HYDRO -2021 International



(Revised on October 1, 2021)

26th International Conference on

Hydraulics, Water Resources and Coastal Engineering

December 23-25, 2021

(Online Mode)

Organised by

DEPARTMENT OF CIVIL ENGINEERING

(CENTRE OF EXCELLENCE ON "WATER RESOURCES AND FLOOD MANAGEMENT")



SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY (SVNIT-SURAT) SURAT-395007, GUJARAT, INDIA Under the aegis of



THE INDIAN SOCIETY FOR HYDRAULICS (ISH), PUNE



SVNIT





NATIONAL INSTITUTE OF TECHNOLOGY



ABOUT THE CONFERENCE

The Department of Civil Engineering of SVNIT-Surat is organizing 26th International Conference on Hydraulics, Water Resources and Coastal Engineering as a part of its diamond jubilee celebration of SVNIT-Surat. The conference is aimed at providing a forum to academician, scientists, researchers, practitioners, field engineers and consultants for intellectual discussion and dissemination of information derived from their contributions in fields of Hydraulics, Water Resources and Coastal engineering.

ABOUT THE SVNIT-SURAT

The institute was initially established as Sardar Vallabhbhai Regional College of Engineering & Technology in 1961, and was upgraded as Sardar Vallabhbhai National Institute of Technology (SVNIT) in 2002. The SVNIT Surat is one of the pioneering National Institute of Technology in India set up with the objectives to provide high quality technical education to meet the needs of the National and global standards. The institute is spread over 250 acres of land on Surat-Dumas Road and located at a distance of 10 km from Surat Railway station and 5 km from the Surat International Airport. At present, the Institute is offering 6 UG Programmes, 19 PG Programmes and 3 M.Sc. Five Years Integrated Programme including doctoral programme in 9 acedamic departments. The Department has been running one UG programme in Civil Engineering, seven PG programmes (Water Resources Engineering, Environmental Engineering, Urban Planning, Transportation Engineering & Planning, Structural Engineering, Geotechnical Engineering and Construction Technology & Management) and the research programmes leading to Ph.D. degree in different areas of specializations. The department has 44 faculty members with specialization on various themes of Civil Engineering.

ABOUT CENTRE OF EXCELLENCE

The Water Resources Engineering section of the department has full-fledged facilities for UG/PG and PhD programmes under the leadership of eight dedicated faculty members. The section has taken lead to establish Centre of Excellence (CoE) on 'Water Resources and Flood Management' being funded from World Bank under TEQIP-II. The CoE aims to develop excellent computational and experimental facilities in the area of Hydraulics and Water Resources; develop Early Warning System for flooding in Surat city; and organize short term training programmes on thematic areas to the academicians and practitioners in the field.

ABOUT THE ISH-PUNE

The Indian Society for Hydraulics (ISH), Pune was established in year 1992 as a technical, non-profit national organization which provide a forum for Engineers, Scientist and other technical personnel engaged in various activities related to Hydraulics, Water Resources and Coastal Engineering. Its objectives includes:

- To disseminate information in the field of Hydraulics through seminars and symposia.
- To publish papers related to research/review/design and investigation in the ISH Journal of Hydraulic Engineering together with a News Letter at frequencies as considered necessary.
- To liaision with various International Societies working the field of hydraulics such as the International Association for Hydraulics Research (IAHR) etc.
- To accord recognition to outstanding workers in Hydraulics through suitable awards.

THEMES

Papers on the following Themes/Sub-themes are invited from Academicians, Scientist, Practising Engineers, Researchers, Consultants and other associated with Hydraulics, Water Resources and Coastal Engineering.

1. Environmental Hydraulics (EH)

- (a) Environmental Impact Assessment of Water Resources Projects
- (b) Hydrodynamics of Flow-biota Interactions
- (c) Water Recycling and Reuse
- (d) Environmental Flows in Natural Rivers
 (e) Pollutant Transport in Rivers
 (f) Groundwater Contamination

- (g) Sea Water Intrusion

2. Geospatial Technologies in Water Resources Engineering(GTW)

- (a) Satellite derived data for Hydrologic Applications
- (b) Usage of GPS in Water Resources Engineering Applications
- (c) GIS and RS Applications in Water Resources Management

