

CSAA/IET International Conference on Aircraft Utility Systems (AUS 2020)

IET Conference Publications 776

Online
18 - 21 September 2020

Volume 1 of 2

ISBN: 978-1-7138-3219-5

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.

Copyright© (2020) by the Institution of Engineering and Technology
All rights reserved.

Printed with permission by Curran Associates, Inc. (2021)

For permission requests, please contact the Institution of Engineering and Technology
at the address below.

Institution of Engineering and Technology
P. O. Box 96
Stevenage, Hertfordshire
U.K. SG1 2SD

Phone: 01-441-438-767-328-328
Fax: 01-441-438-767-328-375

www.theiet.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

VOLUME 1

DYNAMIC SIMULATION FOR BALL SCREW TRANSMISSION STEWART PLATFORM BASED ON ADAMS.....	1
<i>Z. An, Y. Yu, F. Gao</i>	
DESIGN AND ANALYSIS OF A NOVEL LINEAR DISPLACEMENT SENSOR FOR SERVO CONTROL SYSTEM APPLICATION	6
<i>X. Zhang, P. He, G. Xiong, J. Huang, Y. Feng, T. Wang, S. Wang</i>	
AIRCRAFT GROUP SUPPORT CAPABILITY OPTIMIZATION BASED ON PHYSICAL PROGRAMMING AND PARTICLE SWARM OPTIMIZATION.....	12
<i>H. Yang, Q. Wang, B. Zhao, D. Zhao</i>	
DESIGN AND SIMULATION OF THERMAL MANAGEMENT SYSTEM WITH LIQUID AS THE COOLING MEDIA	17
<i>X. Wang, X. Dang, G. Zhang</i>	
DESIGN OF A GATE DRIVER FOR SWITCHING POWER AMPLIFIER FOR POWER HARDWARE-IN-LOOP SIMULATION.....	23
<i>F. Ai, S. Feng, X. Liang, W. Li, Q. Lin</i>	
DESIGN AND ANALYSIS OF A HYBRID PROPULSION SYSTEM ARCHITECTURE FOR NEXT-GENERATION ELECTRIC REGIONAL JET.....	29
<i>J. Fang</i>	
PREDICTION METHOD OF JET TRAJECTORY OF FIRE WATER MONITOR	34
<i>W. Li, G. Wang, Z. Yang, X. Yuan</i>	
PERFORMANCE COMPARATION OF TWO KINDS OF AIRCRAFT RAM AIR OUTLET	40
<i>L. Zhimao, Z. Xinlong, W. Boyu, P. Houju, X. Wenbing, S. Hong</i>	
CHARACTERISTICS OF COMPRESSED AIR WITH WATER SPRAY COOLING ACTION RADIUS	45
<i>G. Jia, W. Xu, Y. Shi, M. Cai</i>	
CIVIL AIRCRAFT LANDING GEAR RETRACTION/EXTENSION SYSTEM ARCHITECTURE DESIGN DECISION BASED ON SAFETY ANALYSIS	50
<i>L. Chuang, X. Yubing, W. Hao</i>	
METHOD FOR PROCESSING IRREGULAR ELECTROCARDIOGRAPHIC NOISE OF FLIGHT TEST MISSION.....	55
<i>H. Qu, X. Gao, L. Pang, H. Qu, Y. Shan, Y. Liu, L. Guo</i>	
CLASSIFICATION OF MENTAL WORKLOAD FROM BETA OF EEG DATA USING STOCHASTIC CONFIGURATION NETWORK (SCN).....	59
<i>L. Guo, L. Pang, X. Wanyan, H. Qu, J. Zhang</i>	
SELF-CONFIGURATION STRATEGY DESIGN FOR UNIT-COMPRESSIBLE MODULAR ROBOTIC SYSTEM.....	63
<i>E. Guan, J. Liu, Y. Zhao</i>	

ALGORITHM SIMULATION RESEARCH OF ROAD FEATURE EXTRACTION POINT OF INFINITE CIRCULAR APPROXIMATION BASED ON CURVE	69
<i>S. Yubo</i>	
EQUIVALENT STUDY ON DELETHALIZATION TEST FOR SLED HEAD INJURY CRITERIA TEST OF CIVIL AIRCRAFT PASSENGER SEAT	73
<i>Z. Jin, W. Shen, G. Luo, M. Li, Z. Jia, W. Zhou, L. Jia, L. Zhang</i>	
AN ELECTROMECHANIAL—HYDRAULIC HYBRID BRAKE CONTROL DEVICE FOR UNMANNED AERIAL VEHICLE	79
<i>Y. Hu, H. Zhang, Q. Li, Z. Nie, Z. Cao</i>	
RESEARCH ON HYDRAULIC ACCUMULATOR SIZE OF BRAKE SYSTEM OF TYPICAL CIVIL AIRCRAFT.....	84
<i>P. Yang, Y. Han, R. Li, X. Liu, Y. Shang</i>	
RESEARCH ON STATOR STRUCTURE OPTIMIZATION DESIGN OF THE RVDT	90
<i>H. Xu</i>	
CIVIL AIRCRAFT EMERGENCY RAM AIR VENTILATION SYSTEM PERFORMACNE ANALYSIS AND TEST	95
<i>S. Xiang, Z. Congxiao</i>	
SIMULATIVE AND EXPERIMENTAL STUDY OF DYNAMIC CHARACTERISTICS OF PRESSURE RELIEF VALVE BASED ON AMESIM.....	99
<i>F. Teng, P. He, H. Zhang, H. Hu, X. Wang, X. Liu</i>	
SIMULATION AND ANALYSIS OF HIGH-RELIABILITY BRAKING SYSTEM OF AIRCRAFT BASED ON SELF-FEED ENERGY NONSIMILAR MARGIN.....	105
<i>X. Wang, Y. Shang, H. Hu, B. Qiu, F. Teng, H. Zhang, Z. Jiao, X. Liu</i>	
THE MECHANICAL PROPERTIES OF PACKING CARDBOARD DURING THE AUTOMATIC SUCTION PROCESS.....	111
<i>L. Peixing, H. Shuang</i>	
MODELING AND SIMULATION OF TYPICAL AIRCRAFT LOAD MODELS BASED ON MODELICA LANGUAGE AND DYMOLA SOFTWARE	117
<i>Y. Wang, X. Jiang, Z. Zhao, Y. Lu, W. Li</i>	
PERFORMANCE SIMULATION OF WING ANTI-ICING SYSTEM FOR CIVIL AIRCRAFT.....	122
<i>Y. Peng</i>	
THE BOOTSTRAP RESERVOIR CHARACTERISTICS OF A HYDRAULIC-BACKUP ELECTRO-HYDROSTATIC ACTUATOR	128
<i>Z. Yuqiang, L. Lu, H. Weiyi, L. Yao, H. Jun, Z. Shoujun</i>	
TEMPERATURE PREDICTION METHOD OF ELECTRONIC EQUIPMENT CABIN BASED ON STOCHASTIC CONFIGURATION NETWORK	134
<i>L. Pang, L. Wang, X. Mao</i>	
THE SYSTEM DESIGN OF SPACE SOLAR ARRAY AUTO-MOUNTING.....	139
<i>Y. Guo, P. Li, Y. Liu, Y. Wang, Y. Sun</i>	
SIMULATION OF UNSTEADY ELECTRO-THERMAL DE-ICING PROCESS OF ANISOTROPIC COMPOSITE SKIN.....	146
<i>Z. Mu, X. Shen, G. Lin, X. Yu</i>	

