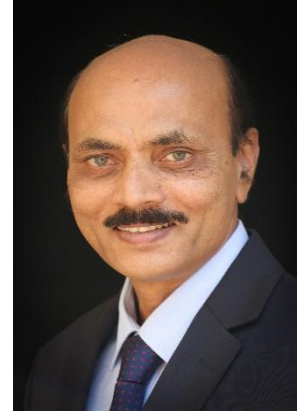


Dr. Dwarakish. G. S.
Professor [HAG]
Former HOD, Dean [P &D] & Dean [Academic Programs]
Dept. of Water Resources and Ocean Engineering
National Institute of Technology Karnataka, Surathkal
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Dr. Dwarakish G. S. hails from Mandya taluk and district, completed his early education in B. Gowdagere and received his B.Tech. degree in Civil Engineering in 1990 and M.Tech.[Hydraulics] in 1993, both from The National Institute of Engineering, Mysore, University of Mysore, Karnataka, and Ph.D. degree in 2001 from Institute of Remote Sensing, Anna University, Chennai, India.

He has started his teaching career during 1993 as Assistant Lecturer and currently he is serving as Professor [HAG], in the Dept. of Water Resources and Ocean Engineering, NITK, Surathkal.

His areas of specialization are Coastal Engineering, Remote Sensing, Digital Image Processing and GIS. He has guided 20 B.Tech. Projects, 64 M.Tech. Dissertations, 8 M.Sc. projects and 19 Ph.D. Scholars and 1 Post-Doctoral Fellow. Currently guiding 2 batches of B.Tech. Students, 4 M.Tech. Students and 4 Ph.D. Scholars.

He has completed 6 R & D projects funded by MHRD, DST, ISRO/RESPOND, ICMAM-PD & MoEF and currently executing 1 project. He has published 320 plus technical papers in International/National journals and conferences. He is a Guest Editor-In-Chief of special issue on *Remote Sensing and GIS Applications* of International Journal of Earth Sciences and Engineering and Guest Editor of Aquatic Procedia, published by Elsevier.

Dr. Dwarakish has also served as Associate Dean [Students' Welfare], Dean Planning and Development, Dean [Academic Programs], Faculty In-charge Testing & Consultancy, Dy. Coordinator NIT Goa, Head of the Department Water Resources and Ocean Engineering, Chairman Institute Grievances Redressal Committee and Chairman Staff Recreation Club.

He is a Fellow of Institution of Engineers, India, Fellow of Indian Water Resources Society, life member of ISTE, ISG, ISRS, IAH, ISH, Environmental Research Foundation, Viveka Sampada and Kannada Sahithya Parishath. He is also one of the four members of Panel of National Experts, to review the ADB coastal erosion protection projects.

He had visited Austria, Canada, Germany, Italy, Japan, Malaysia, Sri Lanka and USA for research interactions and for presenting research papers.

He is recipient of prestigious Prof. Satish Dhawan Young Engineers State Award for the year 2013, instituted by the Government of Karnataka in recognition of outstanding contribution in the field of Engineering Sciences, Indo-US Consortium for Engineering Education [IUCEE] Faculty Award 2016, for the outstanding teaching and academic achievements and Sir. M. Visveswaraya Engineer Award 2019 by Association of Civil Engineers, Mandya.

Dwarakish G. S.

Professor (HAG)

Department of Water Resources and Ocean Engineering

(Formerly known as Dept. of Applied Mechanics & Hydraulics)

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+91-9483647308 [Mobile]

Education

Ph. D., (Coastal Engineering, Remote Sensing & GIS), Institute of Remote Sensing, Anna University, Chennai, India (2001).

M.Tech. (Hydraulics) (1993), National Institute of Engineering, Mysore University, Mysore, India. Completed in First class with distinction.

B.Tech. (Civil Engineering) (1990), National Institute of Engineering, Mysore University, Mysore, India. Completed in First class with distinction.

College Education, National College, Basavanagudi, Bangalore, India.

High School Education, Ryots Education High School, Hanakere, Mandya, Karnataka, India.

Primary Education, Govt. Higher Primary Boys School, B. Gowdagere, Mandya, Karnataka, India.

Professional Experience

29/10/2024	Till Date	Member, Board of Governors
07/11/2023	07/05/2026	Dean Academic
01/01/2018	31/07/2018	Dean Planning and Development
30/08/2017	29/08/2019	Chairman, Institute Grievance and Redressal Committee
27/03/2015	14/03/2017	Professor and Head of Department
09/03/2015	Till Date	Professor [4-Tier Faculty Structure]
17/02/2010	09/03/2015	Professor
17/02/2006	17/02/2010	Associate Professor
17/02/2003	17/02/2006	Assistant Professor
17/02/2000	17/02/2003	Senior Lecturer
17/02/1995	17/02/2000	Lecturer
08/08/1993	17/02/1995	Assistant Lecturer
1990	1991	Site Engineer

Life Membership of Professional Bodies

Member	Indian Society of Remote Sensing (MISRS)	www.isrsindia.org
Member [LM 712]	Indian Society for Hydraulics (MISH)	www.e-ish.net
Member [LM 628]	Indian Society of Geomatics (MISG)	www.isgindia.org
Member [LM 52236]	Indian Society of Technical Education (MISTE)	www.isteonline.com
Member [92950546]	Institution of Electrical and Electronics Engineers [IEEE]	www.ieee.org
Member	Indian Association of Hydrology (IAAH)	www.iah/index.html
Member [88543]	Kannada Sahithya Parishath	
Member [LM 513]	Ocean Society of India	www.oceansociety.in
Member [LM 2022-7924]	Indian Water Resources Society	www.iwrs.org.in
Member [F-1276715]	Institution of Engineers (India)	www.ieindia.org

Courses Taught

Undergraduate Level

Post Graduate Level

Engineering Mechanics

Strength of Materials

Mechanics of Materials

Fluid Mechanics

Irrigation Design and Drawing

Remote Sensing & Geographical Information
System

Geomatics Applications in Civil Engineering

Digital Image Processing

Strength of Materials Lab.

Fluid Mechanics Lab.

General Oceanography

Principles of Remote Sensing

Geomatics Applications for Water Resources
Engineering

Geomatics Applications for Coastal Engineering

Digital Image Processing

ICZMP

Digital Image Processing Lab.

Remote Sensing & Geographical Information
System Lab.

Sponsored Research Projects Undertaken [7+2]

Period	Title of the Project	Amount (Rupees) and Sponsored Agency	Status
1999 – 2001	Modelling of Suspended Sediment Concentration off Mangalore Coast (As Research Scholar)	5.0 Lakhs RESPOND Programme Indian Space Research Organisation, Dept. of Space, Govt. of India.	Completed
2003 – 2005	Nearshore Processes Information System for Mangalore Coast- A RS and GIS Approach. (Principal Investigator)	10 Lakhs Ministry of Human Resources and Development, Govt. of India.	Completed
2003 – 2006	Management of Tidal Inlets along West Coast of India (Co-Investigator)	45 Lakhs Integrated Coastal Marine Area Management – Project Directorate (ICMAM-PD), Department of Ocean Development (DOD), Govt. of India	Completed
2004 – 2011	Integrated Coastal Zone Management Plan for Karnataka Coast (Principal Investigator)	23 Lakhs Ministry of Environment and Forestry, Govt. of India.	Completed
2006 – 2011	RS & GIS Application for Sustainable Management of Sacred Grooves in Kodagu District (Principal Investigator)	11.65 Lakhs DST, Govt. of India.	Completed
2006 – 2011	Analysis of Satellite Derived Wind and Wave Parameters of Karnataka Coast (Principal Investigator)	12.5 Lakhs RESPOND Programme Indian Space Research Organisation, Dept. of Space, Govt. of India.	Completed
2014	To strengthen the post-graduate teaching and research facilities in the Department. (As H.O.D)	220 Lakhs DST, Govt. of India.	Ongoing
2016	Coastal Ocean Technology [COT]	29 Lakhs Ministry of Earth Sciences (MoES), Govt. of India.	Ongoing
2017	National Post Doctoral Fellowship [N-PDF] (As Mentor)	19 Lakhs DST- SERB, Govt. of India.	Completed

Bachelor's Degree (B.E./B.Tech.) Project Guided [23]

Master's Degree (M.Tech.) Dissertation Guided [78+4]

Sl. No.	Title of Thesis	Name of the student	Year	Placement of the Student
1.	Soil Conservation and Watershed Management using Remote Sensing and GIS Techniques: A Case Study	M. Anisha	1995 – 1996	Assistant Executive Engineer, Govt. Of Andra Pradesh, Hyderabad, India
2.	Beach Sediment Characteristics Along Mangalore Coast	Raghavendra Majaker	1995 – 1996	Working in PWD, Kerala State
3.	A Study of Sediment Characteristics of Netravathi- Gurpur River Estuary and Neighbouring Beaches	V. Raghupal Reddy	1997 – 1998	Working as a Marine engineer in Royal Haskoning- NewBombay
4.	Shoreline Change Detection Through an Integrated Approach: A Case Study	Mallikarjuna Rao I.	1998 – 1999	Tata Consultancy Services, Present placement at USA
5.	Modelling of Sediment Dynamics of Mangalore Coast through MIKE 21 and Remote sensing	Sankar Babu K.	2001 – 2002	After completing his Ph.D. from IIT, Madras, now working in coastal engg. Deptt. Govt. Of Dubai.
6.	Harbour Area Information System (HIS) Using RS and GIS	Suresh Naik	2003 – 2004	Working as a Design Engineer in coastal Engineering Software company, Pune
7.	Coastal Zone Information System for Mangalore Coast using RS, GIS, and V.B.6.0.	Rajaram	2005 – 2006	Working as a Marine engineer in Royal Haskoning, New Bombay
8.	Integrated Coastal Zone Management Plan for Udupi Coast Through RS and GIS	Vinay S.	2006 – 2007	Working as a Marine engineer in Royal Haskoning, New Bombay
9.	Effect of Coastal Dams on Coastal Processes	Babita M. K.	2007 – 2008	Working for L & T construction company, Chennai
10.	EIA Studies in Mangalore Coastal Zone	Angel Zeba	2007 – 2008	Working for Chemical Company in Chennai
11.	Proximity Analysis for Mangalore City using Remote Sensing, GIS, GPS, and VB 6.0	Namratha V.	2007 – 2008	Working for GIS Company at UK

12.	Development of Sediment Yield Model for Periyar River Basin Through RS, GIS & GPS	Preethi Jacob	2008 – 2009	Working as faculty at Dayanand Sagar College of Engineering, Bangalore
13.	Modelling of Shoreline Configuration Along NITK and Cochin Coast	Indu Shekhar	2008 – 2009	Working for Coastal Structures Construction Company
14.	Modelling of Coastal Sediment Dynamics: A Case Study	Amruth Karjagi	2009 – 2010	Working for L & T, Chennai
15.	Study of Shoreline Configuration Using Multi-date Satellite Data for NITK Beach	Mohan Kumar	2009 – 2010	Working for GIS Company, Bangalore
16.	Numerical Modelling of Shoreline Configuration – A Case Study	Ms. Arya Ratish	2010 – 2011	Working for L & T, Chennai
17.	Applications of RS GIS and GPS for Sacred Groves Monitoring and Management	Harish Kumar S.	2010 – 2011	Working for ITC, Bangalore
18.	Groundwater Level Fluctuation Along Mangalore Coast Through Conventional and Modelling Approach	Suman B. S.	2010 – 2011	Looking after his own construction company, Shimoga
19.	Numerical Modelling of Sediment Dynamics: A Case Study	Pavithra N. R.	2011 – 2012	Working as a faculty in BIT, Bangalore
20.	Shoreline Configuration Through Conventional Methods	Sabarimon	2011 – 2012	Working as a site Engineer, Kerala
21.	Developments in Capital and Maintainance Dredging : NMPT	Sameer	2011 – 2012	Working as a site Engineer, Kerala
22.	Study of Sediment Dynamics Around Mulki-Pavanje Rivermouth Through Statistical Analysis	Mrinal S. Murali	2012 – 2013	Working as Faculty
23.	Planning of Marine Facilities for an LNG Terminal– A Case Study for the Development of an LNG Terminal in India	Rushith M. D.	2012 – 2013	Working as Site Engineer
24.	Prediction of Tides Along Karwar Coast Using Artificial Neural Networks	Shetty Rakshith	2012 – 2013	Working as Design Engineer for TCE
25.	Flood Risk Assessment in the Bagmathi and Adhwara River Basins, North Bihar Plains, India	Tilak N.	2012 – 2013	Working as Faculty

26.	Development of Flood Alert System	Uday Kumar	2012 – 2013	Working as a RS specialist
27.	Development of Algorithm for the Study of Sediment Dynamics Through Sediment Trend Analysis: A Case Study of Mangalore Coast, West Coast of India	P. Sri Ram Kumar	2013 – 2014	Working for L & T, Chennai
28.	Wave Forecasting Along Karnataka Coast Using Artificial Neural Networks	Deepthi I. Gopinath	2013 – 2014	Working as Assistant Professor
29.	Application of Neural Network Model for LU/LC Classification of Satellite Image	Nujuma Nazimudhin	2013 – 2014	Working as Assistant Professor
30.	Impact of Regional Economic Growth on Spatial Development, Case Study of Dakshina Kannada and Udupi Districts (Karnataka)	S. D. Suman	2013 – 2014	Working for Software company in Bangalore
31.	Prediction and Analysis of Land Use/Land Cover Dynamics with Respect to Driving Factors in Netravati and Harangi River Basin	Gayathri K. Devi	2014 – 2015	Working as Assistant Professor
32.	Flood Inundation Mapping for Bangalore Urban Area	Rajeesh R.	2014 – 2015	Working as Assistant Professor
33.	Prediction of Tides along Karnataka Coast Using PSO and Support Vector Machine	Akhil M.	2014 – 2015	Working as Assistant Professor
34.	Wave Forecasting Along Karnataka Coast Using PSO and Support Vector Machine	Liju K. V.	2014 – 2015	Working for Software company
35.	Assessment of Wave Energy Potential Along West Coast of India through Numerical Modelling	Justin Thomas T.	2014 – 2015	Working for Software company
36.	Shoreline Change Configuration and Coastal Protection Along Undivided Dakshina Kannada Coast- An Integrated Approach	L. Revanth Reddy	2015 – 2016	Working as an Engineer in L & T, Chennai.
37.	Coastal Sediment Dynamics through Numerical Modelling	Shabnum Suhura Shamsudeen	2015 – 2016	Working as Assistant Professor
38.	Hydromechanics Study for Netravathi Catchment Area	Fashamol T. M.	2015 – 2016	Working as Assistant Professor

39.	Prediction and Forecasting of Ocean Parameters Through Soft Computing Techniques - A case study	Nithyapriya B.	2015 – 2016	Pursuing her Ph.D. At IIT Bombay, Mumbai, under IITB-Monash Programme.
40.	Pollutant Identification & Mapping Using RS & GIS	Vineet Kumar Powal	2016 – 2017	Working in MNC in Delhi
41.	Runoff Estimation Using Advanced Geospatial Hydrologic Modelling Tools	Jubina C. K.	2016 – 2017	Working as Assistant Professor in College of Engineering Vadakara
42.	Development of a QGIS Plugin for the Application in RS & GIS	Barane Prathamesh K.	2016 – 2017	Working as JRF in Symbiosis Institute of Geoinformatics, Pune
43.	Hydrodynamic Analysis of Offshore Floating Wind Turbine Along Rameshwaram Kanyakumari Coast of Tamil Nadu	S. Sharad Kumar	2016 – 2017	Working as Technical Trainee in Chennai
44.	Aerosol Optical Studies Using Spaceborne Measurements.	M. Gopika	2016 – 2017	Working as Business Analyst in Bengaluru
45.	Shoreline Monitoring and Management Through an Integrated Approach- A Case Study	Bhavya	2017 – 2018	Working as Faculty
46.	Analysis Climate Impacts on Costal Karnataka	S. B. Gowthami	2018 – 2019	Completed
47.	Application of Geoinformatics for Prioritisation of Watersheds in Netravathi Catchment, Karnataka, India	Waleed Makhdumi	2018 – 2019	Pursuing his Ph.D. at NIT Karnataka, Surathkal
48.	Coastal Vulnerability Assessment of the Kasaragod Coast in Kerala, West Coast of India	Anjita N. A.	2019 – 2020	Pursuing her Ph.D. At IIT Bombay, Mumbai
49.	Development of Graphical User Interface Spreadsheet to Perform Sediment Trend Analysis: A Case Study of Mangalore Coast	Aseem V.	2019 – 2020	Assistant Engineer at Rashtriya Gram Swaraj Abhiyan
50.	Automated Shoreline Detection from Satellite Imagery Using Image Processing Techniques and its Change Analysis Along Mulki-Pavanje River Mouth	Linda Regi	2019 – 2020	Geo Analytics at WRI Indis's Sustainable Cities and Transport program
51.	Statistical and Hydrological Evaluation of Satellite Precipitation Products in Two	M. Satish Kumar	2019 – 2020	Software Systems Engineer at TATA

	Diverse Contrasting River Basins: Nethravathi and Ponnaiyar			Consultancy Services Pvt Ltd
52.	Future Land Use Land Cover Prediction of Netravati River Basin Through Cellular Automata Markov Chain Model	Nayana N.	2019 – 2020	Completed
53.	Port Performance Analysis Using DEA: A Case of NMPT Port	S. Chekatla	2019 – 2020	Planning Engineer at Meka Infrastructure Pvt Ltd
54.	Flood Frequency Studies of Sita Catchment, Karnataka, India	Soumya S. Nyamathi	2019 – 2020	Working at ATKINS
55.	Selection of Algorithm for Land Use Land Cover Classification and Change Detection	Arnab Chowdhury	2020 – 2021	Pursuing his Ph.D. at IIT Roorkee, Uttarakhand
56.	Oil Spill Trajectory Detection by GNOME and SAR	G. Masthan Wali	2020 – 2021	GeoSpatial Analyst at Satsure
57.	Drought Forecasting by Using Support Vector Machine Approach	Molaka Maruthi	2020 – 2021	Completed
58.	Rapid Mapping of Cyclone Amphan (2020) Induced Flooding in Parts of West Bengal, India Using Automated Thresholding Algorithms on SAR Images	Rasheeda Soudagar	2020 – 2021	Pursuing his Ph.D. at IIT Roorkee, Uttarakhand
59.	Ground Subsidence Monitoring with SAR Differential Interferometry in Chennai	S. Jyotna	2020 – 2021	Completed
60.	Oceanic Impact of Cyclone Phailin in The Bay of Bengal	Shrestha Rout	2020 – 2021	Completed
61.	Shoreline Change Detection Using Coastsat and QGIS along Kasaragod Coastline, Southwest Coast of India	G. Pavan Sai	2021 – 2022	Completed
62.	Evaluation and Determination of Reliability on Advanced Neural Network models for Prediction of Soil Moisture	Nagashree G. E.	2021 – 2022	Pursuing Ph.D. at IIT Roorkee, Uttarakhand
63.	Shoreline Change Analysis Along Thrissur Coast, Kerala Using MIKE 21	Angayarkkani R.	2022 – 2023	Working at TechnipFMC
64.	Prediction of Groundwater Levels Using MODFLOW	Sagar Agarwal	2022 – 2023	Completed

65.	Impact of Land Use Land Cover Change on Runoff Characteristics of Kali River Basin, Karnataka	Sreejith K. S.	2022 – 2023	Working at WSP
66.	Prioritisation of Sub-Watersheds for Soil and Water Conservation Practices – A Case Study of Upper Swarnamukhi Basin, Andhra Pradesh	Suraga M. R.	2022 – 2023	Working at WSP
67.	Automated Delineation and Species Identification of Individual Tree Crowns Using Mask R-CNN and UAV RGB Imagery	Gopalkrishna S.	2023 – 2024	Working at HSBC bank
68.	One Dimensional Flood Modelling of River Kaveri Using HEC-RAS	Jyoti Prasad Gupta	2023 – 2024	Pursuing PhD from IIT Kharagpur
69.	Study on Influence of Breakwater Structure on Flow Characteristics Using Numerical Modelling.	Nisarga Amin	2023 – 2024	Technip
70.	Urban pluvial flood modelling through SWMM and MIKE+ for Chennai city	Sindam Snikitha	2023 – 2024	Working at ATKINS
71.	Tidal Height Prediction Through Numerical Modelling	Sneha Krishnan	2023 – 2024	Working at OEDEC Engineering Consultancy
72.	Wave Energy Assessment and Wave Tide Dynamics along Central Coast of Kerala	Amegha Pratheraj	2024 – 2025	Working at WSP
73.	Wave Prediction using Artificial Neural Network	Athena Murali P.	2024 – 2025	Worley
74.	A Parametric Study on the Effects of Integrating Oscillating Water Columns with a Floating Wind Turbine Semi-Submersible Platform	Subrahmanian Namboodiri K	2024 – 2025	Technip
75.	Application of Machine Learning and HEC-RAS Model for Flood Inundation Mapping in Harangi Basin	Navya S.	2025 – 2026	Working at WSP
76.	Dinsar-Derived Glacier Dynamics Using Remote Sensing Data For Uttarakhand Glacier Region	Aniket Yadav	2025 – 2026	Working at Suhora
77.	Design and analysis of an Offshore wind turbine jacket integrated with Oscillating water column	Aswathi K. M.	2025 – 2026	Working at Eka Infrastructure

78.	Coastal Erosion and Shoreline Change along the Indian Coast: Evidence, Engineering Impacts, and Management Implications	Sreerag P. Kaimal	2025 – 2026	Site Engineer
79	Marine Structure	Anagha Babu	2026- 2027	Ongoing
80	Offshore structures	Pranav V Prakash	2026- 2027	Ongoing
81	Climate Resilience assessment of Indian cities using Remote sensing	P. Anoop Sreevas	2026- 2027	Ongoing
82	Climate change impact	Vivek S	2026- 2027	Ongoing

Master' s Degree (M.Sc.) Dissertation Guided [10]