3. Soft Computing Techniques in Water Resources Engineering (STW)

- (a) Hydro-Informatics
- (b) Rainfall and Streamflow Prediction
- (c) Optimization of Water Resources Systems
- (d) Data Driven and Artificial Intelligent based Hydrological Modelling

4. Flood Forecasting and Mitigation Measures (FFM)

- (a) Early Warning System
- (b) Assessment and Development of Flood Vulnerability, Hazard and Risk Maps
- (c) Urban Flood Modelling and Management
- (d) Structural and Non-structural Measures for Flood Mitigation
- (e) Dam Hazard Classifications
- (f) River Training and Protection Works

5. Coastal / Harbor and Ocean Engineering (COE)

- (a) Coastal Disasters including Tsunamis, Cyclones and Storm Surges
- (b) Sea Level Rise
- (c) Coastal Structures and Oceanography
- (d) Wave-Structure Interaction

6. Experimental and Computational Fluid Mechanics (ECF)

7. Fluvial Hydraulics (FH)

- (a) Fluvial Geomorphology
- (b) Sediment Dynamics
- (c) Turbulence-Sediment Interactions
- (d) Reservoir Sedimentation and Dredging including the Rivers
- (e) Local Scouring around Hydraulic Structures
- (f) Numerical Models and Machine Learning Tools for Alluvial River Problems

8. Hydrology and Hydrologic Modelling (HHM)

- (a) Groundwater Modelling and Management
- (b) Integrated Water Resources and Watershed Management
- Surface Water Hydrology (c)
- (d) Drought Assessment and Mitigation
- (e) Risk, Reliability and Design of Hydrologic System

THEMES

9. Climate Change Impact on Water Resources (CCW)

- (a) Climate Change Assessment and Downscaling Issues
- (b) Climate Change Impact and Adaptive Measures
- (c) Influence of Climate Variability on Hydro-climatic Variables
- (d) Impact of Climate Change on Water Resources of Indian Rivers

10. Hydraulic Structure and Hydropower project (HSH)

- (a) Dam Safety and Monitoring
- (b) Rehabilitation of Old Darns
- (c) Operation and Maintenance of Dams including their Instrumentation
- (d) Risk and Uncertainty in Hydropower Development and Management
- (e) Design of storage and diversion dams including their Appurtenant Structures
- (f) Streamflow Turbines
- (g) Canal Operation and related Structures
- 11. Challenges in Management of Water Resources and Flooding in West Flowing Rivers (CMWW)

DATES AND VENUE

The conference will be held on **December 23-25**, 2021 at Department of Civil Engineering, Sardar Vallabhbhai National Institute of Technology, Surat- 395007, Gujarat, India.

The detailed program will be made available on website https://www.svnit.ac.in/conference/HYDRO2021
by December 16, 2021.

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CALLFORPAPERS

You are invited to submit abstracts on the mentioned themes through electronically by July 31, 2021.

The abstract format shall be referred from the details guidelines from the paper format

shown on https://www.svnit.ac.in/conference/HYDRO2021

IMPORTANT DATES

Abstract Submission start 15, 2021 : May **Abstract Submission end** 31, 2021 <u>: July</u> **Abstract Acceptance** 15, 2021 : Aug. <u>15, 2021</u> Full length paper submission ends :Oct. Final Acceptance Letter for full Length Paper 30, 2021 :Nov. **Registration deadline** : Dec. 15, 2021

REGISTRATION

Student Author	:Rs. 2000
Student Author (ISH Members)	:Rs.1500
Authors from academics/research institutes	:Rs.4500
Authors from academics/research institutes (ISH member)	:Rs. 3500
Delegate from Industry (like central/state government)	:Rs. 5000
Delegate from Industry	:Rs. 5500
Foreign Delegate	: US\$ 250
Foreign Student Delegate	: US\$ 80
Sponsorship (two delegates)	:Rs.30000
Sponsorship (four delegates)	:Rs.50000

AWARD / PRIZE

AWARD AND RECOGNITION BY ISH PUNE

The outstanding professionals and researchers are awarded every year.