RAPID DECOMPRESSION ANALYSIS BASED ON COMMERCIAL AIRCRAFT LAYOUT.....	151
<i>C. Zhang, S. Lin, H. Liu, Y. Li</i>	
ACCURACY ANALYSIS OF TURRET SHOOTING BASED ON DISTURBANCE OBSERVER	157
<i>Z. Liqun, Y. Chi, J. Zongxia</i>	
A MBSE BASED ARCHITECTURE DESIGN METHOD OF CIVIL AIRCRAFT'S BRAKE LOGIC.....	163
<i>W. Kuan, X. Peng, X. Heming</i>	
MENTAL WORKLOAD CLASSIFICATION BASED ON VISUAL AND OPERATIONAL EEG SIGNALS	167
<i>H. Qu, Y. Liu, L. Pang, Y. Shan</i>	
FATIGUE STRENGTH ANALYSIS OF SPRING TUBE OF DEFLECTOR JET SERVO-VALVE IN RANDOM VIBRATION ENVIRONMENT	173
<i>Z. Zhang, J. Yuan, S. Ge</i>	
REINFORCEMENT LEARNING-BASED ACTIVE FILTER FOR THE POWER MANAGEMENT OF OFF-ROAD HYBRID ELECTRIC VEHICLES.....	178
<i>C. Xiang, X. Hou, Y. Ma</i>	
A BRIEF ANALYSIS OF THE MAJOR CONCERNS IN THE ENGINEERING APPLICATION OF RAT SYSTEM TO UAS	184
<i>D. Wang</i>	
STUDY ON ENERGY MANAGEMENT SYSTEM OF HELICOPTER	189
<i>K. Ma, L. Chen, K. Luo</i>	
A RESEARCH ON HELICOPTER START CONTROL SYSTEM	195
<i>C. Li, Y. Wang, C. Yang</i>	
A SYSTEMS APPROACH TO COMPLIANCE WITH CHINESE AIRWORTHINESS REGULATIONS FOR CIVILIAN AIRCRAFT FLIGHT CONTROL SYSTEM.....	201
<i>S. Quanyan</i>	
THE EMC DESIGN OF ELECTROMECHANICAL CARGO DOOR ACTUATION SYSTEM.....	206
<i>S. Wei, P. Guo, X. Wang, H. Wu, X. Wang, Z. Nie</i>	
MODELING AND SIMULATION OF APU INLET DOOR ACTUATOR BASED ON MOTION AND CATIA	213
<i>W. Zhi, W. Zheng, A. Chen, D. Liu</i>	
HEAD POSE AND EYE GAZE FEATURE RECOGNITION BASED PREDICTION OF DRIVERS' MANEUVERS.....	218
<i>F. Qi, Y. Ma, A. Li, Q. Yan</i>	
DESIGN OF HIGH-PRECISION AND HIGH-RELIABILITY AIRCRAFT STEPPER MOTOR DRIVE SERVO CONTROL SYSTEM	225
<i>Y. Erjun, H. Mingliang, L. peng</i>	
THE APPROXIMATE CALCULATION AND COMPENSATION METHOD OF MOTION COMMAND OF HELICOPTER SWASH-PLATE.....	231
<i>H. Pang, W. Zheng</i>	

RESEARCH AND APPLICATION EVALUATION OF THE SOLID SOURCE OF OXYGEN IN THE TRANSPORT AIRCRAFT	235
<i>W. Wang, Y. Wang, D. Cui</i>	
COURSE FAULT-TOLERANT CONTROL FOR FIXED-WING UAV	243
<i>F. Zhu, G. Li, M. Song, Y. Li, Y. Xia, C. Yang</i>	
RESERACH ON FORCE LOADING SERVO CONTROL METHOD WITH FEEDFORWARD COMPENSATION FOR ELECTRO-HYDRAULIC SERVO ACTUATOR.....	250
<i>Y. Liu, J. Zhang, S. Shao, K. Yuan</i>	
PERFORMANCES OF AIRBORNE VAPOR CYCLE SYSTEM UNDER A TYPICAL HELICOPTER FLIGHT PROFILE	256
<i>Z. Zhu, C. Fu, Y. Xu, W. Xia</i>	
NUMERICAL STUDY OF THERMAL-HYDRAULIC PERFORMANCES OF MICROCHANNEL HEAT SINKS WITH DIFFERENT CHANNEL STRUCTURES.....	261
<i>G. Zhang, Y. Xu, Q. Dai</i>	
MODELING AND SECONDARY DEVELOPMENT & RESEARCH OF ANTI-ICING VALVE BASED ON AMESIM	266
<i>S. Sun, W. Pan, H. Zhang</i>	
RESEARCH AND VERIFICATION OF A NOVEL SENSORLESS CONTROL ALGORITHM FOR BRUSHLESS DIRECT CURRENT MOTOR	272
<i>F. Liu, B. Si, J. Zhu</i>	
A CORRECTED LUNDBERG-PALMGREN THEORY FOR THE BEARING FATIGUE LIFE PREDICTION OF THE MULTIFUNCTIONAL VALVE PLATE IN THE AVIATION PISTON HYDRAULIC PUMP.....	277
<i>X. Tianxiang, L. Qilin, L. Yueliang, K. Bing</i>	
STUDY ON BURNING RESISTANCE PERFORMANCE OF AIRBORNE FLAME ARRESTER	283
<i>L. Minghui, Y. Wen, W. Xuan, W. Yuanyuan, D. Wanteng</i>	
CALCULATING THE EQUILIBRIUM STATES OF AIRCRAFT BASED ON MODIFIED PSO ALGORITHM.....	289
<i>Y. Dai, M. Huang</i>	
RESEARCH ON ADSORPTION RELIABILITY OF LARGE-LOAD WALL-CLIMBING ROBOT FOR PRESSURE STEEL PIPE WORK.....	294
<i>D. Jiang, B. Zhu, D. Hu, X. Fu, Y. Zhao</i>	
EFFECT OF THE PIGTAIL GROUNDING POSITION ON CROSSTALK TO AIRCRAFT SHIELDED CABLES	301
<i>X. Shi, H. Zhang, X. Dong, H. Zhao</i>	
RAIM PERFORMANCE AIRWORTHINESS COMPLIANCE VERIFICATION TECHNOLOGY FOR BDS AIRBORNE SUPPLEMENTAL NAVIGATION EQUIPMENT	308
<i>Z. Ma, J. Hu, R. Liu</i>	
RESEARCH ON DESIGN METHOD OF CIVIL AIRCRAFT BRAKE CONTROL LAW BASED ON MBSE	314
<i>H. Yang, Z. Wang, B. Li, D. Sun, P. Xiao, X. Liu, Y. Shang, Z. Jiao, H. Zhang</i>	
RESEARCH ON VERIFICATION TECHNOLOGY OF AIRCRAFT RMS BASED ON MBSE.....	319
<i>C. Ju, S. Wang, T. Wang</i>	

