

2018 11th International Congress on Image and Signal Processing, BioMedical Engineering and Informatics (CISP-BMEI 2018)

**Beijing, China
13-15 October 2018**

Pages 646-1318



**IEEE Catalog Number: CFP18J14-POD
ISBN: 978-1-5386-7605-9**

**Copyright © 2018 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP18J14-POD
ISBN (Print-On-Demand):	978-1-5386-7605-9
ISBN (Online):	978-1-5386-7604-2

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
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

SHAPE ADAPTIVE TEXTURE CODING BASED ON WAVELET-BASED CONTOURLET TRANSFORM	1
<i>Zhenghua Shu ; Guodong Liu ; Zhihua Xie ; Zhong Ren</i>	
COMBINED INFLUENCE OF CLASSIFIERS, WINDOW LENGTHS AND NUMBER OF CHANNELS ON EMG PATTERN RECOGNITION FOR UPPER LIMB MOVEMENT CLASSIFICATION.....	6
<i>Anyuan Zhang ; Ning Gao ; Liang Wang ; Qi Li</i>	
CLASSIFICATION OF MOTOR IMAGERY BASED ON MULTI-DECISION FUSION FOR BRAIN COMPUTER INTERFACE	11
<i>Yifan Cheng ; Ning Gao ; Zhaohua Lu ; Qi Li</i>	
A NOVEL SPECKLE NOISE REDUCTION ALGORITHM FOR OLD MOVIES RECOVERY	16
<i>Chen Liu ; Xiaoguang Li ; Li Zhuo ; Jiafeng Li ; Qingfeng Zhou</i>	
A REDUCED MEMORY AVS DECODER FOR COMPRESSED HD VIDEO	22
<i>Zhengang Nie</i>	
RESEARCH ON LUNG TUMOR CELL IMAGE PROCESSING AND IDENTIFICATION	27
<i>Tongying Li ; Hongbo Zhu</i>	
LOW-LIGHT IMAGE ENHANCEMENT BASED ON JOINT GENERATIVE ADVERSARIAL NETWORK AND IMAGE QUALITY ASSESSMENT	32
<i>Wei Hua ; Youshen Xia</i>	
NOVEL IMAGE DEHAZING ALGORITHM USING SCENE SEGMENTATION AND OPEN CHANNEL MODEL	38
<i>Taian Xu</i>	
DEPTH ENHANCEMENT AND OPTIMIZATION FOR STEREO IMAGES BASED ON JNDD	44
<i>Yu Yang ; Ruolin Zhu ; Chaohui Lu</i>	
IMAGE CONTRAST ENHANCEMENT USING WEIGHTED UNIFORM HISTOGRAM FOR MAXIMUM INFORMATION	49
<i>Ngaiming Kwok ; Haivan Shi ; Ying-Hao Yu ; Yeping Peng ; Shilong Liu ; Ruowei Li ; Hongkun Wu</i>	
CHARACTERIZING ADVERSARIAL SAMPLES OF CONVOLUTIONAL NEURAL NETWORKS	56
<i>Cheng Jiang ; Qiyang Zhao ; Yuzhong Liu</i>	
A LIGHT INTENSITY REVERSE ALGORITHM FOR IMPROVING DARK CHANNEL PRIOR DEHAZING	62
<i>Qize Liu</i>	
ROBUST DUAL IMAGES SUPER-RESOLUTION	69
<i>Xiaohong Zhang ; Yun Zhang ; Guiping Qian ; Aihong Qin</i>	
A RESEARCH FOR AUTOMATIC PEDESTRIAN DETECTION WITH ACE ENHANCEMENT ON FASTERS R-CNN	75
<i>Qing Tian ; Meihan Wang ; Yuan Zhang ; Yanping Wang</i>	
A PEDESTRIAN DETECTION METHOD BASED ON YOLOV3 MODEL AND IMAGE ENHANCED BY RETINEX	80
<i>Hongquan Qu ; Tongyang Yuan ; Zhiyong Sheng ; Yuan Zhang</i>	
IMPROVED DENOISING AUTO-ENCODERS FOR IMAGE DENOISING	85
<i>Qian Xiang ; Xuliang Pang</i>	
RESEARCH ON DIGITALLY RECONSTRUCTED RADIOGRAPH ALGORITHM IMPROVEMENT BASED ON COMPUTED TOMOGRAPHY IMAGE	90
<i>Tongying Li ; Hongbo Zhu</i>	
FAST IMAGE REGISTRATION BY LB METHOD	95
<i>Yu Chen ; Guy Courbebaisse ; Dongxiang Lu</i>	
UNDERWATER IMAGE RESTORATION BASED ON IMPROVED BACKGROUND LIGHT ESTIMATION AND AUTOMATIC WHITE BALANCE	99
<i>Changli Li ; Xuan Zhang</i>	
MOTION-BLIND BLUR REMOVAL FOR CT IMAGES WITH WASSERSTEIN GENERATIVE ADVERSARIAL NETWORKS	104
<i>Yilin Lyu ; Wei Jiang ; Yaniun Lin ; Laszlo Voros ; Miao Zhang ; Boris Mueller ; Borys Mychalczak ; Yulin Song</i>	
CONSTITUTION IDENTIFICATION OF TONGUE IMAGE BASED ON CNN	109
<i>Hao Zhou ; Guangqin Hu ; Xinfeng Zhang</i>	

FEATURE EXTRACTION AND CLASSIFICATION OF XINJIANG HIGH MORBIDITY ESOPHAGEAL CANCER BASED ON TAMURA AND WAVELET TRANSFORM.....	114
<i>Pazilya Yusantay ; Juan Yao ; Chuan Bo Yan ; Abdugheni Kutluk ; Murat Hamit ; Wei Liu</i>	
MUSIC EMOTIONS RECOGNITION BASED ON FEATURE ANALYSIS	120
<i>Chaohui Lv ; Shengnan Li ; Linxiao Huang</i>	
NONLINEAR MANIFOLD FEATURE EXTRACTION BASED ON SPECTRAL SUPERVISED CANONICAL CORRELATION ANALYSIS FOR FACIAL EXPRESSION RECOGNITION WITH RRNN	125
<i>Asad Ullah ; Jing Wang ; M. Shahid Anwar ; Usman Ahmad ; Jin Wang ; Uzair Saeed</i>	
LINE FEATURE EXTRACTION FROM RGB LASER POINT CLOUD	131
<i>Xujie Kang ; Jing Li ; Xiangtao Fan</i>	
CHINESE CHARACTER STROKE BASED ORIENTATION IDENTIFICATION FOR SCANNED DOCUMENTS	136
<i>Jian Wang</i>	
A FASTER R-CNN BASED HIGH-NORMALIZATION SAMPLE CALIBRATION METHOD FOR DENSE SUBWAY PASSENGER FLOW DETECTION	141
<i>Zhiyong Sheng ; Kaixin Tian ; Qing Tian ; Hongquan Qu</i>	
A NEW SINGULAR VALUE DECOMPOSITION WATERMARKING ALGORITHM BASED ON DIRECTIONLET	146
<i>Jing Liu ; Douli Ma ; Yajie Yang</i>	
A BLIND 3D POINT CLOUD WATERMARKING ALGORITHM BASED ON AZIMUTH ANGLE MODULATION.....	152
<i>Jing Liu ; Yajie Yang ; Douli Ma</i>	
A MULTI-SCOPE CONVOLUTIONAL NEURAL NETWORK FOR AUTOMATIC LEFT VENTRICLE SEGMENTATION FROM MAGNETIC RESONANCE IMAGES: DEEP-LEARNING AT MULTIPLE SCOPES.....	159
<i>Xinyi Li ; Yuanyuan Wang ; Wenjun Yan ; Rob J. Van Der Geest ; Zeju Li ; Qian Tao</i>	
THE VASCULAR CALCIFICATION IMAGE SEGMENTATION BASED ON CV MODEL	164
<i>Tiechao Jiang ; Xiaoqiang Ji</i>	
FOREGROUND SEGMENTATION IN VIDEO SEQUENCES WITH A DYNAMIC BACKGROUND.....	169
<i>Chu Tang ; M. Omair Ahmad ; Chunyan Wang</i>	
CHALLENGES AND PREPROCESSING RECOMMENDATIONS FOR MADCAT DATASET OF HANDWRITTEN ARABIC DOCUMENTS.....	175
<i>Gheith A. Abandah ; Ahmad S. Ai-Hourani</i>	
A FINGERPRINT SEGMENTATION SCHEME BASED ON ADAPTIVE THRESHOLD ESTIMATION	181
<i>Debashis Das</i>	
AN IMPROVED OTSU MULTI-THRESHOLD IMAGE SEGMENTATION ALGORITHM BASED ON PIGEON-INSPIRED OPTIMIZATION.....	187
<i>Wei Liu ; Heng Shi ; Shang Pan ; Yongkun Huang ; Yingbin Wang</i>	
ACCURATE EDGE LOCALIZATION OF COMPLEX WORKPIECE BASED ON COARSE-TO-FINE PRINCIPLE.....	192
<i>Panjie Zhang ; Hongyan Wang ; Wei Cheng ; Jinping Li</i>	
SEGMENTATION OF MAMMOGRAPHY IMAGES BASED ON SPECTRUM CLUSTERING METHOD.....	200
<i>Silin Liu ; Ying Wang</i>	
AUTOMATIC DETECTION AND SEGMENTATION OF LUNG NODULE ON CT IMAGES.....	206
<i>Yang Chunran ; Wang Yuanvuan ; Guo Yi</i>	
A DEVELOPED FUZZY C-MEANS ALGORITHM FOR MESH SEGMENTATION.....	211
<i>Jianbin Yang ; Cong Wang</i>	
AUTOMATED SEGMENTATION BASED ON RESIDUAL U-NET MODEL FOR MR PROSTATE IMAGES.....	216
<i>Qin Xiangxiang ; Zhu Yu ; Zheng Bingbing</i>	
A 3D FULLY CONVOLUTIONAL NETWORK BASED SEMANTIC SEGMENTATION FOR EAR COMPUTED TOMOGRAPHY IMAGES	222
<i>Zhaopeng Gong ; Xiaoguang Li ; Li Zhou ; Hui Zhang</i>	
MULTI-VISION TRACKING AND COLLABORATION BASED ON SPATIAL PARTICLE FILTER	227
<i>Long Liu ; Danyang Jing</i>	

