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ISH - NEWSLETTER

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Announcement for International Conference ISH - HYDRO 2024

Central Water & Power Research Station (CWPRS), Pune, in association with The Indian Society for Hydraulics (ISH), is organizing the 29th International Conference on Hydraulics, Water Resources, River, and Coastal Engineering -- "ISH-HYDRO 2024 International" during December 18-20, 2024, at CWPRS, Pune, India. The conference aims at providing a forum for dissemination of recent contributions from academicians, scientists, researchers, practitioners and consultants in the fields of hydraulics, hydrology, water resources, river and coastal Engineering

The Conference aims to bring together engineers, scientists, and professionals involved in the design, planning, construction, maintenance, and research aspects of Hydraulics, Water Resources, River, and Coastal Engineering to interact and exchange their experiences through invited lectures, paper presentations, and panel discussions.

The conference is poised to be a premier gathering of innovation and expertise. The event is likely to witness about 400+ papers and 600+ participants, making this a unique opportunity for experts, scholars, and industry leaders to share their latest research and developments. Engaging with experts and stakeholders provides invaluable insights into emerging trends and challenges, positioning your organization as a key player in the industry.

An exhibition is also planned for exhibitors to showcase their products and capabilities, offering glimpses into the future of technology in these fields. By participating through sponsorship or exhibition, stakeholders can enhance their industry presence, leverage networking opportunities, and gain exposure to cutting-edge research and technological advancements.

Following e-mail and web pages provide more details of the conference.
Visit the webpage *https://cwprs.gov.in/Page/HYDRO-2024.aspx*
Visit the webpage https://ish.net.in/ for brochure or contact on email *hydro2024@ish.net.in* for any queries related to the conference.

ANNOUNCEMENTS FOR ANNUAL ISH AWARDS 2024

Nomination for S.N. Gupta Memorial Lecture

Prof. Vijaykumar Gupta of Colorado University, Boulder (USA) has donated a sum of Rs. 2.5 lakhs towards hosting a memorial lecture in the field of Hydraulics and Hydrological Engineering in the name of his father, late Shri S.N. Gupta, former Secretary, CBIP and Director of U.P. Irrigation Research Institute, Roorkee. The lecture series was started from the year 2003. Nominations are invited for delivering the lecture in this series. This award is given alternatively to a young scientist/ academician/ researcher below 45 years and a senior scientist/ academician / researcher. **This year it is the turn of a young scientist/ academician/ researcher.**

The nomination letter should contain information about his expertise of the topic on which he will speak. Self nominations are generally discouraged. The lecture would be held during 29th International Conference ISH-HYDRO 2024 at Central Water & Power Research Station (CWPRS), Pune, INDIA. The last date for receiving nominations is 30th Sept, 2024.

Nomination for Prof. R J Garde Young Researcher Award

ISH constituted this Award in memory of Late Prof. R.J. Garde with the deposit offered by his family and his students to promote young researchers in the field of Hydraulics and Hydrology. It shall be awarded in the form of a cash prize of Rs. 10000/-, a memento and a certificate. This year the award shall be presented during the International ISH-HYDRO Conference 2024 of the ISH to be held at Central Water & Power Research Station (CWPRS), Pune, INDIA. The nominations should be submitted to the ISH Secretariat for further processing. The award shall be given to young engineers, scientists and researchers who have not completed 45 years of age. The award will be open to Indian Nationals only. The award shall be given mainly for the work done in India in the area of Water Resources Engineering in general and Hydraulic Engineering in particular. One complete nomination package **(Single .pdf file)** should be submitted to the ISH in the form of soft copy by 30th Sept, 2024. The following information must be included in the nomination.

1. Name of the Candidate with complete postal address and mobile number, E-mail, date of birth, age, on last date of nomination
2. Letter of nomination including a statement of not more than 500 words of the Significant Contributions and / or national/international impact and future potential.
3. Two letters of recommendation
4. Chronology of education
5. Chronology of jobs held
6. Complete list of referred publications in journals and conferences (Scanned copies of the first page of five most recent Journal publications is to be attached)
7. Certificate of age should also be attached
8. Any other relevant information

Nomination for ISH R J Garde Life Time Achievement Award

The Indian Society for Hydraulics has instituted Life-Time Achievement Award for Hydraulic Engineer / Scientist from India who has contributed significantly in the field of hydraulic engineering and water resources. The award consists of Rs. 10,000/- and a citation. **Nominations/proposals are invited from the ISH Life members.** Self-nominations are generally discouraged. The nominations should be submitted to the ISH Secretariat for further processing. The last date for receiving nominations is 30th Sept, 2024.