Sl. No.	Title of Thesis	Name of the student	Year	Placement of the Student
1.	Web Based Information System for New Mangalore Port Trust	Shwetha Nayak	2004 – 2005	Working as a faculty in Udupi
2.	Coastal Zone Information System for D. K. Coast	Nisha	2005 – 2006	Working as a faculty in Mangalore University
3.	NITK Information System	Shakila	2005 – 2006	Working in a Software company
4.	Coastal Zone Information System for Udupi Coast	Amrithkala M. Shetty	2006 – 2007	Working as a faculty in Mangalore University
5.	Integrated Modelling Approach for Shoreline Monitoring and Management	Aashvija	2008 – 2009	Working for KSRSAC, Mangalore
6.	Integrated Modelling Approach for Sediment Yield Estimation for Periyar River Basin	Supriya J. Anchan	2008 – 2009	Working for SOI, Bangalore
7.	A Study on Beach Morphology and Shoreline Changes Along Dakshina Kannada Coast	Vijay Laxmi	2013 – 2014	Mangalore University, Mangalore
8.	Sediment Dynamics Along Mangalore Coast	Bharat N.	2022 – 2023	Completed (Mangalore University)
9.	Shoreline Change Detection Through Geo-informatics	Gopika C.	2022 – 2023	Completed (Mangalore University)

10.	Rainfall Runoff Modelling Using Remote Sensing and Conventional Data	Swathi K. K.	2022 – 2023	Completed (Mangalore University)
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Ph.D. Research Supervision [19+4]

Sl. No.	Name of Student	Reg. Year and Status (FT/PT)	Title of Dissertation	Other Supervisor	Completed [placement]/ Ongoing
1.	Jagadeesha Pai B.	Full Time Institute Scholar 2004 – 2009	Retrieval of Wind and Wave Parameters Over Indian Ocean Region Using Synthetic Aperture Radar Data	Prof. A. Vittal Hegde.	Completed and working as a faculty at MIT Manipal.
2.	Ashok Kumar T.	Part Time 2004 – 2010	Advanced Image Processing Techniques and Algorithms for Classification of Semi-Urban Land Use/Land Cover Features Using High-Resolution Satellite Data	Prof. Shivaprakash Koliwad MCE – Hassan.	Completed and working as a Principal of VCET, Puttur.
3.	Rajagopal B.	Q.I.P. Full Time [Polytechnic] 2005 – 2013	Studies on Land Use/Land Cover Changes and Water Quality Due to Urbanization Along the Coastal Areas Of Dakshina Kannada District, Karnataka, India	Dr. Srihari. S	Completed and working as a Principal in Polytechnic College in A.P.
4.	Abdu Rahiman K. U.	Q.I.P. Full Time [KUSAT] 2006 – 2009	River Runoff and Sediment Flow Changes Induced by Dams in Periyar River Basin, Kerala, India	-	Completed and working as a faculty at CUSAT, Cochin
5.	Shushma S. B.	Part Time (Under Project) 2008 – 2015	RS and GIS tools to Support Conservation and Sustainable Management of Sacred Groves in Kodagu District	Dr. K. B. Kiran	Completed and working as a Scientist in Mines and Geology
6.	Gumageri Nagaraj	Institute Fellowship – Full Time 2009 – 2013	Study of Geomorphology and Dynamics of Shoreline Associated with Mulki-Pavanje River Mouth, Dakshina Kannada Coast, Karnataka, India	-	Completed and working as a faculty in BIT, Mangalore
7.	Gowthaman R.	Part Time 2010 – 2016	Modelling of Shoreline Configuration Along Rameshwaram Island, East Coast of India	-	Completed and working as a Scientist, NIO, Goa

- | | | | | | |
|-----|----------------------------|--|--|----------------------|--|
| 8. | Raju A. | Institute
Fellowship –
Full Time
2011 – 2014 | Development of Contrast
Enhancement Algorithms for
Coastal Applications Using
Satellite Images | Prof. D. V.
Reddy | Completed and
working as a faculty
in Japan |
| 9. | Ganasri B.
P. | PGRA-
Institute
Fellowship –
TEQIP –
Full Time
2012 | Impact of Land Use Changes on
Hydrological Response of Humid
and Sub-humid Catchments in
Karnataka State, India | - | Completed and
working in USA |
| 10. | Arega Mulu
Adal | Ethiopian
Government
Fellowship
2013 – 2016 | Simulation of Hydrological Effects
of Land Use /Land Cover, Climate
Change and Effect of Dam at
Gilgel Abay River Basin, Ethiopia | - | Completed and
working as faculty in
Ethiopia |
| 11. | Preeti Jacob | Part Time
2014 | Experimental Study on Effect of
Aggregate Size on the Hydraulic
Properties of Pervious Concrete | - | Completed and
working as faculty in
CMR Institute of
Technology |
| 12. | Dayanand
Shetty | Part Time
2015 – 2019 | Optimisation of Vessel Turnaround
Time in a Seaport with a Special
Reference to New Mangalore Port
Trust | - | Completed and
working as an
engineer in NMPT |
| 13. | Arunkumar
Yadav | Institute
Fellowship –
Full Time
2015 – 2020 | Shoreline Dynamics in Response
to River Sediment: A Case Study | Dr. B M
Dodamani | Completed and
working as faculty in
MAHE Bengaluru |
| 14. | Abiot
Ketema
Demmsie | Ethiopian
Government
Fellowship
2016 – 2021 | Simulation of the Hydrological
Impacts of Climate and Land Use /
Cover Change on Tikur Wuha
Watershed in Ethiopia | - | Completed and
working as faculty in
Ethiopia |
| 15. | Dinu Maria
Jose | Institute
Fellowship –
Full Time
2017 | Temporal Analysis of Land Use
Land Cover and Climate Change
on Streamflow and Sediment Yield
of Netravathi River Basin, India | - | Completed and
working as GIS
Engineer in Verisk,
Hyderabad |
| 16. | Waleed
Makhdumi | Institute
Fellowship –
Full Time
2019 | Soil Erosion Modelling,
Assessment and Watershed
Prioritisation in Netravati
Catchment, Karnataka, India | Dr. Shwetha
H. R. | Completed |
| 17. | G. Praveen
Kumar | Institute
Fellowship –
Full Time
2020 | Impact Assessment of Climate
Change and Land Use Land Cover
Change on Streamflow in Kali
River Basin, Karnataka, India | - | Completed and
working as Project
Scientist-I, ESSO-
National Center for
Earth Science
Studies,
Thiruvananthapuram. |

18.	Mukul Kumar Sahu	Institute Fellowship – Full Time 2020	Hydro-geospatial Analysis and AI-based Flood Modelling and Mapping in Cauvery River Basin, India	Dr. Shwetha H. R.	Completed and working as Assistant Technical Specialist, Sustainability RMSI, Noida.
19.	Parvathy M. M.	Part Time 2020	Coastal Vulnerability Assessment to Climate Change Impacts for the State of Kerala, South – West Coast of India	-	Completed and working in Irrigation Department of Kerala, Thiruvananthapuram
20.	Anurag Labh Aman	Institute Fellowship – Full Time 2021	Kosi River Dynamics Through Hydrodynamic Modelling	-	Ongoing
21.	Avinash R.	Institute Fellowship – Full Time 2022	Assessing the Impacts of Climate Change and Groundwater Withdrawal on Streamflow	-	Ongoing
22.	Vinod P. N.	Part Time 2023	Surface water Hydrology	Dr. Subrahmanya K.	Ongoing
23.	Vinayak N.	Part Time 2024	Drought and Flood Analysis	Dr. Subrahmanya K.	Ongoing

List of Publications (327)

Book Chapters	16	
	International	National
Journal papers	88	13
Conference/workshop/Symposium	129	81

Book Chapters/Proceedings [16]

- 2025** Aman, A. L., and **Dwarakish, G. S.** (2025) “Comparative Analysis of Braiding Intensity of Kosi River Using Remote Sensing and GIS. In: Pandey, M., Jayakumar, K.V., Pal, M., Singh, V.P. (eds) *Soft Computing and Geospatial Techniques in Water Resources Engineering*. HYDRO 2023. Lecture Notes in Civil Engineering, vol 397. Springer, Singapore. https://doi.org/10.1007/978-981-97-7467-8_35
- Avinash, R., and **Dwarakish, G. S.** (2025) “Essential Climate Variables for Accurate Climate Change Impact Studies on Hydrological Regime: A Comprehensive Review.” In: Das, J., Umamahesh, N.V., Pu, J.H., Pandey, M. (eds) *Climate Change Impact on Water Resources*. HYDRO 2023. Lecture Notes in Civil Engineering, vol 561. Springer, Singapore. https://doi.org/10.1007/978-981-97-9180-4_22
- Makhdumi, W., Suragamallika, R., Shwetha, H. R., and **Dwarakish, G. S.** (2025) “Geospatial Techniques for Soil Erosion-Based Watershed Prioritisation: A Review.” In: Pandey, M., Jayakumar, K.V., Pal, M., Singh, V.P. (eds) *Soft Computing and Geospatial Techniques in Water Resources Engineering*. HYDRO 2023. Lecture Notes in Civil Engineering, vol 397. Springer, Singapore. https://doi.org/10.1007/978-981-97-7467-8_31
- Sahu, M. K., Shwetha, H. R., and **Dwarakish, G. S.** (2025) “Streamflow Estimation for Harangi River Basin, Karnataka, India.” In: Pandey, M., Umamahesh, N., Das, J., Pu, J.H. (eds) *Hydrology and Hydrologic Modelling*. HYDRO 2023. Lecture Notes in Civil Engineering, vol 410. Springer, Singapore. https://doi.org/10.1007/978-981-97-7474-6_22
- 2024** Makhdumi, W., Shwetha, H. R., and **Dwarakish, G. S.** (2024) “Erosion and Accretion in the Netravati River Stretch: Spatiotemporal Analysis Using Geospatial Approach.” In: Chembolu, V., Dutta, S. (eds) *Advances in River Corridor Research and Applications*. RCRM 2023. Lecture Notes in Civil Engineering, vol 470. Springer, Singapore. https://doi.org/10.1007/978-981-97-1227-4_11
- Sahu, M.K., Shwetha, H. R., and **Dwarakish, G. S.** (2024) “Flood Inundation Mapping of Krishnaraja Nagar, Mysore Using Sentinel-1 SAR Images.” In: Chembolu, V., Dutta, S. (eds) *Advances in River Corridor Research and Applications*. RCRM 2023. Lecture Notes in Civil Engineering, vol 470. Springer, Singapore. https://doi.org/10.1007/978-981-97-1227-4_17

2023

Nayana, N., Jose, D. M., and **Dwarakish, G. S.** (2023) “Analysis of Land Use Land Cover Changes in the Netravati Basin, Karnataka, India.” In: Timbadiya, P. V., Patel, P. L., Singh, V. P., Mirajkar, A. B. (eds) *Geospatial and Soft Computing Techniques*. HYDRO 2021. Lecture Notes in Civil Engineering, vol 339. Springer, Singapore.

https://doi.org/10.1007/978-981-99-1901-7_9

Jacob, P., **Dwarakish, G. S.**, Wani, A. S., & Jaliyal, V. (2023) “Use of image analysis to study top surface clogging of pervious concrete.” In: *AIP Conference Proceedings* 2901, 1. AIP Publishing. <https://doi.org/10.1063/5.0178951>

Sahu, M. K., Shwetha, H. R., and **Dwarakish, G. S.** (2023) “A Review: Contribution of HEC-HMS Model.” In: Timbadiya, P.V., Patel, P.L., Singh, V.P., Sharma, P.J. (eds) *Hydrology and Hydrologic Modelling*. HYDRO 2021. Lecture Notes in Civil Engineering, vol 312. Springer, Singapore. https://doi.org/10.1007/978-981-19-9147-9_16

2022

Jacob, P., **Dwarakish, G. S.**, Sharath, G. O., and Ramesh, G. N. (2022) “Pervious Concrete as an Effective Urban Flood Management Tool.” In: Jha, R., Singh, V. P., Singh, V., Roy, L., Thendiyath, R. (eds) *River and Coastal Engineering*. Water Science and Technology Library, vol 117. Springer, Cham. https://doi.org/10.1007/978-3-031-05057-2_13

2021

Jose, D. M., Makhdumi, W., and **Dwarakish, G. S.** (2021) “Hydrological Modelling to Study the Impacts of Climate and LULC Change at Basin Scale: A Review.” In: Jha, R., Singh, V. P., Singh, V., Roy, L., Thendiyath, R. (eds) *Water Resources Management and Reservoir Operation*. Water Science and Technology Library, vol 107. Springer, Cham. https://doi.org/10.1007/978-3-030-79400-2_2

Ketema, A., and **Dwarakish, G. S.** (2021) “Climate Change Impacts on Water Resources in Ethiopia.” In: Jha, R., Singh, V. P., Singh, V., Roy, L. B., Thendiyath, R. (eds) *Climate Change Impacts on Water Resources*. Water Science and Technology Library, vol 98. Springer, Cham. https://doi.org/10.1007/978-3-030-64202-0_5

Kumar, M. S., Venkatesh, K., Gowthami, S. B., Anjita, N. A., Nayanna, N., Regi, L., and **Dwarakish, G. S.** (2021) “Monitoring Land Use and Land Cover Changes in Coastal Karnataka.” In: Narasimhan, M. C., George, V., Udayakumar, G., Kumar, A. (eds) *Trends in Civil Engineering and Challenges for Sustainability*. Lecture Notes in Civil Engineering, vol 99. Springer, Singapore. https://doi.org/10.1007/978-981-15-6828-2_57

Athira, K., Yadav, A., Dodamani, B. M., **Dwarakish, G. S.** (2021) “Impacts of Dams on Sediment Yield and Coastal Processes Using SWAT and DSAS Tools.” In: Narasimhan, M. C., George, V., Udayakumar, G., Kumar, A. (eds) *Trends in Civil Engineering and Challenges for Sustainability*. Lecture Notes in Civil Engineering, vol 99. Springer, Singapore. https://doi.org/10.1007/978-981-15-6828-2_47

- 2019** Makhdumi, W., and **Dwarakish, G. S.** (2019) “Prioritisation of Watersheds Using the TOPSIS and VIKOR Methods.” *Seventh International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2019)*, 11174, 247-256. SPIE.
<https://doi.org/10.1117/12.2532024>

Yadav, A., Dodamani, B. M., and **Dwarakish, G. S.** (2019) “Study of Dynamic Changes Through Geoinformatics Technique: A Case Study of Karwar Coast, West Coast of India.” In: Murali, K., Sriram, V., Samad, A., Saha, N. (eds) *Proceedings of the Fourth International Conference in Ocean Engineering (ICOE2018)*. Lecture Notes in Civil Engineering, vol 23. Springer, Singapore. https://doi.org/10.1007/978-981-13-3134-3_14

International Journals [88]

- 2026** Kumar, G.P., **Dwarakish, G.S.**, A Framework for Selection of a Hydrological Model-SAWT: A Review. *Water Resour Manage* **40**, 226 (2026). <https://doi.org/10.1007/s11269-026-04600-8>
- Aman A.L., **Dwarakish, G.S.**, (2026). “Geomorphic adjustment and reach-scale sensitivity of the highly braided Kosi River: A dynamic systems approach to resilience-based management” *Geomorphology* <https://doi.org/10.1016/j.geomorph.2026.110283>
- Krishnan, S., **Dwarakish, G.S.**, Pai B, J., Makhdumi, W., Parvathy, M. M., & Sahu, M. K. . (2026). “Tide prediction using soft computing techniques: Comparative analysis of ANN and ANFIS models for Cochin, India.” *Journal of Integrated Science and Technology*, 14(2), 1526. <https://doi.org/10.62110/sciencein.jist.2026.v14.1526>
- 2025** Parvathy, M. M., Balu, R., and **Dwarakish, G. S.** (2025). “Development of a regional-scale erosion vulnerability assessment approach along a human-intervened coast—a case study from the southern part of Kerala, India.” *ISH J. Hydraul. Eng.* <http://dx.doi.org/10.1080/09715010.2025.2546873>
- Kumar, G. P., & **Dwarakish, G. S.** (2025). “Comparison of the Multiple Imputation Approaches for Imputing Rainfall Data: A Humid Tropical River Basin Case Study. *Water Conservation Science and Engineering*, 10(2), 87. <https://doi.org/10.1007/s41101-025-00403-x>
- Makhdumi, W., R, S. H., **Dwarakish, G. S.**, & Pai, J. B. (2025). “Addressing spatial variability in estimating cover management factor of soil erosion models using geoinformatics: A case study of Netravati catchment, Karnataka, India.” *Air, Soil and Water Research*, 18, <https://doi.org/10.1177/11786221251360407>
- Kumar, G. P., & **Dwarakish, G. S.** (2025). “Machine learning-based ensemble of Global climate models and trend analysis for projecting extreme precipitation indices under future climate scenarios.” *Environmental Monitoring and Assessment*, 197(9), 1009. <https://doi.org/10.1007/s10661-025-14469-6>

Kumar, G. P., Vinod, D., **Dwarakish, G. S.** and Mahesha, A. (2025) “Multi-criteria decision-making and machine learning-based CMIP6 general circulation model ensemble for climate projections in a tropical river basin in India.” *Acta Geophys.* <https://doi.org/10.1007/s11600-025-01623-4>

Snikitha, S., Kumar, G. P. and **Dwarakish, G. S.** (2025) “A Comprehensive Review of Cutting-Edge Flood Modelling Approaches for Urban Flood Resilience Enhancement.” *Water Conserv Sci Eng* 10, 2. <https://doi.org/10.1007/s41101-024-00327-y>

2024 Jyoti Prasad Gupta, Sahu, M. K., **Dwarakish G. S.** and Shwetha, H. R. (2024). “State-of-the-Art Hydraulic Modelling: A Comprehensive Review of HEC-RAS for 1D and 2D Applications”, *Hydrological Science Journal*. <https://doi.org/10.1007/s40808-023-01704-7>

Sreejith, K. S., Kumar, G. P. and **Dwarakish, G. S.** (2024) “A Critical Review of the Soil Conservation Services - Curve Number Method in Hydrological Modelling.” *Wetlands*, 44, 117. <https://doi.org/10.1007/s13157-024-01873-w>

Kumar, G. P., Sreejith, K. S. and **Dwarakish, G. S.** (2024) “The Influence of Land Use and Land Cover Transitions on Hydrology in a Tropical River Basin of Southwest India.” *Water Conserv Sci Eng* 9, 64. <https://doi.org/10.1007/s41101-024-00301-8>

Dwarakish, G. S., Pai, B. J., and Rajeesh, R. (2024). “Urban Flood Hazard Zonation in Bengaluru Urban District, India.” *Journal of Landscape Ecology*, 17(1), 89-106.

Sahu, M. K., Shwetha, H. R. and **Dwarakish, G. S.** (2024) “Unravelling flood complexity: statistical and neural network approaches for Cauvery River Basin, India.” *Nat Hazards* <https://doi.org/10.1007/s11069-024-06803-x>

Dwarakish, G. S., Pai, J. B., & Jubina, C. K. (2024). “Influence of land use land cover change on runoff characteristics of Netravathi River catchment, Karnataka, India.” *Water Conservation and Management*, 8(1), 66. <https://doi.org/10.26480/wcm.01.2024.66.78>

2023 Makhdumi, W., Shwetha, H. R. and **Dwarakish, G. S.** (2023). “Soil erosion in diverse agroecological regions of India: a comprehensive review of USLE-based modelling.” *Environ. Monit. Assess.* 195, 1112. <https://doi.org/10.1007/s10661-023-11687-8>

Parvathy, M. M., Balu, R., and **Dwarakish, G. S.** (2023). “Time-series analysis of erosion issues on a human-intervened coast- A case study of the south-west coast of India.” *Ocean & Coastal Management*, 237, 106529. <https://doi.org/10.1016/j.ocecoaman.2023.106529>

Sahu, M. K., Shwetha, H. R., and **Dwarakish, G. S.** (2023). “State-of-the-art Hydrological Models and Application of the HEC-HMS Model: A Review.” *Model. Earth Syst. Environ.* <https://doi.org/10.1007/s40808-023-01704-7>

- 2022** Ketema, A., **Dwarakish, G. S.**, and Makhdumi, W. (2022). “Hydrological responses to land use/land cover change in Tikur Wuha Watershed in Southern Ethiopia.” *Sustain. Water Resour. Manag.*, 8, 134 <https://doi.org/10.1007/s40899-022-00716-y>
- Mulu, A., Jacob, P. and **Dwarakish, G. S.** (2022). “Hydraulic Performance of Pervious Concrete Based on Small Size Aggregates.” *Advances in Material Science and Engineering*, 1-12, <https://doi.org/10.1155/2022/2973255>
- Jose, D. M., and **Dwarakish, G. S.** (2022). “Frequency-intensity-distribution Bias Correction and Trend Analysis of High-Resolution CMIP6 Precipitation Data Over a Tropical River Basin.” *Theor Appl Climatol*, 149, 683–694.
<https://doi.org/10.1007/s00704-022-04078-5>
- Jose, D. M., Vincent, A. M., and **Dwarakish, G. S.** (2022). “Improving multiple model ensemble predictions of daily precipitation and temperature through machine learning techniques.” *Scientific Reports*, 12, 4678. <https://doi.org/10.1038/s41598-022-08786-w>
- Chowdhury, A., and **Dwarakish, G. S.** (2022). “Selection of Algorithm for Land Use Land Cover Classification and Change Detection.” *International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)*, 2, 1, doi: 10.48175/ijarsct-2610
- Jose, D. M., and **Dwarakish, G. S.** (2022). “Ranking of NEX-GDDP dataset at a basin scale: Case study of a tropical river basin on the South West coast of India.” *Arabian Journal of Geosciences*, 15, 120. <https://doi.org/10.1007/s12517-021-09289-0>
- Jose, D.M., and **Dwarakish, G. S.** (2022). “Bias Correction and Trend Analysis of Temperature Data by a High-Resolution CMIP6 Model over a Tropical River Basin.” *Asia-Pacific Journal of Atmospheric Sciences*, 58, 97-115. <https://doi.org/10.1007/s13143-021-00240-7>
- 2021** Ketema, A., and **Dwarakish, G. S.** (2021). “Hydro-meteorological impact assessment of climate change on Tikur Wuha watershed in Ethiopia.” *Sustainable Water Resources Management*, <https://doi.org/10.1007/s40899-021-00547-3>.
- Yadav, A., Dodamani, B. M., and **Dwarakish, G. S.** (2021). “Effect of disturbed river sediment supply on shoreline configuration: A case study.” *ISH Journal of Hydraulic Engineering*. <https://dx.doi.org/10.1080/09715010.2021.1878068>
- 2020** Jose, D. M., and **Dwarakish, G. S.** (2020). “Uncertainties in predicting impacts of climate change on hydrology in basin scale: a review.” *Arabian Journal of Geosciences*. 13 (1037). <https://doi.org/10.1007/s12517-020-06071-6>

Ketema, A., and **Dwarakish, G. S.** (2020). "Trend and variability of hydro-meteorological variables of Tikur Wuha watershed in Ethiopia." *Arabian Journal of Geoscience*, 13 (142), 1 - 20. <https://doi.org/10.1007/s12517-020-5139-9>.