IMPROVED CACF ALGORITHM BASED ON CHANNEL RELIABILITY	233
<i>Xingming Zhang ; Mingzhu Li ; Jun Yin ; Xiangming Zhou ; Hequn Zhang ; Luyi Li ; Junwei Li ; Peng Zhang ; Qing Chen ; Zhiqiang Wang</i>	
ROBUST VARIATIONAL OPTICAL FLOW ALGORITHM BASED ON ROLLING GUIDED FILTERING.....	239
<i>Junjie Wu ; Xuebing Wang ; Zhen Chen ; Congxuan Zhang</i>	
VIDEO TRACKING BASED ON TEMPLATE MATCHING AND PARTICLE FILTER.....	245
<i>Shinfeng D. Lin ; Ting-Yi Chen</i>	
POSELAB: A LEVENBERG-MARQUARDT BASED PROTOTYPING ENVIRONMENT FOR CAMERA POSE ESTIMATION	250
<i>Michiel Darcis ; Wout Swinkels ; Aydin Emre Güzel ; Luc Claesen</i>	
OPTICAL FLOW ESTIMATION FROM LAYERED NEAREST NEIGHBOR FLOW FIELDS	256
<i>Liyue Ge ; Congxuan Zhang ; Zhen Chen ; Ming Li</i>	
A MULTIPLE OBJECT TRACKING ALGORITHM BASED ON YOLO DETECTION.....	262
<i>Li Tan ; Xu Dong ; Yuxi Ma ; Chongchong Yu</i>	
FIGHTING DETECTION BASED ON PEDESTRIAN POSE ESTIMATION.....	267
<i>Huadong Pan ; Jun Yin ; Haohua Ku ; Cheng Liu ; Fubiao Feng ; Jia Zheng ; Shixian Luo</i>	
VISUAL TRACKING WITH BOUNDING-BOX FINE ADJUSTMENT	272
<i>Tianhui Qi ; Hui Zhang ; Jiafeng Li ; Li Zhuo</i>	
IDENTIFICATION OF SPAM BASED ON DEPENDENCY SYNTAX AND CONVOLUTIONAL NEURAL NETWORK	278
<i>Qing Yu ; Rui Liu</i>	
DETECTION OF WATER-STAINS DEFECTS IN TFT-LCD BASED ON MACHINE VISION.....	284
<i>Lingfeng Kong ; Jie Shen ; Zongliang Hu ; Ke Pan</i>	
FACE EXPRESSION RECOGNITION BASED ON DEEP CONVOLUTION NETWORK.....	289
<i>Minjun Wang ; Zhihui Wang ; Shaohui Zhang ; Jiayu Luan ; Zezhong Jiao</i>	
TOP-DOWN SALIENCY OBJECT LOCALIZATION BASED ON DEEP-LEARNED FEATURES	293
<i>Duzhen Zhang ; Shu-E Liu</i>	
A VISUAL TRACKING ALGORITHM BASED ON VISUAL SALIENCY AND MULTIPLE FEATURES FUSION.....	296
<i>Xiaoxuan Chen ; Xiao Hu ; Jieqi Zhu ; Zhao Yang ; Li Wang ; Juan Sun</i>	
CLASSIFICATION OF WHITE BLOOD CELLS BY CONVOLUTION NEURAL NETWORK IN LENS-FREE IMAGING SYSTEM.....	301
<i>Yuan Fang ; Ningmei Yu ; Yi Liu</i>	
MASK R-CNN AND OPTICAL FLOW BASED METHOD FOR DETECTION AND MARKING OF HANDBALL ACTIONS	306
<i>Miran Pobar ; Marina Ivasic-Kos</i>	
HUMAN POSE ESTIMATION BASED ON STEP DEEP CONVOLUTION NEURAL NETWORK	312
<i>Wenxia Bao ; Yaping Yang ; Dong Liang ; Ming Zhu</i>	
PREDROPOUT & INHIBITION: A BRAIN-INSPIRED METHOD FOR CONVOLUTIONAL NEURAL NETWORK	318
<i>Wenjie Chen ; Fengtong Du ; Ye Wang ; Lihong Cao</i>	
PREDICTING IMAGE EMOTION DISTRIBUTION BY EMOTIONAL REGION.....	323
<i>Yangyu Fan ; Hansen Yang ; Zuhe Li ; Shu Liu</i>	
RESEARCH ON CLOTHING IMAGE CLASSIFICATION BY CONVOLUTIONAL NEURAL NETWORKS.....	329
<i>Lili Chen ; Runping Han ; Shaopeng Xing ; Shuiqiang Ru</i>	
A CROP-BASED MULTI-BRANCH NETWORK FOR MATCHING COST COMPUTATION	334
<i>Yu Chen ; Youshen Xia ; Chenwang Wu</i>	
EFFICIENT INFERENCE AND UPDATE VIA WORDNET-EMBEDDED NETWORK TREE	340
<i>Zhantu Zhu ; Ming Zeng ; Zhongnan Zhang ; Huailin Dong</i>	
EMOTION RECOGNITION RESEARCH BASED ON INTEGRATION OF FACIAL EXPRESSION AND VOICE	346
<i>Fen Xu ; Zhe Wang</i>	
MANCHU WORD RECOGNITION BASED ON CONVOLUTIONAL NEURAL NETWORK WITH SPATIAL PYRAMID POOLING	352
<i>Min Li ; Ruirui Zheng ; Shuang Xu ; Yu Fu ; Di Huang</i>	
AN INTRA-FRAME CLASSIFICATION NETWORK FOR VIDEO ANOMALY DETECTION AND LOCALIZATION.....	358
<i>Ke Xu ; Xinghao Jiang ; Tanfeng Sun</i>	