Nomination for Best M Tech Thesis award in three categories, viz Hydraulics, Water Resources and Coastal Engineering & Best Ph D Thesis Award

The Indian Society for Hydraulics (ISH) has instituted Best M Tech Thesis awards in three categories viz. Hydraulics, Water Resources and Coastal Engineering, to encourage the young Indian students from recognized technical institutions. The Dissertation/Thesis must have been successfully defended during October 1st, 2023 to September 30th, 2024. The award will be in the form of a cash prize of Rs. 5,000/- for the M Tech dissertation on each of the above themes & a certificate. Also, apart from above, one PhD Thesis would be awarded, overall, in the areas of Hydraulics, Water Resources and Coastal Engineering having a cash prize of Rs. 10,000/- & a certificate. This year the award shall be presented during the upcoming International HYDRO Conference 2024 of ISH to be held at Central Water & Power Research Station (CWPRS), Pune, India. The recommendations should be submitted to this email **ish.academicaward@gmail.com** only through their respective supervisors for further processing. The award will be open for Indian nationals only. The last date for receiving nomination is September 30th, 2024.

The nomination should contain the following:

(i) A Nomination letter shall include brief (one para) CV of the candidate,

(ii) A Pdf file of the dissertation/thesis not exceeding 20 MB in size,

(iii) Any other recognition received for the dissertation/thesis like Papers published in journals based on the Thesis work included in SCOPUS (cite score), SCI/SCI(E) (Clarivate analytics); reputed International/ National conference proceedings, book chapters, transfer of technology, if happened,

(iv) Names and affiliations of the referees, who acted as examiners,

(v) The nominees are requested to submit the duly filled proforma enclosed at **Annexure-I** along with justification note as mentioned.

ISH assures full confidentiality/copyright of the dissertation/thesis, which will be used for the purpose of deciding the awards only.

Annexure – I

Format for evaluation of the ISH Best M Tech Thesis award in three categories, viz Hydraulics, Water Resources and Coastal Engineering & PhD Thesis Award (2023-24)

Instituted by the Indian Society of Hydraulics (ISH)

I. General Information

Name of the Student:

……

Name of the course:

……

Name and address of the Department/University/ Institute: ……

Place where the Project work was undertaken:……

Duration of dissertation: ……

Year & ……months

Starting date: ……

Completion date:……

II. Name of the research guide(s) and affiliation(s):

……

III. Title of the dissertation:……

IV. Thematic area of the dissertation:

V. Evaluation Sheet:

No	# Criteria
1	Originality/novelty
2	Structure and quality of writing
3	Background, literature review, problem definition and objectives
4	New numerical and experimental techniques developed
5	Presentation of results, discussion and overall conclusions
6	Significant outcome and scope of future work
7	Societal importance
8	Publications/patents/copyrights (based on supporting documents)

 # Please justify point-wise the evaluation criteria given above in a separate one-page note for assessment by evaluation committee.

VI. Additional Comments (if any):

VII. Name and Address, email/ Contact No. of the – self & Nominator

Announcement of Award for Best Paper (Maritime Hydraulics) Presented in Annual HYDRO Conference

The Indian Society for Hydraulics (ISH) has established an award for the Best Paper in the field of Maritime Hydraulics presented at the annual HYDRO conference organized by ISH. Dr. V. SUNDAR, FINAE , Fellow IAHR, Professor Emeritus (Formerly), Advisory Consultant, Dept of Ocean Engineering, I.I.T. Madras, has donated a sum of Rs. 1.5 lakhs towards the award for the Best Paper in the field of Maritime Hydraulics presented at the annual HYDRO conference, on his name. The award is named as "Prof. VALLAM SUNDAR" for the best paper presentation in Maritime Hydraulics". The award will be in the form of a cash prize of Rs. 5,000/- & a certificate. It will be awarded starting from the next HYDRO conference "HYDRO 2024 International" which is going to be held at Central Water and Power Research Station (CWPRS), Pune, INDIA.