Ketema, A., and **Dwarakish, G. S.** (2020). "Prioritization of sub-watersheds for conservation measures based on soil loss rate in Tikur Wuha watershed, Ethiopia." *Arabian Journal of Geosciences*, 13(19), 1-16. doi: 10.1007/s12517-020-06054-7.

- 2019** Ketema, A., and **Dwarakish, G. S.** (2019). "Water erosion assessment methods: a review." *ISH Journal of Hydraulic Engineering*.

doi: 10.1080/09715010.2019.1567398

Thejashree, G., Lokesh, K. N., and **Dwarakish, G. S.** (2019). "Use of Geoinformatics and Geophysical Applications in Landslide Studies: An Overview." *Disaster Advances*, 12(2), 37-49.

- 2018** Yadav, A., Dodamani, B. M., and **Dwarakish, G. S.** (2018). "Shoreline analysis using Landsat-8 satellite image." *ISH Journal of Hydraulic Engineering*. doi: 10.1080/09715010.2018.1556569

Shetty, D. K., and **Dwarakish, G. S.** (2018). "Measuring port performance and productivity." *ISH Journal of Hydraulic Engineering*.

<http://doi.org/10.1080/09715010.2018.1473812>

Shetty, D. K., and **Dwarakish, G. S.** (2018). "Performance appraisal of Indian major ports." *Journal of Indian Port Association*. 48,29-34.

- 2016** Mulu, A., and **Dwarakish, G. S.** (2016). "Hydrological effects of land use /land cover changes on stream flow at Gilgel Abay River Basin, Upper Blue Nile, Ethiopia." *International Journal of Earth Sciences and Engineering*. 9(5), 1881-1886.

Gopinath, D. I., and **Dwarakish, G. S.** (2016). "Real Time prediction of waves using neural networks trained by particle swarm optimization." *The International Journal of Ocean and Climate Systems*. 7(2), 70-79. doi: 10.1177/1759313116642896

Dwarakish, G. S., and Nithyapriya, B. (2016). "Application of Soft Computing Techniques in Coastal Study - A Review." *Journal of Ocean Engineering and Science*. 1(4), 247-255. doi: 10.1016/j.joes.2016.06.004

Thomas, J. T., Barve, K. H., Ranganath, L. R. And **Dwarakish, G. S.** (2016). "Assessment of Wave Energy Potential along South Maharashtra Coast." *International Journal of Earth Sciences and Engineering*. 9(3), 26-31.

2015 **Dwarakish, G. S.,** Raju, A. P., Kumar, S. R., and Murali, M. S. (2015). "Sediment Movement in and around Mulki - Pavanje River Mouth Inferred from Sediment Trend Analysis." *International Journal of Coastal and Ocean Research*, 1(1), 34-38.

Dwarakish, G. S., Gopinath, D. I., Kumar, P. S. R., and Nujuma, N. (2015). "Review on State of The Art on Applications of Soft Computing Methods in Coastal Engineering." *International Journal of Coastal and Ocean Research*, 1(1), 16-26.

Shashi, B. S., **Dwarakish, G. S.,** and Kiran, K. B. (2015). "GIS for Conservation of Sacred Groves of Kodagu District - A Traditional Culture." *International Journal of Earth Sciences and Engineering*, 8(2), 377-385.

Dwarakish, G. S., and Ganasri, B. P. (2015). "Impact of land use change on hydrological system: A review of current modeling approaches." *Cogent Geoscience*, 1(1), 1-18. doi:10.1080/23312041.2015.1115691

Gowthaman, R., Kumar, V. S., **Dwarakish, G. S.,** Shanas, P. R., Jena, B. K., and Singh, J. (2015). "Nearshore waves and longshore sediment transport along Rameshwaram Island off the east coast of India." *International Journal of Naval Architecture and Ocean Engineering*, 7 (6), 939-950.

Gopinath, D. I., and **Dwarakish, G. S.** (2015). "Wave Prediction Using Neural Networks at New Mangalore Port along West Coast of India." *Aquatic Procedia, International Conference on Water Resources, Coastal and Ocean Engineering (ICWRCOE ' 15)*, 4, 143-150. [Awarded **Best paper-ICWRCOE ' 15**].

Rajeesh, R., and **Dwarakish, G. S.** (2015). "Satellite Oceanography: A Review." *Aquatic Procedia, International Conference on Water Resources, Coastal and Ocean Engineering (ICWRCOE ' 15)*, 4, 165-172.

Dwarakish, G. S., and Salim, A. K. (2015). "Review on the role of Ports in the Development of a Nation." *Aquatic Procedia, International Conference on Water Resources, Coastal and Ocean Engineering (ICWRCOE ' 15)*, 4, 295-301.

Vikas, M., and **Dwarakish, G. S.** (2015). "Coastal Pollution: A Review." *Aquatic Procedia, International Conference on Water Resources, Coastal and Ocean Engineering (ICWRCOE ' 15)*, 4, 381-388.

Thomas, J. T., and **Dwarakish, G. S.** (2015). "Numerical wave modelling - A review." *Aquatic Procedia, International Conference on Water Resources, Coastal and Ocean Engineering (ICWRCOE ' 15)*, 4, 443-448.

Raju, A., **Dwarakish, G. S.**, and Reddy, V. D. (2015). "Automatic Shoreline Detection and Change Detection Analysis of Netravati-Gurpur Rivermouth using Histogram Equalization and Adaptive Thresholding Techniques." *Aquatic Procedia, International Conference on Water Resources, Coastal and Ocean Engineering (ICWRCOE ' 15)*, 4, 563-570.

Devi, G. K., Ganasri, B. P., and **Dwarakish, G. S.** (2015). "Applications of Remote Sensing In Satellite Oceanography: A Review." *Aquatic Procedia, International Conference on Water Resources, Coastal and Ocean Engineering (ICWRCOE ' 15)*, 4, 579-584.

Mulu, A., and **Dwarakish, G. S.** (2015). "Different Approach for Using Trap Efficiency for Estimation of Reservoir Sedimentation. An Overview." *Aquatic Procedia, International Conference on Water Resources, Coastal and Ocean Engineering (ICWRCOE ' 15)*, 4, 847-852.

Devi, G. K., Ganasri, B. P., and **Dwarakish, G. S.** (2015). "A Review on Hydrological Models." *Aquatic Procedia, International Conference on Water Resources, Coastal and Ocean Engineering (ICWRCOE ' 15)*, 4, 1001-1007.

Ganasri, B. P., and **Dwarakish, G. S.** (2015). "Study of Land Use/Land Cover Dynamics through Classification Algorithms for Harangi Catchment Area, Karnataka State, India." *Aquatic Procedia, International Conference on Water Resources, Coastal and Ocean Engineering (ICWRCOE ' 15)*, 4, 1413-1420. [Awarded Young Scientist and Best paper-ICWRCOE'15].

Jacob, P., and **Dwarakish, G. S.** (2015). "Temporal Analysis of Spatial Distribution of Built-Up Area in Peri-Urban Areas of Cochin, Kerala: Case-Study of Sub-Watershed in Periyar River." *Aquatic Procedia, International Conference on Water Resources, Coastal and Ocean Engineering (ICWRCOE ' 15)*, 4, 1445-1451.

Kumar, P. S. R., **Dwarakish, G. S.**, Nujuma, N., and Gopinath, D. I. (2015). "Long Term Study of Sediment Dynamics Along Mangalore Coast, West Coast of India Using Sediment Trend Analysis." *Aquatic Procedia, International Conference on Water Resources, Coastal and Ocean Engineering (ICWRCOE ' 15)*, 4, 1545-1552.

2014 Ganasri, B. P., and **Dwarakish, G. S.** (2014). "Analysis of Land Use/Land Cover distribution using Remote Sensing and GIS: A case study of Mulki river basin, Karnataka." *International Journal of Earth Sciences and Engineering*, 7(2), 420-426.

Raju, A., **Dwarakish, G. S.**, and Reddy, D. V. (2014). "A Comparative Analysis of Histogram Equalization based Contrast Enhancement Techniques for Detection of Shoreline using Satellite Images." *International Journal of Earth Sciences and Engineering*, 7(2), 522-529.

Rakshith, S., **Dwarakish, G. S.**, and Natesan, U. (2014). "Tidal-Level Forecasting Using Artificial Neural Networks along West Coast of India." *Japan Society of Civil Engineers (JSCE)*, 2, 176-187.

Shashi, S. B., **Dwarakish, G. S.**, and Kiran, K. B. (2014). "An open-source web-GIS application for prioritization and conservation of Sacred Groves of Kodagu district of Karnataka." *International Journal of Applied Sciences and Engineering Research*, 3(4), 763-775.

Gowthaman, R., **Dwarakish, G. S.**, and Sanilkumar, V. (2014). "Land use/Land cover changes around Rameshwaram Island, East Coast of India." *Indian Journal of Geo-Marine Sciences*, 43(7), 1183-1186.

2013 Rakshith, S. and **Dwarakish, G. S.** (2013). "Review on Applications on Neural Networks in Coastal Engineering." *International Journal of Artificial Intelligence Systems and Machine Learning*, 5 (7), 324-331.

Rakshith, S. and **Dwarakish, G. S.** (2013). "Prediction of Tides using Neural Networks at Karwar, West Coast of India." *Development and Applications of Oceanic Engineering*, 2(3), 77-85.

Gowthaman, R., Sanilkumar, V., **Dwarakish, G. S.**, Mohan, S. S., Singh, J., and Kumar, K. A. (2013). "Waves in Gulf of Mannar and Palk Bay around Dhanushkodi, Tamil Nadu, India." *Current Science*, 104(10), 1431-1435.

Ganasri, B. P., Raju, A., and **Dwarakish, G. S.** (2013). "Different Approaches for Land Use Land Cover Change Detection: A Review." *Research and Reviews: Journal of Engineering and Technology*, 2(3), 44-48.

Raju, A., **Dwarakish, G. S.**, and Reddy, D. V. (2013). "A Comparative Analysis of Histogram Equalization based Techniques for Contrast Enhancement and Brightness Preserving." *International Journal of Signal Processing, Image Processing and Pattern Recognition*, 6(5), 353-366.

Raju, A., **Dwarakish, G. S.**, and Reddy, D. V. (2013). "A state-of-the-art and comparative analysis of mean brightness preserving histogram equalization based contrast enhancement techniques." *International Journal of Remote Sensing and GIS*, 2(1), 41-51.

- 2012** Bhagyanagar, R., Kawal, B. M., **Dwarakish, G. S.**, and Shrihari S. (2012). “Land use/land cover change and urban expansion during 1983-2008 in the coastal area of Dakshina Kannada district, South India.” *Journal of Applied Remote Sensing*, 6, 63-1 - 17.
- Kamath, A. M., Varun, V. M., **Dwarakish, G. S.**, Kavyashree B., and Shwetha, H. R. (2012). “Soil loss estimation through MUSLE using Kirpich and Williams times of concentration using RS and GIS techniques: a case study.” *ISH Journal of Hydraulic Engineering*, 18(1), 1-10. doi: 10.1080/09715010.2011.646390.
- Rao, S., Hegde, A. V., **Dwarakish, G. S.**, Prashanth, J., and Reddy, D. V. (2012). “Seawalls: Performance and their failure analysis along Southern Karnataka, West Coast of India.” *International Journal of Earth Sciences and Engineering*, 2(1), 18-29.
- Nagaraj, G. And **Dwarakish, G. S.**, Dandagala, S., and Natesan, U. (2012). “Neural Network for Ocean Wave Forecasting.” *International Journal of Artificial Intelligent Systems and Machine Learning*, 4(3), 350-353.
- 2011** Nagaraj, G., Kumar, M. K. N., and **Dwarakish, G. S.** (2011). “Land Use and Land Cover Changes around the Rivermouths of Mangalore, West Coast of India.” *International Journal of Earth Science and Engineering*, 4(6), 167-172.
- Nagaraj, G., Karjagi, A Mohan Kumar and **Dwarakish G. S.** (2011). “Geomorphological behaviour of Sasihithlu, Mangalore Coast, West Coast of India.” *International Journal of Earth Science and Engineering*, 4(3), 467-476
- Nagaraj, G., and **Dwarakish G. S.** (2011). “Shoreline Changes along the Mangalore Coast, West Coast of India.” *International Journal of Earth Science and Engineering*, 4(6), 63-70.
- Kamath, A. M., Varun V. M., **Dwarakish, G. S.**, Kavyashree, B., and Shwetha, H. R. (2011). “Kirpich and Williams Times of Concentration in MUSLE: A Case Study.” *ISH Journal of Hydraulic Engineering*, 17(2), 1-13.

- 2010** Pai. J. B., Kumar, R., Sarkar, A., Hegde, A. V., and **Dwarakish, G. S.** (2010). “Determination of mixed layer depth from C-band synthetic aperture radar.” *International Journal of Imaging*, 3(10), 76-83.
- Dwarakish, G. S.**, Natesan, U., Shailesh, R. N, Chauhan, P., and Nagur C. R. C. (2010). “Analysis of IRS-P4 OCM Data for Estimating the Suspended Sediment Concentrations along the Mangalore Coast, India.” *International Journal of Imaging*, 3(10), 23-40.
- Rajagopal, B., Shrihari, B. S., and **Dwarakish, G. S.** (2010). “Global Water Quality Indices for River Gurgur, Karnataka State, India.” *International Journal of Earth Sciences and Engineering*, 3(6), 833-840.
- 2009** **Dwarakish, G. S.**, Vinay, S. A., Natesan, U., Asano, T., Kakinuma, T., Venkataramana, K., Pai, J. B., and Babita, M. K. (2009). “Coastal Vulnerability Assessment of the Future Sea-Level Rise in Udupi Coastal Zone of Karnataka State, West Coast of India.” *International Journal of Ocean & Coastal Management*, 52, 467-478.
- Shushma, S. B., Jacob, P., **Dwarakish, G. S.**, and Rahiman, A. K. U. (2009). “RS and GIS Applications in LU/LC Change Detection and Flood Zonation Studies for Coastal Zone of Dakshina Kannada District, India.” *International Journal of Earth Science and Engineering*, 2(6), 596-606.
- Devappa, V. M., Khageshan, P., Mise, S. R., and **Dwarakish, G. S.** (2009). “Meteorological Drought Events- A Case Study of Gulbarga District in Karnataka, India.” *International Journal of Earth Science and Engineering*, 2(2), 165-172.
- Pai, J. B., Kumar, R., Sarkar, A., Bhowmick, S. A., Hegde, A. V., and **Dwarakish, G. S.** (2009). “Wind and wave parameters of west coast of India using Synthetic aperture radar data.” *International Journal of Earth Science and Engineering*, 2(2), 125-134.
- Rahiman, A. K. U., **Dwarakish, G. S.**, and Kawal B. M. (2009). “Changes in Hydrology and Coastal Sedimentation by Dams - A Case Study.” *ISH Journal of Hydraulic Engineering*, 15(3), 51-64.
- 2008** Hegde, A. V., **Dwarakish, G. S.**, Asano, T., Kakinuma, T., Natesan, U., and Mahesh, K. (2008). “Land Use/Land Cover Change Detection in the Local Planning Area of Mangalore City - A Remote Sensing Approach.” *International Journal of Earth Science and Engineering*, 2, 80-85.

Kumar, T. A., Koliwad, S. P., and **Dwarakish, G. S.** (2008). “Effectiveness of Decision Tree Algorithm in Land Use/Land Cover Classification of NITK Surathkal Campus Using High-resolution Satellite Data.” *International Journal of Earth Science and Engineering*, 2, 56-65.

Rahiman, A. K. U., **Dwarakish, G. S.**, and Kawal B. M. (2008). “Changes in Land-Ocean Sediment Flux due to the Interference of Dams.” *International Journal of Earth Science and Engineering*, 1, 17-23.

Dwarakish, G. S., Vinay, S. A., Dinakar, S. M., Pai, J. P., Mahaganesh, K., and Natesan, U. (2008). “Integrated coastal zone management plan for Udupi coast using remote sensing, geographical information system and global position system.” *Journal of Applied Remote Sensing*, 2, 1-22. doi: 10.1117/1.2919101

2005 **Dwarakish, G. S.**, and Natesan, U. (2005). “Prediction of shoreline evolution by statistical analysis of beach samples and surveys at New Mangalore Port.” *Water and Energy International Journal*, 62(2), 37-43.

National Journals [13]

- 2015** Shashi, S. B., and **Dwarakish, G. S.** (2015). "GIS and Open Geosuite for sacred groves of Kodagu District." *I-manager 's Journal on Civil Engineering*, 5(3), 7-15.
- Dwarakish, G. S.,** Liju, K. V., Salim, A. M., Devi, G. K., Thomas, J., and Rajeesh, R. (2015). "Application of Artificial Neural Networks for the Estimation of Wave Parameters." *I-manager 's Journal on Computer Science*, 2(4), 30-37.
- 2013** **Dwarakish, G. S.,** and Murali, M. S. (2013). "Some Dredging Equipment Deep and Shallow Water Marine Applications - An Overview." *Association of Consulting Civil Engineers*, (1), 303- 316.
- 2012** Pavithra, N. R., Nagaraj, G., **Dwarakish, G. S.** and Natesan, U. (2012). "Longshore Sediment Transport Rate for Mangalore Coast." *NITK Research Bulletin*, 21(1), 13-18.
- 2010** **Dwarakish, G. S.,** Natesan, U., and Archana, V. (2010). "Quantitative Analysis of Morphometric Parameters Using Remote Sensing and GIS - A Case Study of Baindhur Hole and Yedamavina Hole Watersheds." *NITK Research Bulletin*, 19(2), 30-39.
- Kumar, M. K. N., Karjgi, A., Nagaraj, G., Kamath, A. M., Varun, V. M., **Dwarakish, G. S.,** and Natesan, U. (2010). "Effect of coastal landforms on beach morphology along Sasihithlu Coast, West coast of India." *NITK Research Bulletin*, 19(2), 21-29.
- 2009** Rahiman, A. K. U., **Dwarakish, G. S.,** and Kawal B. M. (2009). "Changes in Hydrology and Coastal Sedimentation by Dams- A Case Study." *ISH Journal of Hydraulic Engineering-Special Issue*, 15(3), 51-64. doi: 10.1080/09715010.2009.10514959
- 2008** Vineeth, V., **Dwarakish, G. S.,** Kiran, K. B., Shushama, S. B., Babita, M. K., and Angel, J. S. (2008). "Development of a Database and Sacred Grove Information System through RS, GPS and VB 6.0 for Kodagu District." *NITK Research Bulletin*, 17(1), 47-57.
- Angel, J. S., Babita, M. K., **Dwarakish, G. S.,** and Srinikethan, G. (2008). "Land Use/Land Cover Change Detection in the Mangalore Industrial area, Dakshina Kannada District, Karnataka." *NITK Research Bulletin*, 17(1), 34- 46.
- Kumar, T. A., Koliwad, S. P., and **Dwarakish, G. S.** (2008). "Classification of High Resolution Satellite Imagery: A Non- Non-Parametric Approach." *NITK Research Bulletin*, 17(1), 21-33.

- 2006** Pai, J. B., Hegde, A. V., and **Dwarakish, G. S.** (2006). “Microwave Remote Sensing - An Overview.” *NITK Research Bulletin*, 15(2), 30-35.
- 2004** Nyamathi, S. J., **Dwarakish, G. S.**, Hegde, A. V, Reju, V. And Babu K. S. (2004). “Integrated Coastal Zone Management - An Overview.” *NITK Research Bulletin*, 13(2), 24-30.
- 2002** **Dwarakish, G. S.**, and Natesan, U. (2002). “Coastal Structures Vs Shoreline Configuration.” *NITK Research Bulletin*, 11(3), 25-33.

