

Dr. R. S. Kankara

Director

Central Water and Power Research Station, Pune-411024

Government of India, Ministry of Jal Shakti, Department of Water Resources, River Development & Ganga Rejuvenation.

Academic Record

2006 Ph.D. (Coastal Management), Anna University, Chennai 2006

1996 Certificate in Computing (CIC), IGNOU, New Delhi 1996

1990 M. Phil. (Mathematics), specialization in Fluid Dynamics, Agra University, AGRA

1989 M.Sc. (Mathematics), specialization in Hydro Dynamics, Agra University, AGRA

Research Area

- Coastal Engineering and Hydrodynamics
- Beach processes & Sediment Transport
- Marine structures and Coastal protection
- Marine Special Planning and Coastal zone management
- Numerical modelling and GIS applications in coastal development and management projects

Professional Records

1. 2022 (Feb) to present: Director, Central Water and Power Research Station, Pune
2. 2020-2022: Scientist G (National Centre for Coastal Research, Chennai)
3. 2013-2020: Scientist F (National Centre for Coastal Research, Chennai)
4. 2008-2013: Scientist E (National Centre for Coastal Research, Chennai)
5. 2003-2008: Scientist D (National Centre for Coastal Research, Chennai)
6. 1999-2003: Scientist C (National Centre for Coastal Research, Chennai)
7. 1993-1999: Research Assistant, Central Water and Power Research Station, Pune

National / International Committees

- National Focal point of IMO-SACEP-NORAD project for "Enhancing regional co-operation mechanisms on marine pollution preparedness & response in SACEP region 2012-2016.
- Working group member of Intergovernmental Oceanographic Commission (IOC) WG-1 panel for Tsunami modelling and risk assessment mapping 2009-2012.
- Member of TIFAC Expert committee for Environmental resource mapping for technology insight forecast, DST, GoI 2011-2015.
- Project Board Member of Multi Hazard Vulnerability mapping of INCOIS (2012-15).
- Member of MoEF committee for Identification of no dispersant use areas for Effective Oil Spill Management.

Professional Membership

Life Member of Indian Society of Hydraulics
Life Member of Ocean Society of India
Elected Governing Council member, OSI 2020-22

Key Contributions

- ✓ Developed a GIS based coastal change information system for Indian coast to provide long-term information needed for coastal development and erosion management project.
- ✓ Developed Shoreline change Digital Atlas for entire Indian coast in 1:25000 scales using 26 years data.
- ✓ Tsunami modelling and inundation mapping for potential scenarios along the Indian coast.
- ✓ Focal point for IMO-SACEP-NORAD project on "Oil Spill Contingency Plan for SACEP Regional Oil and Chemical Pollution". Culminated in signing MoU between India and SACEP to enhance the cooperation to deal oil spills.
- ✓ Prepared a report on "Coastal erosion around structure along Indian coast" for MoEF for a Policy decision on moratorium of port development & New Port Policy [2009].
www.moef.nic.in/sites/default/files/Coastline_OM.pdf
- ✓ Developed Oil Spill trajectory model to support Coast Guard in accidental oil spill management and implemented at INCOIS [2006].
<http://pib.nic.in/newsite/erecontent.aspx?relid=21938>

Key Projects:

1. Coastal Processes, Sediment transport and Shoreline vulnerability mapping for Indian coast.
2. National Focal Point for implementing IMO-SACEP-NORAD project for "Enhancing regional co-operation mechanisms on marine oil pollution preparedness & response in SACEP region".
3. Oil Spill trajectory Modelling and sensitivity mapping for selected locations along Indian coast.
4. Development of Shoreline management studies for 16 specific sites along Indian coast.
5. Development of Storm Surge inundation modelling system for Andhra coast.
6. Tsunami modelling and vulnerability mapping for Indian coast using CARTOSAT data for 5 potential sources.
7. Tidal inlet management for Mangalore coast and Shoreline management Paradip/Gahirmatha /Rushilulya along Odisha coast.[2003-2007]
8. Preparation of model ICMAM plans for Gulf of Kachchh, Goa and Chennai to address the conflicting issues.[2000-2003]
9. Pre-feasibility modelling study on hydrodynamic, sediment transport and water quality impact assessment for Kalpasar project (Gulf of Cambay). [1998-99]