ISH EXECUTIVE COUNCIL MEMBERS FOR 2024-2026

The following members elected for ISH Executive Council 2024-26 in online election held on 13.06.2024:

1. **Prof. M.C. Deo,** Professor Emiratus, IIT, Bombay
2. **Dr. J.D. Agrawal** D.Y. Patil College, Pune
3. **Shri M.K. Verma**, Scientist 'D', CWPRS, Pune
4. **Dr. A.K.Singh** Scientist 'C', CWPRS, Pune
5. **Shri V.K. Shukla**, Scientist 'D', CWPRS, Pune
6. **Shri B.S. Sundarlal**, Scientist 'C', CWPRS, Pune
7. **Shri Kuldeep Malik,** Scientist 'C', CWPRS, Pune
8. **Dr. T.I. Eldho,** Professor, IIT, Bombay
9. **Dr. P.L. Patel,** Director, VNIT, Nagpur
10. **Dr. L.R. Ranganath,** WAPCOS, Bengaluru
11. **Dr. H.L. Tiwari,** Professor, MANIT, Bhopal
12. **Dr. V. Jothiprakash,** Professor, IIT, Bombay
13. **Dr. D.G. Regulwar,** Prof, GCOE, Pune
14. **Dr. Vikas Garg,** Professor, CU, Haryana
15. **Dr. Balaji Ramakrishnan**, Professor, IIT, Bombay

The following members are Ex-Officio members as per the ISH Constitution

I. **Dr. R.S. Kankara,** Director, CWPRS, Pune (Past President)

II. **Shri Amit Kulhare**, Scientist 'C', CWPRS, Pune (Past Secretary)

ISH Office bearers for 2024 - 2026

The following Office Bearers (2024 - 2026) were elected unanimously during the 1st EC meeting held on 1st July 2024.

President	: **Prof. P.L. Patel**
Vice President	: **Prof. H.L. Tiwari**
Vice President	: **Dr. J.D. Agrawal**
Secretary	: **Shri Amit Kulhare**
Joint Secretary	: **Shri V.K. Shukla**
Treasurer	: **Dr. A.K. Singh**
Chairman Editorial Board	: **Prof. M.C. Deo**

As per the suggestion of EC members following members have been co-opted for the Executive Council 2024-26 unanimously:

: **Prof. K. K. Khatua, NIT Raurkela**

: **Dr. R.G. Patil, Additional Director, CWPRS, Pune**

: **Prof. S. A. Sannasiraj, IIT Madras**

Member in News

Prof. (Dr.) Prem Lal Patel
Director, VNIT Nagpur

Prof. Prem Lal Patel took over as the Director of Visvesvaraya, National Institute of Technology Nagpur, India on 21st May 2024. He is Professor (HAG) of Hydraulics and Water Resources in Department of Civil Engineering, Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat. He served as Deputy Director of the SVNIT during Sept 17, 2019 to Sept. 16, 2022. He served as Dean (PG), Dean (R&C), Dean (Academic), and the Head, Dept. of Civil Engineering at SVNIT Surat. Prior to joining SVNIT in 2007, he served as Associate Professor, in Department of Civil Engineering in Delhi College of Engineering (now DTU) for eight years. Prior to working at Delhi College of Engineering, he served as Assistant Executive Engineer (Civil) in Border Roads Organization (BRO), Ministry of Road Transport and Highways of India, Govt. of India from 1995-1999.

He did his Bachelors in Civil Engineering from Government Engineering College, Rewa, Madhya Pradesh, India and, then, pursued his Master and Doctoral Degrees in Civil Engineering from Indian Institute of Technology Roorkee, India (the then University of Roorkee).

His research areas include River Mechanics and Flood Control; Hydrological Modelling and optimization of water resources systems; and Impact of climate change on water resources. He guided 14 Doctoral Theses, 49 Master Theses and executed more than six high values sponsored research projects and more than 25 Consultancy Projects. He has more than 260 papers in peer-reviewed journals and conferences of repute. He is a member of various Technical Societies and Expert Committees. Prof. Patel visited various countries like the United States of America, the Netherlands, China, Italy, Japan and Dubai for presenting his research work.

He was earlier climate changing working group of IAHR dealing with Fluvial Mechanism. He is also Fellow member of Indian Society for Hydraulics, Indian Water Resources Society, and Institution of Civil Engineers, India.

He has been instrumental in setting up a Centre of Excellence (CoE) on **Water Resources & Flood Management** in SVNIT Surat through research grant from World Bank sponsored TEQIP-II.

He is a fellow member of the Indian Society for Hydraulics, Pune and presently holding the post of President of the Executive Council of ISH.