International Conference/Workshop/Symposium Research Papers [129]

- 2025** Aniket Yadav., Aman, A L., and **Dwarakish, G. S.** (2025). "Built-up growth trajectory of Bangalore urban and Ahmedabad: A geospatial analysis." HYDRO International -2025, December 18-20, 2025, NIT Rourkela.
- Aswathi.K.M. and **Dwarakish, G. S.** (2025). "Seismic Reassessment Of Ageing Offshore Jacket Platforms: A Review Of Analytical Methodologie", HYDRO International -2025, December 18-20, 2025, NIT Rourkela.
- Navya S, Aman, A L., & **Dwarakish, G. S.** (2025). "A Comparative Review of Physical and Machine Learning Approaches for Flood Modelling and Hazard Mapping", HYDRO International -2025, December 18-20, 2025, NIT Rourkela.
- Sreerag, P. K. and **Dwarakish, G. S.** (2025). "A review on coastal erosion and management challenges: Lessons from India's changing shoreline", HYDRO International -2025, December 18-20, 2025, NIT Rourkela.
- R. Avinash., L. Kavya., P. Pavithra., K. M. Bhavana., T. Ankitha., and **Dwarakish, G. S.** (2025) "Assessing the Impact of Rainfall Variability and Ground Water Abstraction on Ground Water Levels Using Statistical Analysis", River Health Evaluation And Protection (RHEAP) 2025, December 29-30, 2025, NITK, Surathkal.
- Aman, A L., Vamshi C. and **Dwarakish, G. S.** (2025). "Impact of LULC change on wetlands of Kosi megafan and its socio-economic significance." WET-WAR 2025 International, December 29-31, 2025, NIT Patna.
- 2024** Krishnan, S., Parvathy M. M., Sahu, M. K., Shwetha, H. R., and **Dwarakish, G. S.** (2024). "Innovative Approaches to Cochin Tide Prediction: A Comparative Analysis of ANN and ANFIS Methods." HYDRO 2024 International, December 18-20, 2024, CWPRS Pune.
- Aman, A L., and **Dwarakish, G. S.** (2024). "Assessment of Course Change of Kosi River using Remote Sensing and GIS." HYDRO 2024 International, December 18-20, 2024, CWPRS Pune.
- Kumar, G.P. and **Dwarakish, G.S.** (2024). "Ranking of CMIP6 GCMs over the Kali River basin region of Karnataka, India." 4th International Conference on River Corridor Research and Management (RCRM 2024), March 07-09, 2024, IIT Guwahati.
- Sahu, M. K., Shwetha, H. R., and **Dwarakish, G. S.** (2024). "Unsteady Flow Analysis of Hemavati River, Tributary of Cauvery River using HEC-RAS." Roorkee Water Conclave, March 2-4, 2024, IIT, Roorkee.
- 2023** Aman, A. L., and **Dwarakish, G. S.** (2023). "Comparative Analysis of braiding intensity of Kosi River using Remote sensing and GIS." HYDRO 2023 International, December 21-23, 2023, NIT Warangal.
- Avinash, R., and **Dwarakish, G. S.** (2023). "Essential Climate Variables for Accurate Climate Change Impact Studies on Hydrological Regime: A Comprehensive Review." HYDRO 2023 International, December 21-23, 2023, NIT Warangal.
- Makhdumi, W., Shwetha, H. R., and **Dwarakish, G. S.** (2023). "Geospatial Techniques for Soil Erosion-Based Watershed Prioritisation: A Review." HYDRO 2023 International, December 21-23, 2023, NIT Warangal.

Sahu, M. K., Shwetha, H. R., and **Dwarakish, G. S.** (2023). "Streamflow Estimation for Harangi River Basin, Karnataka, India." HYDRO 2023 International, December 21-23, 2023, NIT Warangal.

Avinash, R., and **Dwarakish, G. S.** (2023). "Vulnerability of Water Resources to the Combined Impacts of Groundwater Extraction and Climate Change in Arid and Semi-Arid Regions: A Review." Fifth Indian National Groundwater Conference (INGWC-2023), December 5-6, 2023, IIT Hyderabad.

Aman, A. L., and **Dwarakish, G. S.** (2023). "Morphology and Measurement of Braided River: A Review." New Horizons in Civil Engineering (NHCE-2023), October 13-14, 2023 MIT Manipal.

Avinash, R., and **Dwarakish, G. S.** (2023). "Dynamic Feedbacks Shaping Hydrological Responses to Climate Change A Review." New Horizons in Civil Engineering (NHCE-2023), October 13-14, 2023 MIT Manipal.

Gupta, J. P., Kuiry, S. N., **Dwarakish, G. S.**, and Sahu, M. K. (2023). "Flood Inundation Mapping of Kollidam River Using HEC-RAS and GIS." New Horizons in Civil Engineering (NHCE-2023), October 13-14, 2023 MIT Manipal.

Krishnan, S., Azeez, A., and **Dwarakish, G. S.** (2023). "Preliminary design of a semi-submersible barge used for 3 launching small boats." New Horizons in Civil Engineering (NHCE-2023), October 13-14, 2023 MIT Manipal.

Kumar, G. P., and **Dwarakish, G. S.** (2023). "Identification of Trend for precipitation over Kali River basin." New Horizons in Civil Engineering (NHCE-2023), October 13-14, 2023 MIT Manipal.

Makhdumi, W., Sahu, M. K., Shwetha, H. R., and **Dwarakish, G. S.** (2023). "Prioritising of watershed based on land use land cover change and socio-economic indicators: A case study." New Horizons in Civil Engineering (NHCE-2023), October 13-14, 2023 MIT Manipal.

Parvathy, M. M., and **Dwarakish, G. S.** (2023). "Past present and future approaches in Coastal Protection - A case study on Kerala, south-west coast of India." New Horizons in Civil Engineering (NHCE-2023), October 13-14, 2023 MIT Manipal.

Sahu, M. K., Makhdumi, W., Shwetha, H. R., and **Dwarakish, G. S.** (2023). "Streamflow Estimation using Deep Learning Approach (CNN and LSTM) for Hemavathi River Basin, Karnataka, India." New Horizons in Civil Engineering (NHCE-2023), October 13-14, 2023 MIT Manipal. [Awarded Best Paper]

Sambrekar, G., **Dwarakish, G. S.**, Thiyaku, and Padole, M. (2023). "Tree Count and Geolocation Using Deep Learning: DeepForest Model Evaluation." New Horizons in Civil Engineering (NHCE-2023), October 13-14, 2023 MIT Manipal.

Sindam, S., Bidari, S., Sahu, M. K., and **Dwarakish, G. S.** (2023). "Estimation of Discharge for Design of Culvert." New Horizons in Civil Engineering (NHCE-2023), October 13-14, 2023 MIT Manipal.

Sahu, M. K., Shwetha, H. R., and **Dwarakish, G. S.** (2023). "Flood Inundation Mapping of Krishnaraja Nagar, Mysore Using Sentinel-1 Sar Images." International Conference on River Corridor Research and Management (RCRM) June 15-17. 2023. IIT Jammu.

Makhdumi, W., Shwetha, H. R., and **Dwarakish, G. S.** (2023). "Erosion and Accretion in the Netravathi River Stretch: Spatiotemporal Analysis Using Geospatial Approach."

International Conference on River Corridor Research and Management (RCRM), June 15-17, 2023. IIT Jammu.

Sahu, M. K., Shwetha, H. R., and **Dwarakish, G. S.** (2023). "Flood Modelling and Mapping of Harangi River, Tributary of Cauvery River." International Conference on Sustainable Infrastructure: Innovation, Opportunities and Challenges (SIIOC-2023), April 20-21, 2023, NITK, Surathkal.

Sreejith, K. S., Kumar, G. P., and **Dwarakish, G. S.** (2023). "Analysis of Land Use Land Cover change detection using remotely sensed data for Kali River Basin." International Conference on Sustainable Infrastructure: Innovation, Opportunities and Challenges (SIIOC-2023), April 20-21, 2023, NITK, Surathkal.

Makhdumi, W., Shwetha, H. R., and **Dwarakish, G. S.** (2023). "Comparative Analysis of Topographic Factor (LS Factor) Estimation Methods for Soil Erosion Risk Assessment in the Netravati Watershed, India." International Conference on Sustainable Infrastructure: Innovation, Opportunities and Challenges (SIIOC-2023), April 20-21, 2023, NITK, Surathkal. [Awarded Best Technical Paper]

2022 Sahu, M. K., Shwetha, H. R., and **Dwarakish, G. S.** (2022). "Flood Frequency Analysis of Upper Cauvery River." HYDRO 2022 International, December 22-24, 2022, PEC, Chandigarh.

Nagashree, G. E., Nema, M. K., Makhdumi, W., and **Dwarakish, G. S.** (2022). "Evaluation and Determination of Reliability on Advanced Neural Network Models for Prediction of Soil Moisture." HYDRO 2022 International, December 22-24, 2022, PEC, Chandigarh

Kumar, G. P., and **Dwarakish, G. S.** (2022). "A Review of Hydrologic Modeling in the Remote Sensing and GIS Environment." International Conference on Developments and Applications of Geomatics. (DEVA-2022), August 29-31, 2022, NIT Warangal.

Makhdumi, W., Jose, D. M., and **Dwarakish, G. S.** (2022). "Application of Geoinformatics for Land Use Land Cover Change Analysis in Netravathi Catchment, Karnataka." Emerging Perspectives in Biotechnology, V G Shivdare College of Arts, Commerce and Science, 6 and 7th January 2022.

2021 Sahu, M. K., Shwetha, H. R., and **Dwarakish, G. S.** (2021). "A Review: Contribution of HEC-HMS Model." HYDRO 2021 International, December 23-25, 2021, SVNIT Surat.

Nayana, N., Jose, D. M., and **Dwarakish, G. S.** (2021). "Analysis of Land Use Land Cover Changes in the Netravati Basin, Karnataka, India." HYDRO 2021 International, December 23-25, 2021, SVNIT Surat.

Jose, D. M., **Dwarakish, G. S.**, and John, S. (2021). "Improving Multiple Model Ensemble Predictions of Precipitation through Long Short-Term Memory Deep Learning Model." AGU Fall Meeting 2021, 13-17 December 2021
<https://agu.confex.com/agu/fm21/meetingapp.cgi/Paper/956937>

Jacob, P., and **Dwarakish, G. S.** (2021). "Hydrological performance of pervious concrete based on small size aggregates." International Conference on Contemporary Issues in Engineering and Technology. [CEIT-2021] GNA University.

Anjita N. A., Makhdumi, W. And **Dwarakish, G. S.** (2020). “Study of shoreline change along Kasaragod district in Kerala, West Coast of India.” HYDRO 2020 International, March 26-28, 2021, NIT Rourkela. **[Awarded Best Presentation]**

Nyamathi, S. S., and **Dwarakish, G. S.** (2020). “Flood Frequency Analysis Using Gumbel’s Distribution Method: A Case Study of Sita River, Karnataka, India.” HYDRO 2020 International, March 26-28, 2021, NIT Rourkela.

Aseem, V., and **Dwarakish, G. S.** (2020). “Study of sediment behaviour along the Mangalore coast through granulometric studies.” HYDRO 2020 International, March 26-28, 2021, NIT Rourkela.

Dayananda, S. K, Gurudev, V. And **Dwarakish, G. S.** (2020). “Factors affecting the Vessel Turnaround time in a Seaport.” HYDRO 2020 International, March 26-28, 2021, NIT Rourkela.

2020 Jose, D. M., and **Dwarakish, G. S.** (2020). “Impacts of LULC and climate change on streamflow in Netravati basin, Karnataka, India.” EGU General Assembly 2020, Online, 4–8 May 2020, EGU2020-541, <https://doi.org/10.5194/egusphere-egu2020-541>

2019 Makhdumi, W., and **Dwarakish, G. S.** (2019). “Prioritisation of Watersheds using TOPSIS and VIKOR Method.” Seventh International Conference of Remote Sensing and Geoinformation of Environment (RSCy2019) held in Paphos, Cyprus from 18th to 21st March 2019. doi: 10.1117/12.2532024

Jose, D. M., and **Dwarakish, G. S.** (2019). “Hydrological modelling to study the impacts of LULC and climate change on streamflow in Netravathi basin, Karnataka, India.” HYDRO 2019 International, December 18-20, 2019, Osmania University, Hyderabad.

Jose, D. M., and **Dwarakish, G. S.** (2019). “Temporal analysis and prediction of the influence of land use land cover and climate change on streamflow of Netravathi Basin, India.” Land Use/Cover Changes, Environment and Emissions in South/Southeast Asia – NASA SARI International Regional Science Meeting, 22nd – 24th July 2019, DoubleTree by Hilton, Johor Bahru, Malaysia

Ketema, A., and **Dwarakish, G. S.** (2019). “Rainfall variability in Tikur Wuha Watershed, Ethiopia.” HYDRO 2019 International, December 18-20, 2019, Osmania University, Hyderabad.

Yadav, A., Makhdumi, W., Dodamani, B. M., and **Dwarakish, G. S.** (2019). “Estuary Change Analysis Using Landsat Satellite Imagery: A Case Study of Kali River Estuary, West Coast of India.” HYDRO 2019 International, December 18-20, 2019, Osmania University, Hyderabad.

Thejashree, G., Lokesh, K. N., and **Dwarakish, G. S.** (2019). “The Influence of Land Use Land Cover Changes on Landslides in Karwar, Uttara Kannada District of Karnataka state, India.” Proceedings of 8th International Engineering Symposium – IES 2019, Kumamoto University, Japan, 13th-15th March 2019

2018 Ketema, A., and **Dwarakish, G. S.** (2018). “Climate change impacts on water resources in Ethiopia” Hydro 2018 International, December 19-21, 2018, NIT Patna, II-89

Jose, D. M., Makhdumi, W., and **Dwarakish, G. S.** (2018). "Hydrological modelling to study the impacts of climate change and LULC change at basin scale: A review." HYDRO 2018 International, December 19-21, 2018, NIT Patna.

Pruthvin C. Shetty and **Dwarakish, G. S.** (2018). "Evaluating Land Use/Land Cover change detection of Udupi City: A step towards future smart city." HYDRO 2018 International, December 19-21, 2018, NIT Patna.

Thejashree G, Lokesh K and **Dwarakish, G. S.** (2018). "Analysis of relationship between landslides and rainfall in Karwar, Uttara Kannada District, Karnataka, India." HYDRO 2018 International, December 19-21, 2018, NIT Patna.

Jacob, P., and **Dwarakish, G. S.** (2018). "Pervious Concrete as an effective urban flood management tool." HYDRO 2018 International, December 19-21, 2018, NIT Patna.

Yadav, A., Dodamani, B. M., and **Dwarakish, G. S.** (2018). "Shoreline change threat to coastal zone: A case study of Karwar coast." The 2nd International Conference on Climate Change (ICCC 2018), Sri Lanka Feb 18-19 2018.

Yadav, A., Dodamani, B. M. And **Dwarakish, G. S.** (2018). "Study of Dynamic Changes through Geoinformatics Technique: A case study of Karwar Coast, West Coast of India." Springer Proceeding, 4th International Conference in Ocean Engineering (ICOE 2018), February 18-21, 2018, IIT Madras, Chennai, India.

2017 Thejashree, G., Lokesh, K. N., and **Dwarakish, G. S.** (2017). "Investigations on Landslide Prone Areas Using RS, GIS and Geophysical Techniques: A review" Proceedings Volume of International Conference, ISBN: 978-93-5267-355-1, [ICGCSC-2017], MITE, Moodbidri, INDIA, 17th – 18th March, 2017, pp 213-218.

Gopika, M., and **Dwarakish, G. S.** (2017). "A Review of Air Pollution Monitoring Using Remote Sensing" Proceedings Volume of International Conference, ISBN: 978-93-5267-355-1, [ICGCSC-2017], MITE, Moodbidri, India, 17th – 18th March, 2017, pp 47-50.

Yadav, A., Dodamani, B. M., and **Dwarakish, G. S.** (2017). "Shoreline Analysis Using Landsat- 8 Satellite Image." 22nd International Conference On Hydraulics, Water Resources and Coastal Engineering (HYDRO-2016 International), L. D. College of Engineering Ahmedabad, India. (Selected for ISH Journal)

Yadav, A., Dodamani, B. M., and **Dwarakish, G. S.** (2017). "Shoreline Change: A Review." Proceedings Volume of International Conference, ISBN: 978-93-5267-355-1, [ICGCSC-2017], MITE, Moodbidri, INDIA, 17th – 18th March, 2017, pp 72-77.

Pruthvin C. Shetty and **Dwarakish, G. S.** (2017). "Concept of Smart Cities in India: A Review." Proceedings Volume of International Conference, ISBN: 978-93-5267-355-1, [ICGCSC-2017], MITE, Moodbidri, INDIA, 17th – 18th March, 2017, pp 151-155.

Vineet Kumar Porwal and **Dwarakish, G. S.** (2017). "Trend Analysis of Spectral Curve of Red Loamy Suspended Sediment Using Spectro Radiometer." Proceedings Volume of International Conference, ISBN: 978-93-5267-355-1, [ICGCSC-2017], MITE, Moodbidri, INDIA, 17th – 18th March, 2017, pp 161-164.

Barane, P. K., and **Dwarakish, G. S.** (2017). "Development of a Tool for Land Surface Temperature Retrieval from Landsat Data Products." Proceedings Volume of International Conference, ISBN: 978-93-5267-355-1, [ICGCSC-2017], MITE, Moodbidri, INDIA, 17th – 18th March, 2017, pp 195-199.

Sharadkumar, S., and **Dwarakish, G. S.** (2017). “A Review on Offshore Wind Energy System.” Proceedings Volume of International Conference, ISBN: 978-93-5267-355-1, [ICGCSC-2017], MITE, Moodbidri, INDIA, 17th – 18th March, 2017, pp 204-207.

Jubina, C. K., and **Dwarakish, G. S.** (2017). “Study of Runoff Characteristics of Watershed Using Advanced Geospatial Hydrologic Modeling Tools.” Proceedings Volume of International Conference, ISBN: 978-93-5267-355-1, [ICGCSC-2017], MITE, Moodbidri, INDIA, 17th – 18th March, 2017, pp 248-251.

Dayanandashetty, K., and **Dwarakish, G. S.** (2017). “Optimization of vessel Turnaround time at a Seaport.” Proceedings Volume of International Conference, ISBN: 978-93-5267-355-1, [ICGCSC-2017], MITE, Moodbidri, INDIA, 17th – 18th March, 2017, pp 263-267.

Naveenkumar P, Anusha H. Lakavalli, Mary Manisha M S and **Dwarakish, G. S.** (2017). “Near-shore Wave Models: A Review.” Proceedings Volume of International Conference, ISBN: 978-93-5267-355-1, [ICGCSC-2017], MITE, Moodbidri, INDIA, 17th – 18th March, 2017, pp 357-364.

Prem Kumar, **Dwarakish, G. S.**, and Ram Kumar (2017). “Hydrological Aspects of Nagappatinam district using Remote Sensing and GIS.” Proceedings Volume of International Conference, ISBN: 978-93-5267-355-1, [ICGCSC-2017], MITE, Moodbidri, INDIA, 17th – 18th March, 2017, pp 365-371.

Mary Manisha M. S., Naveenkumar, P., Anusha H. Lakavalli, and **Dwarakish, G. S.** (2017). “Coastal Vulnerability Assessment- A Review.” Proceedings Volume of International Conference, ISBN: 978-93-5267-355-1, [ICGCSC-2017], MITE, Moodbidri, INDIA, 17th – 18th March, 2017, pp 372-376.

Anusha H. Lakavalli, Mary Manisha M. S., Naveenkumar, P. And **Dwarakish, G. S.** (2017). “Sea Level Rise: Progress in the Past and Challenges in the Future.” Proceedings Volume of International Conference, ISBN: 978-93-5267-355-1, [ICGCSC-2017], MITE, Moodbidri, INDIA, 17th – 18th March, 2017, pp 377-382.

2016 Dayanandashetty, K., and **Dwarakish, G. S.** (2016). “Measuring Port Performance and Productivity.” HYDRO 2016 International, December 8-10, 2016, CWPRS, Pune, India.

Yadav, A., Dodamani, B. M., and **Dwarakish, G. S.** (2016). “Review on Estimation of Longshore Sediment Transport Rate.” HYDRO 2016 International, December 8-10, 2016, CWPRS, Pune, India.

Dwarakish, G. S., Gayathri K. Devi, and Ganasri B. P. (2016). “Prediction of Changes in Land Use Land Cover Dynamics in Harangi Catchment, Karnataka, India.” HYDRO 2016 International, December 8-10, 2016, CWPRS, Pune, India.

Nithyapriya, B., and **Dwarakish, G. S.** (2016). “Coastal Inundation Study Using Remote Sensing.” 10th International Symposium on Lowland Technology September 15-17, 2016 at Mangalore, India. Pp. 425-429.

Sarvade, P. G., Pai, J. P., **Dwarakish, G. S.**, Rahul Abhishek, Rahul Sodhani, and Sanket Samal (2016). “Textural Characterization of Coastal Sediments Along Udupi Coast, West Coast of India.” 10th International Symposium on Lowland Technology September 15-17, 2016 at Mangalore, India. Pp. 446-452.

Ganasri, P. B., Sajad Ahmad Bhat, Vivek Bhadouria, Vivek Kumar, Raju Meena, **Dwarakish, G. S.**, and D V Reddy, D. V. (2016). “Satellite-based Evapotranspiration

estimation based on Land Surface Temperature in Netravati river basin, Karnataka State, India” Proceedings of International Perspective on Water Resources & the Environment conference (IPWE 2016), Colombo, Sri Lanka, 4th - 6th January 2016.

Thomas. T, Barveb, K. H., Ranganath, L. R. And **Dwarakish, G. S.** (2016). “Assessment of Wave Energy Potential Along South Maharastra Coast.” 3rd International Conference on Earth Sciences and Engineering (ICEE), 17-18 June, 2016, Jointly Organized by Nehru Institue of Technology, Coimbatore, India and Cafet-Innova Technical Society, Hyderabad, India.

- 2015** Ganasri, B. P., and **Dwarakish, G. S.** (2015). “Calibration of semi-distributed hydrologic model in Netravati river basin, Karnataka State, India.” Proceedings of 20th International Conference on Hydraulics, Water Resources and River Engineering, Roorkee, India, December 17-19, 2015, pp. 61-62.

Sushma Shashi B., and **Dwarakish, G. S.** (2015). “GIS and Open Geosuite for secred groves of Kodagu District.” Proceedings of i-manager’ s International Conference on Engineering and Technologies (IICET 2015), Thiruvananthapuram, India, April 10-11, 2015, pp. 94-100.

Liju K. V., **Dwarakish, G. S.**, Salim, A. M., Thomas, T., Devi. G. K., and Rajesh, R. (2015), Application of Artificial Neural Networks for the Estimation of Wave Parameters.” Proceedings of i-manager’ s International Conference on Engineering and Technologies (IICET 2015), Thiruvananthapuram, India, April 10-11, 2015, pp. 148-153.

Ganasri, B. P., and **Dwarakish, G. S.** (2015). “Assessment of Spatial Variability of Soil Physical and Hydraulic Properties in Netravati Catchment, Karnataka State, India.” Proceedings of International Conference on Technologies for Sustainable Development (ICTSD-2015), Mumbai, India, Feb. 04 - 06, 2015.

