

# **2009 International Conference on Apperceiving Computing and Intelligence Analysis**

**(ICACIA 2009)**

**Chengdu, China  
23-25 October 2009**



**IEEE Catalog Number: CFP0981F-PRT  
ISBN: 978-1-4244-5204-0**



## Track 01: Theory and Experiment

### #01\_01: PENTACENE BASED ORGANIC THIN-FILM TRANSISTOR AS GAS SENSOR 1

BO LIU, GUANG-ZHONG XIE, XIAO-SONG DU, XIAN LI, PING SUN

School of Optoelectronic Information, State Key Laboratory of Electronic Thin Films and Integrated Devices, University of Electronic Science and Technology of China (UESTC), Chengdu 610054, PR China

### #01\_02: DEVELOPMENT OF POLYANILINE NANOCOMPOSITE THIN FILM MICRO-GAS SENSOR ARRAY FOR THE QUALITATIVE ANALYSIS OF INORGANIC VAPOR 5

HUI-LING TAI, YA-DONG JIANG, GUANG-ZHONG XIE

State Key Laboratory of Electronic Thin Films and Integrated Devices, School of Optoelectronic Information, University of Electronic Science and Technology of China (UESTC), Chengdu 610054, China

### #01\_03: A DISTRIBUTED COOPERATIVE SPECTRUM SENSING BASED ON NETWORK CODE IN COGNITIVE RADIOS 9

ZHANG-HONG HAO, YOU-XI TANG, JIN-XIANG XIA

National key Lab of Communication, University of Electronic Science and Technology of China, Chengdu, 611731, China

### #01\_04: THE OPERATION CONSISTENCY STUDY FOR RIJNDAEL ALGORITHM AND REED-SOLOMON ALGORITHM IN GALOIS FIELD ( $2^8$ ) 14

YANG-QING ZHANG, XIAO-JUN LU IEEE MEMBER

School of Computer Science Engineering, University of Electronic Science and Technology of China, Chengdu, 611731, China

### #01\_05: ANALYSIS OF ACUPUNCTURE POINT SIGNAL USING WAVELET TRANSFORM AND HIGHER-ORDER STATISTICAL METHOD 18

ZI-MIN WANG, YONG-HONG TAN, MI-YONG SU

School of Electronic Engineering, Xidian University, Xi'an, 710071, China

### #01\_06: FUZZY PID CONTROL FOR LANDING GEAR BASED ON MAGNETO-RHEOLOGICAL (MR)

## DAMPER 22

LI HUA-LIN, CHEN YONG, HUANG QI, LI JIAN

School of Automation Engineering, University of Electronic Science and Technology of China, Chengdu, 610054, China

## #01\_07: PBESRT: PREDICTION-BASED EVENT-TO-SINK RELIABLE TRANSPORT IN WSN 26

ZHAN-BO SU, YUAN-MING WU

School of Optoelectronic Information, University of Electronic Science and Technology of China, Chengdu, China

## #01\_08: AN ENERGY SAVING TOPOLOGY CONTROL ALGORITHM RESEARCH 31

XUE-QIAN HU, YUAN-MING WU

School of Optoelectronic Information University of Electronic Science and Technology of China, ChengDu, China

## #01\_09: A NOVEL ADAPTIVE REVERSIBLE WATERMARK ALGORITHM BASED ON WAVELET LIFTING SCHEME 35

TIE-GANG GAO, QIAO-LUN GU, GUANG-LIN HAN

College of Software, Nankai University, Tianjin 300071, China

## #01\_10: RESEARCH ON PARALLEL COMPUTING OF ELECTROMAGNETIC SCATTERING IN COMPLEX ENVIRONMENT BASED ON CGSP 39

JIN-YAN LI, WEI ZHANG

Research Institute of Electronic Science and Technology, UESTC, Chengdu 610054, China

## #01\_11: A CLUSTERING ALGORITHM BASED ON LATENT SEMANTIC MODEL 44

BU-YU WANG, MEI-AN LI, YONG-JIANG WANG

Collage of Computer and Information Engineering, Inner Mongolia Agricultural University, Hohhot 010018, China

## #01\_12: A TABU SEARCH AND MULTI-POPULATION BASED GENETIC ALGORITHM FOR PATH PLANNING 49

XIN-YUN LIU, LEI-MIN LI, YUN-QING HUANG

School of Information Engineering, Southwest University of Science and Technology, Mianyang, 621010

## #01\_13: ISHIKAWA ITERATIVE PROCESS FOR VARIATIONAL INCLUSIONS WITH $(H, \{\zeta\})$ -ACCRETIVE OPERATORS IN BANACH SPACES 53