Challenges and Opportunities in Coastal Observations

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Abstract

Oceans play a major role in global climate patterns and ecosystems. Coastal zones, on the other hand, are more susceptible to natural and man-made hazards, thus requiring constant and consistent monitoring of their changing dynamics. Coastal observations help usimprove our understanding of the dynamics, which leads to better resource management.This article presents the opportunities for coastal observations and the associated challenges we have experienced through our research about (i) Eulerian and (ii) Lagrangian methods of in-situ data collection techniques. Such data collected from the field measurement campaigns help us calibrate and validate various numerical model sextensively used in coastal engineering research to estimate ocean dynamics in space and time scales.

Keywords: Coastal observations, Eulerian and Lagrangian technique, currents, water levels, in-situ data.

1. Introduction

Collecting high-quality field data is indispensable for any research project. In-situ measurements are necessary for understanding the actual near shore processes and determining the dominant parameters in the areas under observation. Numerical models built on a set of governing equations and a number of empirical parameters help us estimate the temporal and spatial variation of coastal dynamics. The primary advantage of the numerical models is that they can be of great use in forecasting and hindcasting the physical processes. However, the results of these numerical models must be validated with in-situ observations, due to the predominantly empirical or control parameters that govern the estimations. On the other hand, the utilization of satellite imagery to derive physical parameters has been increasingly seen in the research domain due to the abundant remote-sensing data sets. These images are taken by satellites often require processing and algorithms to yield the required engineering parameters. Again, this algorithm needs to be validated with field-measured data to improve the accuracy of the estimations. Generally, in coastal engineering research, our field studies focus on measuring waves, tides, near shore currents and long shore sediment transport. In-situ observations in the near shore and estuarine environment faced multiple practical challenges due to significant turbulences and complex physical processes. Generally, flow parameters have traditionally been obtained using the Eulerian approach, fixed position devices such as Acoustic Doppler Velocimeters (ADV) and Acoustic Doppler Current Profilers (ADCP). Alternatively, the Lagrangian approach is adopted, in which drifters are deployed to obtain flow measurements. While the Eulerian approach provides limited coverage and sparse measurements, a combined Eulerian-Lagrangian approach provides more insight into environmental hydrodynamics. It has been proven in many research studies that ADCP can be supplemented by a cluster of drifters to collect flow–current measurements in the domain of interest. Drifters with Global Position System (GPS) have proved to be an efficient instrument in characterizing the hydrodynamics of a water body as they provide both spatial and temporal coverage. The following sections explain some of our research experiences in field measurements.

2. Eulerian Approach

Many times, marine infrastructure project developments require measurements of hydrodynamics in a relatively small region in open-sea conditions. For example, the development of a fishing harbour, coastal protection works and marine-front structures. As the field data collection over a large open-sea spacial domain would obviously be demanding huge resources, deploying instruments at selected representative points, for the measurement of oceanographic parameters would serve the purpose. In the Eulerian approach, the hydrodynamic parameters at a particular location are measured over a period of time, depending on the type of project interest. This method is advantageous for relatively long-term measurements to capture the temporal variations of various oceanographic parameters, which can then further be extrapolated to obtain return values of engineering parameters that govern the design of marine/offshore structures. Generally, Recording Current Meters (RCM), ADCP, ADV and wave buoys are deployed to measure tidal levels, currents and wave characteristics at a particular location over a specific period of time.

Some of our earlier experiences of deploying such equipment taught us that the challenges are unique in every location-specific measurement campaign. For instance, depending on the site conditions and the duration of deployment, the mounting frame for our RCM was designed, fabricated and deployed (Fig. 1). In one of our field measurement exercises, the sea-bottom sediments are silty that required special attention to the design of the frame such that the resistance of soil while retrieving the equipment after the measurement period. In another campaign, a simple but reliable rope-and-pulley arrangement was used to conveniently lower the instrument from the boat at the desired water depth to collect the data. At other locations where the strong currents are naturally prevailing, apart from the specific design of the mounting frames, the estimated amount of additional dead-weights needs to be added for the stability of the equipment setup under the water. Such pre-calculated deployment ensures that we carry out fail-proof field measurement campaigns and conserve resources. In addition, during our in-situ campaigns, it is ensured that more parameters than what may originally be required as part of the project objectives are simultaneously collected in order to avoid any repeated measurements and excess cost expenditure. Apart from the temporal variations of water levels, current speeds and directions, some of our equipment is also capable of measuring turbidity, pressure, temperature and salinity, which are useful in validating estimated oceanographic parameters from numerical models.