Jacob, P., **Dwarakish, G. S.**, Bhaskar Bhushan, Sudhakar S. (2015). “Ground Water Quality Assessment Around Effluent Fed Bellandur Lake.” HYDRO 2015 International, December 17-19, IIT Roorkee, India.

Salim, A. M., **Dwarakish, G. S.**, Liju, K. V., Thomas, T., Devi. G. K., and Rajesh, R. (2015). “Weekly Prediction of tides using Neural networks.” 8th International conference on Asian and Pecific coasts (APAC 2015), IIT Madras, India, 7-10 September 2015, pp 678-682.

- 2014** Raju, A, **Dwarakish, G. S.**, and Reddy, D. V. (2014), Histogram Equalization Based Mean Self - Adaptive Plateau Histogram Equalization for Brightness Preserving and Contrast Enhancement.” 3rd World Conference on Applied Sciences, Engineering and Technology, Nepal, India, 27-29 September 2014.

Ganasri B. P, Raju A, and **Dwarakish, G. S.** (2014). “Relocation of Waste Bins: A GIS Approach.” 3rd World Conference on Applied Sciences, Engineering and Technology, Nepal, India, 27-29 September 2014.

Ganasri B. P., Arun, A. M., Praveen Raj, Sriram, S., and **Dwarakish, G. S.** (2014). “Comparison of Classification Techniques Through Studying Land Use and Land Cover Change Pattern of Harangi Catchment, Karnataka State, India.” 19th IAHR-APD 2014 Conference, Water Resources University, Hanoi, Vietnam, 21-24 September, 2014.

Raju. A, Ganasri B. P., **Dwarakish, G. S.**, and Reddy, D. V. (2014). “Automatic Shoreline Detection and Change Detection Analysis of Netravati-Gurpur Rivermouth using Histogram Equalization and Adaptive Thresholding Techniques.” 19th IAHR-APD 2014 Conference, Water Resources University, Hanoi, Vietnam, 21-24 September, 2014.

Gopinath, D. I., P., Kumar, S. R., Nazimudhin, N., and **Dwarakish, G. S.** (2014). “Wave Prediction at Karwar using Neural Networks and Particle Swarm Optimization.” HYDRO 2014 International, December 18-20, 2014, MNIT, Bhopal, India.

Raju. A, **Dwarakish, G. S.**, Vijaya Laxmi, and Jayappa, K. S. (2014). “Shoreline Change Analysis Of Dakshina Kannada Coast Along West Coast Of India Using Remotely Sensed Data.” HYDRO 2014 International, December 18-20, 2014, MNIT, Bhopal, India.

Arega Mulu, and **Dwarakish, G. S.** (2014). “Different Approaches For Reservoir Sedimentation Modeling By Using TABS-MD Model A Review.” HYDRO 2014 International, December 18-20, 2014, MNIT, Bhopal, India.

Ganasri, B. P., Neeraj Rajasekar, Tasneem Ashraf, Suruchi Sah, Raju, A., and **Dwarakish, G. S.** (2014). “Event Based Stream Flow Estimation and Validation Using Semi-Distributed Hydrological Model in Netravati River Basin, Karnataka State.” HYDRO 2014 International, December 18-20, 2014, MNIT, Bhopal, India.

Raju. A, **Dwarakish, G. S.**, and Reddy, D.V. (2014). “Satellite Image Contrast Enhancement Algorithm based on Plateau Histogram Equalization.” IEEE Region TENSYP 2014, Kuala Lumpur, Malaysia, 14-16 April, 2014.

Parvathy, K. G., Gopinath, D. I., and **Dwarakish, G. S.** (2014). “Sediment Dynamics in New Mangalore Port—An Overview.” International Symposium on Integrated Water Resources Management (IWRM–2014), ISBN:978-81-8424-906-4, CWRDM, Kozhikode, Kerala, India, February 19–21, 2014, pp 520-525.

2013 Ganasri B. P., Raju, A., and **Dwarakish, G. S.** (2013). “Different approaches for land use land cover change detection: A review.” International conference & exhibition on Water, wastewater & Isotope hydrology, UVCE, CGWB Bangalore, CWRDM, Kerala.

Narayana, S. K., Pai, J. B., **Dwarakish, G. S.**, and Nayak, P. (2013), A Study on Changes in Land Use/Land Covers in M.I.T., Manipal Campus, Karnataka, India, using Remote Sensing and GIS.” Minamata International Symposium on Environment And Energy Technology (MISSION 2013), Kumamoto University, Kumamoto, Japan, 4-6 December, 2013, Pp. E2-1 – E2-4.

Pai, J. B., Kumar, R., **Dwarakish, G. S.**, and Hegde A. V. (2013). “Wind and Wave Parameters of Indian region Using SAR Data.” Minamata International Symposium on Environment And Energy Technology (MISSION 2013), Kumamoto University, Kumamoto, Japan, 4-6 December, 2013.

Gowthaman, R., **Dwarakish, G. S.**, Kumar, V. S. and Rajasekaran, C. (2013). “Shoreline Changes Off Rameshwaram Island.” HYDRO 2013 International, December 4-6, 2013, IIT Madras, Chennai.

Ganasri B. P., Sabariman, and **Dwarakish, G. S.** (2013). "Land use/ Land cover changes along D. K. Coast, West coast of India using Remote sensing and GIS." 8th International congress on climate change, Territorial classification and socio-economic crisis, organised by Bharathidasan University, Tamilnadu and National Polytechnic Institute, Bharathidasan University, Tamilnadu, 23rd-27th April 2013, pp 178. [**Got the Best Young Scientist award for the poster presentation**].

Raju. A, **Dwarakish, G. S.**, and Reddy, D. V. (2013). "Histogram Equalization based Mean Brightness Preserving and Contrast Enhancement Techniques-A Review." 3rd International Engineering Symposium –IES-2013, Kumamoto University, Japan, 4th – 6th March 2013, pp. E1-7-1-E1-7-7.

Raju, A., **Dwarakish, G. S.**, and Reddy, D. V. (2013). "Modified Self _ Adaptive Plateau Histogram Equalization with Mean Threshold for Brightness Preserving and Contrast Enhancement." Proceedings of the IEEE International Conference on Image Information Processing (ICIIP), Jaypee University of Information Technology Waknaghat, Shimla, Himachal Pradesh, India, pp 208-218.

2011 Nagaraj, G., Kumar, M. K. N., and **Dwarakish, G. S.** (2011). "Land Use and Land Cover Changes around the River mouths of Mangalore, West Coast of India." International Conference on Advance in Civil Engineering [ACE-2011], Vijayawada, India, 21st -23rd October 2011. Pp. 350-353.

2010 Nagaraj, G., Karjigi, A. K. N., Kumar, M., **Dwarakish, G. S.**, and Natesan, U. (2010). "Sediment Characteristics of Dakshina Kannada Coast, West Coast of India." International Conference on Earth Sciences and Engineering [ICEE-2010], Hyderabad, India, 21st August 2010, pp. 57-62.

Karjigi, A. K. N., Kumar, M., Nagaraj, G., Arun, K. M., Varun, V. M., **Dwarakish, G. S.**, and Natesan, U. (2010). "Beach Morphological Characteristics and Coastal Processes along Dakshina Kannada Coast, West Coast of India." Ninth International Conference on Hydro-Science and Engineering [ICHE-2010], IIT Madras, Chennai, India, 2-5th August 2010, pp. 1532-1541.

Dwarakish, G. S., Natesan, U., Arun, K. M., and Varun V. M. (2010). "Coastal Sediment Dynamics around Netravathi-Gurpur River Mouth through Integrated Approach." Ninth International Conference on Hydro Science and Engineering [ICHE-2010], IIT Madras, Chennai, India, 2-5th August 2010, pp. 1466-1473.

2009 **Dwarakish, G. S.**, and Natesan, U. (2009). "Integrated Coastal Zone Management Plan for Undivided Dakshina Kannada Coast using Remote Sensing, Geographical Information Sysytem and Global Positioning Sysytem." ICOE'09, IIT Madras, 1-5th February 2009, pp.1106-1117.

Dwarakish, G. S., Rahiman, A. K. U., and Natesan, U. (2009). "Changes in River Hydrology and Coastal Sedimentation by Dams in Periyar River Basin, Kerala, India." Proceedings of the 4th IASME/WSEAS Int. Conference on Water Resources, Hydraulics & Hydrology (WHH'09), pp. 84-89.

Rahiman, A. K. U., and **Dwarakish, G. S.** (2009). "Interference of Dams in Periyar River Basin, Kerala, on Coastal Sedimentation." ICOE'09, IIT Madras, 1-5th February 2009, pp.755-765.

Arun Kamath M., Varun, V. M, **Dwarakish, G. S.**, and Jagadeesha P. B. (2009). "Multi-Temporal LU/LC Classification by Hybrid Approach." ISRS Symposium 2009.

- 2008** Kumar, A., Koliwad, S. P., **Dwarakish, G. S.**, and Patil, C. G. (2008). "Non-parametric classifier: An integrated approach with texture for land-cover classification of pan-sharpened LISS-IV imagery." Indian National Cartographic Association (INCA)-XXVIII International Congress on Collaborative Mapping & Space Technologies-2008, November 4-6, Ahmedabad, Gujarat, India.

Ashok Kumar, Shiva Prakash Koliwad, and **Dwarakish, G. S.** (2008). "Effectiveness of decision tree algorithm in classification of semi urban land cover classes at 2.5m resolution satellite imagery." 3rd International Conference on Advanced Computing & Communication Technologies (CACCT)-2008, November 8-9, APIIT, Panipat, Haryana, India, pp. 680-684.

Ashok Kumar, Shiva Prakash Koliwad, and **Dwarakish, G. S.** (2008). "Decision tree: A non-parametric approach for classification of high-resolution remote sensing data." International Conference on Content Based Image Retrieval (ICCBIR)-2008, July 16-18, PESIT, Bangalore, India, pp. 186-192.

Dwarakish, G. S., Angel, J. S., Srinikethan, G., and Natesan, U. (2008). "Terrestrial chemical spill information system through remote sensing, GIS and V.B. 6.0." Proc. SPIE – The International Society for Optical Engineering, 2008,7150, pp. 71500Y.

Rahiman, A. K. U., **Dwarakish, G. S.**, Babita, M. K. (2008). "Changes in Hydrology and Coastal Sedimentation by Dams – A Case Study." HYDRO 2008 International.

- 2007** Rajagopal, B., Shrihari, S., and **Dwarakish, G. S.** (2007). "Study of water quality at Pilikula lake, Mangalore." International Congress on Environmental Research (ICER-07). Geethanjali PG College, Bhopal, December 28-30, 2007.

Rajagopal, B., Shrihari, S. and **Dwarakish, G. S.** (2007). "Near-shore sea water quality at Surathkal beach." International Conference on Environmental Management: Scenario and Strategies to 2020 (EMASS-2020), Ujjain Engineering College, Ujjain(M.P) December 26-27 2007.

Dwarakish, G. S., Vinay, S. A., Shetty, D. M., Pai, J. B., Mahaganesha, K. and Natesan, U. (2007). "Integrated Coastal Zone Management Plan and Coastal Zone Information System for Udupi Coast, West Coast of India." SPIE International Conference, Florence, Italy, 17-21, September 2007. doi: 10.1117/12.737528

- 2006** Pai, J. B., Rajkumar, Sarkar, A., Hegde, A. V., and **Dwarakish, G. S.** (2006). "Comparative study of ocean wave spectrum using ENVISAT SAR data and wave rider buoy data." Proc. SPIE – 2006, Remote Sensing of the Marine Environment, Nov'06 Goa, India, published online, doi. No. 10.1117/12.694218.

Dwarakish, G. S., Shetty, D., Rajaram, Jagadesh, P. B., and Natesan, U. (2006). "Integrated Coastal Zone Management system for Mangalore Coast west coast of India." Proc. SPIE – 2006, Remote Sensing of the Marine Environment, November 2006, Goa, India published online. doi No. 10.1117/ 12.698179. 7.

Rajagopal, B., Srihari, S. and **Dwarakish, G. S.** (2006). "Spatial and spatial data for natural disasters migration and management in India: An overview." Second International Symposium on Geo-information for disaster management, September 2006, Goa, India, pp:86- 87.

Raja, G. B., Srihari, S. and **Dwarakish, G. S.** (2006). "Spatial and Aspatial Data for Natural Disaster Mitigation and Management in India: An Overview." Second International Symposium on Geo-Information for Disaster Management, Goa, India.

- 2004** Nyamati, S. J., Hegde, A. V., **Dwarakish, G. S.,** and Pai, J. B. (2004). "Delineation and monitoring of coastal wetlands through high resolution remotely sensed data and GIS." International Conference on Conservation, Restoration and Management of Lakes and Coastal Wetlands, Hotel Swosti Plaza, Bhubaneswar, Orissa, pp 112.

Dwarakish, G. S., Mayya, S. G., Suresh Nayak, Pai, J. B., Deepthi, V. G., Teena, D., Sowmya. J. R., and Smitha, R. (2004). "Harbour Area Information System for New Mangalore Port through RS and GIS." Proc. SPIE Fourth International Asia-Pacific Environmental Remote sensing Symposium on Remote sensing of the Atmosphere, Ocean, Environment, and Space, Waikiki Beach Marriot Resort, Honolulu, Hawaii USA, 8 – 11 November 2004.

Dwarakish, G. S., Mayya, S. G., and Suresh Nayak (2004), "Harbour Area Information System (HIS) for New Mangalore Port Using Geographical Information System." VI Convention of MSI and INSEM 28 to 30th January 2004, Kuvempu University, Shimoga, India.

Dwarakish, G. S., Pai, J. B., Nyamati S. J. And Hegde, A. V. (2004). "Coastal Wetlands as an input to integrated coastal zone management plan for Karnataka – A case study." International Conference on Conservation Restoration and Management of Lakes and Coastal Wetlands, Hotel Swosti Plaza, Bhubaneswar, Orissa pp 112.

- 2003** Sankar, B. K., **Dwarakish, G. S.,** and Jaya Kumar S. (2003). "Modeling of Sediment Transport Along Mangalore Coast using MIKE 21." International Conference on Coastal Ocean Technology (COT'03), NIOT, Chennai, India, December 2003, pp . 301-312.

- 2002** **Dwarakish, G. S.,** Natesan, U., Reddy, D. V., Nayak, S. R., and Chauhan, P. (2002). "Sediment transport along the Mangalore coast Using OCM data." International Seminar on Sedimentation and Tectonics in Space and Time, Karnataka University, Dharwad, 2002, 55-56. 17

- 2001** **Dwarakish, G. S.,** Natesan, U., Santhakumar, A. R., and Natarajan, T. (2001). "Effect of New Mangalore Port Breakwaters on Shoreline and Bathymetry: An Integrated Approach." International Conference on Remote Sensing and GIS/GPS, Hyderabad, February 2001, pp.659-658.

- 1998** **Dwarakish, G. S.,** Dattatri J., Rao N. B. S., and Rao, S. (1998). “Application of Remote Sensing to Study the Dynamic Changes of Natravathi- Gurpur Rivermouth, D.K.Coast, Karnataka.” International Symposium on Information Technology in Oceanography (ITO-98), Goa, October 1998, pp.72.
- 1997** **Dwarakish, G. S.,** Dattatri J., and Anisha M. (1997). “Remote Sensing Applications for Rivermouth Changes of Dakshina Kannada District, Karnataka.” Proc.International Conference on Remote Sensing and GIS (ICORG’97), Hyderabad, July 1997, pp.473-483.

National Conference/Workshop/Symposium Research Papers [81]

- 2020** Anjita, N. A., Shrinavas, K., Vedavyas, R. .C, Pradeep, M., and **Dwarakish, G. S.** (2020). “Shoreline Changes and Spit Morphology Analysis Along Talapdy-Mulki Coast Stretch in Dakshin Kannada District, Karnataka.” National Conference on Civil Engineering, NITK Surathkal, 30-31 Jan 2020.
- Nyamthi, S., and **Dwarakish, G. S.** (2020). “Development of Intensity Duration Frequency Curves for Udupi District in Karnataka, India.” National Conference on Civil Engineering, NITK Surathkal, 30-31 Jan 2020.
- 2016** **Dwarakish, G. S.** (2016). “Watershed Development and Management through Remote Sensing, GIS and GPS.” National Conference (ATCESD-2016), MITE, Moodabidri, February 2016, pp. 17-25.
- Dwarakish, G. S.,** Tilak, L. N., Kumar, U., and Nithyapriya, B. (2016). “Flood Risk Assessment: A Review.” National Conference on Advanced Trends in Civil Engineering & Sustainable Development, Mangalore Institute of Technology & Engineering, Moodbidri, Karnataka, India, 26th & 27th February, 2016, pp. 71-77.
- Dwarakish, G. S.,** Uday Kumar, Tilak L. N, C. M. Bhatt, Srinivasa Rao G., and Abhinav Shukla (2016). “Applications of Remote Sensing and GIS for Flood Alert Using A Case Study of Adhwara Basin.” National Conference on Advanced Trends in Civil Engineering & Sustainable Development, Mangalore Institute of Technology & Engineering, Moodbidri, Karnataka, India, 26th & 27th February 2016, pp. 78- 82.
- L. Revanth Reddy, Shabnum Suhura and **Dwarakish, G. S.** (2016). “A Review on Hard Options to Prevent Beach Erosion: Do They Really Work?.” National Conference on Advanced Trends in Civil Engineering & Sustainable Development, Mangalore Institute of Technology & Engineering, Moodbidri, Karnataka, India, 26th & 27th February 2016, pp. 109- 115.
- 2015** Ganasri, B. P., and **Dwarakish, G. S.** (2015). “Assessing the Dynamic Changes in Land Use and Land Cover and Hydrological Processes in Netravati River Basin, Karnataka, India.” Proceedings of 8th Annual KSTA Conference on Science and Technology for GenNext URBAN SPACE, Bengaluru, India, 5th and 6th November 2015, pp. 69
- Shabnum Suhura Shamsudeen, L Revanth Reddy and **Dwarakish, G. S.** (2015). “Coastal Erosion Mitigation Measures-State of the Art. Proceedings of 8th Annual KSTA Conference

on Science and Technology for GenNext URBAN SPACE, Bengaluru, India, 5th and 6th November 2015, pp. 71

Dwarakish, G. S. (2015). "Study of Mulky-Pavanje River Mouth Dynamics, Mangalore Coast of India: An Integrated Approach." Proceedings of 8th Annual KSTA Conference on Science and Technology for GenNext URBAN SPACE, Bengaluru, India, 5th and 6th November 2015, pp. 37

Ganasri, B. P., Nujuma Nazimudhin, Nithyapriya, B., Fasnamol, T. M., and **Dwarakish, G. S.** (2015). "Application of Neural Network model for LU/LC Classification of Satellite Images of Nethravathi River Basin." National Conference on Geospatial Information and Technologies Advancement (GITA-2K15), held at Shri Madhwa Vadiraja Institute of Technology & Management, Bantakal, Udupi, INDIA on 16th and 17th October, 2015.

Rushidh, M. D., Shabnum Suhura, Lrevanth Reddy, and **Dwarakish, G. S.** (2015). "Planning of Marine Facilities for an LNG Terminal in India." National Conference on Geospatial Information and Technologies Advancement (GITA-2K15), held at Shri Madhwa Vadiraja Institute of Technology & Management, Bantakal, Udupi, INDIA on 16th and 17th October, 2015.

2014 Shushma. S. B., **Dwarakish, G. S.**, and Kiran, K. B. (2014). "Sustainable management of scared groves of Kodagu district of Karnataka using GIS technology." Proceedings Lake 2014, 13th - 15th Nov 2014.

Nazimudhin, N., Gopinath, D. I., Kumar, S. R., Ganasri, B. P., Raju, A., and **Dwarakish, G. S.** (2014). "Land Use land Cover Change Detection using RS and GIS: A case study of NMPT Area, Karnataka." First Annual Conference on Innovations and Developments in Civil Engineering, NITK, Surathkal, India, 19-20 May 2014.

Gopinath, D. I., Kumar, S. R., Nazimudhin, N., and **Dwarakish, G. S.** (2014). "Artificial Neural Networks for the prediction of waves along Dakshina Kannada coast." First Annual Conference on Innovations and Developments in Civil Engineering, NITK, Surathkal, India, 19-20 May 2014.

Dwarakish, G. S., and Rakshith, S. (2014). "Neural networks for tidal level prediction at Karwar, west coast of India." Fifth Indian National Conference on Harbour and Ocean Engineering (INCHOE-14), NIO, Goa, 5-7 February 2014.

Ganasri, B. P and **Dwarakish, G. S.** (2014). "Analysis of Land Use/Land Cover distribution using Remote Sensing and GIS: A Case Study of Mulki River Basin, Karnataka." Fifth Indian National Conference on Harbour and Ocean Engineering (INCHOE-14), NIO, Goa, 5-7 February 2014.

Raju, A., **Dwarakish, G. S.**, and Reddy, D. V. (2014). "A Comparative Analysis of Histogram Equalization based Contrast Enhancement Techniques for Detection of Shoreline using Satellite Images." Fifth Indian National Conference on Harbour and Ocean Engineering (INCHOE-14), NIO, Goa, 5-7 February 2014.

Gowthaman, R., **Dwarakish, G. S.**, and Sanilkumar, V. (2014). "Land use/ Land cover changes around Rameshwaram Island, East coast of India." Fifth Indian National Conference on Harbour and Ocean Engineering (INCHOE-14), NIO, Goa, 5-7 February 2014.

Dwarakish, G. S. (2014). “Study of Coastal Sediment Dynamics and Sand Spit Morphology Around Netravati – Gurpur Rivermouth Through Integrated Approach.” Fifth Indian National Conference on Harbour and Ocean Engineering (INCHOE-14), NIO, Goa, 5-7 February 2014.

Pai, J. B., Rajkumar, **Dwarakish, G. S.**, Hegde, A. V. (2014). “Wind and wave parameters of Indian Ocean region using SAR data.” Proc. A compendium of research papers prepared during year 2013, Space Applications Centre Ahmedabad, January 2014, pp. E12-1 – E12-3.

