the active Konya seismogenic zone, western India. Tectonophysics 712-713:182-192.
41. **Nayak, S.**, Mohan, R., Ravichandran, M., Pant, N., Ganju, A. and Sathyakumar. 2017. Recent Antarctic Research in India: A Report of the National Committee to SCAR. Proceedings of the Indian National Science Academy 83(2):245-248.
42. Nayak S (2017) Coastal zone management in India – present status and future needs. Geospatial Inf Sci 20(2):174–183. <https://doi.org/10.1080/10095020.2017.1333715>
43. Srinivasu, U., Ravichandran, M., Han, W., Sivareddy, S., Rahman, H., Li, Y. and **Nayak, S.** 2017. Causes or the reversal of North Indian Ocean decadal sea level trend in recent two decades. Climate Dynamics, DOI:10.1007/s00382-017-3551-y.
44. Thomaskutty, V., **Nayak, S.** and Bhat, G. 2016. Estimation of extremes in the southern Arabian Gulf. Jour. of Oceanography and Marine Science, 7(3): 24-32. DOI:10.5897/JOMS2016.013
45. Harikumar, R., BalaKrishnan Nair, T. M., Rao, B. M., Rajendra Prasad, Phani, P. R., Nagaraja, C., Ramesh Kumar, M., Jeyakumar, C., Shenoi, S. S. C. and **Nayak, S.** 2016. Ground-zero met-ocean observations and attenuation of wind energy during cyclonic storm, Hudhud. Current Science, 110 (12):2245-2252.
46. B.R. Arora, B.K. Bansal, S.K. Prajapati.... **S. Nayak.** 2016. Seismo-tectonics and seismogenesis of Mw 7.8 Gorkha Earthquake and its aftershocks. Jour. Asian Earth Sciences, 2016. <http://dx.doi.org/10.1016/J.Jseaes.2016.07.018>.
47. Manneela, S., Srinivasa Kumar, T., Nayak, S.R. 2016. Near real-time determination of earthquake source parameters for tsunami early warning from geodetic observations.

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