The primary advantage of ADCP is that we get the profile of instantons current characteristics at various levels of the water column of the water depth at which the equipment is deployed. Such vertical velocity profiles are essential to understanding the mixing, exchanging and circulation pattern of physical processes that govern the dynamics of the ocean. Through multiple research project-based deployments, we have demonstrated the successful applications of ADCP (Fig. 2). The important aspect of measuring the velocity profile using ADCP is the verticality of the instrument position throughout the measurement period. Generally, we adopt a specially designed gimbal to mount ADCPs, so that the equipment aligns vertically with any slight tilt by the prevailing waves/currents and or by the uneven seabed. Further, careful investigation of the raw data extracted from ADCP can also explain the reality. For instance, in one of our field measurement campaigns, in which ADCP was deployed in a surf zone where the long waves break at times, from the measurement parameters, we were able to distinguish the fall of the equipment on the side

(Fig. 3), including the time of the incident. Such thorough analysis helped us eliminate erroneous data before processing it for further applications and visualizing the hydrodynamics (Fig. 4). The demand for the Eulerian method of in-situ data collection in the coastal engineering field of research is ever-increasing due to a large number of marine infrastructural project developments along the Indian coastline.

Fig. 1 RCM and installation methods

Fig. 2 ADCP and typical deployments

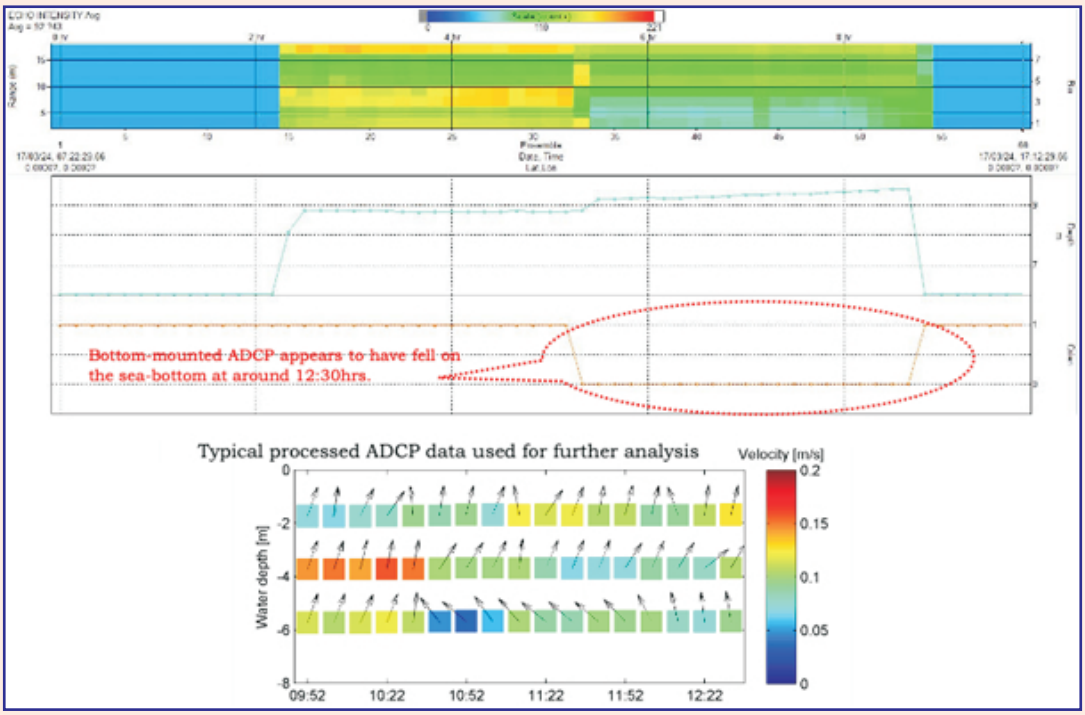


Fig. 3 Quality check on raw data from ADCP

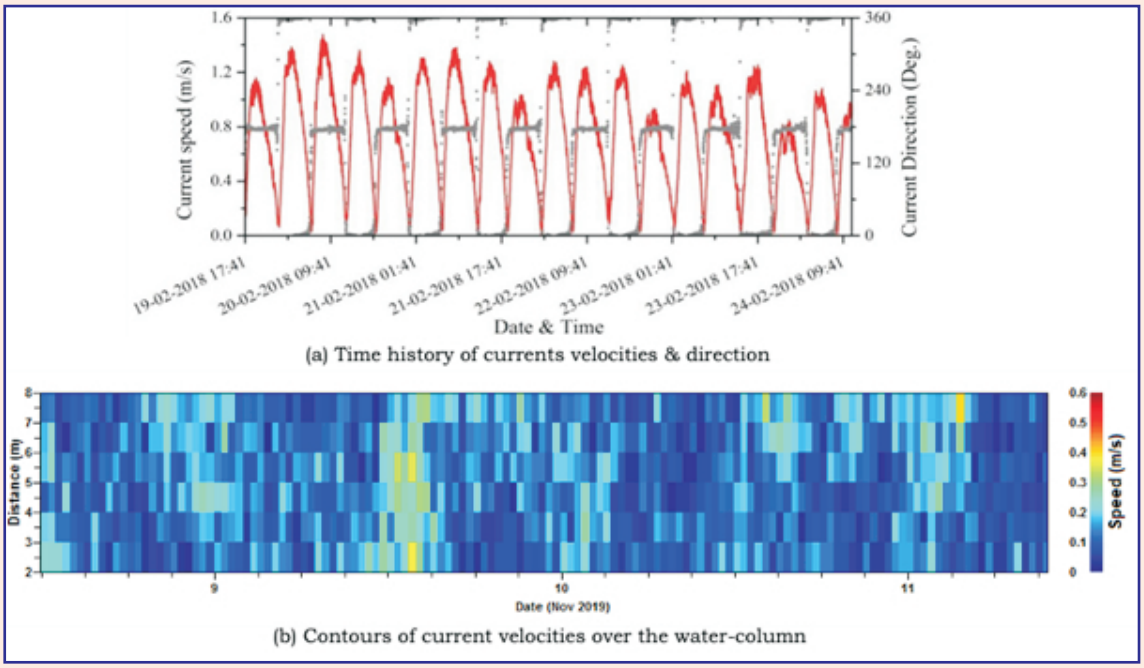


Fig. 4 Typical processed in-situ data from a ADCP

3. Lagrangian Approach

Lagrangian method is often employed to obtain an overall picture of circulation patterns in the region of our interest. This approach provides a quantitative spatial description of physical processes. Lagrangian drifters are devices used to understand circulation patterns in the ocean, primarily as passive instruments driven by prevailing currents. Physical, chemical and biological oceanographers need to capture the complex