ANALYSIS OF DYNAMIC CHARACTERISTICS OF A DOUBLE-ROTOR AREO ENGINE.....	324
<i>S. Li, Y. Zhang</i>	
NONLINEAR DYNAMIC ANALYSIS OF FRACTIONAL-ORDER PERMANENT MAGNET SYNCHRONOUS MOTOR.....	331
<i>X. Liang, Y. Xiang, F. Ai, R. Dong, X. Fan, Z. Kang, W. Li</i>	
RESEARCH AND DESIGN OF DC MICROGRID Z-SOURCE SOLID-STATE CIRCUIT BREAKER	337
<i>Y. Tao, Z. Xu, H. Wang, W. Li</i>	
RESEARCH ON ON-LINE MONITORING OF SELF-ADAPTING TOOL WEAR BASED ON WORKING STEP	343
<i>P. Ma, W. Wang, S. Tong, Z. Liao, J. Cui</i>	
AIRCRAFT POWER SYSTEM RELIABILITY STUDY BASED ON COMBINED FAULT- TREE AND MARKOV ANALYSIS	350
<i>X. Shi, K. Huang, H. Xu, Z. Yang</i>	
RESEARCH ON SUPERBUCK CONVERTER FOR SPACE MAXIMUM POWER TRACKING SYSTEM.....	356
<i>W. Xu, H. Liu, M. Shao, X. Wu</i>	
ECONOMIC DISPATCH OF MICROGRID WITH ELECTRIC BICYCLES BASED ON PATTERN SEARCH AND PARTICLE SWARM ALGORITHM.....	362
<i>A. Wen Donghan, B. Xu Wenbao, C. Wang Kun</i>	
SYSTEM MODELING AND SIMULATION FOR FLAP SYSTEM POWER DRIVE UNIT OF COMMERCIAL AIRCRAFT	368
<i>T. Liu, Y. Zhang, Y. Qian, J. Ju, W. Yu</i>	
STUDY ON TYPE CERTIFICATION FUNCTION AND RELIABILITY FLIGHT TEST ABOUT CIVIL TRANSPORTATION AIRCRAFT	374
<i>L. Feimin</i>	
DESIGN OF COLLISION PREDICTION ALGORITHM FOR INDUSTRIAL ROBOT	379
<i>C. Yuhao, Z. Wei, Z. Boli, W. Wei</i>	
INVESTIGATION ON RISK MANAGEMENT FOR SEAT RESTRAINT SYSTEM BASED ON OPERATIONAL DATA AND NUMERICAL MODEL.....	385
<i>H. Guo, P. Ke, D. Deng</i>	
RESEARCH ON THE SYNCHRONIZATION PERFORMANCE OF A DOUBLE-CYLINDER ACTUATION SYSTEM.....	390
<i>X. Liu, G. Peng, X. Shen, F. Yang</i>	
DAMAGE RESISTANCE EVALUATION METHOD OF AVIATION EQUIPMENT BASED ON TYPICAL SCENE	396
<i>C. Ju, L. Han, Y. Li</i>	
STUDY ON LIFT ENHANCEMENT FOR UPPER SURFACE BLOWING SYSTEM WITH ELECTRIC DUCTED FAN.....	401
<i>B. Su, K. Zhang, T. Xia, Y. Zhang, S. Liu, H. Dong</i>	
RESEARCH ON HIGH COHESION AND LOW COUPLING DISTRIBUTED REMOTE INTERFACE TECHNOLOGY OF AIRCRAFT UTILITY SYSTEM.....	406
<i>M. Hu, Erjun, W. Yan, P. Qu</i>	

DESIGN AND MODELLING OF THE SCREW CARTRIDGE ROTARY DIRECT-DRIVE SERVO VALVE	412
<i>Z. Hang, X. Zhou, J. Liu, Y. Zhao</i>	
DEVELOPMENT OF POWER DRIVE TECHNOLOGY FOR HIGH LIFT SYSTEM OF COMMERCIAL AIRCRAFT	418
<i>T. Liu, Y. Zhang, W. Wang, J. Ju, W. Yu</i>	
DYNAMIC MODELING AND OPTIMIZATION OF ROPE HOOK RECOVERY OF UAV	423
<i>M. Huang, Y. Dai</i>	
RESEARCH ON MEASUREMENT METHOD OF SIX DEGREE OF FREEDOM FOR HEAD BASED ON SAFETR OF AIRCRAFT PILOT SEAT	429
<i>G. Luo, Z. Jin, W. Xie, R. Wang</i>	
DESIGN AND RESEARCH OF AN INTEGRATED PIN-TYPE HYDRAULIC SWITCHING DEVICE WITH HIGH RELIABILITY	434
<i>L. Yao, Z. Bo, Z. Feng-qing, Z. Yu-qiang, L. Lu, H. Jun</i>	
WEAR ANALYSIS OF MECHANICAL FACE SEAL WITH RANDOM VIBRATION LOAD EQUIVALENT TO SINUSOIDAL VIBRATION LOAD.....	440
<i>W. He, S. Wang, C. Zhang, X. Wang, D. Liu</i>	
MENTAL WORKLOAD EVALUATION FOR OPERATOR BASED ON CTL MODEL	446
<i>X. Lu, L. Pang, T. Wang, C. Zhang, X. Wanyan</i>	
A REAL-TIME ALGORITHM FOR TRACKING ANGLE OF SPACECRAFT RELAY ANTENNA.....	452
<i>K. Huang, C. Huang, W. Zhang</i>	
RESEARCH ON FOUR-VECTOR CONTROL SYSTEM OF AERO FIVE-PHASE PERMANENT MAGNET SYNCHRONOUS MOTOR.....	458
<i>L. Zhang, Y. Yao, L. Xu</i>	
APPLICATION OF AIR-TO-GROUND INTEGRATION FLIGHT TEST MONITORING SYSTEM IN CIVIL AIRCRAFT IFTD FLIGHT TESTING	463
<i>D. Che, G. Lian, K. Wang</i>	
RESEARCH ON HYDRAULIC DUMP RESPONSE PERFORMANCE OF CIVIL AIRCRAFT BRAKE SYSTEM.....	468
<i>G. Zhang, B. Chen, S. Dong</i>	
MODELING AND CALCULATION OF LITHIUM-ION BATTERY CHARGING PROCESS FOR SATELLITE	475
<i>W. Xu, Y. Jiao, M. Shao, X. Wu</i>	
THE COMPARATION WITH YOLO AND PNP METHOD OF VISION NAVIGATION FOR HELICOPTER LANDING	480
<i>J. She, Y. Liu, R. Zhou, N. Qi</i>	
A TREE SEARCH LOADIND ALGORITHM FOR AIRPORT CHECKED BAGGAGE.....	486
<i>C. Shengming, Z. Wei, D. Zhaobin, W. Liwen</i>	
EXPERIMENTAL STUDY ON DISCHARGE COEFFICIENT OF WING BOX CHANNEL IN CIVIL AIRCRAFT.....	491
<i>S. Lin, C. Zhang, Y. Li</i>	