XIAN-ZHI YU, JIAN-PING LI, GUANG-QIANG XIAO, XING CHEN

Department of Foundation Studies, Logistical Engineering University, Chongqing 400016, China

## #01\_14: A IMPROVED SCHEME FOR AUTHENTICATED GROUP KEY EXCHANGE 57

JIAN SHU, CHUN-XIANG XU

School of Computer Science & Engineering, University of Electronic Science and Technology of China, Chengdu 610054, China

## #01\_15: AN APPLICATION OF PREDICTION MODEL IN BLAST FURNACE HOT METAL SILICON CONTENT BASED ON NEURAL NETWORK 61

DONG QIU, DE-JIANG ZHANG, WEN YOU, NIAO-NA ZHANG, HUI LI

Institute of Electrical and Electronics Engineering, Changchun University of technology, Changchun 130012, China

[#01\\_16: A NEW FINGERPRINT-BASED REMOTE USER AUTHENTICATION SCHEME USING MOBILE DEVICES 65](#)

DE-SONG WANG, JIAN-PING LI

School of computer science and Engineering, University of Electronic Science and Technology of China, Chengdu 610054, China

[#01\\_17: THE COMPARISON OF TWO TYPES OF WHITENIZATION WEIGHT FUNCTION 69](#)

XIU-WEN YANG, SONG-LIN WU, CHUAN-RONG XU

Department of foundation Studies, Logistical Engineering University, Chongqing 400016, China

[#01\\_18: CRYPTANALYSIS OF A REMOTE USER AUTHENTICATION SCHEME BASED ON BILINEAR PAIRING 73](#)

YUE-HAO YAN, DE-SONG WANG, JIAN-PING LI, LI-GANG LI

Sichuan Top Vocational Institute of Information Technology of China, Chengdu 611743

[#01\\_19: A NOTE ON MULTIPLICITY OF THE LAPLACIAN EIGENVALUE OF TREES 77](#)

ZHENYE XU, CHUN YANG

School of Applied Mathematics, University of Electronic Science and Technology of China, Chengdu China, 610054

[#01\\_20: RESEARCH OF RBAC BASED THREADED OBJECT 79](#)

JIAN-JUN WANG, HONG DENG

Information Science and Technology Department, HuNan First Normal University, Changsha 410002, China

[#01\\_21: BLOW-UP OF SOLUTION FOR G-L TYPE EQUATION IN POPULATION PROBLEM 84](#)

NING CHEN, BAO-DAN TIAN, JIAN-QIAN CHEN

School of Science, Southwest University of Science and Technology, Mianyang, 621010, China

[#01\\_22: HANKEL NORM OF UNCERTAIN NUETRAL SYSTEMS WITH MIXED TIME DELAYS 88](#)

JIN-ZHONG CUI, JUN YAN, SHOU-MING ZHONG

School of Computer Science and Engineering, University of Electronic Science and Technology of China, Chengdu, Sichuan 610054, PR China

[#01\\_23: A LOCK-FREE ALGORITHM FOR UNION-FIND WITH DELETION 92](#)

HUI GAO, YAN FU, JIA-PING LI

School of Computer Science and Engineering, University of Electronic Science & Technology of China, Chengdu, Sichuan 610054, China

[#01\\_24: A WRONG OPINION ABOUT QUORUM GENERATION ALGORITHM FOR DISTRIBUTED MUTUAL EXCLUSION 97](#)

MEI-AN LI, BU-YU WANG, WEI LI, DONG MA

College of Computer and Information Engineering of Inner Mongolia Agriculture University, Huhehaote, Inner Mongolia, 010018, China

[#01\\_25: STABILITY ANALYSIS FOR EQUILIBRIUM POINT OF NONSYMMETRICAL](#)

## INTERCONNECTED NEURAL NETWORK 101

DAN QI, TING-HONG YANG, CHUN-LIN WANG

Dept. of Foundation Studies, Logistic Engineering University, Chongqing 400016, China

## #01\_26: FACIAL FEATURE EXTRACTION AND RECOGNITION BASED ON CURVELET TRANSFORM AND SVD 104

HE JIA, ZHANG XIANGFENG

College of Computer Science & Technology, Chengdu University of Information Technology, Chengdu 610225, China

## #01\_27: THE STABILITY OF A CLASS OF GENERALIZED FUZZY HOPFIELD NETWORKS 108

CHUN-LIN WANG, FU SHILU, DAN QI

Department of Foundation, Logistical Engineering University, Chongqing, 400016, China