MULTI-VIEW FACE RECOGNITION AND VERIFICATION BASED ON CONVOLUTIONAL NEURAL NETWORK	364
<i>Xiongjun Zeng ; Qingxiang Wu ; Ming Han ; Xi Huang</i>	
SEGMENTATION-FREE MULTI-FONT PRINTED MANCHU WORD RECOGNITION USING DEEP CONVOLUTIONAL FEATURES AND DATA AUGMENTATION	369
<i>Ruirui Zheng ; Min Li ; Jianjun He ; Jiajing Bi ; Baochun Wu</i>	
A FAST TRAINING METHOD FOR SAR LARGE SCALE SAMPLES BASED ON CNN FOR TARGETS RECOGNITION	375
<i>Yuan Zhang ; Yang Song ; Yanping Wang ; Hongquan Qu</i>	
ROBUST INFRARED PEDESTRIAN DETECTION VIA GMR AND LOGISTIC REGRESSION BASED ROIS EXTRACTION	380
<i>Jiangtao Wang ; Yan Chen ; Weiwei Wang ; Huaijiang Li</i>	
IMPROVED K-MEANS ALGORITHM AND ITS IMPLEMENTATION BASED ON MEAN SHIFT	386
<i>Yang Chen ; Pengfei Hu ; Weilan Wang</i>	
EVALUATION OF RETINAL SFS RECONSTRUCTION WITH OCT IMAGES	391
<i>Peipei Wang ; Fengliang Dai ; Mengdie Zhao ; Xiaojin Liu ; Jiulai Sun</i>	
RESEARCH ON AN IMMERSIVE INTERIOR DECORATION EXPERIENCE AND INTERACTIVE SYSTEM BASED ON VIRTUAL REALITY.....	396
<i>Jia-Qi Fan ; Feng-Quan Zhang</i>	
AN GAUSSIAN-MIXTURE HIDDEN MARKOV MODELS FOR ACTION RECOGNITION BASED ON KEY FRAME.....	401
<i>Jinhong Li ; Tingsheng Lei ; Fengquan Zhang</i>	
RESEARCH ON REAL-TIME GRAPHICS DRAWINGS TECHNOLOGY IN VIRTUAL SCENE.....	406
<i>Ping-Ping Liu ; Yu-Chen Wu</i>	
3D CLOTHING TRANSFER IN VIRTUAL FITTING BASED ON UV MAPPING	412
<i>Ting Liu ; Hong Xu ; Xiwen Zhang</i>	
A NEW SIDELOBE SUPPRESSION ALGORITHM FOR SAR IMAGES WITH AN ARBITRARY DOPPLER CENTROID.....	418
<i>Chunyan Mao ; Junfeng Wang ; Lei Tao</i>	
AUTOMATIC CLASSIFICATION OF SAR IMAGE BASED ON R-GMM ALGORITHM.....	423
<i>Xiaodong Zhang ; Shasha Ren</i>	
RESEARCH ON GBSAR DEFORMATION EXTRACTION METHOD BASED ON THREE-THRESHOLD.....	428
<i>Yanping Wang ; Sen Lv ; Zechao Bai ; Hongquan Qu</i>	
TARGET DETECTION AND RECOGNITION BASED ON CONVOLUTIONAL NEURAL NETWORK FOR SAR IMAGE.....	434
<i>Yanping Wang ; Yibo Zhang ; Hongquan Qu ; Qing Tian</i>	
STUDY OF DOUBLE IMAGE FUSION PROGRAM ON CLOTHING DEFECTS IMAGE	439
<i>Tongying Li ; Hongbo Zhu</i>	
SMARTPHONE-BASED AUGMENTED REALITY SYSTEMS.....	444
<i>Chaohui Lv ; Xingyun Yang ; Shuai Yang</i>	
DETECTION AND RECOGNITION FOR FAULT INSULATOR BASED ON DEEP LEARNING.....	449
<i>Yongli Wang ; Jiao Wang ; Feng Gao ; Panfeng Hu ; Li Xu ; Jian Zhang ; Yiliang Yu ; Jun Xue ; Jianqing Li</i>	
LEARNING MULTI-DOMAIN CONVOLUTIONAL NETWORK FOR RGB-T VISUAL TRACKING	455
<i>Xingming Zhang ; Xuehan Zhang ; Xuedan Du ; Xiangming Zhou ; Jun Yin</i>	
A NOVEL VIDEO SEGMENTATION SYSTEM BASED ON VIEWPOINTS	461
<i>Zijuan Cheng ; Fang Meng</i>	
AN OPINION-FREE IMAGE QUALITY ANALYZER IN THE SPATIAL DOMAIN	466
<i>Xiyu Huang ; Fang Meng ; Xuan Wang</i>	
VISUAL BEHAVIORS ANALYSIS BASED ON EYE TRACKER IN SUBJECTIVE IMAGE QUALITY ASSESSMENT	470
<i>Xuan Wang ; Fang Meng ; Xiyu Huang</i>	
CLASSIFICATION OF FABRIC PATTERNS IMAGE BASED ON IMPROVED LOG-ALEXNET	474
<i>Maoshuang Feng ; Dongfang Chen ; Xiaofeng Wang</i>	
RESEARCH ON DEFECT DETECTION OF CASTINGS BASED ON DEEP RESIDUAL NETWORK.....	480
<i>Xiangzhe Jiang ; Xiao Feng Wang ; Dongfang Chen</i>	
X-RAY IMAGE CLASSIFICATION FOR PARCEL INSPECTION IN HIGH-SPEED SORTING LINE	486
<i>Shujing Lyu ; Xiao Tu ; Yue Lu</i>	