dynamics of the ocean, the circulation patterns in estuarine and creek systems and the dispersion characteristics. Through multiple field measurement campaigns, we have successfully demonstrated the application of GPS drifters in understanding the surface current patterns in complex water bodies, such as creeks, estuaries, tide-dominated rivers and along the surf zones of coastal regions. Generally, multiple drifters (clusters) are deployed simultaneously in our field measurement campaigns so as to map the spatial variations of currents. These drifters are fitted with suitable electronics to communicate their instantaneous positions to the base station on the coast, as well as other drifters that improve efficiency. Although the drifters capture the surface currents, they are of great use in shallow-water depths, like estuaries and nearshore or breaker zones, where the deployment of conventional Eulerian equipment may fail to perform.

Moreover, in such shallow waters, the velocity profiles shall conveniently be assumed to be fairly uniform. The GPS-drifters, available with IIT Bombay, are portable (150mm diameter) and easy to deploy/retrieve in any marine environment (Fig. 5). The trajectories of the drifters, obtained from the field experiments, help us understand the complex tidal flow patterns, in creek system, rivers and open coast (Fig. 6), during flood and ebb periods. Interestingly, these drifters can capture the natural deflections of the long shore coastal currents near any man-made infrastructures, an aspect that the Eulerian approach and point-installation equipment may fail to measure. Understanding lon gshore hydrodynamics is essential for accurately estimating sediment transport, thereby adopting appropriate coastal erosion mitigation measures. Through extensive field measurement campaigns along Puducherry coastline (Fig. 7), we have demonstrated the

application of GPS drifters in understanding the surf-zone hydro and morpho-dynamics. The Lagrangian approach-based field experiments were conducted along Maharashtra's West Coast of India. The drifter experiment-based datasets are invaluable in calibrating the turbulence coefficients of numerical models that govern the wave-breaking and sediment transport characteristics.