## #01\_28: RESEARCH ON DATA FUSION of MULTIPLE BIOMETRIC FEATURES 112

LIN LIU, XIAO-FENG GU, JIAN-PING LI, JIE LIN, JIN-XIN SHI, YUAN-YUAN HUANG

School of Software Engineering, University of Electronic Science and Technology of China, Chengdu, 610054, China

## #01\_29: STABILITY ANALYSIS FOR NONLINEAR SWITCHED NEUTRAL SYSTEMS 116

DU-YU LIU, SHOU-MING ZHONG, XIAOMEI WANG

School of Applied Mathematics, University of Electronic Science and Technology of China, Chengdu 610054, China

## #01\_30: ABSOLUTE STABILITY CONDITION FOR T-S FUZZY LURIE CONTROL SYSTEMS WITH TIME-VARYING DELAY 120

XIAO-XU XIA, SHOU-MING ZHONG, YAN-JU LUO

School of Sciences, Southwest Petroleum University, Chengdu, Sichuan, 610500, P.R.China

## #01\_31: RESEARCH OF PROTEIN STRUCTURE CLASSIFICATION BASED ON ROUGH SET AND SUPPORT VECTOR MACHINE 124

WANG JIAN, LI JIAN-PING

School of Computer and Information Science, Neijiang Normal University; NeiJiang 641112, China

## #01\_32: OPTIMIZED GM (1, 1) BASED ON ROMBER ALGORITHM AND QUADRATIC INTERPOLATION METHOD 128

BO LI, SHENG-LI ZHAO, LING FANG

Mathematics Teaching and Research Section of the Department of Fundament Studies Logistical Engineering University  
Chongqing 400016, China

## #01\_33: FAST QUERY OVER ENCRYPTED DATA BASED ON B+ TREE 132

ZHENG-FEI WANG, AI-GUO TANG, WEI WANG

Department of Computer, Hunan Business College, Changsha 410205, China National Key Laboratory for Parallel and Distributed Processing, School of Computer, National University of Defense Technology, Changsha 410073, China

## #01\_34: SPEECH ENHANCEMENT BASED ON THE COMBINATION OF SPECTRAL SUBTRACTION AND WAVELET THRESHOLDING 136

GUANG-YAN WANG, XIAO-QUN ZHAO, XIA WANG

[#01\\_35: A DISCUSSION OF CONTINUOUS WAVELET TRANSFORMS OF MULTIVARIABLE VECTOR FUNCTION SPACES 140](#)

QU HAN-ZHANG, ZHANG ZHI, LI CHANG-XING

Department of Applied Mathematics and Applied Physics, Xi'an University of Posts and Telecommunications, Xi'an, 710121, China

[#01\\_36: A FILTERING ALGORITHM OF NO BACKTRACKING KEY PHRASE SET FOR REAL-TIME INFORMATION MONITORING 144](#)

HUANG JIAN, LU JUN, REN LIYONG, HOU MENGSHU

Chengdu University of Information Technology, College of Software Engineering, Chengdu, P.R. China, 610225

[#01\\_37: PRECESSION CHARACTER STUDY OF SPACE TARGET IN MIDCOURSE 148](#)

MING-YAN CHEN£-WEI LI

Research Institute of Electronic Science and Technology, University of Electronic Science and Technology of China, Chengdu, China

[#01\\_38: INTRUSION DETECTION SYSTEM BASED ON ANT COLONY MEMORY PRINCIPLE 153](#)

YONG LIU, SUNJUN LIU

Chengdu Institute of Computer Application, Chinese Academy of Sciences, Chengdu 610041, China

[#01\\_39: ANOMALY DETECTION BASED ON CONTIGUOUS EXPERT VOTING ALGORITHM 158](#)

MIN YANG, DA-PENG CHEN, XIAO-SONG ZHANG

Computer Science & Engineering Department, University of Electronics Science and Technology of China

[#01\\_40: GAS SENSITIVITIES OF SOLVENT-FUNCTIONALIZED CNTS TO VOLATILE ORGANIC COMPOUNDS 162](#)

PING SUN, YADONG JIANG, GUANGZHONG XIE, JUNSHENG YU, XIAN LI, JIA HU

School of Optoelectronic Information, State Key Laboratory of Electronic Thin Films and Integrated Devices, University of Electronic Science and Technology of China (UESTC), Chengdu, 610054, China

[#01\\_41: THE OPTIMIZATION OF RPN CRITICALITY ANALYSIS METHOD IN FMECA 166](#)

YU-MEI NIU, YU-ZHU HE, JIAN-HONG LI, XIAO-JUN ZHAO

Department of System Engineering of Engineering Technology, Beijing University of Aeronautics and Astronautics, Beijing 100191, China.