FUSION OF INFRARED AND VISIBLE IMAGES BASED ON MULTI-SCALE EDGE-PRESERVING DECOMPOSITION AND SPARSE REPRESENTATION	491
<i>Chuanzhen Rang ; Yongxing Jia ; Yu Yang ; Ying Zhu ; Yuan Wang</i>	
STUDY ON SCROLLING DISPLAY METHOD FOR SUBMARINE GEOMORPHOLOGIC MAP	496
<i>Liu Tianyang ; Xu Weiming</i>	
AN IMPROVEMENT IN IMAGE REGISTRATION WITH SIFT FEATURES AND LOGISTIC REGRESSION.....	500
<i>Yongxing Jia ; Weihao Sun ; Chuanzhen Rong ; Ying Zhu ; Yu Yang</i>	
A MULTI-DIMENSIONAL HYPERSPECTRAL IMAGE MOSAIC METHOD AND ITS ACQUISITION SYSTEM.....	505
<i>Chen Yuan ; Mei Zhou ; Li Sun ; Song Qiu ; Qingli Li</i>	
EFFECTIVE KEYFRAME EXTRACTION FROM PERSONAL VIDEO BY USING NEAREST NEIGHBOR CLUSTERING	511
<i>Chaohui Lv ; Yiyang Huang</i>	
PEDESTRIAN DETECTION BASED ON LAPLACE OPERATOR IMAGE ENHANCEMENT ALGORITHM AND FASTER R-CNN.....	515
<i>Qina Tian ; Guangda Xie ; Yanping Wang ; Yuan Zhang</i>	
A NOVEL VIDEO-SURVEILLANCE-BASED ALGORITHM OF FALL DETECTION.....	520
<i>Bingze Dai ; Dequan Yang ; Ling Ai ; Panyu Zhang</i>	
OCCLUSION ROBUST TRACKING FOR MULTIPLE FACES WITH WAVELET PACKET TRANSFORM FEATURE AND BP NEURAL NETWORK	526
<i>Hui-Huang Zhao ; Han Liu ; Jin-Hua Zheng ; Bin Fu</i>	
LEAST SQUARES TWIN SVM BASED ON PARTIAL BINARY TREE ALGORITHM	533
<i>Qing Yu ; Rui Liu</i>	
IMAGE SEMANTIC ANALYSIS AND APPLICATION BASED ON KNOWLEDGE GRAPH.....	537
<i>Li-Qiong Deng ; Gui-Xin Zhang ; Yuan Ren</i>	
ARC PATH TRACKING ALGORITHM OF DUAL DIFFERENTIAL DRIVING AUTOMATED GUIDED VEHICLE	542
<i>Jianping Xu ; Jianze Liu ; Jun Sheng ; Jingyu Liu</i>	
STEGANALYSIS USING UNSUPERVISED END-TO-END CNN FUSED WITH RESIDUAL IMAGE	549
<i>Yao Wu ; Hui Li ; Junkai Yi</i>	
HYPERSPECTRAL ANOMALY DETECTION ON MULTICORE DSPS	554
<i>Yuan Li ; Wei Li ; Lu Li</i>	
A REVERSIBLE DATA HIDING SCHEME FOR AMBTC IMAGES USING GRAY CODE AND EXCLUSIVE-OR APPROACHES	559
<i>Xiaoyu Zhou ; Wien Hong ; Cancan Peng ; Tung Shou Chen ; Yujing Zhai</i>	
IR-UWB SIGNAL COMPRESSIVE SENSING METHOD BASED ON INCOHERENT CRITERION.....	564
<i>Fuhua Fan ; Yong Wang</i>	
DESIGN OF JESD204B MULTI-CHANNEL DATA ACQUISITION AND PLAYBACK SYSTEM BASED ON SOPC	568
<i>Jiadong Yuan ; Min Xie ; Siyuan Liu ; Dengyue Zhai</i>	
APPLYING CONVOLUTION METHOD TO SOLVE FACILITY LOCATION PROBLEM ON GENERALIZED MESHWORK	573
<i>Tao Yang</i>	
NBI PARAMETER ESTIMATION IN DSSS COMMUNICATIONS BASED ON PARTIAL RECONSTRUCTION	579
<i>Yongshun Zhang ; Weigang Zhu ; Xin Jia ; Yonghua He</i>	
UNDERSTANDING THE SCATTERING TRANSFORM USING UNIVARIATE SIGNALS.....	585
<i>Youngmi Hur ; Hyojae Lim</i>	
APPLICATION OF SYNCHRONOUS ACQUISITION TECHNOLOGY BASED ON JESD204B PROTOCOL IN PHASED ARRAY RADAR	592
<i>Min Xie ; Siyuan Liu ; Dengyue Zhai ; Jiadong Yuan</i>	
DETECTION OF THE NONLINEARITY IN HUMAN ECG PHYSIOLOGICAL SIGNALS.....	597
<i>Xiaodong Yang ; Aijun He ; Jiaqi Han ; Ke Guo</i>	
JOINT MULTI-SENSOR CALIBRATION AND MULTI-TARGET TRACKING BASED ON HIERARCHICAL POINT PROCESSES.....	602
<i>Yunxiang Li ; Ming Yang ; Yudong Du ; Haidong Han ; Nan Xu ; Zhenhao Li</i>	
AN ADAPTIVE NONUNITARY JOINT DIAGONALIZATION ALGORITHM OF HIGH-ORDER TENSORS	610
<i>Jing Xia ; Guanghui Cheng ; Jifei Miao</i>	

JOINT MULTIPLE GROUP TARGET CENTER AND COMPONENT TRACKING USING RANDOM FINITE SET.....	614
<i>Ming Yang ; Yunxiang Li ; Yudong Du ; Haidong Han ; Nan Xu</i>	
STUDY ON ASSOCIATION RULES BETWEEN EARTHQUAKE EVENT AND EARTHQUAKE PRECURSORY INFORMATION ANOMALIES.....	620
<i>Zhong Li ; Jianqin An ; Huichao Yin ; Yutang Tian ; Weihao Yu</i>	
WHAT CAN BE LEARNED FROM BIGRAMS ANALYSIS OF MESSAGES IN SOCIAL NETWORK?.....	626
<i>Tomasz Hachaj ; Marek R. Ogiela</i>	
A STUDY OF ASSESSMENT MODEL OF ORAL ENGLISH IMITATION READING IN COLLEGE ENTRANCE EXAMINATION.....	630
<i>Xin-Guang Li ; Xiao-Lan Long ; Le-Xuan Fan ; Yan-Min Liao</i>	
SEGMENTATION OF POP MUSIC BASED ON HISTOGRAM CLUSTERING.....	636
<i>Rongshu Sun ; Jingjing Zhang ; Wei Jiang ; Yuexin Hu</i>	
AN IMPROVED K_MEANS ALGORITHM FOR DOCUMENT CLUSTERING BASED ON KNOWLEDGE GRAPHS.....	641
<i>Xiaoli Wang ; Ying Li ; Meihong Wang ; Zixiang Yang ; Huailin Dong</i>	
AN E-COMMERCE COUPON TARGET POPULATION POSITIONING MODEL BASED ON RANDOM FOREST AND EXTREME GRADIENT BOOSTING	646
<i>Zhang-Fa Yan ; Yu-Lin Shen ; Wei-Jun Liu ; Jie-Min Long ; Qingyang Wei</i>	
PARTICLE FILTER BASED TIME SERIES PREDICTION OF DAILY SALES OF AN ONLINE RETAILER	651
<i>Xueye Ping ; Qinyi Chen ; Guoquan Liu ; Jionglong Su ; Fei Ma</i>	
IDENTIFICATION AND CLASSIFICATION OF ELECTROCARDIOGRAM SIGNALS BASED ON CONVOLUTIONAL RECURRENT NEURAL NETWORK	657
<i>Jinwei Ma ; Shengping Liu ; Guoming Chen</i>	
THE RESEARCH OF ELECTRONIC COUNTERMEASURE INTELLIGENCE CORRELATION ANALYSIS BASED ON MACHINE LEARNING	664
<i>Shi Ziyang ; Zhao Guolin ; Hu Qiaolin</i>	
AEROENGINE FAULT DIAGNOSIS METHOD BASED ON STACK DENOISING AUTO- ENCODERS NETWORK.....	670
<i>Xiangwei Kong ; Guojin Peng ; Xiaoya Li ; Zhongjie Wang ; Xiao Na</i>	
RESEARCH ON DYNAMIC PROPAGATION MECHANISM OF NETWORK RESOURCES BASED ON INTELLIGENT TAGS	677
<i>Shan Liu ; Yao Dong ; Jianping Chai</i>	
MULTIMEDIA CONTENT ANALYSIS BASED ON COMPLEX NETWORK	683
<i>Shan Liu ; Kun Huang ; Jianping Chai</i>	
IMPACT FORMATION AND EVOLUTION ANALYSIS ON OPINION DYNAMICS	689
<i>Shan Liu ; Rui Tang ; Jianping Chai</i>	
INFORMATION PROCESSING ALGORITHM FOR LARGE SCALE INSECT HABITAT NETWORK.....	694
<i>Guilan Luo ; Mei Zhang</i>	
NEW ALGORITHMS IN COGNITIVE RADAR	699
<i>Huan Zhu ; Zhangqin Zhu ; Feng Su ; Jianzhi Zhang</i>	
GENERALIZED TRANSPORT-OF-INTENSITY EQUATION BASED SPACE-FREQUENCY IMAGE SIGNAL ANALYSIS	703
<i>Shuang Xu ; Bo Tao ; Yongxing Guo ; Feng Zhang ; Gongfa Li</i>	
CLASSIFICATION OF KARATE KICKS WITH HIDDEN MARKOV MODELS CLASSIFIER AND ANGLE-BASED FEATURES.....	708
<i>Tomasz Hachaj ; Marek R. Ogiela</i>	
SORTING OF NOISE CONTRIBUTION BASED ON PARTIAL COHERENCE THEORY	713
<i>Chuang Han ; Liu Qu ; Jingwei Dong ; Yi Jiang ; Mingzhu Liu ; Jizheng Li ; Guodong Li</i>	
TRAJECTORY DEVIATIONS IN NARROWBEAM SAS: ANALYSIS AND COMPENSATION	718
<i>Mengbo Ma ; Jinsong Tang ; Zhen Tian ; Heping Zhong</i>	
THE EVOLUTION MODEL OF PUBLIC RESOURCE IN MULTIMEDIA BIG DATA NETWORKS.....	725
<i>Shan Liu ; Yao Dong ; Jianping Chai</i>	
A FRAMEWORK ANALYSIS OF MULTIMEDIA RESOURCE PROPAGATION MODEL BASED ON GAME THEORY.....	731
<i>Shan Liu ; Tongtong Liu ; Jianping Chai</i>	
RESEARCH OF BARRAGE ANALYSIS BASED ON HYPERNETWORK.....	736
<i>Shan Liu ; Dingyi Lai ; Xuanlong Zhu</i>	

