



# जल अनुसंधान

त्रैमासिक समाचार

## केन्द्रीय जल और विद्युत अनुसंधान शाला, पुणे



### CONTENTS

- Visit of Nigerian Delegates to CWPRS on 02.12.2019
- HYDRO 2019 International Conference
- Multi-purpose Wave Basin facility at CWPRS, Pune
- Visit of Senior Officials of Indian National Academy of Engineers, New Delhi to CWPRS, Pune
- 24<sup>th</sup> Technical Committee Meeting of DRIP held in Calicut, Kerala
- Visit of Managing Director, PHPA-II
- 52<sup>nd</sup> GANDAK High Level Standing Committee (GHLC) for protection works to be taken up before the floods of 2020 on the right bank of River Gandak
- Visit of Shri S. K. Mehta, Chairman, Deendayal Port Trust, Kandla to CWPRS on 30.11.2019
- Training Course on "Dam Break Analysis & Emergency Action Planning", 5<sup>th</sup>-6<sup>th</sup> December 2019
- In house Training Course on "Research Methodology" for research cadre during 28<sup>th</sup> -29<sup>th</sup> November, 2019
- Swachhta hi sewa-plastic free Campaign 2019 Valedictory function & invited lecture on Mahatma Gandhiji during 150<sup>th</sup> birth anniversary celebration
- Swachhta pledge & Shramdaan
- Visit of the Expert Project Review Committee constituted to overview the implementation of relining of Rajasthan Feeder
- Observance of Vigilance Awareness Week (VAW) at CWPRS, Pune
- In-house Training Course on e-Governance during 17-19 December 2019
- जल संसाधन एवं पर्यावरण पर छठवीं राष्ट्रीय जल संगोष्ठी
- जलवाणी हेतु प्रशंसा पत्र
- केन्द्रीय जल और विद्युत अनुसंधान शाला, पुणे में 6 दिसम्बर, 2019 को आयोजित हिन्दी कार्यशाला
- सेवानिवृत्ति

### संदेश



केन्द्रीय जल और विद्युत अनुसंधान शाला की त्रैमासिक गतिविधियों और उपलब्धियों का द्वितीय अंक प्रस्तुत करते हुए मुझे बड़ी प्रसन्नता हो रही है। केन्द्रीय जल और विद्युत अनुसंधान शाला, अनुसंधान एवं विकास के क्षेत्र में जल शक्ति मंत्रालय का एक महत्वपूर्ण हिस्सा है। इस अनुसंधान शाला के वर्तमान कार्य क्षेत्र में, विभिन्न परियोजनाओं के व्यापक अनुसंधान एवं विकास से संबंधित मूल तथा विशेष अध्ययन सम्मिलित हैं, जैसे कि तट सुरक्षा उपायों तथा नदी मार्ग सुलभता उपाय; बराज तथा सेतु के जलीय अभिकल्प, बाढ़ की भविष्यवाणी, बाँध तोड़ विश्लेषण, नदी और जलाशय प्रणालियों के जल गुणवत्ता विश्लेषण, जलमार्ग और ऊर्जा क्षयकारी के अभिकल्प, जल संवाहकत्वक और टेल रेस प्रणाली के विश्लेषण, तटीय सुरक्षा रीति को सुझाते हुए स्थानीय स्तर पर उपलब्ध सामग्री के आधार पर पत्तन तथा बंदरगाहों के अभिकल्प और लेआउट के अनुकुलन, जलीय संरचनाओं की नींव के लिए जाँच, विभिन्न स्तर और गतिशील लोड के लिए संरचनाओं के विश्लेषण, जल बिजली स्थल और अन्य परियोजनाओं के लिए प्रयुक्त भू-विज्ञान अध्ययन, प्रवाह मापी तथा प्रवाह मीटर का अंशांकन, पंप्स तथा टर्बाइनों की परीक्षण और बाँधों के लिए यंत्रिकरण आदि। केन्द्रीय जल और विद्युत अनुसंधान शाला का परिसर पुणे के दक्षिण पश्चिमी भाग में खड्कवासला बाँध के अनुप्रवाह पर 181 हेक्टेयर क्षेत्र में फैला हुआ है, जहाँ पर भौतिकी प्रतिमान के लिए जल पुनःसंचारण प्रणाली, पुस्तकालय, वर्कशॉप, सभा भवन जैसी सुविधाएँ तथा अन्य मौलिक सेवाएँ उपलब्ध हैं।