- 2013** Nazimudhin, N., Kumar, S. R., Gopinath, D. I., Ganasri, B. P., Raju, A., Archana, V., and **Dwarakish, G. S.** (2013). “Evaluation of catchment characteristics through morphometric analysis using remote sensing and GIS.” National Conference on Emerging Trends in Environment and Energy Management (NCEEM -2013), SMVITM, Udupi, Karnataka, India, 18-19 October, 2013, pp. 35.

Dwarakish, G. S., and Gopinath, D. I. (2013). “Tsunami Forecasting – An Overview.” Fourth International Workshop on Performance, Protection and Strengthening of Structures Under Extreme Loading.” PROTECT 2013, Mysore, India, August 26-27, 2013.

Dwarakish, G. S., and Natesan, U. (2013). “Integrated Approach for Sediment Dynamics of Mulki-Pavanje Rivermouth, Mangalore Coast, West Coast of India.” National Conference OSICON 2013, Role of Oceans in Earth System, IITM, Pune, 26-28 November 2013, pp.181-184.

Murali, M. S., and **Dwarakish, G. S.** (2013). “ Sediment Trend Analysis and Determination of Sediment Movement Patterns Along Coastline in the vicinity of Mulki-Pavanje River Mouth.” National Conference on New Horizons in Civil Engineering – NHCE 2013, MIT Manipal, 12th -13th April 2013.

Rakshith, S., and **Dwarakish, G. S.** (2013). “Artificial neural networks for prediction of tides at Karwar, West coast of India.” National conference on New Horizons in Civil Engineering- NHCE 2013, MIT, Manipal, India, 12-13 April 2013.

Dwarakish, G. S., and Natesan, U. (2013). “Coastal erosion and mitigation measures along Mangalore Coast, South West Coast of India.” National Seminar on Coastal Environments and their Management, 22-23 January, Mangalore Univeristy, Mangalore, India, PP.74.

Murali, S. M., and **Dwarakish, G. S.** (2013). “Comparison of various methods for prediction of possible sediment movement patterns trough variations in grain size parameters.” National Seminar on Coastal Environments and their Management, 22-23 January, Mangalore Univeristy, Mangalore, India, PP.46.

Rakshith, S., and **Dwarakish, G. S.** (2013). “Artificial neural networks for prediction of tides: State-of-the-art.” National Seminar on Coastal Environments and their Management, 22-23 January, Mangalore Univeristy, Mangalore, India, PP. 37.

Gowthaman, R., Sanilkumar, V., and **Dwarakish, G. S.** (2013). “Shoreline changes of Dhanushkodi, Tamil Nadu, India.” National Seminar on Coastal Environments and their Management, 22-23 January, Mangalore Univeristy, Mangalore, India, PP. 29.

Murali, S. M., and **Dwarakish, G. S.** (2013). "Some Dredging Equipments for Deep and Shallow Water Marine Applications – An Overview." Association of Consulting Civil Engineers(I), Mangalore Centre, Mangalore, 11th -12th January 2013, pp. 303-316.

2012 Gowthaman, R., **Dwarakish, G. S.**, Sanilkumar, V., and Vinayaraj, P. (2011). "Change Detection of Rameswaram Island, India Using Remote Sensing and GIS." National Conference of Ocean Society of India (OSICON 11), NIOT, Chennai, India, 13th – 15th July 2011, pp. 47.

2011 Nagaraj, G., and **Dwarakish, G. S.** (2011). "Investigation of Geomorphic Processes on Mulky -Pavanje Rivermouth, West Coast of India." National Conference of Ocean Society of India (OSICON 11), NIOT, Chennai, India, 13th – 15th July 2011, pp.

Nagaraj, G., and **Dwarakish, G. S.** (2011). "Spit Evolution in the Vicinity of Mulky-Pavanje Rivermouth, West Coast of India. National Seminar on Coastal Hazards, Resources and Management Organized by Mangalore University, Mangalore, India, 25th -26th March 2011. Pp 57.

Dwarakish, G. S., Natesan, U. and Angel, J. S. (2011). "Development of DEM Using ERDAS Imagine 9.0 and ArcGIS 8.3 for Mangalore Coastal Zone, Dakshina Kannada District, Karnataka, India." National Seminar on Coastal Hazards, Resources and Management Organized by Mangalore University, Mangalore, India, 25th -26th March 2011. Pp 49.

Dwarakish, G. S., and Natesan, U. (2011). "Integrated Coastal Zone Management [ICZM] – An Indian Scenario." National Seminar on Coastal Hazards, Resources and Management Organized by Mangalore University, Mangalore, India, 25th -26th March 2011. Pp 49.

Gowthaman, R., **Dwarakish, G. S.**, Kumar, V. S., and Vinayaraj, P. (2011). "Change Detection Studies of Rameswaram Island, India Using Remote Sensing and GIS, ORSA-7 Organized by Ocean Society of India 13th to 15th July 2011. pp 47

2010 Karjigi, A., Kumar, K. N. M., Nagaraj, G., Varun, V. M., Arun, K. M., **Dwarakish, G. S.**, and Natesan, U. (2010). "A study on Variations in the Sediment Dynamics along the Dakshina Kannada Coast, West Coast of India." National Conference on Coastal Processes, Resources and Management, CESS, Thiruvananthapuram, Kerala, India, 5-7th February 2010, pp.11-15.

Dwarakish, G. S., Natesan, U., Vinay, S. A. and Jagadeesha, P. B. (2010). "Beach Morphological Characteristics and Coastal Processes along Dakshina Kannada Coast." National conference on Sustainable Water Resources Management [SwaRM 2010], NITK-Surathkal, 7th -9th January 2010, pp.62-73.

Arun, K. M., Varun, V. M., **Dwarakish, G. S.**, and Yadupathy, P. R. (2010). "Variable Source Area Watershed Model for Konganahole Catchment Area in Western Ghats." National conference on Sustainable Water Resources Management [SwaRM 2010], NITK-Surathkal, 7th -9th January 2010, pp.57-61.

Rajagopal, B., Shrihari, S. and **Dwarakish, G. S.** (2010). "Determination of Global Water Quality Indices for River Nethravati, South India." National conference on Sustainable Water Resources Management [SwaRM 2010], NITK-Surathkal, 7th -9th January 2010, pp.1-15.

Varun, V. M., Arun, K. M., **Dwarakish, G. S.**, Pai, J. B., and Natesan, U. (2010). "Land Use Land Cover Change Detection Using Digital Image Processing." 24th Indian Engineering Congress, NITK, Surathkal, Mangalore, India, 10-13th December 2009, pp.1-5.

2008 Ravikumar, M. S., Koliwad, S., and **Dwarakish, G. S.** (2008). "Lossless Compression of Digital Mammography Using Fixed Block Segmentation and Pixel Grouping." Sixth Indian Conference on Computer Vision, Graphics & Image Processing, IEEE Computer Society, pp.201-206.

Preeti, J., Shushma, S. B., and **Dwarakish, G. S.** (2008). "Utility of Spatial Data for Mineral Exploration: An Overview." National Seminar on Synergy in Mineral Sector for Sustainable Development- Vision 2020. NITK, Surathkal, 4-5th October 2008, pp. 11-12.

Dwarakish, G. S., Girisha, S., Preeti, J., Shushma, S. B., Pai, J. B. and Shrihari, S. (2008). "Study of Environmental Impact Assessment at Kudremukh National park due to Mining Activity through Remote Sensing, GIS and GPS." National Seminar on Synergy in Mineral Sector for Sustainable Development- Vision 2020. NITK, Surathkal, 4-5th October 2008, pp. 10-11.

Dwarakish, G. S., Natesan, U., Babu, K. S., Kumar, S. J., Pai, J. B., and Mahaganesha, K. (2008). "Sediment Transportation along Mangalore Coast through Numerical Model-MIKE -21." National Conference on Focusing on Advances in Civil Engineering [FACE'08], TKM College of Engineering, Kollam, Kerala, India, 21-23 February 2008.

Angel, J. S., Babita, M. K., **Dwarakish, G. S.**, Srinikethan, G., and Rajagopal, B. (2008). "Terrestrial Chemical Spill Information System Using Remote Sensing, GIS and GPS." National Conference on Focusing on Advances in Civil Engineering [FACE'08], TKM College of Engineering, Kollam, Kerala, India, 21-23 February 2008.

Rahiman A. K. U., **Dwarakish, G. S.**, and Babita, M. K. (2008). "Impacts of Dams on Coastal Regime- An Overview." National Conference on Focusing on Advances in Civil Engineering [FACE'08], TKM College of Engineering, Kollam, Kerala, India, 21-23 February 2008.

Babita, M. K., Rajagopal, **Dwarakish, G. S.**, and Shrihari, S. (2008). "Land Use/Land Cover Change Detection in the Coastal Areas of Dakshina Kannada District, Karnataka." National Conference on Focusing on Advances in Civil Engineering [FACE'08], TKM College of Engineering, Kollam, Kerala, India, 21-23 February 2008.

2007 Pai, J. B., Rajkumar, Hegde, A. V. and **Dwarakish, G. S.** (2007). "Extraction of High-resolution wind fields from C-band Synthetic Aperture Radar (SAR) data." METOC – 2007, CUSAT, Cochin, May 2007, pp.277-282.

Vinay, S. A., **Dwarakish, G. S.**, and Natesan, U. (2007). "Udupi Coastal Zone Information system Through Remote Sensing GIS and GPS." METOC – 2007, CUSAT, Cochin, May 2007, pp. 431-441.

Kumar, A. T., Koliwad, S., and **Dwarakish, G. S.** (2007). "Methods of Classification of Urban Area Using High Resolution Satellite Imagery." Fourth Indian National Conference on Harbour and Ocean Engineering [INCHOE'07], NITK, Surathkal, India, 12-14th December 2007.

Rahiman, A. K. U., **Dwarakish, G. S.**, Babita, M. K. and Angel, J. S. (2007). "Impacts of Dams on Hydrological and Coastal Processes – An Overview." Fourth Indian National Conference on Harbour and Ocean Engineering [INCHOE'07], NITK, Surathkal, India, 12-14th December 2007.

Mahaganesha, K., Rao, S., **Dwarakish, G. S.**, and Pai, J. B. (2007). "Sediment Transport Paths from Statistical Parameters of Grain Size Analysis – An Overview." Fourth Indian National Conference on Harbour and Ocean Engineering [INCHOE'07], NITK, Surathkal, India, 12-14th December 2007.

- 2006** Rajagopal, B., Srihari, S., and **Dwarakish, G. S.** (2006). "Remote Sensing and GIS for EIA': State-of-art." National Conference on Environmental Conservation [NCEC-2006], BITS – Pilani, September 2006, India. Pp. 705-711.

Kumar A. T., Koliwad, S., and **Dwarakish, G. S.** (2006). "Mixed pixels A challenge in remotely sensed data classification – An overview." National Conference on Signal Processing and Communication (NCSPC)-2006, July 7-8, JNNCE, Shimogga, India, pp. 29-30.

Rajagopal, B., Srihari, S., and **Dwarakish, G. S.** (2006). "EIA of Desalination Plants: A Review." Symposium on Desalination and Water Purification: Water Resources and Their Management, March 20th to 21st 2006.

- 2005** **Dwarakish, G. S.**, Mayya, S. G., Hegde, A. V., Nayak, S., Pai, J. B. and Rajani, K. S. (2005). "Web based system for New Mangalore Port Trust." All India National seminar on Ports & Ships Partners in Marine Transport, 12-13th November 2005, NMPT, Mangalore. PP. 86-92.

Dwarakish, G. S., Hegde, A. V., Pai, J. B., Natesan, U. (2005). "Wetland issues in integrated Coastal Zone Management." Workshop on 'Wetland Monitoring and Management', February 2, 2005, NITK, Surathkal. PP. 32-50.

Dwarakish, G. S., Rajaram, and Pai, J. B. (2005). "Coastal zone information system for undivided D.K. coast using RS, GIS and VB 6.0." National Conference on Synergic Solutions for Sustainable Development, NITK Surathkal, pp. 184-188.

Rajgopal, B., **Dwarakish, G. S.**, and Shrihari, S. (2005). "Remote sensing and GIS for sustainable development of India." National conference on Synergic solutions for sustainable development, NITK Suratkal, Dec 2005, pp.230-236.

- 2004** **Dwarakish, G. S.**, Natesan, U., Reddy, D. V., and Dodamani, B. M. (2004). "Sediment Dynamics along Mangalore Coast through Sediment Trend Matrix Analysis (STMA)."

Suresh Nayak, **Dwarakish, G. S.**, and Mayya, S. G. (2004). "Harbour Area Information System Through GIS." 3rd Indian National Conference on Harbour & Ocean Engineering, NIO, Goa, Decmber 7-9, 2004.

Dwarakish, G. S., Chandrashekar K. P., Chandrashekar A., Pai, J. B., and Natesan, U. (2004). "Identification of suitable site for solid waste disposal using remote sensing and GIS – A case study." 24th ISRS Annual Convention and National Symposium on converging space technologies for national development, Jaipur, India, November 3-5, 2004, PP 220.

Dwarakish, G. S., Pai, J. B., Nayak, S., Nyamathi, S. J., and Hegde, A. V. (2004). “Coastal Information Extraction from remotely sensed data – A case study of Mangalore coast India.” 24th ISRS Annual Convention and National Symposium on converging space technologies for national development, Jaipur, India, November 3-5, 2004, pp 44.

Dwarakish, G. S., Hegde, A. V., Pai, J. B., and Natesan, U. (2004). “ Integrated Coastal Zone Management (ICZM) and its application in the Indian Marine Environment – A RS & GIS approach.” National Symposium on Natural Resources Management for sustainable Development, UVCE, Bangalore University, Bangalore, December 3 – 4, 2004, pp 57-78.

Babu, S. K., Nyamathi, S. J., Reju, V. **Dwarakish, G. S.,** and Hegde, A. V. (2004). “Integrated Coastal Zone Management – An Overview.” VI Convention of MSI and INSEM, Dept. Of Applied Geology, Kuvempu Universit, Shimoga, Karnataka, India.

2003 Dwarakish, G. S., Babu, S. K., and Kumar, J. S. (2003). “Modeling of Sediment Dynamics off Mangalore Coast through Remote Sensing and MIKE 21.” Hydraulics, Water Resources & Ocean Engineering – HYDRO 2003, Pune, December 2003, pp.301-307.

Dwarakish, G. S., and Asha, J. K. (2003). “Preparation of Land use / Land cover map as an input to Universal Soil Loss Equation through Remote Sensing and GIS.” National Seminar on “Coastal Dynamics and Role of Geoinformation with special reference to Indian Peninsula.” Mangalore, Karnataka, India, 2003, pp.38.

Dwarakish, G. S., and Babu, S. K. (2003). “Applications of Remote Sensing and MIKE 21 for Sediment Dynamics off Mangalore Coast.” National Seminar on “Coastal Dynamics and Role of Geoinformation with special reference to Indian Peninsula.” Mangalore , Karnataka, India, 2003, pp.20.

Subba, Rao., Shirlal, K. G., **Dwarakish, G. S.,** and Radheshyam, B. (2003). “ Granulometric Studies of Beach Sand near NITK, Surathkal.” National Seminar on “Coastal Dynamics and Role of Geoinformation with special reference to Indian Peninsula.” organized by Mangalore University, Karnataka, India, 2003, pp.18.

Dwarakish, G. S. (2003). “RS and GIS and Visualization Capabilities for Interlinking of Rivers.” National Workshop on Interlinking of Rivers: Concerns and Issues, UVCE, Bangalore, pp 98-111.

Dwarakish, G. S., and Babu, S. K. (2003). “Applications of Remote Sensing and Mike-21 for Sediment Dynamics off Mangalore Coast.” National seminar on Coastal Dynamics and Role of Geoinformation with Special Reference to Indian Peninsula, Mangalore University, Karnataka, India.

2000 Dwarakish, G. S., Natesan, U., Jegankumar, R., and Rao, M. I. (2000). “Geomorphology and Confluence Width Changes of Rivermouths by Remotely Sensed Data – Mangalore Coast.” National Conference on Geoinformatics 2000, Coimbatore, November 2000, pp.1-5.

Rao, N. B. S., **Dwarakish, G. S.,** and Rao, M. I. (2000). “Shoreline Change Detection through an Integrated Approach: A Case Study.” National Conference on Hydraulics and Water Resources (HYDRO 2000), Kurukshetra, October 2000, pp.351-357.

Dwarakish, G. S., Natesan, U., and Natarajan, T. (2000). “Integrated Approach for Coastal Processes: Mangalore Coast.” National Conference on Hydraulics and Water Resources (HYDRO 2000), Kurukshetra, October 2000, pp.358-367.

Dwarakish, G. S., Natarajan, T., and Natesan, U. (2000). "Integrated Coastal Zone Management of Mangalore Coast Using RS and GIS Techniques: A Review." ISRS Symposium on Remote Sensing Application for Natural Resources, Bhubaneswar, March 2000, pp.100-104.

Dwarakish, G. S., Anisha, M. and Bannur, C. R. (2000). "Soil Conservation and Watershed Management Using Remote Sensing and GIS Techniques: A case study." National Symposium on Remote Sensing for Natural Resources and Watershed Management, Indian Society of Remote Sensing, ORSAC, Bhubaneshwar, India.

- 1999** **Dwarakish, G. S.,** and Anisha, M. (1999). "Prioritization of Micro watersheds by Remote Sensing and GIS Techniques: A case study." National Seminar on Watershed Management for Sustainable Development, Tirupathi, March 1999.

Dwarakish, G. S., Natarajan, T., Natesan, U. and Reddy, R. (1999). "Analysis of sedimentary processes through sediment trend matrix." National Conference on Hydraulics – HYDRO 99, Nagpur, 1999.

- 1997** Dattatri, J., Rao, N. B. S., Rao, S. **Dwarakish, G. S.,** and Kumar, N. B. (1997). "Beach Profile Studies along Dakshina Kannada Coast of Karnataka State ."Second Indian National Conference on Harbour and Ocean Engineering (INCHOE-97), Thiruvananthapuram, December 1997, pp.1135- 1144.

Dattatri, J., Rao, N. B. S., Kumar N. B., Rao, S. and **Dwarakish, G. S.** (1997). "Coastal Erosion along Dakshina Kannada Coast, Karnataka, India." National Seminar on Coastal Zone Environment Management: An Appraisal of the Contemporary Research and Development, Mangalore, India, February 1, 1997.

Conferences / Seminars / Workshops attended

2025	HYDRO International 2025 - 30 th International Conference on Hydraulics, Water Resources, River and Coastal Engineering	Chairperson
2024	Sustainable Groundwater Management for Water Security, June 21, 2024, held at the Karnataka Science and Technology Academy (KSTA) Office.	Coastal Aquifers in the Context of Integrated Coastal Zone Management (Invited Talk)
2023	New Horizons in Civil Engineering (NHCE-2023) October 13-14, 2023 MIT Manipal.	Role of Geoinformatics in Coastal Engineering (Invited Talk)
	Innovative Concepts in Ocean Engineering, July 28, 2023, NITK, Surathkal.	---
	International Conference on Sustainable Infrastructure: Innovation, Opportunities and Challenges (SIIOC-2023), April 20-21, 2023, NITK, Surathkal.	Paper Presentation
2021	HYDRO 2020 International, March 26-28, 2021, NIT Rourkela.	Geoinformatics Applications in Coastal and Ocean Engineering (Key Note)
2016	National Conference of Advanced Trends in Civil Engineering & Sustainable Development (ATCESD-16) on 26 th & 27 th February 2016	Flood Risk Assessment: A Review
	National Conference of Advanced Trends in Civil Engineering & Sustainable Development (ATCESD-16) on 26 th & 27 th February 2016	A Review on Hard option to Prevent Beach Erosion: Do they Really Work?
	National Conference of Advanced Trends in Civil Engineering & Sustainable Development (ATCESD-16) on 26 th & 27 th February 2016	Applications of Remote Sensing & GIS for Flood Alert System using a case study of Adhwara Basin
	10 th International Symposium on Lowland Technology (ISLT 2016), during September 15-16, 2016	Chairperson
	10 th International Symposium on Lowland Technology (ISLT 2016), during September 15-16, 2016	Paper Presentation
2015	8 th KSTA Annual Conference on Science and Technology for GenNext Urban Space held between 5 th and 6 th November	Coastal Erosion Mitigation Measures – State-of-the-Art

8 th KSTA Annual Conference on Science and Technology for GenNext Urban Space held between 5 th and 6 th November	Assessing the Dynamic Changes in Land Use and Land Cover and Hydrological Processes in Netravati River Basin, Karnataka,
8 th KSTA Annual Conference on Science and Technology for GenNext Urban Space held between 5 th and 6 th November	Study of Mulky-Pavanje River Mouth Dynamic, Mangalore Coast, West Coast of India: An Integrated Approach
8 th International Conference on Asian and Pacific Coasts (APAC 2015) held on 7 th and 10 th September	Weekly Prediction of Tides using Neural Networks
Dfi-NITK Workshop on Recent Trends in Piling and Ground Improvement on 31 st July and 1 st August 2015.	---
National Conference on Geospatial Information & Technology Advancement (GITA-2K15)	Application of Neural Network model for LU/LC classification of satellite images of Netravathi river basin.
4 th International Conference on Emerging Trends in Engineering, Science & Technology (ICETEST). 9-11 December, 2015	Chairing a session
i-managers International Conference on Engineering and Technology on 10 th and 11 th April	GIS and Open Geosuite for Sacre Groves of Kodagu District
2014 Introduction to CAD/CAM and STAAD, Centre for Continuing Technical Education in Karnataka, Batwal on 3 July 2014	RS and GIS for Civil Engineering,
Introduction to CAD/CAM and STAAD, Centre for Continuing Technical Education in Karnataka, Batwal on 23 June 2014	Effective Teaching Methodologies/Engineering Mechanics
Certificate Course on Mining Survey (CCMS), Dept. Of Mining Engineering, NITK, Surathkal, during 09, July 2014	CCMS on Remote Sensing and GIS
Annual Conference on Innovations and Developments in Civil Engineering (ACIDIC-2014), Department of Civil Engineering, NITK, Surathkal, 19-20 May 2014	Geoinformatics for Civil Engineering
Faculty of Science, Technology, Engineering and Mathematics (FOSTEM), INTI International University, Kaula Lumpur, Malaysia on 16 April 2014	Geoinformatics for Coastal Engineering