H-PMHT TRACK-BEFORE-DETECT METHOD USING MARKOV CHAIN MONTE CARLO PARTICLE FILTER.....	741
<i>Jinping Sun ; Ying Lu ; Zhiguo Zhang</i>	
TRACK SEGMENT ASSOCIATION OF MANEUVERING TARGET BASED ON EXPECTATION MAXIMIZATION.....	746
<i>Jinping Sun ; Naiyu Wang ; Zhiguo Zhang</i>	
THE DESIGN OF SEVEN-LEAD ELECTROCARDIOGRAPH MONITORING SYSTEM BASED ON WI-FI.....	751
<i>Jinling Zhang ; Ruijie Sun ; Siyi Wang ; Jinling Zhang</i>	
EXPANSION METHOD OF ORTHOGONAL SEQUENCE SET BASED ON COMPUTER SEARCH.....	756
<i>Zhenyu Zhang ; Xiaoyi Li ; Zhanwei Du ; Fanxin Zeng ; Guixin Xuan</i>	
RESEARCH OF ARRHYTHMIA DIAGNOSIS AND PREDICTION BASED ON ALGORITHMS OF FEATURE SELECTION.....	761
<i>Xiaoyu Yang ; Jinling Zhang</i>	
APPLICATION OF HIGH LEVEL SYNTHESIS IN THE BLADE TIP CLEARANCE MEASUREMENT SYSTEM.....	767
<i>Dengyue Zhai ; Min Xie ; Jiadong Yuan ; Siyuan Liu</i>	
BLIND ESTIMATION OF CHAOTIC SPREAD SPECTRUM SEQUENCES BY NEURAL NETWORK.....	772
<i>Lili Xiao ; Guixin Xuan ; Yongbin Wu</i>	
DYNAMIC THERMAL PREDICTION MODEL FOR THE ELECTRONIC EQUIPMENT CABIN BASED ON RVFL NETWORK.....	777
<i>Zhiyong Sheng ; Zhiqiang Zeng ; Qing Tian ; Yanping Wang</i>	
THE FORECAST OF THE TEMPERATURE IN SUBWAY STATION BASED ON RVFL NEURAL NETWORK.....	782
<i>Yuan Zhang ; Bo Li ; Yanping Wang ; Qing Tian</i>	
OPTICAL FIBER INTRUSION SIGNAL RECOGNITION BASED ON IMPROVED MEL FREQUENCY CEPSTRUM COEFFICIENT.....	787
<i>Yuan Zhang ; Lu Zhao ; Qing Tian ; Jun Fan</i>	
THE CHARACTERISTIC EXTRACTION METHOD OF FIBER INTRUSION SIGNALS BASED ON BAND CUTTING AND IMAGING.....	793
<i>Zhiyong Sheng ; Tingliang Feng ; Yanping Wang ; Jun Fan</i>	
DESIGN OF A DIFFERENTIAL VECTOR PHASE LOCKED LOOP FOR SINGLE FREQUENCY RTK RECEIVERS.....	797
<i>Salma Zainab Farooq ; Tian Jin ; Dongkai Yang ; Echoda Ngbede Joshua Ada</i>	
A NEW METHOD FOR TIME SERIES SIGNAL DECOMPOSITION.....	803
<i>Kaiguo Fan ; Bojian Xu ; Ming Zhang ; Mingxing Nan ; Jianguo Huang</i>	
RESEARCH OF MULTIMEDIA DECISION MAKING MODEL IN VIDEO RESOURCES.....	807
<i>Shan Liu ; Tongtong Liu ; Jianping Chai</i>	
A REALIZATION FRAMEWORK OF INTELLIGENT FILM EVALUATION SYSTEM.....	812
<i>Shan Liu ; Yi Zhang ; Ciran Wang</i>	
ANALYSIS OF GNSS REFLECTED SIGNAL CHARACTERISTICS AND DETECTION PERFORMANCE OF PASSIVE RADAR SYSTEM.....	817
<i>Wei Qu ; Lei Meng ; Yonghua He</i>	
ELECTRIC CYLINDER CONTROL DRIVING METHOD BASED ON 3-DOF ROTOR ATTITUDE SIMULATOR.....	821
<i>Jun Sheng ; Jingjing Mu ; Jianping Xu ; Jianze Liu ; Dongdong Li</i>	
AN EFFICIENT FRAMEWORK FOR ONLINE MALICIOUS DOMAIN DETECTION.....	827
<i>Jia Cui ; Li Zhang ; Zhaohui Liu ; Juan Li ; Lei Shi</i>	
COMPLEX IMAGE REGISTRATION ALGORITHM FOR INTERFEROMETRIC SYNTHETIC APERTURE SONAR IN GPU ENVIRONMENT.....	833
<i>Heping Zhong ; Jinsong Tang ; Haoran Wu ; Mengbo Ma</i>	
A MEMBRANE-FIREWORKS ALGORITHM FOR MULTI-OBJECTIVE OPTIMIZATION PROBLEMS.....	838
<i>Chen Taowei ; Yu Yiming ; Zhao Kun ; Zhengtai Duan</i>	
A NON-INVASIVE RESPIRATION RATE MONITORING METHOD USING 915 MHZ FREQUENCY BAND.....	844
<i>Yanli Wang ; Wei Ke ; Jun Lu ; Haoran Zuo ; Mengling Chen ; Jie Jin</i>	
CHIRPLET-ATOMS NETWORK APPROACH TO HIGH-RESOLUTION RANGE PROFILES AUTOMATIC TARGET RECOGNITION.....	850
<i>Yifei Li ; Zunhua Guo</i>	

