



**Dr. SHAILESH NAYAK**  
**Secretary**  
**Ministry of Earth Sciences**

Dr. SHAILESH NAYAK (born August 21, 1953), a PhD in Geology [\*Geology of the bauxite deposits of Kutch and Valsad districts (Gujarat State) with special reference to their mode of occurrence, genesis and economic utility.] from M. S. University of Baroda (1980) is a versatile person with a distinguished career and proven track record of 29 years at Indian Space Research Organisation(1977-2006) and Indian National Centre for Ocean Information Services (May, 2006-August, 2008).

He was awarded the National Mineral Award for the year 2005 and the Indian National Remote Sensing Award for the year 1994. He is recognized as Ph.D. Guide by five universities and currently five students are carrying out research under his guidance. He was Member of the editorial board of the Indian Journal of Marine Science and currently one of the editors of Geospatial Today.

He is the President, Indian Society of Remote Sensing, Dehradun. He was the President, International Society of Photogrammetric and Remote Sensing (ISPRS), Technical Commission (TC) IV on 'Geodatabases and Digital Mapping' for the term 2004-08. He has represented ISRO at the International Ocean Colour Coordinating Group and International Global Observation Strategy-Coastal theme. He has published about 70 papers in International and National journals and atlases.

**Director , Indian National Centre for Ocean Information Services, Hyderabad (May 2006- August 2008)**

Observer of Indian Ocean using cutting edge technology, including the Argo profiling floats. INCOIS is the Regional Data Centre and Regional Coordinator

- i. INCOIS, initially conceived as a provider of operational data and services, has swiftly been transformed into a knowledge and information technology enterprise for the oceanic realm. INCOIS has now become
- ii. A Provider of operational ocean information and advisory services (short term forecast of potential areas of fish abundance and ocean state) to the entire country using advances in space technology, ocean science and ICT. This is acclaimed as a fine example of bridging the Digital Divide and it is being adapted by several countries in the Indian Ocean region.
- iii. of International Argo Project in the Indian Ocean region.
- iv. Secretariat of Regional Alliance for Global Ocean Observing System in the Indian Ocean region as well as Regional Data Centre and the Clearing House.
- v. Prime Mover for R&D in frontier area of Ocean-Atmosphere modelling, undertaken in a mission-mode with 15 premier national institutions

2001-2006	Scientist 'G' and Group Director, Marine & Water Resources, Space Applications Centre (ISRO).
1998-2001	Scientist 'SG',Space Applications Centre (ISRO).
1998	Head, Marine & Water Resources,Space Applications Centre (ISRO).
1993-1998	Scientist 'SF',Space Applications Centre (ISRO).
1989-1993	Scientist 'SE',Space Applications Centre (ISRO).
1985-1989	Scientist 'SD',Space Applications Centre (ISRO).
1981-1985	Scientist 'SC',Space Applications Centre (ISRO).
1978-1981	Scientific Assistant 'C',Space Applications Centre (ISRO).
1977-1978	Senior Scientific Asst.,Gujarat Engineering Research Institute

### **National Activities :**

1. Chair, Standing Committee on Ocean Resources, National Natural Resources Management System, Planning Commission, GOI.
2. Chair, Research Council, National Institute of Oceanography, Goa(2008 onwards)  
Chair, Research Council, Centre for Earth Science Studies, Thiruvananthapuram.
3. Member, National Coastal Zone Authority, Ministry of Environment and Forest, Govt. of India .
4. Member, National Committee of Mangroves and Coral reefs, Min. of Environment & Forests, Govt. of India

5. Member, Coastal Protection and Development Advisory Committee (CPDAC), Ministry of Water Resources, Govt. of India. 1999-2006.
6. Member of Editorial Board, Indian Journal of Marine Science, National Institute of Scientific Communications, Delhi (2002-04) and Geospatial Today, Hyderabad.
7. Guest Editor, Special Issue on Ocean Colour Remote Sensing, Indian Journal of Marine Sciences, 34(4): 323-480.
8. Member, Editorial Board, Proceedings of the Symposium on Engineering Applications of Remote Sensing and Recent Advances, Indore. 1989.
9. Indian Society of Remote Sensing (ISRS), Dehradun.
  - o Vice-President, ISRS, 2006-2008
  - o Member, ISRS EC, 2004-2006
  - o Chairman, ISRS Ahmedabad Chapter, 2000-2002
  - o Jt. Secretary, ISRS, 1992-1994, 1994-1996, 2002-2004.
  - o Secretary, ISRS Ahmedabad Chapter, 1986-89
  - o Treasurer, ISRS Ahmedabad Chapter, 1984-86

### **International Activities :**

- Chair, Indian Ocean Global Ocean observing System (IO-GOOS), 2006-2008.
- Vice Chair, Intergovernmental Coordinating Group on Indian Ocean Tsunami Warning System (ISO-IOTWS), 2006 onwards.
- President, International Society of Photogrammetry and Remote Sensing (ISPRS), Technical Commission IV on 'Geo-databases and Digital Mapping' (2004-2008).
- Representing ISRO at the International Ocean Colour Co-ordinating Group (IOCCG). 2001-2004.
- Member, Integrated Global Ocean Observing System (IGOS) - Coastal Theme. 2003-06.
- 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).
- Organised 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, Organised 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 organised during PORSEC 2000 during Nov. 30-Dec.2, 2000 at Goa. An interactive CD-ROM was developed.
- Organised a Tutorial on 'Integrated Coastal Zone Management', Pre-symposium Tutorial, ISPRS TC VII Symp. December 2, 2002.