10. Hydrodynamic & salinity modelling to improve the salinity in Chilka Lake. [1994-98]
11. Modelling studies for all weather port at Alwadi, Tarapur and fish landing centre at Ponnani (Maharashtra). [1996-97]
12. Hydrodynamic and sediment transport model studies for RO RO/LO LO jetties, intake channel and cooling water system at Sikka, Motikhvadi and Sikka, Jamnagar, Gujarat. [1995-97]
13. Field investigations and numerical modelling studies for shoreline development for Ennore Port (Tamilnadu) fish landing centers at Sarjekot (Maharashtra) and port development at Dabhol (Maharashtra). [1993-1994]

Publications

- 40+ publications in national and international referred journals.
- 40+ publications in national and International proceedings.
- 25+ Technical reports.
- 50+ Delivered talk /lectures in workshops / symposiums/ training courses.
- 10+ Training courses conducted on various aspects of coastal management.

Link: <https://scholar.google.co.in/citations?hl=en&user=8DJVs6kAAAAJ>

Research Publications:

1. P. Thanabalan. P, **R.S.Kankara** and K Prabhu, **2022**, "Sentinel-1 Synthetic Aperture Radar (SAR) characteristics on shoreline demarcation and shoreline change assessment along Mandaikadu, south-west coast of India" in **Journal of Coastal Conservation, Springer (Accepted)**.
2. BR Rajasree, MR Behera and **R S Kankara** (2021), Numerical assessment of climatological trends for annual and seasonal wave characteristics during recent 41 years, *Climate Dynamics* **volume 58**, pages 1171–1192 [IF:4.735]
3. P. Thanabalan, R. Vidhya and **R. S. Kankara** (2021): Soil moisture estimation using RISAT-1 and SENTINEL-1 data using modified Dubois model in comparison with averaged NDVI, Geocarto International (Taylor & Francis), DOI: 10.1080/10106049.2021.2003443 [IF:4.889]
4. Murthy, MV Ramana, Tune Usha, and **R. S. Kankara**. (2021). Three Decades of Indian Remote Sensing in Coastal Research. *Journal of the Indian Society of Remote Sensing*, 1-14. (IF:1.563)
5. Rasheed K, G. Udhaba Dora, G. Noujas, V. **Kankara**, **R.S.** Manikandan, M. Sathish, S. Arockiaraj, S., 2021. A Case study of coastal currents in relation with tides and wind in tropical

coastal waters at Vengurla, West Coast of India. *Indian Journal of Geo Marine Sciences*, 50 (4), pp. 277-286. (IF = 0.328)

6. S Sathasivam, RS Kankara, U Murugan, P Gunasekaran, T Palanisamy, .(2021) Influence of suspended sediment loads on coastal hydrodynamics at Vengurla and Ratnagiri part of the Western Coast of India, *Arabian Journal of Geosciences* 14 (21), 1-14 [IF-1.827]
7. **R S Kankara** and Panda U.S. (2020) Modeling of Hydrodynamics and Salinity Characteristics in Chilika Lagoon. In: Finlayson C., Rastogi G., Mishra D., Pattnaik A. (eds) *Ecology, Conservation, and Restoration of Chilika Lagoon, India. Wetlands: Ecology, Conservation and Management*, vol 6. **Springer, Cham**, Print ISBN978-3-030-33423-9.
8. Chenthamil Selvan S, **R.S. Kankara**, K Prabhu, B Rajan,2020. Shoreline change along Kerala, south-west coast of India, using Geo-spatial techniques and field measurement. *Natural Hazards*, Volume 100, Issue 1, 2020, Pages 17-38[**I.F 2.319**]
9. Noujas, V. and **R.S. Kankara**,, 2020. Shoreline evolution along Vengurla, south Maharashtra coast using a numerical model. *Journal of Coastal Research*, Special Issue No. 89, pp. 105-110. <https://doi.org/10.2112/SI89-024.1>[**I.F 1.053**]
10. Dhanalakshmi, S. and **R.S. Kankara**,,2020. Assessment on shoreline retreat in response to sea level rise – Chennai coast. *Journal of Coastal Research*, Special Issue No. 89, pp. 145-149. <https://doi.org/10.2112/SI89-018.1> [**I.F 1.053**]
11. Noujas V., **R.S. Kankara**,Chenthamil Selvan S., 2019. Shoreline management plan for embayed beaches: A case study at Vengurla, west coast of India. *Ocean & Coastal Management*, 170, 51-59. [**I.F 2.795**]
12. Arockiaraj S. and **R. S. Kankara**, (2019): Assessment of Potential Oil Spill Risk Along Vishakhapatnam Coast, India: Integrated Approach for Coastal Management, In book: *Coastal Management Global Challenges and Innovations* <https://doi.org/10.1016/C2015-0-04674-3> Publisher: **Academic press (Elsevier) 2019**
13. Dhanalakshmi S, **R.S. Kankara**,Chenthamil Selvan S., (2019). Impact assessment of sea level rise over coastal landforms a case study of Cuddalore coast, south-east coast of India. *Environmental Earth Sciences*, 78: 494. [**I.F 1.871**]
14. Udhaba Dora G., **R.S. Kankara**, Rasheed K., 2019. Evaluation of the reanalysis wind over the Indian Ocean across the seasonal reversing wind pattern. *Indian Journal of Geo Marine Sciences*, 48 (01), pp. 75 - 84. [**I.F 0.301**]
15. Arockiaraj S., **R.S. Kankara**, Udhaba Dora G., Sathish S., 2018.Estimation of seasonal morpho-sedimentary changes at headland bound and exposed beaches along south Maharashtra, west coast of India. *Environmental Earth Sciences*, 77: 604.[**I.F 1.871**]
16. Sathish S., **R.S. Kankara**, Selvan, S.C., Umamaheswari, M., Rasheed K., 2018. Wave–beach sediment interaction with shoreline changes along a headland bounded pocket beach, West coast of India. *Environmental Earth Sciences*, 77: 174.[**I.F 1.871**]