SEMG BASED HUMAN LOWER LIMB CONTINUOUS MOTION OF ESTIMATION METHOD.....	497
<i>Y. Tao, Y. Huang, J. Zheng, J. Chen, Z. Zhang, Y. Guo</i>	
RESEARCH ON THE SELECTION OF CIVIL ENGINE BASED ON GREY FUZZY MULTI-LEVEL THEORY	502
<i>K. Zhang, H. J. Xiao, M. H. Tian, Z. Z. Shan</i>	
DESIGN OF AERO-ENGINE INSTALLATION PLATFORM BASED ON SCISSORS FRAME LIFTING MECHANISM	508
<i>Z. Pan, Y. Jia-qi, L. Si-jia</i>	
A NOVEL DATA GLOVE DESIGN WITH PARALLELOGRAM STRUCTURE BASED ON LINKAGE MECHANISM OF HUMAN HAND	513
<i>Z. Chen, J. Zhou, S. Wang, P. Zhang, C. Zhang, S. Huang</i>	
A STUDY ON GAS-LIQUID TWO-PHASE DETECTION TECHNOLOGY BASED ON VOICE COIL VIBRATION.....	519
<i>W. Maokun, G. Yibo, X. Lilin</i>	
A MODIFIED OBSERVER BASED FAULT-TOLERANT CONTROL FOR AIRCRAFT WITH MULTI-ACTUATOR CLOSED-LOOP SYSTEM FAULTS.....	523
<i>J. Wang, X. Zhang, J. Huang, X. Wang, G. Xiong, T. Wang</i>	
RESEARCH ON DESIGN AND PERFORMANCE VERIFICATION OF ELECTROMECHANICAL ACTUATOR COMBINED LARGE LOAD OF BENDING WITH TORSION.....	529
<i>X. Zhang, S. Qian, J. Huang, G. Wang, T. Liu, J. Wang</i>	
A NUMERICAL SIMULATION OF FROSTING AND CONDENSATION IN AVIATION ELECTRONIC DEVICES BASED ON NIELSEN DYNAMIC FROSTING MODEL.....	534
<i>R. Shi, W. Chen, C. Li, X. Han, Q. Cheng</i>	
CONTRAST STUDY AND PARAMETER MODIFICATION OF TWO MATHEMATICAL MODELS OF HUMAN THERMAL REGULATION.....	540
<i>M. Ke, W. Chen, K. Song, J. Zhao</i>	
NUMERICAL SIMULATION OF DYNAMIC CHARACTERISTICS OF EXHALATION VALVE OF AVIATION OXYGEN MASK.....	546
<i>S. Lu, W. Chen, N. Wang, Y. Ma, Q. Cheng</i>	
RESEARCH ON THE SENSORLESS STARTING CONTROL METHOD OF UAV STARTOR/GENERATOR.....	552
<i>F. Wang, C. Jiao, H. Qian, Q. Zhang, X. Jiang, G. Zhou</i>	
A SMART OPTICAL SENSOR FOR ONLINE CONDITION MONITORING OF AIRCRAFT INERTING SYSTEM	558
<i>W. Wang, X. Zhang, L. Chen, X. Li, X. Lu, J. Mei, W. Kong, Y. Miao</i>	
STUDY ON TEMPERATURE CORRECTION MODEL OF FIRE EXTINGUISHING AGENT CONCENTRATION TEST.....	564
<i>H. Shi, S. Lu, Y. Zhou, H. Zhang</i>	
RESEARCH ON THE EFFECT OF OIL TEMPERATURE ON THE PERFORMANCE OF CIVIL AIRCRAFT ACTUATION SYSTEM	569
<i>R. Kang, Z. Li, J. Huang</i>	

RESEARCH ON ELECTRIC VEHICLE CHARGING DEMAND LOAD BASED ON MONTE CARLO ALGORITHM.....	575
<i>L. Xincong, X. Minhao, W. Jun, F. Shangshang, W. Bing, C. Mingxi</i>	
STUDY ON LOAD DISTRIBUTION AND ECONOMIC BENEFIT OF ELECTRIC TAXI CHARGING STATION.....	581
<i>S. Yuying, P. Peng, C. Mingxi, W. Bing</i>	
INTERMITTENT FAULT DETECTION AND DIAGNOSIS FOR AIRCRAFT FUEL SYSTEM BASED ON SVM	587
<i>Y. Jiang, Y. Miao, Z. Qiu, Z. Wang, J. Pan, C. Yang</i>	
DESIGN OF AIRBORNE ACTUATOR CONTROL ELECTRONICS BASED ON FPGA.....	591
<i>L. Li, P. Guo, S. Wei, X. Wang, Z. Xue, Z. Nie</i>	
DESIGN AND RESEARCH OF GREEN ELECTRIC TAXIING SYSTEM BASED ON MBSE METHOD.....	598
<i>G. Chen, W. Deng, J. Zhang</i>	
EXPERIMENTAL INVESTIGATION ON BOILING FLOW PATTERNS IN RECTANGULAR CHANNELS WITH OFFSET FINS	604
<i>Z. Hongbo</i>	
STUDY ON ROTOR EDDY CURRENT LOSS OF DOUBLE-WINDING PERMANENT MAGNET FAULT-TOLERANT MOTOR FOR ELECTRO-HYDROSTATIC ACTUATOR APPLICATIONS.....	609
<i>Q. Zhao, Y. Hu, P. Zhang, L. Yang</i>	
STUDY ON FLOW PERFORMANCE OF AIRBOARD FLAME ARRESTERS.....	615
<i>L. Minghui, L. Yufei, P. Keqiang, W. Yuanyuan, X. Yaqing</i>	
SIMULATION STUDY ON DYNAMIC OPENING CHARACTERISTICS OF AIRPLANE DRAG CHUTE UNDER THE CONDITION OF STABLE CROSSWIND.....	621
<i>L. Jin, P. Yang, X. Hu, H. Li, L. Zhang, D. Cui</i>	
RESEARCH ON ESTABLISHING PERFORMANCE BASED REGULATION FOR THE EMERGENCY EVACUATION SYSTEM OF COMMERCIAL TRANSPORT AIRCRAFT.....	627
<i>D. Deng, P. Ke, H. Guo</i>	
RESEARCH ON INFLUNENCE OF ORIFICE PARAMETEERS ON FLUID RESISTANCE VARIATIONS.....	632
<i>Y. Ding, L. Jiao</i>	
MODIFICATION DESIGN OF AIRCRAFT GROUND PRESSURE REFUELING SYSTEM	637
<i>L. Minghui, F. Xiong, W. Zhendong, Y. Wen, Z. Weijing</i>	
NUMERICAL INVESTIGATION ON THE SEALING PERFORMANCE IN GROOVED BUSHING STRAIGHT-THROUGH LABYRINTH SEAL	643
<i>F. Tong, R. Gou</i>	