डॉ. (श्रीमती) व. वि. भोसेकर  
निदेशक



Wave tranquility conditions for original layout in the Physical Model for incident waves from SE direction (Hs 3.0 m - Tp 7 s) for proposed deepening of VOC Port (Inner harbour development)



Wave tranquility for revised layout for incident waves from South Direction for proposed deepening of VOC Port (Inner harbour development)

## Visit of Nigerian Delegates to CWPRS on 02.12.2019

Nigerian delegation comprising of 18 members from World Bank funded project on Transforming Irrigation Management in Nigeria (TRIMING) under Federal Ministry of Water Resources, Nigeria visited CWPRS, Pune on 2<sup>nd</sup> December 2019 to get benefitted from the rich experience of CWPRS in the field of both physical and mathematical modelling activities. International Commission on Irrigation and Drainage (ICID) coordinated

the trip of Nigerian delegates in India.

Nigerian delegates were welcomed by Dr. (Mrs.) V.V. Bhosekar, Director CWPRS. She has made a presentation on CWPRS activities and functioning. After this short presentation, various running models comprising of Coastal & River models were demonstrated to the delegates. The glimpses of the visits are shown in the following photos.



Director, CWPRS with Nigerian Delegates



Visit to Mumbai Port Model



Visit to Teesta-IV Spillway Model

## HYDRO 2019 International Conference

“HYDRO-2019 International: Conference on Hydraulics, Water Resources, Coastal and Environmental Engineering”, the 24<sup>th</sup> HYDRO conference was held during 18<sup>th</sup> to 20<sup>th</sup> December, 2019 organised by Department of Civil Engineering, Osmania University, Hyderabad and Indian Society for Hydraulics.

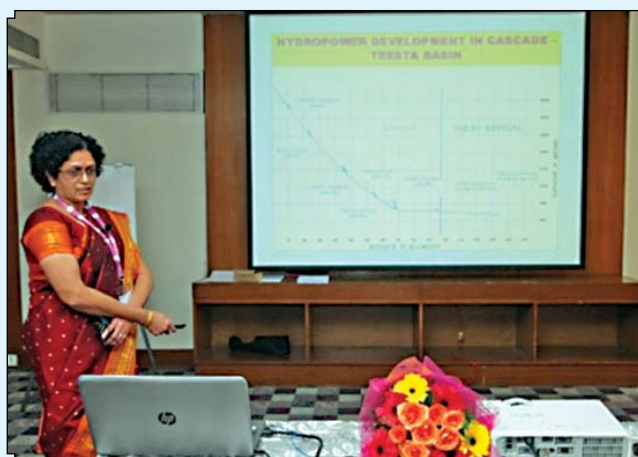
The HYDRO 2019 Conference was inaugurated by Dr. R.K. Gupta, Chairman, Krishna River Management Board (KRMB). Shri C. Nagendra Rao, E&C Administration, Irrigation Department, Dr. (Mrs.) V.V. Bhosekar, Director, CWPRS and President, The Indian Society for Hydraulics were present for the inauguration.

The various themes of the conference were Hydro Environment, Modeling Techniques, Soft

Computing Techniques, Geospatial Techniques, River Hydraulics, Groundwater Hydrology, Water Management and Hydro informatics, Water and Wastewater Modeling, Ports and Coastal Engineering. Around 400 delegates representing academic institutions, research labs, consulting engineers and administrative bodies attended the conference. 370 research papers were presented in six parallel sessions. Additionally ten experienced researchers from academic institutions and research labs around the world gave invited talks on state of the art works carried out by them in the water sector. Dr. (Mrs.) V.V. Bhosekar, Director, CWPRS and President ISH delivered on invited talk on hydraulic research at CWPRS.



Dignitaries on the Dias



Keynote Lecture of Dr. (Mrs.) V.V. Bhosekar, Director, CW&PRS



## Multi Purpose Wave Basin facility at CWPRS, Pune

Port development along the open coast/ estuarine conditions is exposed to the predominant effects of waves and the harbor areas need to be suitably protected to facilitate safe berthing operations. CWPRS has been conducting studies for coastal developments for the last six decades and has the captive physical model facilities almost for all the major ports. Need was felt for development of a Multipurpose wave basin facility for studying layouts for medium and small ports in much less time and cost since the development of model facility for each project separately takes large time and cost. A number of minor/small ports are coming up along the open coasts/estuaries requiring detailed studies for their layouts considering the dominant wave conditions.



