Contents

Part I Logistics Systems and Management Research (LSMR)

1 Research on Distribution Center Logistics Equipment Risk Management...................................................... 3
Qicai Zhou, Xiaolei Xiong and Hang Fang

2 Research on Logistics Center Layout Based on SLP............. 17
Yannan Liu and Qilan Zhao

3 System Dynamics Modeling and Simulation of Two-Stage Remanufacturing Reverse Supply Chain ......................... 29
Yiwei Mo, Liwei Li and Wei Huang

4 Research and Demonstration of Dynamic Intelligent Logistics System of the Collection and Transportation Process of Giant Municipal Garbage ..................................................... 39
Shuang Xu, Guangming Li, Haitao Ou and Wenqing Wu

5 Research on the Stairs Evacuation with Fluid Wave Theory..... 51
Xun Weng, Zhiyuan Su, Wenshuo Liu and Qianqing Xu

6 An Approach to Integrated Cellular Layout Design Based on Logistics Cost Optimization ............................. 61
Yongqian Zheng, Kuixue Ding and Kefeng Cen

7 The Inventory Demand Forecasting Model of the Regional Logistics Network in Supply Chain ............................. 73
An-Quan Zou and Ren-Cun Huang
Contents

8 Research on Logistics Marketing Based on Local Characteristic Economy Industrial Cluster. 85
   Xiaoyuan Shi

9 Based on AHP and Cluster Analysis for Classification Method of Emergency Supplies 95
   Zhiyuan Su, Xun Weng and Lei Zhang

10 Green Supply Chain Management System of Modern Enterprise Construction Strategy 105
    Xiaoyuan Shi

11 Based on FCM Disaster Area Management at Different Levels 115
    Chaowei Zheng, Xun Weng, Zhiyuan Su and Zhijun Zhuang

12 Life Cycle Inventory of Multi-mode Transport System for Designing Green Logistics 125
    Lu Li and Suiran Yu

Part II Lifting Machinery Technology Research (LMTR)

13 Dynamic Reliability of the Weight Index Model Research of Residual Fatigue Life of the Crane Boom 137
    Fuhai Cai, Fuling Zhao, Xin Wang, Shunde Gao and Liming Chen

14 Study of the Opening Angle Influence of Y-shaped Guying System on the Buckling Stability of Telescopic Boom Crane 155
    Li Chen, Rumin Teng, Yahui Zheng, Haibo Chi, Wei Xu and Na Hou

15 Design of New Hydraulic Pushing Device 165
    Qicai Zhou, Jiong Zhao, Xiaolei Xiong and Haiyan He

16 The Improvement of Running Condition on the Crane with the Wheel Flange 173
    Jigui Kuang, Dabao Liu, Xuequan Xiao and Hao Wu

17 Lightweight Design for the Combinatorial Jib 179
    Jiong Zhao, Qicai Zhou, Wenjun Li and Zailei Zhou

18 Research on the Overload Protection System of Knuckle Boom Crane 189
    Kun Song, Yaofeng Xue, Lei Xu and Bo Zhang
19 Research on Energy Consumption of Variable Frequency Control for Portal or Overhead Crane .......... 199
  Lili Ma and Wenming Cheng

20 User-Oriented and Visualized Optimization for Crane Design .... 209
  Yuanfang Tao and Chaofei Hong

21 Design of the Special Spreader of Super-Tonnage Crane ...... 217
  Jiong Zhao, Xiaolei Xiong, Wenjun Li and Yujun Hu

22 Research of Crane Parametric Collaborative Design Platform ... 229
  Zongyan Wang, Fen Yang, Jian Zhao, Jian Li and Rongbin Zhai

23 Mechanical Performance of Crane’s Main Girders with Corrugated Webs ................................ 243
  Guo-qian Wei, Hai-tao Dong, Yue Li and Qin Fan

24 The Electric Control Scheme of 2500t Ring Crane ............. 255
  Xiaolei Xiong, Jiong Zhao, Qicai Zhou and Li Zeng

Part III Logistics Warehousing and Distribution Technology Management (LWDT)