VOLUME 2

RESEARCH ON FRAMELESS MOTOR TECHNOLOGY FOR JOINT MODULE	649
<i>J. Zheng, Y. Guo, C. Xiao, X. Guo, Y. Huang</i>	

THE FAULT LOAD INFLUENCE FACTOR ANALYSIS FOR THE HIGH LIFT SYSTEM TRANSMISSION	655
<i>K. Ning, S. Bin, Y. M. Shi, Y. Feixing</i>	
DESIGN OF MOTOR CONTROL DRIVER BASED ON ARM AND FREERTOS	661
<i>P. Li, G. Yuan, Q. Zhao, Y. Wang, J. Zhang, X. Guo</i>	
ANALYSIS OF CHARACTERISTIC FOR ROBOT JOINT	667
<i>X. Guo, G. Tian, F. Yang, G. Yuan, P. Li, Q. Zhao</i>	
OPTIMIZATION OF BALL SCREW TRANSMISSION SIX-DOF PLATFORM BASED ON ERROR ANALYSIS	673
<i>Z. An, F. Gao, Y. Yu</i>	
DESIGN FOR BASIC RACK OF HARMONIC GEAR DRIVE WITH DOUBLE-CIRCULAR- ARC TOOTH PROFILE	678
<i>W. Shi, Y. Huang, J. Zheng, Z. Zhang</i>	
RESEARCH ON 18-PULSE AUTOTRANSFORMER RECTIFIER DEVICE FOR AVIATION	683
<i>W. Chen, J. Liu, L. Yu</i>	
RESEARCH ON ELECTROHYDRAULIC ACTUATOR BRAKE SYSTEM BASED ON DISTRIBUTED OIL SOURCE.....	690
<i>X. He, Y. Cao, L. Min</i>	
RESEARCH ON STEADY STATE PRESSURE ANALYSIS METHOD OF CIVIL AIRCRAFT HYDRAULIC ENERGY SYSTEM BASED ON AMESIM	695
<i>C. Guo, J. Luo, S. Li, L. Quan</i>	
BIG DATA ANALYSIS OF KNOWLEDGE GRAPH OF INDUSTRY CORE COMPETITIVENESS BASED ON CITESPACE SOFTWARE	700
<i>H. Xie, W. Zhai, X. Gao</i>	
A STEPLESS VARIABLE PRESSURE PUMP BASED ON HIGH-SPEED ON-OFF VALVE	705
<i>X. Chen, Y. Xu, S. Wu, Y. Deng, Z. Jiao</i>	
RANDOM VIBRATION RESPONSE PREDICTION OF ELECTRONIC DEVICE BASED ON HIERARCHICALLY MODEL UPDATING AND VALIDATION.....	710
<i>T. Jiang, H. Ma, Q. Guo, Y. Xiong</i>	
RESEARCH ON DYNAMIC TORQUE PERFORMANCE OF LOAD SIMULATOR BASED ON ROTARY ELECTRO-HYDROSTATIC ACTUATOR.....	716
<i>X. Chen, S. Wu, Z. Jiao</i>	
OPTIMAL DESIGN OF THE ELECTRO-HYDRAULIC SERVOMECHANISM WORKING AT LOW-TEMPERATURE AND LOW-PRESSURE.....	721
<i>B. Yang, W. Zhou, X. Cheng, Y. Yang, K. Miao</i>	
THE INSTALLATION DESIGN OF DUAL-REDUNDANCY POSITION SENSOR APPLIED ON THE SERVO ACTUATOR.....	727
<i>Z. Yun</i>	
OSGOS-CFAR ALGORITHM BASED ON CLASSIFICATION RECOGNITION	731
<i>C. Yu, Y. Zhang, J. Luo, M. Xiao</i>	

RESEARCH ON AIRCRAFT FUEL MEASUREMENT METHOD BASED ON MACHINE VISION	735
<i>H. Zhu, Y. Shao, S. Xu</i>	
ANALYSIS AND RESEARCH ON DYNAMIC CHARACTERISTICS AND STABILITY OF ELECTRO-HYDROSTATIC ACTUATION SYSTEM.....	741
<i>P. Lei, S. Cao, Y. Wang</i>	
DESIGN AND SIMULATION OF FUEL SUPPLY REGULATION SYSTEM OF MULTI-CHANNEL ELECTRIC FUEL PUMP	747
<i>X. Zhao, L. Li, X. Ge, C. Pei</i>	
PERFORMANCE ANALYSIS OF PRE-COOLING AIR COMPRESSION SYSTEM	753
<i>G. Li, Y. Hu, W. Xu, G. Jia, T. Ren, M. Cai, Y. Shi</i>	
CLUSTER ANALYSIS OF VEHICLE DRIVING CONDITIONS BASED ON K-MEANS ALGORITHM AND EM ALGORITHM.....	759
<i>Q. Yan, Y. Ma, Y. Li</i>	
ELECTROMAGNETIC PERFORMANCE ANALYSIS OF EXTERNAL ROTOR IPM MACHINE FOR AIRCRAFT APPLICATIONS.....	764
<i>X. Huang, Y. Hu, P. Zhang, Y. Zhang</i>	
INTEGRATED ADJUSTABLE DIFFUSER AND ITS INFLUENCE ON CENTRIFUGAL COMPRESSOR PERFORMANCE	770
<i>Y. Lu, C. Yang</i>	
LPV ACTIVE FAULT-TOLERANT CONTROL STRATEGY OF LARGE CIVIL AIRCRAFT UNDER ELEVATOR FAILURES	776
<i>Z. Zhou, X. Wang, S. Wang, Y. Zhang, A. I. Gavrilov, R. Nagamune</i>	
RESEARCH ON NITROGEN ENRICHED AIR FLOW OF ON-BOARD INERT GAS GENERATING SYSTEM.....	782
<i>W. Yangyang, Z. Yu</i>	
THE DETERMINATION OF THE ETOPS ICING CONDITION	787
<i>H. Shen, W. Chen, B. Han</i>	
MODELING AND SIMULATION OF COMPRESSOR SERVO SYSTEM	792
<i>C. Shangchen, W. Shaoping, W. Xingjian, S. Jian</i>	
ADAPTIVE ROBUST CONTROL OF MULTI-PHASE FAULT TOLERANT PM MOTOR BASED INTEGRATED EMA.....	797
<i>X. Zhang, T. Wang, J. Huang, C. Wang, G. Wang, Z. Song</i>	
RESEARCH ON THE CONTROL STRATEGY OF FIVE-PHASE FAULT-TOLERANT SERVO SYSTEM FOR AEROSPACE	803
<i>X. Zhang, C. Wang, T. Wang, G. Wang, Z. Song, J. Huang</i>	
CHARACTERISTIC ANALYSIS OF BOUNDARY LAYER FLOW FIELD ON COMPRESSOR BLADE SURFACE.....	808
<i>L. Wang, J. Huo, X. Zeng, X. Lu, J. Tang</i>	
MODELING AND SIMULATION OF A8 SYNCHRONOUS ACTUATION SYSTEM BASED ON MODLICA.....	812
<i>Z. Wu, S. Wu, W. Wang, S. Wang, M. Gu, Z. Jiao</i>	

