

7th International Symposium on Big Data and Applied Statistics (ISBDAS 2024)

Journal of Physics: Conference Series Volume 2813

Beijing, China
8-10 March 2024

ISBN: 979-8-3313-0287-0

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

This work is licensed under a Creative Commons Attribution 4.0 International Licence.
Licence details: <http://creativecommons.org/licenses/by/4.0/>.

No changes have been made to the content of these proceedings. There may be changes to pagination and minor adjustments for aesthetics.

Printed with permission by Curran Associates, Inc. (2024)

For permission requests, please contact the Institute of Physics
at the address below.

Institute of Physics
Dirac House, Temple Back
Bristol BS1 6BE UK

Phone: 44 1 17 929 7481
Fax: 44 1 17 920 0979

techtracking@iop.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

Preface	
Peer Review Statement	
Adaptive Spatial Attention Dual-Branch Fishing Boat Detection Network	1
<i>Jiaxuan Yang, Xiang Liu</i>	
Design of Diesel Engine Vibration Signal Acquisition System Based on Zynq.....	8
<i>Huishuai Wang, Haibo Gao, Wen Zuo</i>	
A UWB Indoor Positioning Method Based on Triple Filtering Fingerprint Matching Algorithm.....	18
<i>Jiaqi Yang, Junbo Gao, Wei Sun, Xin Jing</i>	
Line Optimization of Multi-Beam Sonar Sounding Technology in Ocean Surveying and Mapping	24
<i>Mengjia Li, Zien Zhou, Shaowei Lyu, Mengxuan Liang, Zixuan Gao, Chengming Xia</i>	
Logical Mapping-Based Hierarchical Safe Reinforcement Learning for Autonomous Driving.....	31
<i>Jihui Nie, Yingda Li</i>	
Causal V: A Five-Phase Causal Mining Methodology for Real-World Accident Data.....	38
<i>Jiangnan Zhao</i>	
Image Segmentation Based on Improved Hybrid Krill Herd Algorithm	44
<i>Peng Zhang, Ye Tian</i>	
Measurement of Medical Haemodilatation Based on Statistical Analysis of Big Data	50
<i>Xin Wang, Qiang Jiang, Huixiao Chu, Xudong Pu, Tong Cheng</i>	
Natural Language Processing Applications in Social Network Analysis: A Data Mining Approach	56
<i>Yunxia Yu, Yibo Guan, Yurong Hu</i>	
Identification of Low Voltage Ride-Through Parameters of DFIG Based on Improved Particle Swarm Optimization Algorithm	64
<i>Zhonglin Xu, Zhong Chen, Wang Yao, Yongkang Wu</i>	
Study on Environmental Monitoring Classification System Based on Improved Bayesian Algorithm.....	70
<i>Xiaoyan Guo</i>	
Differential Privacy Protection Algorithm for Large Data Sources Based on Normalized Information Entropy Bayesian Network.....	77
<i>Guangyuan Ni, Jiixin Sun</i>	
Blockchain-Based Anonymous (IOT) Data Integrity Auditing Scheme in Cloud Environments.....	83
<i>Jianhong Zhang, Jianan Zhang</i>	
Improving Chinese Cross-Modal Retrieval with Multi-Modal Transportation Data.....	89
<i>Yanzhong He, Yanjiao Zhang, Lin Zhu</i>	
Fractional Order Lipschitz Recurrent Neural Network with Attention for Long Time Series Prediction	95
<i>Zelong Zhu, Chunna Zhao, Yaqun Huang</i>	

Research on the Integrated Evaluation Model of Database Based on LDA and Entropy Weight Method	101
<i>Junyun Mao, Hao Wen, Jing Huang</i>	
Improved Image Segmentation Method Based on Otsu Thresholding and Level Set Techniques	109
<i>Zhipeng Jing, Bo Tang</i>	
Research on Regional Difference Mechanism of Circulation Innovation Based on Panel Regression Model	114
<i>Chongyan Li, Xianke Li</i>	
Analysis of the Functional Regression Problem of Temperature on Ozone Concentration.....	121
<i>Yanqing Gou, Xuemin Zi</i>	
Some Properties of Effect Algebra	127
<i>Wei Li, Wen Han, Yiyue Sun, Jiangtao Li, Jiaying Wang</i>	
Evading Model Ownership Resolution Through Reconstructive Neuron Pruning.....	133
<i>Jun Wu</i>	
A Comprehensive Analysis of Evaluating Robustness and Generalization Ability of Models in AES	142
<i>Ruijie Liu, Xiaoyi Wang, Jie Liu, Jianshe Zhou</i>	
Research on PM _{2.5} Concentration Prediction Based on Transformer	147
<i>Zhiqiang Dai, Ge Ren, Yongming Jin, Jintao Zhang</i>	
A Time Series Data Regression Based on a B-Spline and Stacking Framework.....	155
<i>Ruizhe Li, Jingyu Cui, Daobo Fu</i>	

Author Index