## Track 02: Communication and Network

### #02\_01: DISTRIBUTED COOPERATION BASED OPPORTUNISTIC SPECTRUM ACCESS 171

XI-JUN WANG, WEI CHEN, ZHI-GANG CAO

Department of Electrical Engineering, Tsinghua University, Beijing 100084, China

### #02\_02: OPTIMIZATION OF THE SAW GAS SENSOR WITH TWO-PORT RESONATOR 175

KUN LI, XIAO-SONG DU, JIA HU, PING SUN, YA-DONG JIANG

State Key Laboratory of Electronic Thin Film and Integrated Devices, School of Opto-electronic Information, University of Electronic Science and Technology of China, Chengdu 610054, China

### #02\_03: A COMPARISON OF THREE CLASSES OF AUTO-CORRELATION SPECTRUM SENSING TECHNIQUES 179

HAN SONG, LU JIANXUN, WANG SHU

College of Information and communication Engineering, Hua Zhong University of Science and Technology, Wuhan, 430000, China

### #02\_04: DATA AGGREGATION BASED TOPOLOGY INFERENCE FOR WIRELESS SENSOR NETWORKS 183

ZHANG ZHIYONG, HU GUANGMIN

Key Lab of Broadband Optical Fiber Transmission and Communication Networks, University of Electronic Science and Technology of China, Chengdu 610054, China

### #02\_05: LINK-LOSSRATE AWARE AD HOC LOAD-BALANCING ROUTING PROTOCOL 188

XUE JIANG, GUANG-MIN HU

Key Lab of Broadband Optical Fiber Transmission and Communication Networks University of Electronic Science and Technology of China, Chengdu 610054, China

### #02\_06: COOPERATIVE DETECTING PRIMARY USERS BY MOBILE AND BASE STATION IN COGNITIVE RADIO NETWORKS 193

LING WANG, YUN LIU, QI-CONG PENG



School of Communication and Information Engineering, University of Electronic Science and Technology of China,  
Chengdu, China

[#02\\_07: TRAFFIC DRIVEN BASED LOAD BALANCING ROUTING SCHEME IN COGMESH NETWORK](#)  
198

XIAO-TIAN XIANG, QI-HUI WU

Institute of Communications Engineering , PLA University of Sci. & Tech, Nanjing 210007,China/p>

[#02\\_08: DISTRIBUTED STEALTHY TRAFFIC ANOMALY DETECTION BASED ON WAVELET PACKET ANALYSIS](#) 203

ZONG-LIN LI, GUANG-MIN HU, XINGMIAO YAO

Key Lab of Broadband Optical Fiber Transmission and Communication Networks, University of Electronic Science and Technology of China (UESTC), Chengdu, 611731, China

[##02\\_09: EFFECTS OF TOPOLOGIES ON NETWORK RECOVERY](#) 207

ZE-GUI YING, WEI REN, JIAN-PING LI

Department of Information Engineering, Sichuan Electric Vocational and Technical College, Chengdu 610072, China

[#02\\_10: A COMPLEX EVENT PROCESSING MODEL BASED ON RFID NETWORK](#) 211

WEN-MING YUAN, JIA XIAO, DONG WANG

E-Logistics Information and RFID Research Institute, Shanghai Jiao Tong University, Shanghai 200240, China

[#02\\_11: THE DIFFUSION OF CELLPHONE AND LANDLINE PHONE](#) 215

TING-HONG YANG, YI-CHUAN WANG, PENG-FEI XU,CHUN-LIN WANG

Dept. of Foundation Studies, Logistic Engineering University, Chongqing 400016, China

[#02\\_12: DISTRIBUTED COMPUTATION OF DIXON RESULTANT WITH CHANGEABLE ARGUMENTS](#)  
219

GUO RONGXIANG

Institute of Computer Application, Chinese Academy of Science, Sichuan Chengdu 610041, China

[#02\\_13: THE RESEARCH OF ENERGY BALANCE ROUTING PROTOCOL BASED ON CONNECTED DOMINANT SET FOR WIRELESS SENSOR NETWORK](#) 224

XIAN-LI LI, JIA-WEI ZHANG, WEI-HONG FANG

Department of Logistical Information Engineering, Logistical Engineering University, Chongqing 400016, China

[#02\\_14: THE RESEARCH OF DATA COMPRESSION ALGORITHM BASED ON LIFTING WAVELET TRANSFORM FOR WIRELESS SENSOR NETWORK](#) 228

XIAN-LI LI, JIA-WEI ZHANG, WEI-HONG FANG

Department of Logistical Information Engineering, Logistical Engineering University, Chongqing 400016, China