17. Udhaba Dora G., Rasheed K., **R.S. Kankara**, 2018. Impact of seasonal monsoon on coastal weather condition: a case study at Vengurla, west coast of India. *Indian Journal of Geo Marine Sciences*, 47 (12), pp. 2382-2389. **[I.F 0.301]**
18. Sathish S., **R.S. Kankara**, Rasheed K., 2018. Morphometric and sediment analysis of beach cusp in correlation to rip currents: a case study from tropical coast, West coast of India. *Environmental Earth Sciences*, 77: 578.**[I.F 1.871]**
19. Noujas V., **R.S. Kankara**, Rasheed K., 2018. Estimation of Longshore Sediment Transport Rate for a typical pocket beach along west coast of India. *Marine Geodesy*, 41 (2), pp. 201-216.**[I.F 0.962]**
20. **R.S. Kankara**, S. Arockiaraj, and K. Prabhu., 2016. Environmental Sensitivity Mapping and Risk Assessment for oil spill along the Chennai coast in India. *Marine Pollution Bulletin*. Volume 106, Issues 1–2, 15 May 2016, Pages 95-103 **[I.F 3.782]**
21. Chenthamil Selvan S., **Kankara R. S.**, Vipin J. Markose, Rajan B., Prabhu K., 2016. Shoreline change and impacts of coastal protection structures on Puducherry, SE coast of India. *Natural Hazards*. 2016, Volume 83, Issue 1, pp 293–308 **[I.F 2.319]**
22. Vipin J. Markose, B. Rajan, **R.S. Kankara**, S. Chenthamil Selvan, Dhanalakshmi. 2016. Quantitative analysis of temporal variations on shoreline change pattern along Ganjam district, Odisha, east coast of India. *Environmental Earth Sciences*, 75 (10), 75:929. **[I.F 1.871]**
23. R. Srinivasan, Shijo Zacharia, **R.S. Kankara** and Tata Sudhakar 2016. Design and performance of GPRS communication based Drifting buoy for measurement of upper layer current in Coastal area. *The Journal of Ocean Technology*, Vol. 11, No. 2, 2016, pp 68-75 **[I.F 1.000]**
24. **R.S. Kankara**, Selvan C.S., Markose, Rajan, B., Arockiaraj, S. (2015). Estimation of long and short term shoreline changes along Andhra Pradesh coast using Remote Sensing and GIS techniques. *Procedia Engineering* (Elsevier) 2015 (116) 855 – 862. **[I.F 0.783]**
25. Sathish S, **R.S. Kankara**, S. Chenthamil Selvan, Manikandan M, Arockiaraj S, Rajan B.(2015) Textural Characterization of Coastal Sediments along Tamil Nadu Coast, East Coast of India. *Procedia Engineering* Sept 2015 (116) 794 – 801.**[I.F 0.783]**
26. M.M.Amruta, V. Sanil Kumar, Sheela Sharma, Jai Singh, R.Gowthaman, **R.S.Kankara** (2015), Characteristics of shallow water waves off central west coast of India before, during and after the onset of Indian summer monsoon, *Ocean Engineering* , Volume 107, 1 October 2015, Pages 259-270.**[2.730]**
27. **R.S. Kankara**, S. Chenthamil Selvan, B. Rajan and S. Arockiaraj(2014). An adaptive approach to monitor the Shoreline changes in ICZM framework: A case study of Chennai coast. *Indian Journal of Marine Sciences* Vol. 43(7), July 2014, pp 1271-1279. **[I.F 0.301]**
28. Chenthamil Selvan, **R.S. Kankara** and B. Rajan (2014), Assessment of shoreline changes along Karnataka coast, India using GIS & Remote sensing techniques. *Indian Journal of Marine Sciences* Vol. 43(7), July 2014, pp 1293-1298. **[I.F 0.301]**

