

CENTRAL BOARD OF IRRIGATION & POWER OFFICE BEARERS

President	:	Dr. R.K. Gupta, Chairman, CWC
(i) Sr. Vice President	:	Mr. Ghanshyam Prasad, Chairperson, GEA
(ii) Vice President	:	Mr. Vivek P. Kapadia, Secretary to Government of Gujarat and Director (Civil), Sardar Sarovar Narmada Nigam Ltd
(iii) Vice President	:	Mr. Abhay Kumar Singh, CMD, NHPC Ltd.
(iv) Vice President	:	Mr. S.K. Mishra, Director, SECI
(v) Vice President	:	Mr. Anil Sardana, MD & CEO, Adani Transmission Ltd. & Adani Power Ltd.
Secretary	:	Mr. A.K. Dinkar
Director (Energy)	:	Mr. Sanjeev Singh
Director (WR)	:	Mr. K.K. Singh

- 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
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 Journal

Monthly Subscription Rs. 200/-

Annual Subscription Rs. 2400/-

FROM EDITOR'S DESK

Mr. A.K. Dinkar, Secretary, CBIP

Articles

Water Resources Section

- 247 Estimation of Peak Flood Discharge for Ungauged Catchments of River Beas, Himachal Pradesh Using Rational Formula and GIS Based Synthetic Unit Hydrograph Approach – Archana S. Shinde, N. Vivekanandan, C. Srishailam and R. G. Patil 6
- 248 Role of Dams in Mitigating the Impacts of Climate Change – D.K. Sharma and Dr R. K. Gupta 17
- 249 Estimating Recreational Value of Khecheopatri Lake Ecosystem of Sikkim Himalaya using Contingent Valuation and Travel Cost Methods – Kul Bahadur Chettri and Ruma Kundu 25

Energy Section

- 250 Indian Power Sector : Legislations, Policies & Regulations – Atul Agrawal 30

EDITORIAL BOARD

Mr. Vivek P. Kapadia, Secretary to Government of Gujarat and Director (Civil), Sardar Sarovar Narmada Nigam Limited

Mr. Avinash C. Tyagi, Former Secretary General, International Commission on Irrigation & Drainage

Mr. Manej Aggarwal, Independent Public Policy and Impact Investment Professional

Mr. D.K. Chaturvedi, Former General Manager, NTPC Ltd

Dr. Rajesh Arora, Manager, Delhi TRANSCO Ltd

Publisher, Printer and Editor Mr. A.K. Dinkar on behalf of Central Board of Irrigation and Power, Printed at Mrs Chandu Press, D-87, Shakarpur, Delhi, published from Central Board of Irrigation and Power, Malcha Marg, Chanakyapuri, New Delhi 110 021

C O N T E N T S

(contd.)

251 Wind Energy Policies in India and the Way Ahead – <i>Divik Kandpal, Dr. Anil Kumar and Dr. Tarun Dhingra</i>	40
252 Water and Energy Efficiency in Indian Steel Industry – <i>Aruna Jha, Prof Vijita S. Aggarwal and Manoj K. Aggarwal</i>	47
253 Measuring the Impact of Electrification on Socio-Economic Development of Rural Odisha – <i>Bijay Kumar Mohanty and Prof.(Dr.) Sasmita Samanta</i>	52

NEWS LETTER

Water Resources Section

– Tunnelling Asia 2022 Conference on Underground Space: The Need of the Day – 27-28 June 2022 at Mumbai	58
– 3rd Edition of TAI Tunnelling and Underground Space Awards 2022	62
– Workshop on Observational Approach in Tunnelling: Evolvement, Issues and Challenges – 24–25 June, 2022, MMRDA Auditorium, Mumbai	66
– TAIYM Annual Tunnelling Conference on Underground Space: Challenges & Opportunities – 28th June, 2022 at Mumbai	68

Energy Section

– Valedictory report of the 26 Weeks Post Graduate Diploma Course in Transmission & Distribution Systems with Automation (SCADA / DMS) 2021-22 Batch – 27th January 2022, Gurgaon	70
– Signing of MoU between CBIP & NETCL	71
– Training Program (online) on 765 KV Transmission System – 22nd June 2022	72
– National Seminar on Electrical and Fire Accidents in Power Industry – Causes and Prevention – 23-24 June, 2022, Shimla	73
– National Tutorial (Online) on Features in Modern Numerical Relays for enhancing the performance of Power System Protection’ – 29-30 June 2022	77
– CBIP Activities during June-July 2022	78

WATER & ENERGY ABSTRACTS

• <i>Water Resources Section</i>	79
• <i>Energy Section</i>	80

FAR & NEAR IN WATER AND ENERGY

• <i>News - Water Resources Section</i>	81
• <i>News - Energy Section</i>	82



CBIP'S CENTRE OF EXCELLENCE, GURUGRAM

Category-I Training Institute in Power System

Ministry of Power, Govt. of India vide their letter no. 12/24/2016/T&R dated 28th July 2022 has communicated renewal of recognition for another four (04) years w.e.f. 1st February, 2021 up to 31st January, 2025 to CBIP's Centre of Excellence, Gurugram as Category-I Training Institute in Power System.