IMPLEMENT AND PERFORMANCE COMPARISON OF THREE TURNING METHODS OF PI CONTROLLER PARAMETERS FOR BUCK CONVERTER BASED ON MATLAB/SIMULINK.....	818
<i>W. Zhao, Z. Gao, Z. Xi, X. Tang, A-J. N. Abdulhakim Ibrahim Abdulkarim</i>	
EXPERIMENTAL STUDY ON ACCEPTABLE HIGH TEMPERATURE PHYSIOLOGICAL LIMITS FOR LARGE AIRCRAFT	826
<i>H. Shen, H. Shen, Y. Xie, Y. Lu, C. Zhang</i>	
COMPARATIVE ANALYSIS OF SYMMETRICAL 24-PULSE ATRU AND SYMMETRICAL 18-PULSE ATRU.....	831
<i>Z. Xi, Z. Gao, X. Tang, S. Wang</i>	
ANALYSIS AND OPTIMIZATION OF ELECTROMAGNETIC VIBRATION OF A PROPULSION PMSM.....	838
<i>L. Lei, Z. Guo-ping, W. Juan, H. Bo-ran, Z. Zeng-wu</i>	
WEIGHT OPTIMIZATION DESIGN METHOD OF DC-LINK INDUCTOR FOR CURRENT SOURCE INVERTERS	843
<i>G. Zhou, H. Qian, Q. Zhang, X. Hu, F. Wang, C. Li</i>	
STUDY ON INITIAL COMPRESSION RATE OF O-RINGS WITH DIFFERENT CROSS-SECTIONAL DIAMETERS	847
<i>W. Yang, H. Yan, D. Zhang</i>	
SENSORLESS CONTROL FOR HIGH-SPEED BRUSHLESS DC MOTORS DRIVEN BY CURRENT SOURCE INVERTER	851
<i>M. Sun, X. Zhou, H. Qian</i>	
NUMERICAL ANALYSIS ON INDUCER AND IMPELLER COMBINATION WITH DIFFERENT BLADE WRAP ANGLE IN AERO FUEL CENTRIFUGAL PUMP	859
<i>T. Qilong, Z. Xiaobo, C. Zongta, H. Rongxia</i>	
OPTIMAL DESIGN OF FAST SWITCHING VALVES IN DIGITAL DISPLACEMENT MACHINE	865
<i>R. Wei, S. Wu, H. Zhang</i>	
FORCE FIGHTING ANALYSIS AND MITIGATION ALGORITHM DESIGN FOR REDUNDANT ACTUATION SYSTEM	871
<i>C. Wang, R. Kang</i>	
AIRCRAFT HYDRAULIC POWER SYSTEM DESIGN FOR LOW TEMPERATURE	875
<i>X. Mengkai, S. Jie, M. Qingtang, H. Dingbang</i>	
CONTROL AND VERIFICATION OF AIRCRAFT OXYGEN SYSTEM.....	880
<i>Z. Li, D. Jiang</i>	
RESEARCH ON THE INFLUENCE OF ENDWALL ON THE HYDRODYNAMIC PERFORMANCE OF SHAFTLESS RIM-DRIVEN THRUSTER	886
<i>S. Xiancheng, Z. Guoping, Y. Liwei, Z. Zengwu, T. Guanzhi, Y. Jingguo</i>	
NEURAL NETWORK-BASED REFERENCE SPEED SELF-ADJUSTING BRAKE CONTROL ALGORITHM.....	892
<i>N. Bai, H. Zhang, D. Sun, Z. Wang, Z. Jiao, Y. Shang, S. Wu, X. Liu</i>	

A TEST METHOD OF UTILITY SYSTEM MANAGEMENT COMPUTER BASED ON RHAPSODY DESIGN MODEL.....	898
<i>J. Zeng, J. Song, B. Jia, M. Wang</i>	
THERMAL COMFORT ASSESSMENT ON THE AIRFLOW DISTRIBUTION OF THE FIGHTER COCKPIT	903
<i>X. Hu, Z. Liu, Z. Dai, Y. Cui, S. Dong</i>	
STATE DETECTION OF OXYGEN GENERATION SYSTEM IN SPACE STATION VIA STOCHASTIC PROJECTION KALMAN FILTER.....	910
<i>R. Guo, M. Lv, Y. Li</i>	
RESEARCH ON THE METHOD OF FAULT DETECTION FOR ACM BASED ON SINGULAR VALUE DECOMPOSITION.....	915
<i>X. Shi, Y. Liu, T. Jing, L. Wang</i>	
A MULTI - SENSOR FUSION ALGORITHM FOR UAV ATTITUDE ESTIMATION.....	921
<i>H. Che, G. Wang, C. Shi</i>	
A POSE ESTIMATION METHOD BASED ON STEREO VISION AND INERTIAL NAVIGATION FUSION	926
<i>H. Che, G. Wang, C. Shi</i>	
RESEARCH OF PRESSURE SHOCK IN FLIGHT CONTROL SYSTEM	932
<i>B. Yang</i>	
RESEARCH OF HYDRAULIC PUMP CAVITATION ON AIRCRAFT	937
<i>B. Yang</i>	
A DENSELY CONNECTED FEATURE PYRAMID NETWORK FOR OBJECT DETECTION	942
<i>X. Zhang, L. Yan, C. Gerada</i>	
DEFECT DETECTION OF BOTTLED LIQUOR BASED ON DEEP LEARNING.....	947
<i>X. Zhang, L. Yan, H. Yan</i>	
THERMAL ANALYSIS OF HYDRAULIC ENERGY SYSTEM OF CIVIL AIRCRAFT CONSIDERING HEAT EXCHANGER AND HEATING VALVE	953
<i>Z. Wang, X. Xu, L. Quan</i>	
FLOW ANALYSIS OF HYDRAULIC SYSTEM OF CIVIL AIRCRAFT 2H2E ENERGY SYSTEM.....	958
<i>Z. Wang, J. Luo, C. Guo</i>	
RESEARCH ON SOFT SENSING OF AIRCRAFT NOSE LANDING GEAR SHIMMY DAMP BASED ON NEURAL NETWORK	964
<i>Z. Liu, X. Li, X. Ding, Z. Wang</i>	
RESEARCH ON THERMAL ANALYSIS THEORY AND SIMULATION TECHNOLOGY OF CIVIL AIRCRAFT HYDRAULIC ENERGY SYSTEM.....	969
<i>C. Guo, G. Xiong, X. Wang, L. Quan</i>	
KINEMATICS ANALYSIS OF A 3-DOF HYDRAULIC SPHERICAL MOTION ACTUATOR	975
<i>B. Bian, L. Wang</i>	
IMPACT OF ELECTRIC TAXI TECHNOLOGY ON GREEN OPERATION OF CIVIL AVIATION OF CHINA.....	980
<i>Z. Zhe, L. Xiaochao</i>	

