CENTRAL BOARD OF IRRIGATION & POWER OFFICE BEARERS

President (i) Vice President (ii) Vice President (iii) Vice President Secretary Director Director (WR) Director (E)

Mr. Ravindra Kumar Verma, Chairperson, CBA

Mr. S. Masood Husain, Chairman, CW

Mr. K.S. Popli, CMD, IREDA

Mr. Ashok Sethi, COO & ED, Tata Power

Mr. V.K. Kanjlia

Mr. P.P. Wahi

Dr. G.P. Patel

Mr. C.S. Malik

The statements and opinions expressed in this Journal are not necessarily of Central Board of Irrigation & Power.

- Reproduction of articles from Water and Energy International is subject to approval of the Editor.
- Interested authors from India and abroad are requested to contribute their articles to this Journal and send the same to Secretary, Central Board of Irrigation & Power, well in advance.

All communications should be addressed to:

Secretary

Z

Central Board of Irrigation & Power Malcha Marg, Chanakyapuri New Delhi 110 021

Ph.: 91-11-2611 5984

Fax: 91-11-2611 6347

E-mail: cbip@cbip.org

Website: www.cbip.org

Total Pages 84

Monthly Subscription ₹ 200/-Annual Subscription ₹ 2400/-

FROM EDITOR'S DESK

V.K. Kanjlia, Secretary, CBIP	
5th Conference on Advances and Innovations	
in Substations, 30th November – 1st December	
2017, New Delhi	(
	 5th Conference on Advances and Innovations in Substations, 30th November – 1st December

W&E INTERNATIONAL

· Energy Section

Performance and Cost Benefit Analysis of Solar Photovoltaic Power Plant for Delhi Secretariat Building - Abhishek Sharma, Priya Mahajan and Rachana Garg

Design, Engineering & Construction of EHV Air Insulated Switchyards - Techno Economic Considerations - S.M. Takalkar

Designing of Grounding System of High Voltage AC Substation Using Two Layer Soil Model - A Novel Approach - Rajesh Kumar Arora

Un-manning of Distribution Substations in BARC by Implementing Power Supply SCADA and IP Surveillance Monitoring - Naushad Ali, S.M. Kumar, D. Venkatesh, Rajasekhar Iyer, P.K. Panda and H. Mishra

INTERNATIONAL EDITORIAL ADVISORY BOARD

V.C. Patel - Distinguished Professor and Director, University of IOWA, U.S.A. Donggi Zuo - Prof. & President's Advisor of Hohai University, Ministry of Water Resources, People's Rep. of China, K.G. Ranga Raju - Former Professor of Civil Engineering University of Roorkee (Now IIT Roorkee) Secretary General, CIGRE, France, Jose M. Martin Mendiluce - Doctor Ingeniero de Carninos ASINC, S.L.. Spain, Alison Bartle - Editor, Aqua-Media International Ltd., United Kingdom.

Publisher, Printer and Editor Shri V.K. Kanjlia on behalf of Central Board of Irrigation and Power, Printed at M/s Chandu Press, D-97, Shakarpur, Delhi, published from Central Board of Irrigation and Power, Malcha Marg, Chanakyapuri, New Delhi 110 021

16

26

37

42

N

Z
Ш
-
Z
0

CONTENTS (con	itd.)
 EHV Equipment in Indian Nuclear Power Plants - Failures and Corrective Actions George Sebastian, V.H. Manohar and Srirama Rao 	47
 Behaviour of Transmission Loss in Interstate Transaction - Eastern Region Case Study U.K. Verma, G. Mitra, N. Ahmad, M.K. Thakur and P. Debnath 	51
W&E INTERNATIONAL	
Water Resources Section	
 Ground Water Quality Evaluation in Rural Areas of Lucknow, Uttar Pradesh, India Chandbibi, Poonam, Dhananjay Kumar and Narendra Kumar 	54
 State of Art of the Application of Nano Materials on the Reduction of Roughness Coefficient in Open Channels – Muthukumaran N. and Prince Arulraj G. 	60
 Resource Conservation Techniques in Crop Production – B.S. Meena, Kaushal Kishor, Sunita Kumari and Pragya Gautam 	63
 Embedded Based Real Time Groundwater Quality Monitoring using Solar Energy and IOT Sangeetha S. and Krishnaveni M. 	67
NEWS LETTER	
Water Resources Section	
- Training Course on Applications of Geosynthetics, 12-13 December 2017, Dharwad (Karnataka)	72
STATISTICAL DATA	
Water Resources Section	75
Energy Section	77
WATER & ENERGY ABSTRACTS`	
Energy Section	79
Water Resources Section	80
FAR & NEAR IN WATER AND ENERGY	
News - Energy Section	81
News - Water Resources Section	83