AN ASSESSMENT METHOD OF UNMANNED AERIAL VEHICLE MISSION PLANNING QUALITY BASED ON BAYESIAN NETWORK	855
<i>Li Wang ; Xiaolong Li ; Yongfei Miao ; Shikai Wu</i>	
EXPERIMENTAL STUDY OF A SIMULATED BLOOD FLOW VELOCITY MEASUREMENT SYSTEM VIA VERY-HIGH-FREQUENCY ULTRASOUND	859
<i>Xiaochun Wang ; Sheng Zhou ; Yanqun Wang ; Jianjun Ji ; Jun Yang</i>	
CLASSIFICATION OF COMPUTERIZED TOMOGRAPHY IMAGES OF ENDEMIC LIVER HYDATID IN XINJIANG BASED ON DECISION TREE	865
<i>Azmat Rozjan ; Roxangul Arxidun ; Nadiya Abdukeyim ; Chuan Bo. Yan ; Abdugheni Kutluk ; Murat Hamit ; Juan Yao ; Wei Liu</i>	
CLUSTERING-ORIENTED MULTIPLE CONVOLUTIONAL NEURAL NETWORKS FOR OPTICAL COHERENCE TOMOGRAPHY IMAGE DENOISING	871
<i>Xiangkai Wei ; Xiaoming Liu ; Aihui Yu ; Tianyu Fu ; Dong Liu</i>	
IDENTIFYING ARCHITECTURAL DISTORTION IN MAMMOGRAM IMAGES VIA A SE- DENSENET MODEL AND TWICE TRANSFER LEARNING	876
<i>Qiang Cai ; Xiaoming Liu ; Zhengsheng Guo</i>	
GENERATIVE ADVERSARIAL NETWORKS WITH DENSE CONNECTION FOR OPTICAL COHERENCE TOMOGRAPHY IMAGES DENOISING	882
<i>Aihui Yu ; Xiaoming Liu ; Xiangkai Wei ; Tianyu Fu ; Dong Liu</i>	
ASSESSMENT OF INTRACARDIAC BLOOD FLOW IN PATIENTS WITH FUNCTIONAL SINGLE VENTRICLE AFTER FONTAN SURGERY AND CHILDREN VOLUNTEERS	887
<i>Liwei Hu ; Rongzhen Ouyang ; Yafeng Peng ; Qian Wang ; Aimin Sun ; Yumin Zhong ; Jinlong Liu</i>	
ANGULATION EFFECTS OF ANTEGRADE PULMONARY BLOOD FLOW ON CAVOPULMONARY ANASTOMOSIS: A COMPUTATIONAL HEMODYNAMIC STUDY	891
<i>Zhirong Tong ; Xinxin Yan ; Haifa Hong ; Juanya Shen ; Yangxin Li ; Jinlong Liu ; Lisheng Qiu ; Liwei Hu ; Qian Wang</i>	
HEMODYNAMIC ANALYSIS OF PULMONARY ARTERIAL HYPERTENSION ASSOCIATED WITH CONGENITAL HEART DISEASE: A NUMERICAL STUDY OF PATIENT-SPECIFIC MODELS	895
<i>Liping Wang ; Mingjie Zhang ; Xi Chen ; Haifa Hong ; Jinlong Liu ; Zhuoming Xu ; Liwei Hu ; Yumin Zhong ; Qichen Jin ; Lijun Chen ; Yuqi Zhang</i>	
DETECTION OF MYCOBACTERIUM TUBERCULOSIS IN ZIEHL-NEESEN SPUTUM SMEAR IMAGES	900
<i>Sineng Yan ; Hongying Liu ; Li Sun ; Mei Zhou ; Zhirui Xiao ; Qianjie Zhuang</i>	
EFFUSION AREA SEGMENTATION FOR KNEE JOINT ULTRASOUND IMAGE BASED ON ATROUS-FCN WITH SNAKE MODEL ALGORITHM	906
<i>Niu Jin ; Zhili Long</i>	
GVF AND CV MODEL-BASED PULMONARY ARTERY EDGE DETECTION OF CTPA IMAGE SEQUENCE	911
<i>Xin Guo ; Hongfang Yuan ; Zhou Wen ; Min Liu ; Huaqing Wang</i>	
APPLICATION OF INFORMATION ENTROPY BASED EVALUATION FACTOR IN THE ANALYSIS OF MEASURED DATA OF MICROWAVE BIOMEDICAL IMAGING	917
<i>Jing Li ; Xinshe Qi ; Li Wen ; Qingzheng Xu</i>	
CHROMOSOME CLASSIFICATION WITH CONVOLUTIONAL NEURAL NETWORK BASED DEEP LEARNING	922
<i>Wenbo Zhang ; Sifan Song ; Tianming Bai ; Yanxin Zhao ; Fei Ma ; Jionglong Su ; Limin Yu</i>	
3D HEAD SHAPE ANALYSIS OF SUSPECTED ZIKA INFECTED INFANTS	927
<i>Xiangyang Ju ; Idelmo Rangel Garcia Júnior ; Leonardo De Freitas Silva ; Peter Mossey ; Dhelal Al-Rudainy ; Ashraf Ayoub ; Adriana Marques De Mattos</i>	
CT-BASED MR SYNTHESIS USING ADVERSARIAL CYCLE-CONSISTENT NETWORKS WITH PAIRED DATA LEARNING	931
<i>Cheng-Bin Jin ; Hakil Kim ; Wonmo Jung ; Seongsu Joo ; Eunsik Park ; Young Saem Ahn ; In Ho Han ; Jae Il Lee ; Xuenan Cui</i>	
PRECLINICAL STAGES OF ALZHEIMER'S DISEASE CLASSIFICATION BY A RS-FMRI STUDY	937
<i>Tiantian Liu ; Yonghao Wang ; Tianyi Yan ; Yunlei Liu ; Rong Xu ; Jiancheng Li ; Yunyan Xie</i>	
AUTOMATIC RETINAL BLOOD VESSEL SEGMENTATION BASED ON MULTI-LEVEL CONVOLUTIONAL NEURAL NETWORK	943
<i>Jinnan Guo ; Shiwei Ren ; Yueting Shi ; Haoyu Wang</i>	
RECURRENCE QUANTIFICATION ANALYSIS OF AGE-RELATED CHANGES IN POSTURAL FLUCTUATIONS DURING QUIET STANDING ON A SLOPE	948
<i>Jinping Li ; Ke Li ; Na Wei</i>	

A DEEP MULTI-SCALE CONVOLUTIONAL NEURAL NETWORK FOR CLASSIFYING HEARTBEATS	953
<i>Mengyao Bai ; Yongjun Xu ; Liyanan Wang ; Zhihui Wei</i>	
PHASE TO AMPLITUDE MODULATION OF CROSS-FREQUENCY OSCILLATIONS IN NIDOPALLIUM CAUDOLATERALE OF PIGEONS IN GOAL-DIRECTED TASKS	958
<i>Hong Wan ; Yan Li ; Kun Zhao</i>	
N400 EXTRACTION FROM FEWER-TRIAL EEG DATA USING A SUPERVISED SIGNAL-TO-NOISE RATIO MAXIMIZER METHOD	963
<i>Bowen Li ; Zhiwen Liu ; Yanfei Lin</i>	
MULTI-DIRECTIONAL REFLECTIVE NON-INVASIVE TEST SYSTEM FOR DETECTING HEMOGLOBIN CONCENTRATION AFTER SKIN FLAP TRANSPLANTATION	968
<i>Jin-Long Zhang ; Ming Xin ; Lin Yun ; Xiao-Xiao Han ; Jing He ; He You</i>	
REGIONAL WEIGHTED MUTUAL INFORMATION FOR MULTIMODAL RIGID REGISTRATION	972
<i>Lu Bai ; Guang Li ; Chuanwei Zhu ; Enhe Wu ; Ruibing Ma</i>	
DEEP CONVOLUTIONAL NETWORK METHOD FOR AUTOMATIC SLEEP STAGE CLASSIFICATION BASED ON NEUROPHYSIOLOGICAL SIGNALS	978
<i>Yudong Sun ; Bei Wang ; Jing Jin ; Xingyu Wang</i>	
A NOVEL METHOD OF SYNTHETIC CT GENERATION FROM MR IMAGES BASED ON CONVOLUTIONAL NEURAL NETWORKS	983
<i>Guang Li ; Lu Bai ; Chuanwei Zhu ; Enhe Wu ; Ruibing Ma</i>	
AN IMPROVED VISIBILITY GRAPH ANALYSIS OF EEG SIGNALS OF ALZHEIMER BRAIN	988
<i>Ruofan Wang ; Zhongyou Yang ; Jiang Wang ; Lianshuan Shi</i>	
COMPLEXITY ANALYSIS OF EEG SIGNALS FOR FATIGUE DRIVING BASED ON SAMPLE ENTROPY	993
<i>Chunxiao Han ; Yaru Yang ; Xiaozhou Sun ; Yingmei Qin</i>	
ANALYSIS OF NON-TASK STATE-SPECIFIC RHYTHMS IN NIDOPALLIUM CAUDOLATERALE OF PIGEONS	999
<i>Lifang Yang ; Mengmeng Li ; Kun Zhao ; You Liang ; Binbin Shang ; Zhigang Shang ; Hong Wan</i>	
LOCAL FIELD POTENTIAL FUNCTIONAL NETWORK ANALYSIS OF THE LEFT AND RIGHT HIPPOCAMPUS OF PIGEONS IN GOAL-DIRECTED TASK	1004
<i>Siyang Shen ; Kun Zhao ; Mengmeng Li ; Hong Wan</i>	
A MULTI-SCALE PARALLEL CONVOLUTIONAL NEURAL NETWORK FOR AUTOMATIC SLEEP APNEA DETECTION USING SINGLE-CHANNEL EEG SIGNALS	1009
<i>Dihong Jiang ; Yu Ma ; Yuanyuan Wang</i>	
ANALYSIS OF A WAVE IN NORMAL AND EPILEPTIC EEG SIGNALS BASED ON SYMBOL-RELATIVE ENTROPY	1014
<i>Wenyong Zhu ; Jiafei Dai ; Jin Li ; Jun Wang ; Fengzhen Hou</i>	
ROBUSTICA, KURTOSIS- AND NEGENTROPY-BASED FASTICA IN MATERNAL-FETAL ECG SEPARATION	1018
<i>Wenpo Yao ; Min Wu ; Jun Wang</i>	
RESEARCH OF EEG SIGNAL BASED ON PERMUTATION ENTROPY AND LIMITED PENETRABLE VISIBILITY GRAPH	1023
<i>Honghong Xu ; Jiafei Dai ; Jin Li ; Jun Wang ; Fengzhen Hou</i>	
ANALYSIS OF DEPRESSION MAGNETOENCEPHALOGRAPHY BASED ON MODIFIED PERMUTATION ENTROPY	1028
<i>Zizhen Yuan ; Wei Yan ; Jun Wang ; Jin Li ; Fengzhen Hou</i>	
REASEARCH ON PREGNANCY HYPERTENSION BASED ON DATA MINING	1033
<i>Xinke Lan ; Wei Wu ; Danhong Peng ; Tian Xu ; Jun Wang ; Gongdao Wang ; Fengzhen Hou</i>	
THE ALPHA WAVE TRANSFER ENTROPY ANALYSIS BASED ON ADAPTIVE TEMPLATE METHOD	1038
<i>Kaili Zheng ; Xin Sheri ; Jiafei Dai ; Jin Li ; Jun Wang ; Fengzhen Hou</i>	
QUANTIFYING NONLINEAR DYNAMIC COMPLEXITY OF EPILEPTIC EEG BY CONDITIONAL ENTROPY BASED ON DIFFERENT ENTROPY MEASURES	1042
<i>Bingxin Zhu ; Jiafei Dai ; Jin Li ; Jun Wang ; Fengzhen Hou</i>	
EFFECTS OF RE-ENTRY POSITION TO THE HEMODYNAMICS IN TYPE-B AORTIC DISSECTION	1047
<i>Yilun Zhang ; Huanming Xu ; Zhenfeng Li ; Duanduan Chen ; Jiang Xiong</i>	
STUDY ON HOWLAND CIRCUITS FOR LOW POWER ELECTRICAL IMPEDANCE TOMOGRAPHY SYSTEMS	1051
<i>Junying Xia ; Benyuan Liu ; Xuetao Shi ; Feng Fu ; Xiuzhen Dong</i>	