AMESIM-BASED THERMAL ANALYSIS OF CIVIL AIRCRAFT HYDRAULIC ENERGY SYSTEM UNDER FAULT CONDITIONS	985
<i>L. Quan, X. Xu, S. He, C. Guo</i>	
APU DRIVE SCHEME DESIGN AND FEASIBILITY ANALYSIS.....	991
<i>Z. Zhe, L. Xiaoqiao</i>	
STUDY OF COOPERATIVE CONTROL FOR ELECTRICAL ENERGY OF MORE ELECTRIC AIRCRAFT	996
<i>F. Ai, S. Wu, R. Wei</i>	
STUDY ON THERMAL COMFORT ZONAL CONTROL OF CIVIL AIRCRAFT CABIN.....	1001
<i>H. Ma, L. Pang</i>	
DESIGN AND REALIZATION OF VEHICLE TEST SYSTEM BASED ON MULTIFIELDBUS INTEGRATION PLATFORM.....	1007
<i>X. Zhao, X. Cheng, Y. Cong, W. Yao, P. Zhao</i>	
A BELLOWS BOOSTER DEVICE FOR EHA.....	1012
<i>Y. Le</i>	
STUDY ON THE INFLUENCE OF MICRO-TEXTURE PARAMETERS ON THE LUBRICATION PERFORMANCE OF HYDRAULIC CYLINDER PLUNGER.....	1017
<i>J. Tang, K. Qi, X. Zeng, Y. Li, X. Lu, T. Wang</i>	
DESIGN AND SIMULATION OF CONTINUOUS MANIPULATOR FACING NARROW SPACE	1022
<i>Y. Guo, J. Zheng, L. Jia, Y. Tao, W. Shi</i>	
DEVELOPMENT OF DATA BUS TECHNOLOGY IN NEXT GENERATION SPACECRAFT	1028
<i>Z. Wei, Y. Yi, L. Mengyu, W. Yuanjin, W. Shenhang</i>	
NUMERICAL SIMULATION STUDY ON ANNULAR SUPERSONIC MULTI NOZZLE AIR EJECTOR.....	1034
<i>L. Jun</i>	
NON-SIMILAR TRIPLEX REDUNDANCY FLEXRAY COMMUNICATION SYSTEM FOR TWO-LEVEL SERVO CONTROL	1039
<i>H. Song, S. Sun, C. Xiao, Z. Li, L. Ren</i>	
RESEARCH ON FAULT DETECTION OF FIVE-PHASE FAULT-TOLERANT PERMANENT MAGNET SYNCHRONOUS MOTOR.....	1045
<i>X. Zhao, K. Song, Y. Zhou, T. Cui, L. Tian</i>	
RESEARCH ON COORDINATED CONTROL OF AIRCRAFT SECONDARY ENERGY BASED ON DOUBLE-LAYER CONTROL.....	1051
<i>B. Li, G. Hu, Y. Gao, R. Hao, K. Yang, S. Wu, R. Wei</i>	
AN INDIRECT MEASUREMENT METHOD OF CONTROL WHEEL FORCE.....	1056
<i>X. Luo</i>	
ANALYSIS AND EXPERIMENT OF STATIC STIFFNESS OF LINEAR ELECTROMECHANICAL ACTUATOR.....	1061
<i>W. Liu, S. Zhang, C. Xiao, J. Liu, Y. Lu, Z. Hou</i>	
RESEARCH ON AEROSPACE SERVO ENERGY TECHNOLOGY	1065
<i>L. Yan, L. An, B. Yang, C. Xiao, T. Niu</i>	

A HOLISTIC APPROACH FOR PREDICTION OF CHATTER STABILITY USING PIECEWISE HERMITE INTERPOLATION	1071
<i>Y. Wu, Y. You, A. Liu, B. Deng</i>	
STUDY OF POWER GENERATION CONTROL STRATEGY FOR FIVE-PHASE OPEN- WINDING PMSG BASED ON DUAL-SPACE CLOSED-LOOP VECTOR CONTROL USING CARRIER-BASED PWM TECHNIQUE	1078
<i>Z. Zheng, Q. Li, X. Li, P. Zheng, B. Yang</i>	
A EVALUATION AND OPTIMIZATION METHODS FOR ELECTRICAL POWER SYSTEM OF LARGE CIVIL AIRCRAFT	1086
<i>R. Wang, Y. Liu, T. Lei, J. Chang</i>	
EFFECT OF INSTALLING MAGNETIC BLOWOUT DEVICE ON THE HEALTH STATUS OF DC CONTACTOR	1094
<i>R. Dong, C. Yu, Y. Wang, Z. Xu, J. Si, W. Li</i>	
RESEARCH ON THE EVALUATION METHOD OF CIVIL AIRCRAFT AIRBORNE SOFTWARE PLANNING PHASE.....	1099
<i>F. Lidong</i>	
KINEMATICS ANALYSIS AND TRAJECTORY PLANNING OF IN-SITU GRINDING ROBOT FOR AERO-ENGINE BLADE.....	1104
<i>L. Wang, X. Zeng, Y. Li, K. Qi, X. Lu, J. Tang</i>	
STUDY ON FLIGHT QUALITY EVALUATION ALGORITHM BASED ON VOLATILITY CHANNEL AND TOPSIS	1110
<i>C. Zhang, L. Pang, X. Lu, T. Wang</i>	
STUDY ON BUILDING SUBJECT-SPECIFIC CLASSIFIERS BASED ON EEG DATA.....	1116
<i>L. Pang, X. Wang, J. Zhang, X. Wanyan, X. Wang, J. Liang, L. Zhang</i>	
STUDY ON EFFECT OF SHIFT FACTORS ON HEART RATE VARIABILITY IN SIMULATED FLIGHT ENVIRONMENT.....	1121
<i>X. Wang, J. Liang, X. Wang, L. Zhang, L. Pang, Z. Liao</i>	
RISEESO CONTROL OF AUTOMATIC DOCKING SERVO SYSTEM FOR ROCKET FUEL FILLING	1126
<i>L. Li, J. Chen, H. Yu, Q. Liu, Z. Mao</i>	
STEADY-STATE OPTIMIZATION OF AIRBORNE LIQUID-COOLED VAPOR CYCLE REFRIGERATION SYSTEM CONFIGURATION	1132
<i>T. Bai, S. Li, X. Mao, L. Pang</i>	
ANALYSIS OF THERMAL COMFORT WITH THE ADJUSTED PREDICTED MEAN VOTE.....	1136
<i>H. Liang</i>	
ANTI-VIBRATION AND HEAT DISSIPATION DESIGN OF HIGH POWER CONTROL DRIVER FOR SPACE	1142
<i>S. Zhang, W. Liu, B. Gao, C. Lin, C. Xiao, Z. Hou</i>	
STRUCTURE DESIGN AND SIMULATION ANALYSIS OF SERIES THREE WINDOWS UNSYMMETRICAL VALVE PLATE	1147
<i>K. Zhang, J. Zhang, X. Huang, Z. Guo, C. Huang</i>	