Fig. 5 GPS drifters, typical deployment and retrieval

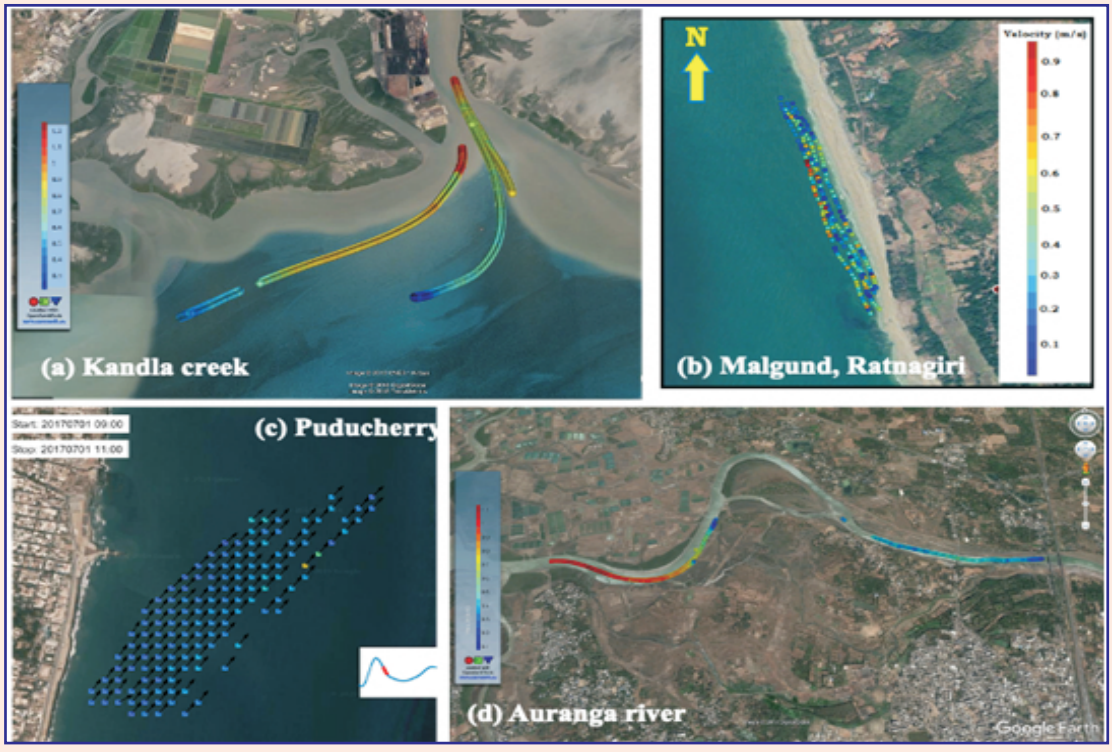
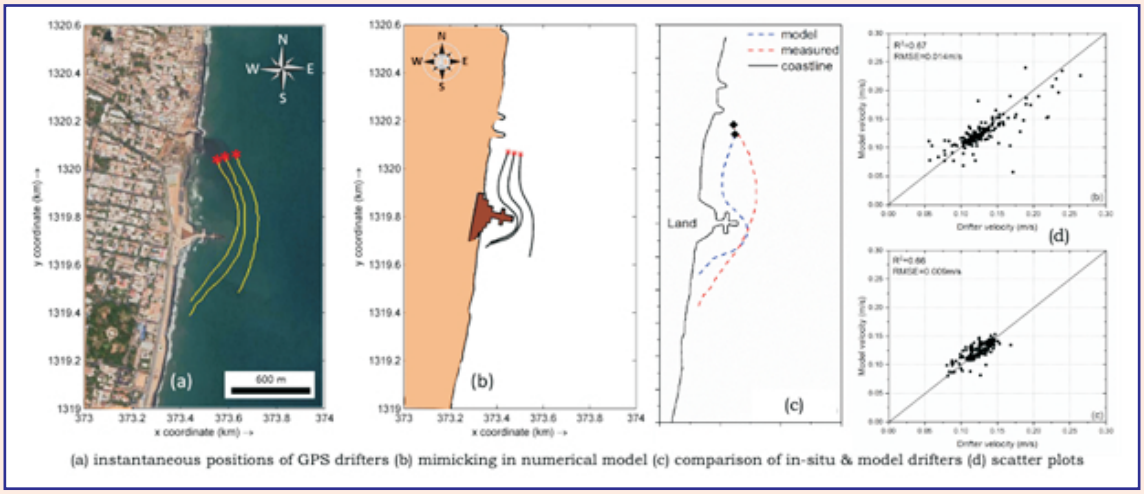


Fig. 6 Measured surface current patterns rivers, creeks/estuaries, and open coastlines



(a) instantaneous positions of GPS drifters (b) mimicking in numerical model (c) comparison of in-situ & model drifters (d) scatter plots