DESIGN AND DEVELOPMENT OF A HEART-ATTACK DETECTION STEERING WHEEL.....	1057
<i>Ziad O. Abu-Faraj ; Walid Al Chamaa ; Anthony Al Hadchiti ; Yehya Sraji ; Joe Tannous</i>	
VOLTAGE AND CURRENT BI-MODE STIMULATION CIRCUIT OF LOW-POWER DEEP BRAIN STIMULATOR	1063
<i>Zhao-Hui Qin ; Xiang Chen ; Hua Jin ; Jin Li</i>	
ELECTRONIC CONTROL SYSTEM FOR LASER TWEEZERS & SCISSORS WORKSTATION	1067
<i>Dongping Zhao ; Yaoyao Liu ; Anpei Ye</i>	
DEVELOPMENT OF A ROTATING ENDOTHELIAL CELL CULTURE DEVICE	1072
<i>Hao Ding ; Ying Zhang ; Lingxi Zhao ; Yujia Liu ; Chunxun Shi ; Zhichao Nie</i>	
DEVELOPMENT OF NEW CALIBRATION STANDARD FOR NONCONTACT TONOMETERS.....	1077
<i>Peter Pavlasek ; Miroslav Chytil ; Jan Rybar ; Jakub Palencar ; Stanislav Duris ; Peter Pavlasek</i>	
A COST EFFECTIVE POSITIONING DEVICE IN MRI-PHIFU SYSTEM	1081
<i>Depeng Liu ; Guofeng Shen ; Shan Qiao ; Zhiqiang Su ; Wenjie Liu ; Zhongqiu Li ; Jiabao Wen ; Jian Tao</i>	
RECOGNITION OF ERRP IN P300 SPELLER BASED ON TIME SERIES PATTERN.....	1087
<i>Zhifeng Lin ; Zhihua Huang</i>	
DETECTION AND ANALYSIS OF BREATHING SOUNDS FROM TRACHEA	1092
<i>Xiong Li ; Seung H. Lee ; Soo M. Chae ; Kyoung H. Hwang ; Moo J. Cho ; Jae J. Im</i>	
ANDROID-BASED SLEEP APNEA MONITORING SOFTWARE.....	1097
<i>Shang Gao ; Jin Li ; Xiang Chen</i>	
APPLICATION OF A WEARABLE PHYSIOLOGICAL MONITORING SYSTEM IN PULMONARY RESPIRATORY REHABILITATION RESEARCH.....	1102
<i>Desen Cao ; Zhengbo Zhang ; Hong Liang ; Xiaoli Liu ; Yingjia She ; Yuzhu Li ; Deyu Li ; Mengsun Yu</i>	
A WEARABLE RECTENNA TO HARVEST LOW-POWER RF ENERGY FOR WIRELESS HEALTHCARE APPLICATIONS.....	1108
<i>Chih-Hsi Lin ; Chien-Wen Chiu ; Jian-Yuan Gong</i>	
HUMAN BRAIN ACTIVATION NEURONAL SUBSTRATES OF WORD PRIMING EFFECT: AN FMRI STUDY	1113
<i>Xiujun Li ; Jingjing Yang ; Qi Li ; Dan Tong ; Jinglong Wu</i>	
DIFFERENTIAL ACTIVITY OF SEMANTIC PROCESSING BY CHINESE-JAPANESE BILINGUAL SUBJECTS: AN FMRI STUDY	1118
<i>Xiujun Li ; Jingjing Yang ; Qi Li ; Dan Tong ; Jinglong Wu</i>	
COMPARISON OF FIVE NUMERICAL SIMULATION ALGORITHMS IN TEMPERATURE PREDICTION FOR HOLLOW MICROSPHERES IN MAGNETIC INDUCTION HYPERTHERMIA.....	1123
<i>Yandong Zhang ; Xianwen Zhang ; Liyan Zhang ; Jintian Tang</i>	
ELECTROENCEPHALOGRAM-BASED COMPARATIVE STUDY OF MUSIC EFFECT ON MENTAL STRESS RELIEF	1128
<i>Muhammad Adeel Khan ; Maya Chennafi ; Gang Li ; Guoxing Wang</i>	
AN EFFECTIVE FEATURE FUSION METHOD FOR PROTEIN SUBNUCLEAR LOCALIZATION.....	1133
<i>Liwen Wu ; Yi Xiang ; Yikun Yang ; Shaowen Yao ; Gang Xue ; Oian Jiang ; Xin Jin</i>	
A CLASSIFICATION MODEL FOR CLASS IMBALANCE PROBLEM IN PROTEIN SUBNUCLEAR LOCALIZATION.....	1138
<i>Liwen Wu ; Yi Xiang ; Yikun Yang ; Gang Xue ; Shaowen Yao ; Xin Jin</i>	
USING SUPPORT TENSOR MACHINE FOR PREDICTING CELL PENETRATING PEPTIDES BY FUSING DIPC AND TIPC	1143
<i>Lin Deng ; Yuan Fang ; Shunfang Wang ; Zicheng Cao</i>	
PREDICTING MEMBRANE PROTEIN SUBCELLULAR LOCALIZATION FROM GENE ONTOLOGY TERMS BASED ON A DEEP LEARNING MODEL	1149
<i>Yuan Fang ; Lin Deng ; Shunfang Wang</i>	
A NOVEL COMPRESSION ALGORITHM FOR HIGH-THROUGHPUT DNA SEQUENCE BASED ON HUFFMAN CODING METHOD	1154
<i>Chuan He ; Huaiqiu Zhu</i>	
A REVIEW OF ALZHEIMER'S DISEASE CLASSIFICATION USING NEUROPSYCHOLOGICAL DATA AND MACHINE LEARNING	1159
<i>Gang Lyu</i>	
NEWBORN ARTERIAL BLOOD GAS PREDICTION.....	1164
<i>Wieslaw Wajs ; Piotr Kruczek ; Piotr Szymanski ; Magdalena Bukowczan ; Piotr Wais ; Marcin Ochab</i>	
DETECTION OF EPILEPSY USING MFCC-BASED FEATURE AND XGBOOST.....	1168
<i>Jie-Min Long ; Zhang-Fa Yan ; Yu-Lin Shen ; Wei-Jun Liu ; Qing-Yang Wei</i>	