Front view of Multi purpose wave basin Hangar

The Multipurpose Wave Basin tray (size 57 m x 52 m) is housed in a hangar of size 75 m (length) x 60 m (width) with provision of generation of waves from three predominant directions of 21 m wave front each. The instrumentation facilities include reproduction of Random Waves in conformity with the actual sea waves with multichannel data acquisition simultaneously at 16 locations. The use of Servo hydraulics system and Hydraulic power pack with fully computerized program with Supervisor Control And Data Acquisition (SCADA) system is made for simulation of waves.

The facility has been operational for the last nine years. More than ten port and fishing harbour development projects have been studied successfully for wave tranquility aspects by using this facility.



Studies for VOC, Tuticorin Outer Harbour Development Project

## Visit of Senior Officials of Indian National Academy of Engineers, New Delhi to CWPRS, Pune

Dr. Sanak Mishra, President, Indian National Academy of Engineers (INAE), New Delhi visited CWPRS on 4<sup>th</sup> November 2019 along with four senior officials of INAE. During the visit various models were demonstrated and facilities available at CWPRS were shown. A detailed discussion was held with Dr. (Mrs) V.V. Bhosekar, Director,

CWPRS and senior Scientists of CWPRS regarding current developments in the field of hydraulic engineering and further advancements of CWPRS in upgrading the research facilities. Dr. Z.S.Tarapore, former Director CWPRS was also present during the visit.



Officials of INAE



Demonstration of model facilities to INAE officials



## 24<sup>th</sup> Technical Committee Meeting of DRIP held in Calicut, Kerala

The 24<sup>th</sup> Meeting of Technical Committee of Dam Rehabilitation and Improvement Project (DRIP) jointly organized by Kerala Water Resources Department (KWRD), Kerala State Electricity Board (KSEB), NIT Calicut and CWC has been held during 24<sup>th</sup> to 25<sup>th</sup> October, 2019 at Calicut, Kerala for reviewing the progress of various activities of the Implementing and Nodal Agencies and followed by a field visit to Kuttiyadi dam and Kakkayam Power House. Three

Scientists from CWPRS, Pune namely Dr. M. R. Bhajantri, Scientist 'E', Dr. Suman Sinha, Scientist 'B' and Shri S.J. Pillai, Scientist 'B' attended the meeting and participated in the field visits. During the meeting, presentations have been made on the progress of activities under capacity building of CWPRS by procuring equipments, software and obtaining training and Seismic Hazard Assessment of North and North East India by CWPRS.



## Visit of Managing Director, PHPA-II

Hydraulic Model studies for the Downstream Surge Gallery (DSG) and Tail Race Tunnel (TRT) for the revised layout of draft tubes due to abandoning of certain portion

of DSG of Punatsangchhu-II H.E. Project, Bhutan are in progress at CWPRS since April 2019. The model study has been entrusted to CWPRS, Pune by M/s WAPCOS India Limited

to corroborate critical results of mathematical modelling conducted by Central Water Commission (CWC) and suggest remedial measures, if any.



Shri Amresh Kumar, Managing Director, PHEP-II, Bhutan and Mrs. P Sumana, Senior General Manager, WAPCOS India Limited visited CWPRS for inspecting model site and review meeting on 13<sup>th</sup> and 14<sup>th</sup> December 2019 respectively.

## 52<sup>nd</sup> Gandak High Level Standing Committee (GHLC) for protection works to be taken up before the floods of 2020 on the right bank of River Gandak

GHLC constituted a committee for inspection of the flood protection works on the right bank of River Gandak. Site section works on the right bank of River Gandak was carried out during 23<sup>rd</sup>-25<sup>th</sup> October 2019. During the inspection, concerned Chief Engineer, Superintending Engineer, Executive

Engineers and other field officers of Irrigation and Water Resources Department, U.P., Water Resources Department, Bihar, Shri Raghuram Singh, Scientist 'C' representative from CWPRS, Pune and Government of Nepal were also present.





## Visit of Shri S. K. Mehta, Chairman, Deendayal Port Trust, Kandla to CWPRS on 30.11.2019

**Shri S. K. Mehta**, Chairman, Deendayal Port Trust, Kandla visited CWPRS on 30.11.2019. Discussion were held for development of Cargo berths, Oil berths and further deepening of approach channel to -10.0 m from present - 8.5 m at Deendayal Port (erstwhile Kandla Port). The Deendayal Estuary Model and



Dr. Prabhat Chandra explaining on Mumbai Port Model



Visit of Shri S. K. Mehta on Kandla Estuary Model

Deendayal Port Models were visited and the utility of these models were explained to Chairman for future development of this Port. The Chairman also visited Mumbai Port model and Multipurpose wave basin hangar.