29. **Kankara. R. S.**, Mohan. R and Venkatachalapathy. R (2013), "Hydrodynamic Modeling in Coastal Zone Management Perspective for Chennai Coast, India" Published in **Journal of Coastal Research**, Florida, Vol 29(2), pp 347-457, March 2013 [**I.F 1.053**]
30. A.D. Rao, P. L. N. Murty, Indu Jain, **R. S. Kankara**, S. K. Dube, T. S. Murty (2013). "Simulation of water levels and extent of coastal inundation due to a cyclonic storm along the east coast of India" Accepted for publication in Journal of Natural Hazard, Volume 66, Issue 3, 2013, Pages 1431-1441 [**I.F 2.319**]
31. S. Chenthamil Selvan, **R.S. Kankara**, 2016. Tsunami model simulation for 26 December 2004 and its effect on Koodankulam region of Tamil Nadu Coast. International Journal of Ocean and Climate Systems, 7 (2), 62-69.
32. **Kankara, R.S.**, Selvan C.S., Markose., Rajan, B., Arockiaraj, S.(2015). Estimation of long and short term shoreline changes along Andhra Pradesh coast using Remote Sensing and GIS techniques. Procedia Engineering Sept 2015 (116) 855 – 862.
33. Sathish S, **R.S. Kankara**, S. Chenthamil Selvan, Manikandan M, ArockiarajS ,Rajan B.(2015) Textural Characterization of Coastal Sediments along Tamil Nadu Coast, East Coast of India. Procedia Engineering Sept 2015 (116) 794 – 801.
34. Sriganesh, J., , **Kankara R.S.** and Venkatachalapathy R. (2015). Environmental Sensitivity Index(ESI) mapping for Oil Spill Hazard - A case of Kakinada coast. International Journal of remote Sensing and Geosciences (IJRSG), Volume 04, No. 05, Sept 2015, ISSN No. 2319-3484, pp 08-13.
35. Mageswaran T, Ram Mohan V, Chenthamil Selvan S, Arumugam T, T Usha and **Kankara, R.S** (2015). Assessment of shoreline changes along Nagapattinam coast using geospatial techniques. International Journal of Geo matics and Geosciences (IJRSG), Volume 05, No. 04, May 2015, ISSN No. 0973-4380, pp 555-563.
36. Sathish S., K. Rasheed, **R.S.Kankara**, Manikandan M, Arockiaraj, S and Rajan B. (2015), SSC Analysis of South Maharashtra Coast: A Case Study for Vengurla Coastal Region. Elsevier publication Aquatic Procedia 4 (2015) 19 – 24.
37. R. Mohan, **R.S. Kankara** and R. Venkatachalapathy(2014). (Oil spill trajectory modelling of Chennai coast, east coast of India). International Journal of Earth Science and Engineering, Volume 07, No. 02, April 2014, P.P.484-490.
38. K.Prabhu and **R. S. Kankara**(2014). Development of Matlab based system to simulate oil spill trajectory using gnome model for Indian coast. International Journal of Earth Science and Engineering, Volume 07, No. 02, April 2014, P.P.502-506.