25 Research on Picking Route Optimization for One Stacker in Multiple Aisles Automated Storage and Retrieval System .... 265
  Ailan Feng, Zhanzhen Di and Wenying Ding

26 A Cellular Ant Algorithm-Based Method for Solving Stereo Warehouse Slotting Optimization Problem ............. 273
  Meng Jin, Xihui Mu, Fengpo Du and Lei Luo

27 Research on Process Optimization of Automated Warehouse .... 283
  Wei Yang, Dan Li, Chen Yan and Yuxiao Du

28 Research and Implementation of Condition-Based Maintenance System for Stack Crane in Automatic Storage and Retrieval System ............................................. 291
  Sixia Fan, Qicai Zhou, Jiong Zhao and Xiaolei Xiong
Part IV Conveying Machinery Technology Research (CMTR)

29 The Research of Integrated Supply Chain Model Rested on Joint Ordering ................................................. 303
    Wenxue Ran and Yang Yu

30 The Necessity of Construction of the Three Gorges Emergency Logistics Base and Its Measures. ..................... 313
    Juan Wang, Weijun He and Yasan Fu

31 Resistance Analysis for Bulk Materials in the Vertical Section of Pipe Scraper Conveyor .......................... 327
    Yanping Yao, Wenjun Meng, Ziming Kou and Zhicheng Liao

32 Material Uninterrupted Feeding Technology and Feeding Speed Control Research of Large Electroslag Remelting Furnace .......................................................... 337
    C.Z. Wang and J.C. Song

33 Structure Weight Reduction of Ship Unloader Based on the Orthogonal Experiment Method .................... 347
    Suiran Yu, Jingxing Qian and Jianguo Zhang

Part V Enterprise Logistics (EL)

34 Given Target Position Path Planning of Concrete Pump Vehicle .............................................................. 361
    Xin Wang, Hui Jin, Xuyang Cao, Shunde Gao and Shujun Ming

35 A New Hybrid Topology Optimization Method Coupling ESO and SIMP Method ........................................ 373
    Hongyu Jiao, Qicai Zhou, Sixia Fan and Ying Li

36 An Integrated Conceptual Design Calculation Method for Logistics Machinery Based on Working Condition and Load Combination ..................................................... 385
    Zhiyi Pan, Shunde Gao, Xin Wang and Xuyang Cao

37 Improved Heuristic Procedure for Mixed-Model U-line Balancing Problem with Fuzzy Times ....................... 395
    Zeqiang Zhang and Wenming Cheng
38 Research and Building of Database Model of Logistics Business Platform ................................................. 407
   Li Li, Gaoyuan Meng, Xiaoping Liao and Wengui Su

39 Research on Multi-service Demand Path Planning Based on Continuous Hopfield Neural Network ......................... 417
   Yitong Zhang and Gang Zhao

40 A Graded Optimization-Based Approach to Remanufacturing Production Decision ............................................. 431
   Yiwei Mo, Zhili Huang and Wei Huang

41 Research About Slider Nonlinear Contact Analysis of the Telescopic Boom with Cylinder Supporting .................... 441
   Shilin Shen, Zhongpeng Zhang and Bin Gu

42 Research on Automatic Layout Planning and Performance Analysis System of Production Line Based on Simulation ........ 455
   Lv Chao, Liu Shuang, Shiming Wang and bei Cai

43 Optimization Study Based on Lean Logistics in Manufacturing Enterprises ....................................................... 463
   Xiaoyan Wang

44 Power Assembly and Monitoring Management System of Lithium Ion Battery in Mine ........................................ 473
   Zhihao Yu, Chuanyu Sun, Jiancheng Fang and Linjing Xiao
Proceedings of China Modern Logistics Engineering
Inheritance, Wisdom, Innovation and Cooperation
(Ed.)
2015, XVI, 485 p. 225 illus., Hardcover
ISBN: 978-3-662-44673-7