### **Details of Professional/research experience**

Mainly involved in studies related to coastal and marine environment, disaster management, modelling.

- Project Director, Early Warning System for Tsunami and Storm Surge, May 2006.
- Deputy Project Director, Satellite Coastal and Oceanographic Research. Funded by the Dept. of Ocean Development, GOI. 1998-2006.
- Deputy Project Director, Integrated Coastal and Marine Area Management Project, Funded by the Dept. of Ocean Development. GOI. 1998-2006.
- Deputy Project Director, Indian Remote Sensing Satellite (IRS) - P4 OCM Utilisation, ISRO. 1998-2003.
- Principal Investigator, Coastal Zone Development. Joint project SPARRSO, Bangladesh and ISRO. Funded BY UN-ESCAP. 1997-1999.

- Principal Investigator, IRS P3 Validation Experiment - Ocean. Joint Project DLR, Germany and ISRO. 1995-98.
- Project Manager; Land Use Mapping of Coastal Regulation Zone, Funded by the Ministry of Environment and Forests, GOI. 1993-1997.
- Principal Investigator, Coastal Studies, Funded by the Dept. of Ocean development, GOI. 1990-1995.
- Project Manager, Coastal Land Use Mapping for Brackish Water Aquaculture Site Selection, Remote Sensing Application Mission, Funded By the Ministry of Agriculture, GOI.1990-94.
- Project Manager, Coastal Environment, Remote Sensing Applications Mission (RSAM), Funded by the Ministry of Environment and Forests, Govt. of India.1988-92.
- Principal Investigator, Monitoring of Coastal Environment, Indian Remote Sensing Utilization Programme (IRS-UP), ISRO. 1984-1990.
- 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.

### **Honours/Awards**

- Dr. S.P Chatterjee Memorial Lecture on Remote Sensing and GIS for Coastal Zone Management, instituted by the Indian National Cartographic Association (INCA), No. 22, 2007.
- National Mineral Award-2005 (Applied Geology), Ministry of Mines, Govt. of India.
- Indian National Remote Sensing Award for the Year 1994, Indian Society of Remote Sensing, Dehradun.
- Hari-Ohm Ashram Prerit Inter-University Smarak Trust Prize for the Year 1981-82 for Geology/geography.

- Dinesh Chokshi Memorial prize for securing highest marks in M. Sc. (Geology) in 1975.
- Irrigation R & D Award for Meritorious Technical Paper on Emerging behaviour of the Narmada estuary presented at the 56th Annual R & D Session of CBIP for the Year 1991.

**Author/Co-author of more than 70 publications, including the following:**

1. Nayak, S. and Zlattanova (Eds).2008. Remote Sensing and GLS Technologies for Monitoring and Predication of Disasters. Springer-Verlag Berlin Heidelberg.270p.
2. Nayak, S., 2004. Role of remote Sensing to integrated coastal Zone management. In the proc. of ISPRS XX Congress, vol. XXXV, part B7, pp.1232-43.
3. Pradhan, Y., Rajawat, A.S. and Nayak, S, 2004. Application of IRS P4 OCM data to study the impact of tidal propagation on sediment dynamics in the Gulf of Kachchh. Indian Journal of Marine Science, 33(2): 129-137.
4. Pradhan, Y., Mohan, M., Sengupta, D. and Nayak, S., 2005. Radiant heating rates and surface biology during Arabian Sea Monsoon Experiment. J. Geophy. Eng, 2:16-22.
5. Menon, H.B., Lotliker, A., Krishnamoorthy, K. and Nayak, S. 2006. Variability of remote sensing reflectance and implications for optical remote sensing-a study along the eastern and northeastern Waters of Arabian Sea. Geophy. Res. Letters, 33, L15602, dio: 10: 10292006GL026026.
6. Sarangi, R.K., Chauhan, P. and Nayak, S. 2005. Inter annual variability of Phyto blooms in the northern Arabian Sea during monsoon period (February – March) using IRSP4 OCON data. Ind. Jonr. of Marine Sciences, 34(2): 163:173.
7. Chauhan, P., Nayak, S., 2005. Detection of submerged reef bank in the Lakshadweep Sea using IRS P4 OCM satellite data, Current Science, 89 (3): 557-560.

8. Nayak, S. and Sahai, B. 1985. Coastal morphology: a case study of the Gulf of Khambhat (Combay). Inter; Jour. Remote Sensing, 6(3&4): 559-567.
9. Chauhan, P., Mohan, M. and Nayak, S. 2003 Comparative analysis of ocean colour measurement of IRS P4 OCM and sea WiFS in the Arabian Sea. IEEE Trans. Of Geoscience and Remote sensing 41(4): 922-926.
10. Solanki, H. U., Mankodi, P.C. and Nayak, S. 2008. Satellite observations of main oceanographic processes to identify ecological associations in the northern Arabian Sea for fishery resource exploration Hydrobiologica, 612(1):281-295.

**Contact Address:**

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