39. Shailesh Nayak, Tune Usha, **R. S. Kankara**, and N T Reddy (2012), “*Tsunami inundation modeling and mapping using ALTM and CARTOSAT derived coastal topographic data*”, *Journal of Marine Geodesy*, DOI:10.1080/01490419.2011.646606
40. D. Rao, P. L. N. Murty, Indu Jain, **R. S. Kankara**, S. K. Dube, T. S. Murty (2012). "Simulation of water levels and extent of coastal inundation due to a cyclonic storm along the east coast of India" Accepted for publication in *Journal of Natural Hazard*, 2012 DOI 10.1007/s11069-012-0193-6,
41. **Kankara R.S.**, Subramanian B.R. and Sampath V., ‘Validation of a Deterministic Hydrodynamic Model in ICZM framework for Gulf of Kachchh, India’, *Journal of Coastal Research*, 2007, 23(5).
42. **Kankara R.S.** and Subramanian B.R., ‘Oil Spill Sensitivity Analysis and Risk Assessment using Integrated Modelling for Gulf of Kachchh, India’, *Journal of Coastal Research*, 2007, 23(5).
43. S, K Das, L. K. Ghosh, S. K. Roy and **R. S. Kankara** 2000, *Numerical Simulation of solute transport in porous media with first order chemical reaction* Indian journal of Environmental Protection, Vol. 20, No. 10, Oct. 2000

Popular article /Conferences / Workshops

44. **R. S. Kankara** (2008): An popular article on the Oil Spill Disaster titled " Oil Spill Management in Marine Environment was published “Geography and You” in May-June 2008 issue pp. no. 24-29
45. **R. S. Kankara** (2008): Application of Geographical Information System (GIS) and Mathematical Modelling in Coastal Area and Hazard Management, Chapter 6 in book: *Coastal Ecosystems: Hazards Management and Rehabilitation* 1st Edition: 2008, Publisher: Daya Publishing House Editors: Rattan K. Datta
46. V. Noujas and **R. S. Kankara** (2018) shoreline prediction using a numerical model along rathnagiri coast, west coast of india, conference: 6th indian national conference on coastal, harbour and ocean engineering (inchoe 2018), cwprs, pune sept 2018
47. S. Sathish and **R. S. Kankara** (2018) Geochemistry and grain size distribution analysis of nearshore sediments Vengurla, West coast of India: implication for source rock and current, conference: 6th indian national conference on coastal, harbour and ocean engineering (inchoe 2018), cwprs, pune sept 2018
48. Amit Kumar Soni, V. Noujas and **R. S. Kankara** (2018) Study of ocean Wave Characteristics in near shore region of Vengurla, West coast of India, conference: 6th indian national conference on coastal, harbour and ocean engineering (inchoe 2018), cwprs, pune sept 2018

49. Amit Kumar Soni, V. Noujas and **R.S. Kankara** (2018). Study of ocean Wave Characteristics in near shore region of Vengurla, West coast of India, conference: 6th indian national conference on coastal, harbour and ocean engineering (inchoe 2018), cwprs, pune sept 2018
50. K. Prabhu, **R. S. Kankara**, S. Chenthamil Selvan, B. Rajan& M.V. Ramana Murthy (2017). A web application for shoreline change system a case study of Tamil Nadu coast, OSICON-17 held at NCESS, Trivandrum during 28-30 August 2017
51. B. Rajan, **R.S. Kankara**, S. ChenthamilSelvan, K. Prabhu and, M.V. Ramana Murthy (2017). Impact of human interruptions on shoreline along the west coast of Kanyakumari. OSICON-17 held at NCESS, Trivandrum during 28-30 August 2017
52. Umamaheswari. M and **R. S. Kankara** (2017). Numerical simulation of spectral wave characteristics off Vengurla, west coast of India. OSICON-17 held at NCESS, Trivandrum during 28-30 August 2017
53. G. Padmini, S. Dhanalakshmi, S. Chenthamil Selvan, **R. S. Kankara** (2017).Assessing coastal vulnerability index to hazards - over Nagappattinam sector, Tamil Nadu. OSICON-17 held at NCESS, Trivandrum during 28-30 August 2017
54. V. Naujas, **R.S. Kankara**and K.rasheed (2015),Longshore sediment transport estimation using a one-line model along Vengurla coast, south Maharashtra. International Indian Ocean Expedition conference (IIOE' 2), NIO Goa, 11/2015
55. Rasheed.K, **Kankara.R. S**,Manikandan.M, Praveen.K. U, Noujas.V and SanilKumar.V (2015). Nearshore processes and surf zone hydrodynamics of an open bay at Vengurla, west coast of India. International Indian Ocean Expedition conference (IIOE' 2), NIO Goa, 11/2015
56. **R.S. Kankara**, S. Chenthamil Selvan, B. Rajan& S. Arockiaraj (2014). Coastal structures and its impact on shoreline change – A case study of Puducherry coast. ISPRS TC VIII Mid-Term Symposium, Hyderabad, 2014.
57. **R. S. Kankara** and S Chenthamil Selvan (2012), "*Long-term Shoreline Changes along Tamilnadu Coast using Remote Sensing and GIS*" " in8th International Conference on Coastal And Port Engineering In Developing Countries (COPEDEC) 2012, held on 20-24 February 2012 at IITM, Chennai
58. T Maheswaran, T. Arumugam, S Chentamilselvan, Tune Usha, **R.S. Kankara**, V.RamMoham, Tsunami (2012). Atlas for the coast of Nagapattinam using numerical modelling and GIS, Proceedings of the national seminar on “Geospatial Technology for Resource Evaluation and Management, School of Earth and atmospheric Science, Madurai Kamaraj University, 17-18, February, 2012.