	3 days technical fest SRISHTI 2K14, Department of Civil Engg., LBS College of Engineering, Kasaragod on 13,14 and 15 March 2014	Remote Sensing and GIS in Civil Engineering
	2014 IEEE Region 10 Technical Symposium, during 14-16, 2014, Kaula Lumpur, Malaysia	Satellite Image Contrast Enhancement Algorithm based on Plateau Histogram Equalization
	Short-term Course on Advances and Latest Developments in Mining Geology and Rock Mechanics (STCMGRM-2014), during 02-04, April 2014	Geoinformatics for Civil and Mining Engineering
	National Workshop on Civil Engineering Challenges in 21 st Century (CEC21-2014), Department of Civil Engineering, Mangalore Institute of Technology and Engineering (MITE), Moodabidri. Mangalore during 21-22 February, 2014	Geoinformatics for Civil Engineering
	Fifth Indian National Conference on Harbour and Ocean Engineering (INCHOE 2014), NIO, Goa, 5-7 February 2014	Study of Coastal Sediment Dynamics and Sand Spit Morphology Around Netravati – Gurpur Rivermouth Through Integrated Approach
	3 rd World Conference on Applied Sciences, Engineering and Technology, 27-29 September	Histogram Equalization Based Mean Self-Adaptive Plateau Histogram Equalization for Brightness Preserving and Contrast Enhancement.
	3 rd World Conference on Applied Sciences, Engineering and Technology, 27-29 September	Relocation of Waste bins: A GIS Approach.
2013	National Conference on New Horizons in Civil Engineering (NHCE-2013), Department of Civil Engineering, Manipal Institute of Technology, Manipal, Karnataka, 12-13 April, 2013	Sediment Trend Analysis and Determination of Sediment Movement Patterns Along Coastline in the vicinity of Mulki-Pavanje River Mouth
	National Seminar on Coastal Environments and their Management, Department of Marine Geology, Mangalore University, 22-23 January, 2013	Coastal erosion and mitigation measures along Mangalore Coast, South West Coast of India
	International Conference on Conserving Biodiversity for Sustainable Development (INCCBSD 2013), DBME, NIT Rourkela, during 16-18, August 2013	RS and GIS Tools to Support Conservation and Sustainable Management of Sacred Groves in Kodagu District, Karnataka, India
2012	National Workshop on Conservation of West Flowing Rivers in Coastal Karnataka, Department of Applied	Geoinformatics for Water

	Mechanics and Hydraulics, NITK, Surathkal and Dept of Civil Engg., VCET, Puttur, during 14-15 December 2012	Resources Engineering
2011	National Conference on Coastal Hazards, Resources & Management, Department of Marine Geology, Mangalore University, Mangalagangothri, Karnataka, India, 25 & 26 March, 2011.	Integrated Coastal Zone Management [ICZM] – An Indian Scenario.
	National Conference on Coastal Hazards, Resources & Management, Department of Marine Geology, Mangalore University, Mangalagangothri, Karnataka, India, 25 & 26 March, 2011.	Development of DEM Using ERDAS Imagine 9.0 and ArcGIS 8.3 for Mangalore Coastal Zone, Dakshina Kannada District, Karnataka, India.
	National Conference on Coastal Hazards, Resources & Management, Department of Marine Geology, Mangalore University, Mangalagangothri, Karnataka, India, 25 & 26 March, 2011.	Spit Evolution in the vicinity of Mulky-Pavanje Rivermouth, West Coast of India.
2010	National Conference on Sustainable Water Resources Management [SwaRM 2010], NITK-Surathkal, India, 7th -9th January 2010.	Determination of Global Water Quality Indices for River Nethravati, South India.
	National Conference on Sustainable Water Resources Management [SwaRM 2010], NITK-Surathkal, India, 7th -9th January 2010.	Variable Source Area Watershed Model for Konganahole Catchment Area in Western Ghats
	National Conference on Coastal Processes, Resources and Management, CESS, Thiruvananthapuram, Kerala, India, 5-7th February 2010.	A study on Variations in the Sediment Dynamics along the Dakshina Kannada Coast, West Coast of India.
2009	Theme meeting on retrofitting & Rehabilitation of Structures (TMRRS) and International Seminar on Structural Rehabilitation, NITK Surathkal, 30-31 March 2009.	---
	International Conference in Ocean Engineering [ICOE-2009], IIT Madras, India, 1-5th February 2009.	Interference of Dams in Periyar River Basin, Kerala, on Coastal Sedimentation.
	National Workshop on Present and Future Trends in Marine Geology and Geophysics, Mangalore University, India, 21-22nd April 2009.	---
	KSCST- 32nd Series of Student Project Programme [SPP], Seminar cum Exhibition, NITK-Surathkal, India, 4-5th September 2009.	---

	24th Indian Engineering Congress, NITK-Surathkal, India, 10-13th December 2009.	Land Use Land Cover Change Detection Using Digital Image Processing
	39th ISTE Annual Convention, NITK-Surathkal, India, 18-20th December 2009	---
2008	KU-NITK Joint seminar 2008- Recent Advances in Engineering & Technology, June 26, 2008, Inamori Auditorium, Kagoshima University, Japan.	---
	International Conference on Content-Based Image Retrieval, PES Institute of Technology, Bangalore, India, 16-18th July 2008.	Decision tree: A non-parametric approach for classification of High-resolution remote sensing data.
	3rd International Conference on Advanced Computing & Communication Technologies, Asia Pacific Institute of Information Technology SD India, Panipat, 08-09th November 2008.	Effectiveness of decision tree algorithm in classification of semi-urban land cover classes 2-5m resolution satellite imagery.
	National Conference on Hydraulics, Water Resources & Environment HYDRO 2008, Anuvrat Vishwarbharti, Jaipur, India, 15-16th December 2008.	Changes in Hydrology and coastal sedimentation by Dams – A case study.
2007	Indo-Japan workshop on Coastal Problems and Mitigation Measures – Including the effects of Tsunami, IIT Madras, 16-17 th July 2007.	---
	SPIE Remote Sensing International Conference, Florence, Italy, September, 17-21, 2007.	Integrated Coastal Zone Management Plan and Coastal Zone Information System for Udupi Coast, West Coast of India
2006	Initiative for Research and Innovation in Science [IRIS-2006]	Assessment of potential locations for offshore wind energy
	SPIE- 5 th Asia Pacific Remote Sensing International Symposium, Marriot Hotel, Panjim, Goa, India, 13-17 th November 2006.	Integrated Coastal Zone Management system for Mangalore Coast west coast of India
	SPIE- 5 th Asia Pacific Remote Sensing International Symposium, Marriot Hotel, Panjim, Goa, India, 13-17 th November 2006.	Comparative study of ocean wave spectrum using ENVISAT SAR data and wave rider buoy data

National conference on Rehabilitation Measures for the ---
Tsunami affected Coasts of Tamilnadu, Andhra
Pradesh, Kerala, Pondicherry and Andaman & Nicobar
Islands, IIT Madras. 11-12 December 2006.

Books, Monographs, Lab or Design Manuals - Authored/Edited

1. Coastal Land Use/Land Cover and Shoreline Studies for Dakshina Kannada Coast, Karnataka, India Shabnum Suhura, B. Nithyapriya, L. Revanth Reddy, Noelle Philipose, Mary Manisha and **G. S. Dwarakish**. Water Resources Management by the Springer – Nature under the Water Science and Technology Library 78, ISBN 978-981-10-5710-6.
2. Guest Editor – Elsevier Aquatic Procedia-Special Issue on ICWRCOE‘15
3. Guest Editor-In-Chief for Special Issue on RS & GIS Applications, International Journal of Earth Sciences and Engineering
4. Lecture Volume prepared for the Two Days Curriculum Workshop on Geoinformatics in Coastal and Water Resources Engineering. Department of Applied Mechanics and Hydraulics, NITK, from 23-24 September 2013 (Coordinator: **Dr. G. S. Dwarakish**)
5. Lecture volume prepared for the training programme sponsored by TEQIP on ETMS’10 (2010), held at GEC, Goa. (Coordinators: **Dr. G. S. Dwarakish**, Dr. K B Kiran, Dr. B M Dodamani, Dr. V N Shet, Dr. Ulhas Sawaikar and Dr. Vanessa.C)
6. Prepared the complete PPTs for the two subjects namely Remote Sensing & GIS and Digital Image Processing.
7. Contributed to two research papers for the book titled “Coastal Environments: Problems and Perspectives” Edited by K.S.Jayappa and A. C. Narayana, 2009.
8. Lecture volume prepared for the summer School sponsored by AICTE-MHRD on ETMS ’ 10 (2010). (Coordinators: **Dr. G. S. Dwarakish** & Dr. K B Kiran)
9. Lecture volume prepared for the winter School sponsored by AICTE-MHRD on GIRBD ’ 09 (2009).
10. Lecture volume prepared for the winter School sponsored by AICTE-MHRD on GICZMP ’ 09 (2009).
11. Written a complete chapter on Geographical Information System (GIS) in the textbooks, one on “Applied Geology” and another on ‘Engineering Geology’ by Prof. D. Venkat Reddy.
12. Lecture Volume prepared for the “Workshop on Wetland Monitoring and Management” sponsored by TEQIP, conducted in our department.
Coordinators: Prof. Arkal Vittal Hegde and **Dr. G. S. Dwarakish**).
13. Lecture volume prepared for the workshop on ‘ICZMP-D.K and Udupi Coast’ Sponsored by MOEF, ‘RS & GIS’ Course and GPS Course sponsored by TEQIP, MHRD, Govt. Of India.

Technical Reports (External & Internal)

Authors	Title of Report	Particulars (Sponsored R&D/ Consultancy/ Status Reports, etc.)
Dr. G. S. Dwarakish (P.I.)	Simulating the Impact of Land Use Changes on Hydrological Response of Humid and Sub-Humid Catchments in Karnataka State, India	The final report was prepared & Submitted to the ISRO RESPOND
Dr. G. S. Dwarakish (Research Co-ordinator)	Proposal for Creation of Ocean and Atmospheric Science and Technology Cell (OASTC), Centre for Ocean Technology (COT)	The final report was prepared & Submitted.
Dr. G. S. Dwarakish (P.I.) Dr. S.G. Mayya (Co-P.I.)	Nearshore processes information system for Mangalore coast - A RS & GIS Approach	The final report was prepared & Submitted.
Dr. G. S. Dwarakish (P.I.) Prof. G. Srinikethan (Co-P.I.)	Integrated Coastal Zone Management Plan for Karnataka Coast	The first Draft of the Final report was Prepared and Submitted
Dr. Subba Rao Dr. Kiran G Shirlal Dr. G. S. Dwarakish (Co-P.I.) Mr. Subramanya K.	Management of Tidal Inlets along West Coast of India	The final report was Prepared and Submitted
Dr. G. S. Dwarakish (P.I.) Mr. K. B. Kiran (Co-P.I.)	RS and GIS tools for sustainable management of Sacred Groves in Kodagu district	The annual progress report was prepared
Dr. G. S. Dwarakish (P.I.)	Analysis of satellite derived wind and wave parameters for coastal waters off Karnataka	The annual progress report was prepared

Continuing Education Programmes / Short Term Courses/ Workshops / Seminars Etc. Organized

Date	Title of Programme	Funding Agency
11/04/2014	Special Lecture by Dr. M. Baba	Institute Fund, NITK, Surathkal
21/09/2013	Special Lecture by Prof. Venkatlakshmi, University of South Carolina (USC)	Institute Fund, NITK, Surathkal
05/09/2013	Special Lecture by T. N. Singh	Institute Fund, NITK, Surathkal
17/12/2012	Special Lecture by Prof. J. Dattatri	Institute Fund, NITK, Surathkal
13/06/2011 - 17/06/2011	Effective Teaching Methodologies [ETM 10]	TEQIP, NITK, Surathkal, Govt. Of India, New Delhi. [Conducted at NIT Goa, GEC Campus]
11/05/2010 - 14/05/2010	Effective Teaching Methodologies - Statics [ETMS' 10] - Summer School	MHRD, Govt. Of India, New Delhi.
15/02/2010 - 19/02/2010	NURTURANCE Programme for NTS Awardees	NCERT, Govt. Of India, New Delhi.
29/12/2009 - 02/20/2010	INSPIRE - Winter Science Camp	DST, Govt. Of India, New Delhi
20/07/2009 - 31/07/2009	Geoinformatics for Integrated River Basin Development [GIRBD] - Summer School	MHRD, Govt. Of India, New Delhi.
19/01/2009 - 30/01/2009	Geoinformatics for Integrated Coastal Zone Management Plan [GICZMP] - Winter School	MHRD, Govt. Of India, New Delhi.
26/04/2007	One day workshop on Integrated Coastal Zone Management Plan [ICZMP-2007]	MoEF, Govt. Of India, New Delhi.
24/03/2007	One day awareness programme on Global Positioning System [GPS]	MHRD, TEQIP, NITK, Surathkal.
10/03/2007	One Day Awareness Program on Remote Sensing & Geographic Information System for College Students	MHRD, TEQIP, NITK, Surathkal

02/02/2005 Workshop on Wetland Monitoring and Management” sponsored by TEQIP, conducted in our department. (Coordinators: MHRD, TEQIP, NITK, Surathkal Dr. Arkal Vittal Hegde and **Dr. G. S. Dwarakish**).

Professional Training Received / Summer / Winter Schools attended [06]

Year	Nature of Training	Duration	Organization where training was provided
2010	Summer School on “Field methods and eco-hydrological models for integrated water management in rural areas” sponsored by DAAD, 16 - 29 September 2010, Germany	Two weeks	Department of Hydrology and Water Resources Management, Ecology Center, Kiel, Germany.
2009	Short-term training program on “Isotope Tracer Techniques for Water Resources Development and Management” 15 - 20 June 2009.	One week	CWRDM, Calicut, Kerala, India.
2009	Indo-US Engineering Faculty Leadership Institute. June 29 - July 3, 2009.	One week	Infosys Mysore Center
2008	RISAT-UP Radar Remote Sensing and Applications. 1 - 2 December 2008.	Two weeks	SAC, ISRO, DOS, Ahmedabad, India
2005	Introduction to Statistics using SPSS. 19 January 2005	One day	NITK Surathkal, by SPSS South Asia
2005	GIS training programme. 22 June 2005	One week	ESRI India, Bangalore
2004	Integrated Water Resources Management using Numerical Methods, Remote Sensing and GIS	One week	IIT, Bombay
2004	Planning, Development and Management of Modern Urban Core Infrastructure Solutions for India	Two weeks	NITK, Surathkal
2004	Satellite Oceanography	Two weeks	DOD, ICMAM-PD, Chennai
2004	Computer-Aided 3-D Modelling and Animation	One week	MIT, Manipal
2003	Remote Sensing and Geographic Information System for Resources Management	Two weeks	KREC, Surathkal

2003	Coastal Erosion Areas (CEA)- Protection and Management	Two weeks	NITK, Surathkal
2003	Advances and Latest Trends in Engineering Geology and Geotechnology	Two weeks	NITK, Surathkal
2002	Remote Sensing and Geographic Information System for Resources Management	Two weeks	KREC, Surathkal
2000	Engineering Geology and Geotechnology Role in Country Planning and Development	Two weeks	KREC, Surathkal
2000	Introduction to ArcView and Spatial Analyst	One week	ESRI India, New Delhi
1999	Recent advances in Chemical, Electro-chemical and Nuclear Energy Systems	Two weeks	PES College of Engineering, Mandya
1998	Remote Sensing Applications in Marine Sciences	Two days	Anna University Chennai
1998	Site Investigation Techniques for Civil Engineering Constructions and Development of Engineering Geology and Geotechnology in India	Two weeks	KREC, Surathkal
1997	Quality Assurance in Engineering Education	One week	KREC, Surathkal
1996	Remote Sensing for Land and Water Resources Management	Two weeks	IIT, Kharagpur
1995	P. C. Professional Course	One week	KREC, Surathkal
1995	Digital Image Analysis in the Field of Remote Sensing Technology	Two weeks	RRSSC Bangalore

Summary of R & D Projects

RESPOND project

The coastal zone of Mangalore is acquiring an ever-increasing importance due to its rich ocean resources and favourable condition for the development of port-based major industries. All weather New Mangalore Port Trust (NMPT) is the administrative unit of the port which caters to the needs of large, medium and small-scale industries.

The present study is carried out with a view

- (i) to understand sediment dynamics and interaction of coastal structures with beach morphology,
- (ii) to study the coastal processes in the vicinity of the New Mangalore Port (NMP) breakwaters,
- (iii) to develop an algorithm for the estimation of Suspended Sediment Concentration (SSC) from in-situ and Indian Remote Sensing Satellite (IRS)-P4 Ocean Colour Monitor (OCM) data and
- (iv) to study the change detection of shoreline.

These objectives are addressed using various conventional and satellite data. A 40km stretch of the Mangalore Coast, starting from Talapady in the South and Mulky in the North, along the West Coast of India is the study area.

Survey of India toposheet was used to prepare the base map. The predominant direction of sediment transport was determined by drawing sediment trend matrices based on the statistical parameters of beach face sediments. Sea sledge survey data were used to study the effects of seawalls on beach profile morphology. The performance of breakwaters at NMP was assessed by leadline soundings data. Sea bed sediment data were analysed to detect the source of siltation along the outer approach channels and lagoon of NMP. In-situ measurements in synchronized with the IRS-P4 satellite overpass were used to validate the SSC algorithm developed from OCM data. Shoreline changes were detected using IRS-1A/1B satellite data.

Based on the analysis of conventional and satellite data, it is concluded that the littoral drift in the study area is negligibly small which is supported by the results of other analyses. Net sediment transport along the Mangalore coast is very small. Siltation in the approach channel and lagoon of NMP is due to the offshore-onshore movement of sediments.

The analysis to study the effect of coastal structures with coastal processes shows that seawalls constructed along the Mangalore coast are properly designed and located away from the active zone of the beach and hence they are not affecting the beach profiles and beach recovery processes either in front of it or on the neighbouring beaches. There are no significant changes observed in the bathymetry and shoreline in the vicinity of NMP due to breakwater construction. Analysis of satellite data indicates that there is no large-scale variation in the shoreline configuration, except at the unprotected river mouth. The accuracy of the algorithm developed using IRS-P4 OCM data for the estimation of SSC is satisfactory. Hence, it is concluded that satellite data can be used for studying the coastal processes.

MHRD project

The proposed work mainly concentrates on the nearshore coastal processes of the Mangalore coast. It involves the identification of eroding/accreting critical areas along the Mangalore coast. The performance of coastal structures in the study area will be assessed in the proposed study. The Suspended Sediment Concentration (SSC) model relating remotely sensed data and in-situ data will be developed by considering state-of-the-art technology. It is also proposed to develop a model, which gives the vertical distribution of SSC along the Mangalore coast. The sediment

dynamics in the vicinity of all-weather New Mangalore Port (NMP) are proposed to find out the main reason for the siltation problem in the approach channel and lagoon of NMP. The movements and distribution of dredged material from the dumping site will be tackled through Sediment Trend Analysis (STA). The study will be carried out using both conventional and remotely sensed data and other attribute information of the study area. The nearshore processes information system for the study area will be developed under a Geographical Information System (GIS) environment. This gives online information about the long-term and short-term shoreline configuration, the effect of coastal structure on the coastal processes, surface as well as vertical distribution of SSC and sediment dynamics in the vicinity of the NMP approach channel and lagoon.

MOEF project

The main objectives of this project are:

1. To identify the critical erosion areas of the Karnataka coast using RS & GIS.
2. To prepare area area-specific management plan for mitigation of erosion along the Karnataka Coast.
3. To develop a Critical Erosion Areas Information System (CEAIS) in a GIS environment.

The following are the sub-components of the project work:

- i. Shoreline Change detection using Topo sheets and multi-date Remotely Sensed data.
- ii. Analysis of the data to identify and classify the erosion-prone areas as critical, moderate, and zero-erosion areas.
- iii. Land use/Land cover change detection and analysis.
- iv. Arriving at Area-specific management of erosion areas based on the land use/ land cover analysis.
- v. Integrating all the data generated into the GIS environment.
- vi. Development of a Critical Erosion Areas Information System (CEAIS).
- vii. Final Document / Report generation.

ICMAM-PD, DOD project

This project mainly concentrates on the dynamics of the river mouth along the Karnataka Coast. As an experimental basis, only the Netravati-Gurpur river mouth is selected in the beginning. All the available data such as wind velocity & direction, wave direction, currents, tides, sediment concentration and its distribution, bathymetric details, beach profile, the quantity of sediment brought in by the rivers, high resolution remotely sensed data at frequent intervals will be used to understand the river mouth dynamics and shoreline configuration at Netravati-Gurpur river mouth. Based on the experience gained while conducting the present study for the Netravati-Gurpur river mouth, the same study will be extended to the remaining river mouths of the Karnataka Coast. For this project, major equipments will be given by ICMAM-PD, DOD, Pallikarani, Chennai. This project is challenging since it involves a lot of field data collection both in the estuary as well as in the vicinity of the Netravati-Gurpur River on the ocean side.

DST Project

The DST project titled “RS & GIS Application for Sustainable Management of Sacred Groves” in Kodagu District” is basically for the development of a database for the Sacred Groves in

Kodagu district. The database includes location details, the areal extent of the sacred groves, monitoring agency, temple name and other details, threats to the sacred groves and some development plans for the existing sacred groves. The actual extent of the sacred groves is extracted through the analysis of high-resolution IRS satellite data, using ERDAS Imagine 9.3 software and analysed in Arc View- Master lab kit GIS environment.