## Training Course on 'Dam Break Analysis & Emergency Action Planning', 5<sup>th</sup>-6<sup>th</sup> December 2019

CWPRS organized a National level training course on 'Dam Break Analysis and Emergency Action Planning' during 5-6<sup>th</sup> December 2019 for Practicing Engineers, Research Scientists, Consultants etc. working in Central/State Governments and PSU's organization, Academicians and Engineering students etc. The

training course was organized to throw light on the various aspects of Dam Break Analysis and Emergency Action Planning. The training comprised of lectures on different topics related to hydrological, hydraulic and structural aspects for Emergency Action Planning for Disaster Management due to Dam break.



Address by Dr. (Mrs.) V. V. Bhosekar Director, CWPRS at Valedictory function



Release of lecture notes at inaugural Session



Participants during model visit

## In House Training Course on 'Research Methodology' for Research Cadre during 28<sup>th</sup>-29<sup>th</sup> November, 2019

The Research Methodology is the research methods that are used for different procedures of data collection, calculation and analysis in the research, along with the justification for using specific methods. In this training course lectures covering various fields viz. Research Methodology for publication of Research findings, Recent trends in Research Methodology, Coastal Engineering,

Water Quality Monitoring and Modelling, Engineering Seismology and Hydraulic Research tools in Hydro Power Projects were delivered by the experts of CWPRS. In the lectures broad ideas such as about systematic research and their types, importance of good research work and means to improve research work, impact matrix of a journal for publishing papers were provided.



Inaugural Function of two days in-house training course on 'Research Methodology'



Dr. (Mrs.) V.V. Bhosekar, Director CWPRS addressing the participants



Valedictory Function



## Swachhta hi sewa-plastic free Campaign 2019 Valedictory function & invited lecture on Mahatma Gandhiji during 150<sup>th</sup> birth anniversary celebration

Valedictory function of Swachhta Hi Sewa-Plastic Free Campaign 2019 & Guest lecture on Mahatma Gandhi to celebrate 150<sup>th</sup> birth anniversary of Mahatma Gandhiji were organized at CWPRS, Pune on 8.11.2019. Dr. (Mrs.) V.V. Bhosekar, Director, CWPRS presided over the function. Shri Parag Mate, Social worker and founder of 'We Punekar' social group was the Chief Guest.

Shri Vinayak Devkar, Founder President of Mahatma Gandhi School, Yerwada, Pune, was the invited guest to deliver lecture on Mahatma Gandhi. Function was also attended by delegates from 'We Punekar group'. During the function prizes were distributed to winners of Drawing, Essay and Quiz competitions organized during the campaign.



Dr. (Mrs.) V. V. Bhosekar, Director, CWPRS addressing the audience



Director, CWPRS welcoming Guest Miss Caroline Allard



Presentation On Mula-Mutha River Cleaning Campaign by Chief Guest Shri Parag Mate

## Swachhta pledge & Shramdaan

Swachhta pledge & Shramdaan to collect plastic waste from roads of Kolhewadi, Kirkatwadi villages & Sinhagad Road were arranged on 2.10.2019. Cloth bags and Paper bags distributed amongst villagers to substitute single use plastic carry bags.



Pledge taking ceremony on October 2, 2019



Shramdaan along Sinhagad Road to remove plastic



Marching near Kolhewadi Village for Swachhta Campaign

## Visit of the Expert Project Review Committee constituted to overview the implementation of relining of Rajasthan Feeder

An Expert Project Review Committee has been constituted to guide/oversee the overall implementation of 'Relining of Sirhind Feeder' from RD 119700 to 447927 and Relining of Rajasthan Feeder from RD 179000 to 496000 of Punjab till completion and to examine the progress of the work from all angles. A representative of CWPRS, Pune, Dr. R G Patil, Sc 'E' was invited as special Invitee as a part of the Expert Project Review Committee. The Committee visited the Project site in specific Chainage/RD SF 327898 ft & RF 382000 ft near Kidaba village; SF 422125 ft & RF 477423 Ft near Middukera village, SF 438000 ft & RF 439000 ft near Lohgarh village during 22<sup>nd</sup>-24<sup>th</sup> October 2019.