59. **R. S. Kankara** (2011), "*Need for science based oil spill management in India*" in international Conferences "*Oil Spill India 2011*" organised by ONGC at Goa on 29th Sept-1st Oct. 2011
60. **R. S. Kankara**, S.Chenthamil Selvan and B. Rajan(2011), "*Tsunami vulnerability modelling for Chennai coast using CARTOSAT data*" in national conference "OSICON" organized by Ocean Society of India at NIOT, Chennai on 13-15 July 2011
61. R. S. Kankara, S.Chentamilselvan, Tune Usha, V.RamMoham(2011), Tsunami Inundation Modelling and Mapping along Marina Beach, Chennai using Cartosat1 data, National Conference of Ocean Society of India – Technologies for Ocean Exploration, National Institute of Ocean Technology, 13-15, July, 2011.
62. **R. S. Kankara**, B. Rajan, S. Chenthamil Selvan and V. Ram Mohan (2011), "*Assessment of Shoreline Changes of Chennai, Tamil Nadu Using GIS (3D Vectorisation) and Digital image processing techniques*" in national conference "OSICON-11" organized by Ocean Society of India at NIOT, Chennai, 13-15 July 2011
63. **R. S. Kankara**(2011), "*Oil Spill Modelling for Mumbai Coast*" National seminar on "climate change, Oil Spill and radiation Risk- New Environmental Challenges" organized by NEERI, Mumbai at Mumbai during 9th-10th December 2011 at Mumbai
64. **R. S. Kankara**(2011) Integrated numerical modelling Study for Gulf of Kachchh (Gujarat) using MIKE-21 in ICZM perspective in 1st DHI Software User meet, India held on 24-26 March 2010 at New-Delhi
65. T.Maheswaran, T.Arumugam, Tune Usha, **R.S.Kankara**, V.RamMoham (2011), GIS based methodology to assess the relative vulnerability index of builds of coastal hazards using numerical model and GIS- Coastal Karaikal, A case study, Proceedings of the national seminar on "Basins of India, their resources and management", Department of Earth Sciences, Annamalai University, 17-18, February, 2011
66. T.Arumugam, T.Maheswaran, Tune Usha, **R.S.Kankara**, V.RamMoham(2011), Vulnerability Assessment of Nellore District to Tsunami hazards using numerical model and GIS, Proceedings of the national seminar on "Basins of India, their resources and management", Department of Earth Sciences, Annamalai University, 17-18, February, 2011.
67. T.Arumugam, T.Maheswaran, S.Chentamilselvan, Tune Usha, **R.S.Kankara**, V.Ram Mohan (2011), Tsunami vulnerability mapping using numerical modelling and GIS for the coastal areas of Orissa, National Seminar on Emerging Frontiers in Geomatic Applications, School of Earth and Atmospheric Sciences, Madurai Kamaraj University, 21-22, March, 2011