- ISH Life Time Achievement Award
- Jal VigyanPuraskar (Best Paper in ISH Journal of Hydraulic Engineering)
- G.M.Nawathe Award (Best Paper in HYDRO Conference)
- S.N.Gupta Memorial Lecture
- Prof. R.J.Garde Research Award
- Prof. U. C. Kothyari -ISH Best PhD Thesis award
- Prof. U. C. Kothyari -ISH Best M. Tech award

HYDRO 2021 INTERNATIONAL

The best paper PRESENTED BY STUDENT in each theme of the conference, will be awarded first and second prize of Rs. 4000/- and Rs. 3000/- respectively and a certificate.

CONTACT

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Guidelines for Preparation of Manuscript for HYDRO-2021

- 1. Use MS-Word (.docx format) for typing the manuscript in A4 size paper
- 2. Margins Left, top, bottom and right 25 mm (Normal)
- 3. Spacing Single line spacing
- 4. Font Type Times New Roman
- 5. Article Structure Should be written with the following elements in the following order: title page; abstract; keywords; main text; acknowledgements; references; appendices (as appropriate). The tables and figures should be included in the main text only.

6. Font Size

- 14 for the Title (Use **bold** for your article title, with an initial capital letter for any proper nouns)
- 12 for the Author's Name/Authors' Names (Title case)
- 11 for Designation and the affiliation (Italics)
- 11 for the caption of Figures and Tables (Sentence case)
- 11 for the contents of Tables
- 12 for the text and headings
- 12 for Abstract heading (Bold, Title case) and 11 for abstract text
- 11 for References/Acknowledgement/Notations text
- 11 for Keywords (Bold Italics, Title case)

7. Rules for Title Page

The article title should be bold and centered with an initial capital letter for any proper nouns. Make sure the title is not more than 150 characters in length, including spaces between words.

Author:

- Leave one line blank between the title of the paper and the Author's name / Authors' names and affiliations.
- Leave one line blank between the author(s) affiliation(s) and abstract. Affiliation should consist of the designation and name of the organization(s), city, zip/ postal code, state/province, email address.
- · Authors' names and affiliations should be centered.

Abstract:

- Abstract should be between 150 and 300 words.
- After abstract, leave one line blank.
- The abstract should present a concise statement of the scope, and principal findings of the paper.
- The text of the abstract should have font size 11.
- Please include 4 5 keywords that describe your study.

8. Headings and Text

- · Left justified bold.
- The main and subheadings should be numbered in roman numerals 1, 2, 3,... and 1.1, 1.2,.... likewise. Leave one line blank before and after heading.
- Each paragraph should be separated by one blank line without any indentation.
- First-level headings (e.g. Introduction, Conclusion) should be in **bold**, with an initial capital letter for any proper nouns.
- Second-level headings should be in **bold italics**, with an initial capital letter for any proper nouns.
- Third-level headings should be in italics, with an initial capital letter for any proper nouns.
- Fourth-level headings should be in *bold italics*, at the beginning of a paragraph. The text follows immediately after a full stop (full point) or other punctuation mark.

9. Equations

- Typed and numbered in sequence like (1), (2),... Use equation editor in MS Word.
- · Equation number in brackets, right justified

10. Figures and Tables

- Centered and numbered in sequence.
- The caption of the Table should be placed above and left justified. The caption of the Figure should be placed below and left justified. Leave one line blank before and after Table/Figure.
- The caption of the Figures and Tables should be in Sentence Case.
- Figures and Tables shall be prepared using any Graphics software with proper resolution.
- Figures and Tables should be cited properly in the main text.

11. References

- Each reference should be cited in the text by the last name(s) of the author(s) and the year of publication of the reference.
- All references should be listed at the end of the text in alphabetical order, according to the last name
 of the first named author.
- Reference should include year of publication, full title, name of source, volume and page numbers.
- Fonts and punctuations are given in the enclosed specimen copy of the paper.

12. Page numbers

Page numbers should be numbered in Arabic numerals at the center bottom of the page.

13. Maximum length

Maximum 10 pages (A4 size) including figures, tables, photos, and references.

14. Submission of Abstract and Paper

- Please send the soft copy (in MS WORD, preferably .docx) of the abstract with key words and author
 affiliations as per the guidelines on or before July 31, 2021.
- Please send the soft copy (in MS WORD, preferably .docx) of the full-length paper as per the guidelines on or before **September 30, 2021.**

Note: The final manuscript must be carefully checked so that there are no spellings or grammatical mistakes, and the author(s) are requested to follow the guidelines.

[The sample format is given separately on website in .doc/.docx format]