## Observance of Vigilance Awareness Week (VAW) at CWPRS, Pune

The Vigilance Awareness Week was observed at CWPRS during October 28 - November 2, 2019 as per the directives of Central Vigilance Commission. The Pledge was administered by Dr. (Mrs.) V.V. Bhosekar, Director to the CWPRS Employees and the messages received from

Honourable President and Vice President were also read out. During observance of VAW, various competitions for Essay, Elocution, Slogan and Quiz were also organized successfully for CWPRS Officers and staff.



## In-house Training Course on e-Governance during 17-19 December 2019

For the implementation of the National Training Policy at CWPRS under Training Management Cell (TMC), One-day In-house training course for 3 different batches on 'e-Governance' was organized during 17-19 December, 2019. The course was intended to give the overview of e-Governance activities at CWPRS and detail knowledge of e-File, e-Leave and Deposit Estimate Submission Procedure in e-Office with hands-on training.



## जल संसाधन एवं पर्यावरण पर छठवीं राष्ट्रीय जल संगोष्ठी

राष्ट्रीय जल विज्ञान संस्थान रुड़की द्वारा 16 से 17 दिसंबर 2019 तक 'जल संसाधन एवं पर्यावरण' पर छठवीं राष्ट्रीय जल संगोष्ठी का आयोजन रुड़की में किया गया। डॉ.आर.के.जैन, अध्यक्ष, केंद्रीय जल आयोग इस आयोजन में मुख्य अतिथि थे तथा उन्होंने पहले सत्र में 'सतही जल निर्धारण एवं प्रबंधन, नदियों में अविरल एवं निर्मल धारा

बनाए रखने के लिए उपाय, पर्वतीय क्षेत्रों में जल प्रबंधन' विषय पर की-नोट व्याख्यान भी दिया। संगोष्ठी में सर्वश्री पी.एम.अब्दुल रहमान, वैज्ञानिक-डी, कुलदीप मलिक, वैज्ञानिक-बी एवं संजय नाथ झा, सहायक अनुसंधान अधिकारी द्वारा भाग लेकर हिंदी में शोध-पत्र प्रस्तुत किए गए।



**सीएसआईआर - राष्ट्रीय रासायनिक प्रयोगशाला**  
(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद)  
डॉ. होमी भाभा मार्ग, पुणे - 411 008, भारत

**CSIR - NATIONAL CHEMICAL LABORATORY**  
(Council of Scientific & Industrial Research)  
Dr. Homi Bhabha Road, Pune - 411 008, India

सं.3-हिन्दी(राजप)2007 दि: 11/11/2019

सेवा में,  
श्री उग्रसेन शिवकुमार सिंह  
सहायक निदेशक (राजभाषा)  
केन्द्रीय जल और विद्युत अनुसंधान शाला (CWPRS)  
खडकवासला, पुणे- 411024

महोदय,

आपके कार्यालय/संस्थान की राजभाषा पत्रिका "जलवाणी" - 2019 की प्राप्ति हुई, जिसके लिए धन्यवाद।

पत्रिका का आवरण पृष्ठ बहुत ही आकर्षक एवं रचनात्मक है। पत्रिका में समाहित समस्त रचनाएं सुरुषिपूर्ण एवं सूचनाप्रद है। 'कितना तेरे क्या?', 'कृषि और जल', 'भारतीय जवान को सलाम', 'पंढरपुर गरी: एक अमृतानुभव', एवं 'प्लास्टिक प्रदूषण-----' इत्यादि रचनाएं विशेष रूप से अच्छी लगी।

पत्रिका के सफल प्रकाशन हेतु संपादन मंडल समस्त रचनाकारों को हार्दिक बधाई। आशा है कि पत्रिका की अन्तर्गत यात्रा जारी रहेगी और यह हिन्दी प्रचार-प्रसार के अपने उद्देश्य को पूर्ण करेगी।

भवदीय,  
( डॉ. श्रीमती स्वाति पट्टनायक )  
हिन्दी अधिकारी

Communication Channels NCL Level DID : 2590 NCL Board No. : +91-20-25902000 Director's Office : +91-20-25902601 COA's Office : +91-20-25902660 WEBSITE www.ncl-india.org