RESPOND Project

The second RESPOND project, sponsored by the Indian Space Research Organisation (ISRO) under the RESPOND programme titled “Analysis of Satellite Derived Wind and Wave Parameters of Karnataka Coast”. For the execution of this project, ENVISAT data was purchased from ESA. The programme was written in FORTRAN to extract the wave and wind information. The different activities completed under this project include

- a) Understanding the SAR concepts
- b) retrieval and validation of Wave spectra and Wind speed from SAR
- c) Algorithm to derive level 2 from Level 1 data of wave mode data
- d) preparation of wave spectra and wind speed map for the new datasets purchased from ESA
- e) Completion of the algorithm for wave mode data.

Consultancy works undertaken/ Industry interaction

Only the departmental testing and consultancy works related to strength of materials lab (tension test, bending & re-bending test) and fluid mechanics lab (Calibration of pressure gauges and watermeter) have been undertaken.

I am regularly interacting with New Mangalore Port Trust (NMPT), Panambur, India Meteorological Department (IMD) observatory, Panambur; Minor Irrigation Department, Public Works Department, Port & Harbour Sub-division, Mangalore; KERS, Mangalore Sub-division; RRSSC, KSRSAC, Bangalore; MPT, Goa; IIT Madras, IIT Mumbai, IIT Kharagpur, IIT Delhi, NIT- Calicut, Trichi, Warangal, Nagpur, Surath, Raipur, Rourkela, Pandichery, Goa, NIO Goa; NIOT Chennai; IRS, Anna University, Chennai; GEC, Farmagudi, Ponda, Goa, Anna University, Chennai, Bangalore University, Bangalore, Mangalore University, Mangalore, VTU, Belgaum, College of Engineering, Trivendrum, etc.

Experience in Administrative Positions, Curriculum and Lab Development, Student Welfare, Professional and Outreach Activities

Administrative Positions

Dean Academic	National Institute of Technology Karnataka, Surathkal
Dean Planning and Development	National Institute of Technology Karnataka, Surathkal
Head of the Department	Water Resources and Ocean Engineering, (Formerly Dept. Of Applied Mechanics and Hydraulics) NITK, Surathkal
Faculty In-Charge	IIP Cell, NITK Surathkal
Deputy Co-ordinator	NIT Goa
Chief Warden [In-charge]	NIT Goa, GEC Campus, Ponda, Goa
Hostel block Warden	NITK Hostels for two terms
Associate Dean (Students' Welfare)	NITK Surathkal
Member	SC/ST Cell, NITK Surathkal
Member	Health Care Centre, NITK Surathkal
Board of Directors	Consumer's Society, NITK Surathkal
Secretary	Consumer's Society, NITK Surathkal
Board of Directors	Credit Society, NITK Surathkal
Member	Provident Fund Committee, NITK Surathkal
Member	Fire Committee, NITK Surathkal
Member	AIEEE Counseling & Admission, NITK Surathkal [2004-05]
Dy. In-charge	Help Centre & Admission Centre, AIEEE' 10 & AIEEE ' 11, NIT Goa
Member	AIEEE Counseling & Admission NIT Goa [2010-11]
Member	Institute Staff Selection Committee, NITK & NIT Goa
Member	Institute Magazine Committee, Vitruvian (Kannada Section)
Faculty In-charge	MUNDAABHIVRUDI SAMANYA SAMITHI [MASS], to develop the Munda Village, under Services to the Community under ENGINEER' 09.

Academics

Member	RPAC
Member	DRPC, DPGC and DUGC
Secretary	DPGC, DRPC
Faculty in-charge	Department timetable for three years
Faculty Advisor	CIVIL Engineering Branch M.Tech. [Marine Structures, RS & GIS]
Faculty In-charge	RS & GIS and Departmental Computer Labs
Member	DAAB committee
Secretary	Civil Engineering Association
Faculty Advisor	First year and Second year - NIT Goa

Others

Co-coordinator	INSPIRE- Winter Science Camp
Co-coordinator	NURTURANCE Programme for NTS Awardees
Co-coordinator	RS & GIS programme
Co-coordinator	GPS programme
Co-coordinator	GICZMP'09, GIRBD'09 & ETMS'10 and ETM'11 at NIT Goa
Member	Annual Convocation
Member	Golden Jubilee Celebrations
Co-convener	Transportation Committee, INCHOE'2007
Convener	Transportation Committee, SwaRM'2010
Member	Stage Committee ISTE Annual Convention, Indian Engineering Congress
Member	ENGINEER [Technical Fest], INCIDENT [Cultural Fest], CRESCENDO [Inter-year cultural competition]
Member	World Coastal Clean-up Day
Coordinator	World Water Day, World Wetland Day and World GIS Day
Returning Officer	Student's Union Elections
Faculty Advisor	Music Club, Kannada Vedike, Artist forum, Ganesha Festival, Holi, Deepavali, New Year's Day celebration
Faculty Advisor	Civil Engineering Model Competitions

Secretary

Staff Recreation Club

Performed in several Kannada Dramas namely Deepadinda Deepa Hacha, Panchabootha, Panchabootha'08, Panchabootha'25 , Devarapalayana

Awards / Recognitions

2025 Awarded **Best Paper** under the theme “Climate Change, Hydroclimate & Drought” presented in International Conference on Wetlands and Water Resources for Sustainable Development held at National Institute of Technology Patna during 29th-31st December, 2025.

Awarded **Best Paper Presentation** for “Assessing the Impact of Rainfall and Groundwater Abstraction on Groundwater Levels Using Statistical Analysis” presented in the Symposium on River Health Evaluation and Protection held on 29th and 30th December 2025.

2024-25 Board of Examiners (BoE), PG, NIE, Mysuru, Karnataka.

2023 Awarded **Best Technical Paper** for “Streamflow Estimation using Deep Learning Approach (CNN and LSTM) for Hemavathi River Basin, Karnataka, India” presented at New Horizons in Civil Engineering (NHCE-2023), October 13-14, 2023 MIT Manipal.

Awarded **Best Technical Paper** for “Comparative Analysis of Topographic Factor (LS Factor) Estimation Methods for Soil Erosion Risk Assessment in the Netravati Watershed, India”, presented at International Conference on Sustainable Infrastructure: Innovation, Opportunities and Challenges (SIIOC-2023), April 20-21, 2023, at NITK, Surathkal.

2021 Awarded **Best Presentation** for “Study of shoreline change along Kasaragod district in Kerala, West Coast of India”, presented at HYDRO 2020 International, March 26-28, 2021, NIT Rourkela.

2018 Awarded **Best Session’ s Paper** for “Shoreline change threat to coastal zone: A case study on Karwar coast”, presented at 2nd International Conference on Climate Change (ICCC 2018), February 18-19, 2018, Srilanka.

2016 Awarded **Best Paper** for “Coastal Inundation Study Using Remote Sensing”, presented at 10th International Symposium on Lowland Technology September 15-17, 2016 at Mangalore, India.

Received **Venus International Faculty Award for the year 2016**, instituted by Venus Education Foundation, Chennai, in recognition of outstanding contribution in the field of Coastal Engineering Sciences.

2015 Guest Editor – Elsevier Aquatic Procedia-ICWRCOE‘15

Received **Young Scientist Award** and **Best Paper Award** for the paper titled “Study of Land Use/Land Cover Dynamics through Classification Algorithms for

Harangi Catchment Area, Karnataka State, India” presented at the International Conference on Water Resources, Coastal and Ocean Engineering (ICWRCOE '15), 12-14 March 2015 organised by Department of Applied Mechanics and Hydraulics, NITK Surathkal.

2014 Board of Examiners (BoE), PG, UVCE, Bangalore, Karnataka.

2013 Received **Prof. Satish Dhawan Young Engineers State Award** for the year **2013**, instituted by the Government of Karnataka in recognition of outstanding contribution in the field of Engineering Sciences.

Guest Editor-In-Chief for Special Issue on RS & GIS Applications, International Journal of Earth Sciences and Engineering

Awarded **Best Young Scientist** for “Land use/ Land cover changes along D. K. Coast, West coast of India using Remote sensing and GIS ” which was presented during the 8th International Congress on climate change, Territorial Classification and Socio-economic Crisis, organised by Bharathidasan University, Tamilnadu and National Polytechnic Institute, Mexico, Bharathidasan University, Tamilnadu, 23rd-27th April 2013.

Serving as a **Secretary** of Indian Society of Geomatics [ISG]

Executive Member, Kodagu- Dakshina Kannada- Udupi Engineers’ Association

2010 Awarded **Best Paper** for “Sediment Characteristics of Dakshina Kannada Coast, West Coast of India” which was presented during the International Conference on Earth Sciences and Engineering, held at Hyderabad, on 21st August 2010.

Selected as Board of Examiners (BoE), PG, UVCE, Bangalore, Karnataka.

Selected as Board of Examiners (BoE), VTU, Belgaum, Karnataka

Selected as Board of Examiners (BoE), Anna University, Chennai, Tami Nadu.

Selected as Board of Examiners (BoE), Coimbatore Institute of Technology, Coimbatore, Tamil Nadu.

Selected as one of the Committee Members of the Board of Studies (BoS), for NIE, Mysore and NMAMIT, NITTE University, Nitte, and College of Engineering, Thiruvananthapuram.

One of the Editors of International Journal of Earth Sciences and Engineering

Reviewer of International Journal of Earth Sciences and Engineering, India

Reviewer of International Journal of Coastal Research, USA

Reviewer of International Journal of Imaging

Reviewer of Climate Change



Received **Prof. Satish Dhawan Young Engineers State Award for the year 2013**, instituted by the Government of Karnataka in recognition of outstanding contribution in the field of Engineering Sciences.



Received **Venus International Faculty Award for the year 2016**, instituted by Venus

Education Foundation, Chennai, in recognition of outstanding contribution in the field of Coastal Engineering Sciences.



Recognized as **IUCEE Faculty Fellows** for contributions to improving the quality and global relevance of engineering education in India in **The Fourth International Conference on Transformations in Engineering Education (ICTIEE 2017)**

Extra Curricular Activities

Reviewed the textbook titled “An Introduction to Geographic Information Technology” [ISBN: ISBN 81-88237-66-3] written by Sujith Choudhury, Deepankar Chakraborti and Suchandra Choudhury, published by I.K. International Publishing House Pvt. Ltd.

Identified as one of the resource persons in the area of remote sensing, GIS and image processing and delivered invitation talks in several institutes and schools. In addition to this, I have also given lectures in high schools both in Kannada and English, about remote sensing, GIS and GPS

Execution of all the works related to counselling, admission, academic, administration, hostel affairs, and students' affairs at NIT Goa, under the able guidance and support from the Director, NITK and other Administrative officials of NITK Surathkal and Goa College of Engineering, Ponda, Goa, in addition to taking Engineering Mechanics subject.

Serving as a Secretary of Indian Society of Geoinformatics [ISG]

Chairman of one of the technical sessions of ICOE'09, held at IIT Madras, India, 1-5th February 2009.

Co-Chairman of one of the technical sessions of SwaRM'10 held at NITK, Surathkal, India, 7th -9th January 2010.

Extracurricular activities- Drama, Sports, Singing, Folk Songs

Executive Member, Kodagu- Dakshina Kannada- Udupi Engineers' Association

One of the panel of judges for Dakshina Kannada – Udupi Vijgana Mela held at Vidyadayini School

Served as one of the judges for various events such as Kannada light music, folk dance/songs, Kannada drama etc., held in D. K. District

Chairman of one of the technical sessions of INCHOE'14, held at NIO, Goa, India, 5th – 7th February 2014.

List of Mini Projects/ Technical Seminars Guided (M.Tech/Ph.D.)

Wetland Management using using remote sensing

Classification of rain-fed and irrigated crops using remote sensing

Indian Satellite Family

Integrated Coastal Zone Management (Ph.D. Scholar).

Satellite Launch Vehicles past, present & future

Sediment Trend Matrix

Granulometric analysis of Netravati- Gurpur rivers

Landuse/Land cover map preparation by DIP

Nearshore Bathymetric Study by using RS data

Coastal pollution

Satellite Oceanography

Space Shuttle

International Space Station

Global Positioning System [GPS]

Variable Source Area Watershed Model

River Basin Soil Erosion Model [MUSLE]

Interlinking of Rivers

Numerical modelling to estimate groundwater contamination

Crime analysis using GIS

Littoral drift along D.K. Coast

Urban Hydrology

LU/LC change detection using high-resolution RS data

Dredging Equipment for Deep and Shallow Water Marine Applications

Technical Talks Delivered

Geoinformatics for Coastal & Water Resources Engineering	Workshop on Geoinformatics 29 th June 2026 Department of Civil Engineering, UVCE Bengaluru
Research & Reward	Faculty Development Programme for the academic year 2026–2027 11 th June 2026, St Aloysius (Deemed to be University), Mangalore
Geo-informatics in Coastal Engineering	HYDRO International 2025 - 30 th International Conference on Hydraulics, Water Resources, River and Coastal Engineering, December 18-20, 2025, National Institute of Technology Rourkela, Odisha, India.
Coastal Aquifers in the Context of Integrated Coastal Zone Management	Sustainable Groundwater Management for Water Security, June 21, 2024, held at the Karnataka Science and Technology Academy (KSTA) Office.
Role of Geoinformatics in Coastal Engineering	New Horizons in Civil Engineering (NHCE-2023) October 13-14, 2023 MIT Manipal.
Modes of Sediment Transport	Training Programme for KERS Engineers, Mysore.
Fundamentals of Fluid Mechanics, Selection of Turbines & Pumps	Transfer of Technology to Rural Areas, KREC, Surathkal
Performance of Seawalls along D.K.Coast	Departmental Technical Talk, KREC, Surathkal.
Decision Support System for civil engineering problems	During Workshop, Institute of Remote Sensing, Anna University, Chennai
Applications of RS & GIS for Coastal Engineering	AICTE / ISTE - STTP, KREC, Surathkal.
Sediment Dynamics along Mangalore Coast through RS & GIS.	Engineer' s Day, Institute of Engineers, Mangalore Chapter, Mangalore.
Fundamentals of Digital Image Processing	AICTE / ISTE - STTP, KREC, Surathkal
Digital Image Processing Methods & Applications	AICTE / ISTE - STTP, KREC, Surathkal
Study of Suspended Sediment Concentration (SSC) and its distribution along Mangalore Coast using RS & GIS.	AICTE / ISTE - STTP, KREC, Surathkal
Civil Engineering Applications of RS & GIS.	Engineer' s Day, MIT, Manipal.

Physics of Remote Sensing	NNRMS - STTP, Kongu Engineering College, Erode, TN.
Platforms and Sensors for Satellite Remote Sensing.	NNRMS - STTP, Kongu Engineering College, Erode, TN.
Visual Interpretation Techniques of RS data.	NNRMS - STTP, Kongu Engineering College, Erode, TN.
Digital Image Processing of RS data.	NNRMS - STTP, Kongu Engineering College, Erode, TN.
Fundamentals of Microwave Remote Sensing and its Applications.	NNRMS - STTP, Kongu Engineering College, Erode, TN.
Applications of Remote Sensing.	RSIP- 03, Kongu Engineering College, Erode, TN.
RS and GIS & Visualisation Capabilities for Interlinking of Rivers.	National Seminar on Interlinking of Rivers, UVCE, Bangalore.
Integrated Coastal Zone Management Plan (ICZMP) through RS & GIS - An Indian Scenario	National Seminar on National Resources Management for Sustainable Development, UVCE, Bangalore.
Bird' s Eye view of RS and GIS	STTP - AICTE - ISTE, IIT, Mumbai.
Fundamentals of Remote Sensing and GIS	STTP - AICTE - ISTE, College of Technology G. B. Pant University and Technology, Pantnagar, Uttaranchal State
Visual and Digital Image Processing	STTP-AICTE-ISTE, College of Technology; G. B. Pant University and Technology, Pantnagar, Uttaranchal state
Application of RS and GIS for Natural Resources Management	STTP - AICTE - ISTE, College of Technology G. B. Pant University and Technology, Pantnagar, Uttaranchal state
Remote Sensing Application in Coastal Engineering	Awareness programme on RS & GIS application in civil engineering, MIT, MAHE, Manipal
Applications of RS & GIS for Marine Pollution	World Environment Day, NITK, Surathkal
Application of RS & GIS for Infrastructure Development in India	STTP - AICTE - ISTE, Applied Mechanics Department NITK, Surathkal
Land use/land cover change Detection Analysis: An Indian Scenario	NASA-CWRDM-LU/LC Internation meet, CWRDM, Calicut
Tsunami Prediction and Mitigation measures	National workshop on Natural disasters, mitigation and management, NIE, Mysore
RS & GIS Applications in Natural Resources Management	National workshop on Geoinformatics, Mysore University, Mysore
RS & GIS Applications in Water Resources Engineering	National Conference on New Horizons in Civil Engineering - NHCE 2013, MIT Manipal

Fundamentals of Microwave Remote Sensing and its Applications in Coastal Engineering	Dept. of Civil Engineering, College of Engineering, Thiruvananthapuram
RS, GIS & GPS Applications in Civil Engineering	Christ The King College of Engineering, Coimbatore, Tamil Nadu
RS & GIS A RS & GIS Applications in Water Resources Engineering	One-day Workshop on Application of RS & GIS in Civil Engineering, Faculty of Engineering, EBET Group of Institutions, Erode, Tamil Nadu
Remote Sensing and GIS Applications in Sacred Groves Information System and Management- A Case Study of Kodagu District	International Conference on Conserving Biodiversity for Sustainable Development, 16-18 August 2013, NIT, Rourkela, Odisha
RS & GIS Applications in Civil Engineering	National Workshop on Civil Engineering Challenges in 21st Century, MITE, Moodabidri, Karnataka
Geoinformatics in Coastal Engineering	Shristi 2K14, LBS College of Engineering, Kasaragod, Karnataka
Tsunami Generation and its Mitigation Measures	ACCE Mangalore Chapter, Mangalore
RS & GIS A RS & GIS Applications in Water Resources Engineering	ACCE Week long Programme, KVG College of Engineering, Sullia, Karnataka, India
Geoinformatics for Civil Engineering	INTI International University, Kaula Lumpur, Malaysia
Remote Sensing and GIS in Civil Engineering	3 days technical fest SRISHTI 2K14, during 13,14 and 15 March 2014, LBS Collge of Engineering, Kasaragod, India
Effective Teaching Methodologies/ Engineering Mechanics	Centre for Continuing Technical Education, Karnataka
Coastal Erosion along Dakshina Kannada Coast	Recent Challenges in Atmospheric and Earth Sciences, 27-30 December 2014, Dept. of Chemical Engineering, NITK, Surathkal
Harnessing Energy From the Ocean	Renewable Energy Sources and Emerging Technologies (RESET), 1-5 September 2014, PESCE, Mandya
Geoinformatics in Integrated Coastal Zone Management Plan for Undived Dakshina Kannada Coast	Special lecture series programme on Integrated Coastal Zone Management for PG students,13-14 November 2014, Karnataka Veterinary, Animal and Fisheries Sciences University, College of Fisheries, Mangalore
Geoinformatics in Coastal and Water Resources Engineering	1st International Conference on Ingenious Technologies and Sustainable Developments in

	Civil Engineering, 8th October 2014, Noorul Islam University, Tamilnadu
Application of RS & GIS in Mining	Short-term course on Advances and Latest Developments in Mining Geology and Rock Mechanics, 2-4 April 2014, Dept. Of Mining, NITK, Surathkal
Applications of Remote Sensing and GIS in Coastal/Ocean Engineering	For M.Tech. Students, Dept. of Civil Engineering, College of Engineering, Thiruvananthapuram, 6th November 2014
Fundamentals of Remote Sensing and GIS	Short-term training programme on Introduction to CAD/CAM and STAAD, 3-7 July 2014
Digital Image Processing- A Game of Numbers	Short-term training programme on Introduction to CAD/CAM and STAAD, 3-7 July 2014
RS, GIS, GPS and Conventional Survey in Coastal Engineering	3 days training on advanced survey, NAMIT, Nitte, 29-30 July 2014
Advanced Coastal Survey	Three days State level Workshop on Advanced Surveying and Mapping Techniques, organised by AIET, Moodbidri, 26th - 28th February 2015
Selection of suitable Soil and Water conservation Structures through RS & GIS- A Case Study	One day National Workshop on Management Techniques of Rainwater Harvesting- Artificial Recharge Structures D.K. and Udupi Districts of Karnataka conducted by MITE, Moodbidri, 18th April 2015
Ocean Energy	Invited talk at Srinivasa Institute of Technology, Mangalore on 11.09.2015.

Countries Visited

Country visited	Period of Visit		Purpose of visit
	From	To	
Colombo, Sri Lanka	13/02/2018	18/02/2018	To attend and present paper in the 2nd International Conference on Climate Change 2018 ICCC.
McGill University, Montreal, Canada	26/10/2015	03/11/2015	Research interaction with Prof. Shiv O. Prasher and academic and research collaboration and initiation of MoU and GIAN program.
Kuala Lumpur, Malaysia	14/04/2014	17/04/2014	To attend and present paper in the International Conference 2014 IEEE Region 10.
University of South Carolina, USA	21/02/2012	04/03/2012	For research interaction with the Professors of Dept. Of Geological Sciences & Marine Science Program, USC, USA
Kiel, Germany	13/09/2010	02/10/2010	To attend the Summer School on “Field methods and eco-hydrological models for integrated water management in rural areas” held at Kiel University
Kagoshima, Japan	20/05/2008	03/07/2008	For research interaction with the Professors of Ocean Civil Engineering, from Kagoshima University, Japan.
Florence, Italy	15/09/2007	21/09/2007	To attend and present paper in the International Conference SPIE’ 07.

Computer Skills

Image processing software	ERDAS Imagine 9.0 - 9.2, ENVI, EASI / PACE
GIS Software Professional, GRAM	ARC/INFO, ARCVIEW, ARC GIS, Geomedia
Marine Modeling software	MIKE 21, OCM DAS
Statistical Analysis Tool	SPSS
Operating System	Windows, UNIX
Others	MS Office

Name and Address of Professional References

Dr. Ramesh H.

Professor & Head,
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