PERFORMANCE CALCULATION FOR AIRCRAFT ELECTRIC CABIN SUPPLY AIR SYSTEM.....	1155
<i>M. Fanxin, L. Cheng, L. Yuliang, C. Wenjun, Y. Changbao</i>	
DESIGN OF CONTROL DEVICE ON AIRCRAFT FOR IMPROVING ERGONOMICS.....	1160
<i>X. Luo</i>	
BAYESIAN NETWORK BASED FAULT DIAGNOSIS OF AERO HYDRAULIC PUMP.....	1165
<i>X. Fu</i>	
A MODEL-BASED DESIGN AND APPLICATION METHOD OF VERIFYING TECHNICAL PUBLICATIONS IN FLIGHT TEST	1170
<i>F. Li</i>	
CONTROL STRATEGY OF AN ELECTROMECHANICAL ACTUATOR TO GIMBAL A HIGH THRUST LIQUID ROCKET ENGINE	1175
<i>J. Fu, Y. Jiang, T. Lan, S. Zhao, D. Zhu, X. Hu, W. Zhu</i>	
VALIDATION FOR CIVIL AIRCRAFT LANDING GEAR FAILURE CONDITION BY CASE ANALYSIS OF AVIATION INCIDENT.....	1180
<i>L. Bing, B. Lu, W. Zhuangzhuang, L. Xiaochao</i>	
ELECTRIC UNLOCKING SYSTEM SIMULATION OF FRONT LANDING GEAR EMERGENCY RELEASE BASED ON VIRTUAL PROTOTYPE.....	1186
<i>X. Li, Z. Liu, Y. Yin, J. Zhao</i>	
THE ANALYSIS OF THE AVIONICS APPLICATION OF THE TIME-TRIGGERED PROTOCOL BUS	1190
<i>Y. Li</i>	
A MOTION CONTROL STRATEGY OF ELECTRO-MECHANICAL ACTUATOR FOR CARGO DOOR BASED ON FPGA.....	1195
<i>Z. Xue, L. Li, X. Wang, S. Wei, P. Guo, Z. Nie</i>	
APPLICATION OF MACHINE LEARNING IN THE DESIGN OF AIRCRAFT FUEL PUMP	1201
<i>C. Zongtai, T. Qilong, C. BoJun</i>	
AERO ENGINE RUL PREDICTION BASED ON THE COMBINATION OF SIMILARITY AND PSO-SVR	1206
<i>H. Zhao, N. Zheng, T. Chen, K. Wei</i>	
DESIGN OF REHEATING SYSTEM FOR GRAPHENE FILM OF LITHIUM BATTERY IN LOW TEMPERATURE ENVIRONMENT.....	1212
<i>L. Zhijun, Y. Guodong, Z. Lice</i>	
DESIGN AND SIMULATION ANALYSIS OF HYDRAULIC LOWER LIMB EXOSKELETON	1217
<i>L. Shuai, S. Hu, L. Chenjing</i>	
THE REALIZATION STRUCTURE AND ONE ADAPTIVE STRATEGY OF LADRC IN POSITION CONTROL OF AC SERVO SYSTEM.....	1223
<i>J. Ge, Y. Gao, L. Xu, D. Li, Z. Lan, W. Han</i>	
MODELING AND SIMULATION OF AIRCRAFT GROUND TAXIING BASED ON FLIGHTGEAR VISUALIZATION	1229
<i>H. Zhang, N. Bai, Y. Shang, Z. Jiao, Y. Li</i>	

EVALUATION METHOD OF AERO-ENGINE PERFORMANCE BASED ON HYBRID AP-HMM MODEL.....	1234
<i>Y. Cui, L. Ma</i>	
SHOCK RESISTANCE PERFORMANCE ANALYSIS OF SURFACE WARSHIPS STEERING ELECTRIC CONTROL CABINET BASED ON DDAM	1239
<i>Y. Cairui, Z. Guoping, L. Zhenshan, W. Yuanyin, S. Xuyao</i>	
RESEARCH ON FAULT DIAGNOSIS AND POSITION SYNTHESIZE TECHNOLOGY OF RESOLVER SUITABLE FOR SERVO MOTOR CONTROL	1244
<i>L. Ren, S. Sun, C. Xiao, Z. Li, H. Song</i>	
COMPOUND FAULT DIAGNOSIS IN HYDRAULIC SYSTEM WITH MULTI-OUTPUT SVM	1250
<i>Z. Xu, H. Yu, J. Tao, C. Liu</i>	
INERTIA ENHANCED VISUAL SLAM METHOD FOR POSTION AND POSE RECOGNITION.....	1256
<i>A. Li, Y. Ma, Y. Peng</i>	
RESEARCH ON THE MULTI-FACTOR EXPERIMENTAL DESIGN METHOD FOR CABIN ENVIRONMENT.....	1262
<i>P. Li, L. Pang, X. Cao, X. Mao</i>	
SMALL TARGET DETECTION IN SEA-CLUTTER BASED ON TIME-DOPPLER SPECTRUM	1268
<i>Y. Zhang, T. Yue, C. Yu, J. Luo</i>	
CHANNEL MODELING AND IMPLEMENTATION OF EVALUATION SOFTWARE FOR THE AIRCRAFT HIGH-FREQUENCY SYSTEM.....	1273
<i>X. Shi, Y. Zhang, Q. Wang, H. Zhao, H. Jiang</i>	
EXPERIMENTAL STUDY ON DISCHARGE COEFFICIENT OF LONG FLOW CHANNEL IN AIRPLANE PRESSURIZED CABIN.....	1278
<i>C. Zhang, S. Lin, Y. Miao</i>	
RESEARCH ON FLIGHT SCHEDULE OPTIMIZATION OF MULTI-AIRPORT SYSTEM.....	1283
<i>P. Hou</i>	
DYNAMIC STRESS TESTING AND FATIGUE LIFE ANALYSIS OF HYDRAULIC PIPING SYSTEM FOR CIVIL AIRCRAFT	1289
<i>X. Qi, J. Li, Y. Li</i>	
DYNAMIC PRESSURE RESPONSE ANALYSIS OF 5000 PSI CIVIL AIRCRAFT HYDRAULIC ENERGY SYSTEM.....	1294
<i>Z. Wang, G. Xiong, C. Guo</i>	

Author Index