Fig. 7 Calibration and validation of numerical model, using drifter data

4. Summary

Researchers and scientists must understand the dynamics of coastal zones to prepare better resource management plans. Implementing any mitigation measures against natural and or man-made hazards that threaten the ecosystems and communities living along the coast, primarily banking on a thorough knowledge of the dynamics. In-situ observations, an integral part of the coastal engineering field of research, are the key for benchmarking the performance characteristics of computer-based modelling tools, which are widely used to estimate various physical parameters in hind- and forecasting modes. While the various challenges during the field measurement campaigns always prevail, researchers have been developing techniques and tools that improve the efficiency of the data collection approaches. Through our limited experience in in-situ data collection, in this article, we highlight the successful demonstration of Eulerian and Lagrangian approaches in measuring essential physical parameters in the coastal zone, where the presence of turbulence is a known challenge. Nonetheless, demonstrations, such as case studies discussed in this article and lessons learnt, pave the way to explore more avenues to understand our coast better. Mapping the coastal dynamics on temporal and spatial scaleswould help us in implementing sustainable coastal management plans to conserve the fragile ecosystem.

5. Acknowledgement

The article is prepared based on the field works of various funded research and student projects. With gratitude, the author would like to acknowledgethe contributions of all the students, engineering staff, collaborators and funding agencies.

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List of New ISH Life Members Joined from January 2024 to June 2024

ISH MEMBERSHIP NO.	NAME	INSTITUTE
1639	Vishal Telgote	CWPRS, Khadakwasla, Pune 411024
1640	Sridhar Krishnamoorthy	Marine hydrodynamics Lab, Departhment of ocean Engineering, IIT Madras, Chennai India 600036
1641	Soumyashree Pani	Marine hydrodynamics Lab, Departhment of ocean Engineering, IIT Madras, Chennai India 600036
1642	Dr. V Vamsi Krishna	Department of civil engineering, NIT Warangal, Hanumakonda, Telangana 506004
1643	V. Prabhakara Chary	RSWG Division, CWPRS, Pune
1644	Khan Sabeel Ahmed Abdul Jalel	Walmi Campus, Kanchanwadi, Aurangabad
1645	Dr. Sivakumar Ramalingam	Department of Civil Engineering, National Institute of Technology, Puducherry, Karaikal, Puducherry, India 609 609
1646	Dr. Abhijith G. R.	Department of Civil Engineering, Indian Institute of Technology Kanpur, Kalyanpur, Kanpur, Uttar Pradesh 208016
1647	Dr. K. Narendran	Department of Ocean Engineering, IIT Madaras, Chennai, Tamil Nadu, India 600036
1648	P. H. Tarudkar	CWPRS, Khadakwasala, Pune 411041
1649	Dr. Jayshree Hazarika	Department of Civil Engineering NIT Silchar, Dist- Cachar, Assam, India 788010
1650	Dr. Shilpa Dongre	Civil Engineering Departmnet, Visvesvaraya National Institute of Technology, Nagpur 440010
1651	Dr. Ramya Priya R	HAPT, Division, CWPRS, Pune 411024
1652	Ms. Suneeta Jatwa	RSA Division, CWPRS, Pune 411024
1653	Dr. Kumaran Viswanathan	CHS Division, CWPRS, Pune 411024
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Details of Upcoming Conferences

Sr. No	Name Of the Conference	Date	Venue
1	8th International Conference on Estuaries and Coasts. ICEC 2024	Aug 27- Aug 29, 2024	Québec, Canada
2	12th International Conference on Fluvial Hydraulics. River Flow 2024	Sep 2 - Sep 6, 2024	Liverpool,UK
3	24th IAHR Asia and Pacific Division Congress	Oct 14 - Oct 17, 2024	Wuhan, China
4	2024 International Hydropower Development Conference	Nov 1 - Nov 30, 2024	Beijing, China
5	ASCE International Conference on Challenges and Innovations for Sustainable Smart Cities (CISSC- 2025)	Feb 7- Feb 9, 2025	Chandigarh, India
6	41st IAHR World Congress "Innovative Water Engineering for Sustainable Development	Jun 22 - Jun 27, 2025	Singapore, Singapore
7	6th International Symposium on Shallow-Flows (ISSF 2025)	Sep 15 - Sep 18, 2025	Turin, Italy
8	13th International Conference on Fluvial Hydraulics (River Flow 2026)	Jun 30 - Jul 4, 2026	Thessaloniki, Greece

The Indian Society for Hydraulics
as a body accepts no responsibility for the statements made by individuals.
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