

ISSN 1002-0624

东北水利水电

Water Resources & Hydropower of Northeast China



2023 NO. 3

- 丰满水电站坝体电梯井有限元分析计算研究
- 云南某水电站左坝肩及护坦基础开挖技术研究
- 倒虹吸钢管施工期抗曲屈性能研究

□ 水利部松辽水利委员会 主办

东北水利水电

DONGBEI
SHUILI SHUIDIAN
(月刊)

2023年第3期
3月15日出版
(第41卷总第464期)
1983年创刊

全国优秀科技期刊
中国学术期刊(光盘版)全文收录期刊
中文科技期刊数据库全文收录期刊
万方数据库全文收录期刊
超星期刊域出版平台全文收录期刊
~~~~~

主管单位 中华人民共和国水利部  
主办单位 水利部松辽水利委员会  
编辑出版 《东北水利水电》编辑部  
编委会主任 齐玉亮  
名誉主编 林淀翔  
执行主编 任海霞  
副主编 任海霞 丁元芳  
责任编辑 薛梅  
地址 长春市解放大路4188号  
邮政编码 130021  
电话 0431-85607758  
刊号 ISSN 1002-0624  
CN 22-1097/TV  
印刷 长春祥泰彩色印刷厂  
订阅 全国各地邮局  
定价 4.60元  
广告经营许可证:  
吉林省工商广字第01091号

## 目 次

### 规划设计

- 丰满水电站坝体电梯井有限元分析计算研究..... 谭 欣, 杨苗苗(1)  
回龙山水电站生态流量机组工程布置方案研究..... 张 道, 杨 宇(3)  
劲性复合桩在水闸软土地基中的研究..... 罗 浩(5)

### 工程施工

- 云南某水电站左坝肩及护坦基础开挖技术研究..... 陈进华, 林 华(9)  
基于管井井点降水的水闸泵站基坑施工技术研究..... 王 龙(12)  
非开挖管道施工在水利工程中的应用研究..... 刘洪君(15)  
明渠工程中湿陷性黄土地基处理方法比选..... 张同凯(17)  
堆石重力坝自密实混凝土砌石施工..... 孙祖金(19)  
桓仁大坝自动化监测改造工程施工..... 刘长东, 朱 南(22)  
稳压塔工艺管道的固定方案..... 辛 卓(26)

### 水文水资源

- 辽宁省夏季降水对ENSO事件的响应分析..... 杜 妮(28)  
三江平原典型区降水特性分析..... 孙永贺, 乌丽罕(31)  
浙江省典型县域再生水利用现状及潜力分析..... 张祖清, 戴晓波(35)  
基于视频识别水位技术的研发..... 尚 扬, 崔 伟(38)

### 水生态环境

- 太子河辽阳段水质时空分布特征研究及水质评价..... 全占东(41)

### 水利科研

- 粉煤灰对盐渍区输水隧洞衬砌混凝土劣化性能的影响分析..... 王琢璠(46)  
倒虹吸钢管施工期抗曲屈性能研究..... 石振权, 李兴江, 徐 林(49)  
掺凝灰岩粉的水工混凝土在北方寒区的试验研究..... 孙 凯(52)

### 防汛抗旱

- 莲花水电站承担防洪任务探讨..... 朱 策苗 雪, 丁 勇, 王开丽(57)  
2022年辽宁省省管大型水库调度实践及成效..... 闫 旺(59)

### 工程建设与管理

- 青山冲水库面板堆石坝安全监测设计..... 孙正明, 刘本宁(62)  
双山灌区渠首枢纽段水流特性数值模拟及治理方案研究..... 李 琦, 于洪利, 姜雪宾(65)

### 专题研究

- 绝对型陶瓷杆行程检测装置在大藤峡超大型液压启闭机中的应用..... 范小付, 刘 翔, 岳 梅, 刘卓卓(68)

## CONTENTS

### Planning and design

- Finite element analysis and calculation of lift shaft in dam of Fengman Hydropower Station ..... *TAN Xin, YANG Miao-miao* (1)  
Study on layout scheme of ecological flow unit of Huilongshan Hydropower Station ..... *ZHANG Xiao, YANG Yu* (3)  
Study on stiffening composite pile in soft soil foundation of sluice ..... *LUO Hao* (5)

### Project construction

- Research on excavation technology of left abutment and retaining foundation of a hydropower station in Yunnan Province ..... *CHEN Jin-hua, LIN Hua* (9)  
Research on foundation pit construction technology of sluice pump station based on well point precipitation of pipe well ..... *WANG Long* (12)  
Application research of trenchless pipeline construction in hydraulic project ..... *LIU Hong-jun* (15)  
Comparison and selection of treatment methods for collapsible loess foundation in open channel project ..... *ZHANG Tong-kai* (17)  
Self-compacting concrete masonry construction of rockfill gravity dam ..... *SUN Zu-jin* (19)  
Construction of automatic monitoring renovation project for Huanren Dam ..... *LIU Chang-dong, ZHU Nan* (22)  
Fixing scheme of process pipeline for stabilizer tower ..... *XIN Zhuo* (26)

### Hydrology and water resources

- Response analysis of summer precipitation to ENSO events in Liaoning Province ..... *DU Ni* (28)  
Analysis of precipitation characteristics in typical areas of Sanjiang Plain ..... *SUN Yong-he, WU Li-han* (31)  
Utilization status and potential analysis of reclaimed water in typical counties of Zhejiang Province ..... *ZHANG Zu-qing, DAI Xiao-bo* (35)  
Research and development of water level recognition technology based on video ..... *SHANG Yang, CUI Wei* (38)

### Water ecological environment

- Study on temporal-spatial distribution characteristics of water quality and water quality evaluation in Liaoyang Section of Taizihe River ..... *QUAN Zhan-dong* (41)

### Water study

- Effect analysis of fly ash on deterioration performance of concrete lining for water conveyance tunnel in saline area ..... *WANG Zhuo-jun* (46)  
Study on bending-yield resistance of inverted siphon steel pipe during construction ..... *SHI Zhen-quan, LI Xing-jiang, XU Lin* (49)  
Experimental study on hydraulic concrete mixed with tuff powder in northern cold region ..... *SUN Kai* (52)

### Flood control and drought relief

- Discussion on flood control task undertaken by Lianhua Hydropower Station ..... *ZHU Ce, MIAO Xue, DING Yong, WANG Kai-li* (57)  
Practice and effect of large-scale reservoir operation under provincial management in Liaoning Province in 2022 ..... *YAN Wang* (59)

### Project construction and management

- Safety monitoring design of face rockfill dam of Qingshanchong Reservoir ..... *SUN Zheng-ming, LIU Ben-ning* (62)  
Study on numerical simulation of water flow characteristics and treatment scheme in hub section of canal head in Shuangshan Irrigation District ..... *LI Qi, YU Hong-li, JIANG Xue-bin* (65)

### Monographic study

- Application of absolute ceramic rod stroke detection device in large hydraulic hoist in Datengxia ..... *FAN Xiao-fu, LIU Xiang, YUE Mei, LIU Zhuo-zhuo* (68)

#### SAPONSOR

Song-Liao Water Resources Commission  
Ministry of Water Resources, P.R.China

#### ADDRESS

4188Jiefang Road Changchun, P.R.China

#### CODE NO.

ISSN 1002-0624  
CN 22-1097/TV

#### EDITOR AND PUBLISHER

Magazine Office of 《Water Resources  
and Hydropower of Northeast China》

#### EXECUTIVE EDITOR-IN-CHIEF

REN Hai-xia

#### POST CODE 130021

TEL. (0431)85607758