68. **R. S. Kankara** (2010): Tsunami Modelling for Arabian Sea and Inundation mapping for Gulf of Kachchh in National Conference on Coastal Process, Resources & Management at CESS, Trivandrum on 5-7 February 2010
69. **R. S. Kankara** (2010): Dissolved Oxygen Modelling for Gulf of Kachchh to determine the use of Gulf water in National Conference on Coastal Process, Resources & Management at CESS, Trivandrum on 5-7 February 2010
70. Ram Mohan, V. Sriganesh, J. Divyalakshmi, K.S., Ramanamurthy, M.V. **Kankara, R.S.** and Tune Usha (2010): Tsunami Hazard for the East coast of India and Tsunami Propagation Modelling for risk reduction in National Conference on Natural Hazard and Climate Change organised by Madras University during 11-13 March 2010
71. S. K. Dash and **R.S. Kankara** (2010): Remote sensing and trajectory modelling to track an oil spill in marine environment in National Conference on Natural Hazard and Climate Change organised by Madras University during 11-13 March 2010
72. Tune Usha and **R S Kankara** (2010): Relative Vulnerability index for assessing the vulnerability of buildings to coastal hazards in National Conference on Natural Hazard and Climate Change organised by Madras University during 11-13 March 2010
73. **R S Kankara** and Tune Usha (2010): Numerical Simulation of Storm Surge Inundation around Nagapattinam coast for November 1977 Cyclone in National Conference on Natural Hazard and Climate Change organised by Madras University during 11-13 March 2010
74. **R.S. Kankara** (2010): Oil Spill Management in Marine Environment in "Training Workshop on Marine resource Sampling, Data collection & interpretation for the South Asian Seas" organised by SACEP, MoES and UNEP during 18-22 September 2010 in India.
75. **R. S. Kankara** and Subbarao(2010). A Morphological Study of a coastal Inlet in Shoreline Management perspective- A case study of Mangalore Inlet, Proceedings on Joint Indo-Brazil Workshop, March 23-25, 2010 on Coastal Process Modeling related to Understanding Causes of Shoreline Changes held at Chennai page 187-201
76. T.Shunmugaraj, S. Sundaramoorthy, **R. S. Kankara**, Khader Chippy, Jacob Vinu, Shyam Kumar, P. J. Antony, R. Thomy, V.N. Sanjeevan, and B.R. Subramanian (2008): Status Of Coral Reefs In The Gulf Of Kachchh (India), In National conference on coral reef Ecosystem on 18-19 sept-2008 at Dept. of Fisheries biology and Capture Fisheries, Fisheries college and Research institute, Tuticorin
77. **Kankara, R.S.**(2007). Tsunami modelling for Arabian Sea and Inundation mapping presented in a Seminar on Seismology in India (SemIn07) held at Gandhinagar(Gujarat), organised by Institute of Seismic research(ISR), during 12-13 March 2007

78. **Kankara, R.S.** and Ramachandran, S (2007) Dissolved Oxygen Modelling: A tool to determine the use for Gulf of Kachchh in coastal zone management perspective, national workshop on Coastal Environment and port development, organised by Chennai Port Trust at Madras University, Chennai on 17-18 January 2007.
79. Subba Rao, Kiran G. Shirlal, **Kankara R.S.**, RadheshyamB, Govindaraja K.R. and Madhubabu,(2006). 'On modelling the tides and current using MIKE-21 HD for Gurupur-Netravathi river mouth', In Proceeding of National Conference, HYDRO 2006, Pune, India on 7-8 December 2006.
80. **Kankara R.S.**, Subramanian B.R., Sampath V. and Ramachandran S. (2004), 'Hydrodynamic Modelling of a Marine Habitat for Ecosystem Management Kachchh', International Coastal Symposium ICS-2004 held at Brazil during 14-19 March 2004
81. **Kankara R.S.**, Subramanian B.R., Sampath V. and Ramachandran S. (2004), 'Oil Spill Risk Assessment and Sensitivity Analysis for Gulf of Kachchh', International Coastal Symposium ICS-2004 held at Brazil during 14-19 March 2004.
82. **Kankara R.S.**, Subramanian B.R. and Sampath V. (2003), 'A study on tidal circulation and salinity regime in Gulf of Kachchh-Measurement and Modelling', Proc. of International Conference on Coastal and Ocean Technology (COT-2003), NIOT, Chennai, pp.279-292.
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