AUTOMATION OF THE ACR MRI LOW-CONTRAST RESOLUTION TEST USING MACHINE LEARNING.....	1172
<i>Jhonata E. Ramos ; Hae Yong Kim ; F. B. Tancredi</i>	
A COMBINED MRI BIOMARKER APPROACH USING A NON-STANDARD MULTIPLE FACTOR ANALYSIS	1178
<i>Sana Rebbah ; Daniel Delahaye ; Stephane Puechmorel ; Florence Nicol ; Pierre Marechal ; Isabelle Berry</i>	
PROTEIN SUBNUCLEAR LOCALIZATION USING A HYBRID CLASSIFIER COMBINED WITH CHOU'S PSEUDO AMINO ACID COMPOSITION	1184
<i>Chaohong Song</i>	
BRAIN TUMOR SEGMENTATION BASED ON 3D UNET WITH MULTI-CLASS FOCAL LOSS	1189
<i>Jie Chang ; Xiaoci Zhang ; Jie Chang ; Minquan Ye ; Daobin Huang ; Peipei Wang ; Chuanwen Yao</i>	
AGENT-BASED MODELLING OF PATTERN FORMATION IN PLURIPOTENT STEM CELLS: INITIAL EXPERIMENTS AND RESULTS.....	1194
<i>Minhong Wang ; David Robertson ; Guillaume Blin ; Sally Lowell ; Thanasis Tsanas</i>	
BALLISTOCARDIOGRAM BASED PERSON IDENTIFICATION AND AUTHENTICATION USING RECURRENT NEURAL NETWORKS	1199
<i>Xianwen Zhang ; Yandong Zhang ; Liyan Zhang ; Heng Wang ; Jintian Tang</i>	
A USER STUDY OF WEARABLE PRODUCT FOR ELDERLY CARE - TAKING COMMUNITY NURSING SERVICE AS EXAMPLE	1204
<i>Wen Qi ; Liang Zhou</i>	
GUIDELINE DESIGN OF AN ACTIVE GENE ANNOTATION CORPUS FOR THE PURPOSE OF DRUG REPURPOSING	1209
<i>Yuxing Wang ; Xinzhi Yao ; Kaiyin Zhou ; Xuan Qin ; Jin-Dong Kim ; Kevin Bretonnel Cohen ; Jingbo Xia</i>	
APPLYING REVERSIBLE JUMP MCMC TO DETECT CANCER ASSOCIATED GENES.....	1214
<i>Bo Yang ; Zheng Wu</i>	
DATA INTEGRITY ASSESSMENT METHOD BASED ON DATA DEPENDENCE.....	1220
<i>Jin-Yu Song ; Yi-Ping Guo ; Suo-Juan Zhang ; Jian-Dong Hao</i>	
SPARQL QUERY-BUILDER FOR MEDICAL TEMPORAL DATA.....	1225
<i>Petr Vcelak ; Martin Kryl ; Jana Kleckova</i>	
SEMANTIC SEGMENTATION IN ARCHITECTURAL FLOOR PLANS FOR DETECTING WALLS AND DOORS	1230
<i>Jonghyeon Yang ; Hanme Jang ; Jiyeup Kim ; Jungok Kim</i>	
CRYPTOANALYZING AND IMPROVING FOR DIRECTED SIGNATURE SCHEME AND THE PROXY SIGNATURE SCHEME	1235
<i>Xiaoming Hu ; Wenrong Jiang ; Chuang Ma ; Chengcheng Yu</i>	
RESEARCH ON A PATTERN-MATCHING ALGORITHM FOR THE NETWORK SECURITY SYSTEM.....	1240
<i>Lili Jiang ; Yefei Li ; Guolin Chen</i>	
REPAIR OF ALGEBRAIC GEOMETRY CODES OF TWO FAILED NODES.....	1244
<i>Liangwu Cui ; Wenwen Chen ; Shuai Hu</i>	
SOME NEW APPROACHES TO MPI IMPLEMENTATIONS AND A POSSIBLE PATH TO MPI EVOLUTION.....	1250
<i>Yuqing Xiong</i>	
AN ENSEMBLE PRUNING METHOD BASED ON CLASS AND INTER-CLASS COMPETENCES FOR COMPUTER-AIDED MEDICAL DECISIONS.....	1254
<i>Marek Kurzynski ; Pawel Trajdos</i>	
INFORMATION RETRIEVAL BASED ON WORD SEMANTIC CLUSTERING	1260
<i>Chia-Yang Chang ; Yan-Ting Lin ; Shie-Jue Lee ; Chih-Chin Lai</i>	
MEASURES FOR EXTRACTING BASIC-LEVEL CATEGORIES.....	1265
<i>Mariusz Mulka ; Wojciech Lorkiewicz</i>	
INTEGRATING BINARY SIMILARITY MEASURES IN THE LINK PREDICTION TASK.....	1271
<i>Alfredo Milani ; Valentina Franzoni ; Giulio Biondi ; Yuanxi Li</i>	
COMPARATIVE STUDY OF INHOMOGENEOUS SIMULATED ANNEALING ALGORITHMS FOR QUADRATIC ASSIGNMENT PROBLEM.....	1276
<i>Zuoling Ma ; Lijin Wang ; Song Lin ; Yiwen Zhong</i>	
THE DETECTION OF P300 POTENTIAL BASED ON DEEP BELIEF NETWORK.....	1283
<i>Zhaohua Lu ; Ning Gao ; Yuanzi Liu ; Qi Li</i>	
ANALYSIS OF COLLISION DETECTION USING IMPLICIT SPHERE TREE IN SAPTIC INTERACTION ENVIRONMENTS FOR MAXILLOFACIAL SURGERY APPLICATIONS	1288
<i>Laurens Le Jeune ; Wout Swinkels ; Yi Sun ; Constantinus Politis ; Luc Claesen</i>	

HAZARD INFORMATION EXTRACTION AND CLASSIFICATION BASED ON DOMAIN ONTOLOGY	1294
<i>Binbin Yu</i>	
SOLVING THE MULTI-OBJECTIVE OPTIMIZATION MODEL FOR ALPINE GRASSLAND GRAZING WITH MODIFIED GENETIC ALGORITHMS	1299
<i>Xiaofeng Qin ; Chen Zhang ; Zijie Sun ; Yu-An Zhang ; Rende Song ; Meiyun Du</i>	
INTERNET OF THINGS IN CENTRALIZED MANAGEMENT OF MEDICAL EQUIPMENT	1304
<i>Wenpo Yao ; Min Wu ; Jun Wang</i>	
NODES IMPORTANCE RESEARCH ON THE AIRWAY NETWORK OF THE SILK ROAD ECONOMIC BELT.....	1309
<i>Yanbo Zhu ; Hening Fan</i>	
SEGMENTATION OF PATHOLOGICAL FEATURES OF RAT BILE DUCT CARCINOMA FROM HYPERSPECTRAL IMAGES	1314
<i>Jiansheng Wang ; Menghan Hu ; Mei Zhou ; Li Sun ; Qingli Li</i>	
Author Index	