## केन्द्रीय जल और विद्युत अनुसंधान शाला, पुणे में 6 दिसम्बर, 2019 को आयोजित हिन्दी कार्यशाला

केन्द्रीय जल और विद्युत अनुसंधान शाला, पुणे में कार्यरत अनुसंधान सहायक, कनिष्ठ अभियंता, आशुलिपिक, अवर श्रेणी लिपिक, उच्च श्रेणी लिपिक एवं प्रयोगशाला सहायक ऐसे कुल 30 कर्मचारियों को हिन्दी में काम करने हेतु प्रेरित करने के उद्देश्य से दिनांक 6 दिसम्बर, 2019 को हिन्दी कार्यशाला आयोजित की गई। आयोजित कार्यशाला के प्रारंभ में सहायक निदेशक (राजभाषा) श्री उग्रसेन शिवकुमार सिंह ने उपस्थितों का स्वागत करते हुए कार्यशाला का मूल उद्देश्य एवं कार्यशाला से संबंधित रूपरेखा की संक्षिप्त जानकारी दी। कार्यशाला का उद्घाटन श्री अखिलेश कुमार अग्रवाल, वैज्ञानिक 'ई' एवं राजभाषा अधिकारी, केन्द्रीय जल और विद्युत अनुसंधान शाला, पुणे के कर कमलों द्वारा किया गया। कार्यशाला में व्याख्याता के रूप में श्री राजेन्द्र अस्वले, मुख्य प्रशासन अधिकारी, श्री कृष्ण कुमार गुप्ता, भूतपूर्व वैज्ञानिक 'सी' और श्री उग्रसेन सिंह, सहायक निदेशक (राजभाषा), केन्द्रीय जल और विद्युत अनुसंधान शाला, पुणे उपस्थित थे। वक्ताओं ने क्रमशः प्रशासनिक कार्य पद्धति, राजभाषा नीति, पत्राचार का स्वरूप तथा टंकण में आने वाली समस्याएं, यूनिकोड में गूगल और मोबाइल के माध्यम से टंकण, शब्दकोष, राजभाषा विभाग द्वारा विकसित किए गए सॉफ्टवेयरों की विस्तृत जानकारी से उपस्थित सभी कर्मचारियों को अवगत कराया।



### सेवा निवृत्ति

अ क्र	नाम	पदनाम	प्रभाग का नाम	सेवा निवृत्ति की तिथि
1	श्रीमती सुभद्रा एल मते	एमटीएस	विभागीय कैटीन-1	31.10.2019
2	श्रीमती एच आर धुमाल	एमटीएस	जल मौसम विज्ञान	31.10.2019
3	श्रीमती सरोजा वसंत	प्रयोगशाला सहायक-I	कंपन प्रौद्योगिकी	30.11.2019
4	श्री एस एस श्रोत्रिय	शिल्पकार 'क'	द्रवचालित मशीनरी तथा कोटरन	30.11.2019
5	श्री जी जी कांबळे	प्रयोगशाला सहायक-I I	भू-भौतिक प्रभाग	31.12.2019
6	श्री नारायण डी ढगे	एमटीएस	ग्रंथालय तथा सूचना प्रणाली	31.12.2019

### पुस्तक डाक / Book Post

<p><b>प्रेषक / From :</b></p> <p>प्रशासन / Admin. सी.डब्ल्यू.पी.आर.एस. / C.W.P.R.S., खडकवासला / Khadakwasla, पुणे - 411024 / Pune - 411024.</p>	<p><b>सेवा में, / To,</b></p>
---	-------------------------------



#### Central Water and Power Research Station

Khadakwasla, Pune - 411 024

Govt. of India  
Ministry of Jal Shakti,  
Department of Water Resources,  
River Development and Ganga Rejuvenation

#### Editorial Board :

- |                                |                    |
|--------------------------------|--------------------|
| • Dr. (Smt) V. V. Bhosekar     | - Chief Editor     |
| • Shri Rajendra Aswale         | - Editor           |
| • Dr. L.R. Ranganath           | - Member           |
| • Shri Manoj Kumar Verma       | - Member           |
| • Shri Ugrasen Sheokumar Singh | - Member Secretary |
- Designed & Published by : CWPRS, Khadakwasla, Pune

• वेबसाइट : [www.cwprs.gov.in](http://www.cwprs.gov.in)

• दूरध्वनि : 020-2410 3200, 2410 3852

• फैक्स : 020 24381004

• ई-मेल : [director@cwprs.gov.in](mailto:director@cwprs.gov.in)

info@acatanpure.com