[#02\\_15: DIGITAL MANAGEMENT MODEL RESEARCH IN JIUZHAIGOU NATIONAL PARK](#) 234

JUN MA, ZE-GUI YING

Graduate of Software College, University of Electronic Science and Technology China, Chengdu 62000, China



[#02\\_16: DETECTION PERFORMANCE ANALYSIS OF THE DIGITAL CHANNELIZED RECEIVER-BASED ACML DETECTOR 238](#)

KE-XIN,JIA, ZI-SHU HE

College of electronic engineering, UESTC, China

[#02\\_17: STUDY OF WIRELESS ELECTRONIC VOTING SYSTEM OPTIMIZATION DESIGN BASED ON ZIGBEE 242](#)

KE XU, YU-JIE HAO

School of Software, University of Electronic Science and Technology, Chengdu, China

[#02\\_18: AN EFFICIENT TCP FLOW REASSEMBLING ALGORITHM BASED ON PF\\_RING 246](#)

JIE HAO, YU-JIE HAO, JIA-YU CHANG, JIAN-PING LI

Department of Computer Science and Engineering, University of Electronic Science and Technology of China, Chengdu 610054, China

[#02\\_19: DESIGN OF NEMS CONTACT SWITCH FOR WIDE FREQUENCY APPLICATIONS 250](#)

WEN-GE YU , KANG-QU ZHOU, ZHENG-ZHONG WU, TING-HONG YANG

Basic of logistic engineering University, Chongqing 400016, China

[#02\\_20: AN AUTHENTICATED MOBILE IPV6 FAST HANDOVER SCENARIO 254](#)

XING HONGZHI, LUO CHANGYUAN, LI HAILIN

Institute of Electronic Technology, PLA Information Engineering University, Zhengzhou, 450004, China

[#02\\_21: CONTENT DISTRIBUTION SYSTEM BASED ON SEGMENTED NETWORK CODING 258](#)

LI-YONG REN, HAI-YING HE, ZHAO DI, MING LEI

School of Computer Science and Engineering University of Electronic Science and Technology of China, Chengdu, China

[#02\\_22: PEER AGGREGATION USING MARKS WITH DYNAMIC AND MULTILEVEL ORGANIZATION 262](#)

LEI MING, LI-YONG REN, ZHAO DI, HAI-YING HE

School of Computer Science and Engineering University of Electronic Science and Technology of China, Chengdu, China

[#02\\_23: OPTIMIZING THE TOPOLOGY OF SCALE-FREE NETWORKS WITH REDUNDANT EDGES 266](#)

JUAN ZHAO, JIAN-PING LI, PING GUO, YI-ZHAI ZHANG, SEN-HUA WANG, XIAN-LI LI

International Centre for Wavelet Analysis, Logistical Engineering University, Chongqing 400016, China

[#02\\_24: A HIERARCHICAL KEY MANAGEMENT SCHEME FOR LARGE AND DYNAMIC MULTICAST GROUPS 270](#)

SHU-QUAN LI , YUE WU,DA-YONG ZHU AND JIA CHEN

School of computer science & engineering, University of Electronic Science and Technology of China,Chengdu 610054

[#02\\_25: TOWARDS OVERLAY NETWORK IN VIRTUAL COMPUTING ENVIRONMENT 274](#)

YUAN TANG, JIAN-PING LI

School of computer science and Engineering, University of Electronic Science and Technology of China, Chengdu 610054, China

[#02\\_26: A NOVEL METHOD FOR REMOTE MONITORING OF INSTANT CHAT IN LAN 278](#)

YI-NAN LIU, ZE-GUI YING, JIAN-PING LI

Department of Technology and Computer Science, UESTC, ChengDu 610054, China

[#02\\_27: THE APPLICATION IN MULTICAST OF THE P2P ROUTING MECHANISMS BASED ON THE CONTENT ADDRESSING NETWORKS 282](#)

HU JIAN, LIU XIAOBIN

School of Computer Science and Engineering University of Electronic Science and Technology of China, Chengdu, Sichuan, 610054, P.R.China

[#02\\_28: AUTOMATION POWER DISPATCHING SHEET SYSTEM BASED MULTI-AGENT 286](#)

SU-FANG CHEN

Shenzhen Polytechnic Industrial Centre, Guangdong Shenzhen 518055, China

[#02\\_29: THE RESEARCH OF DISASTER RECOVERY ABOUT THE NETWORK STORAGE SYSTEM BASE ON "SAFETY ZONE" 290](#)

ZHENG CHANG, YUJIE HAO

Chengdu University of Information Technology, Chengdu Sichuan 610225, China

[#02\\_30: A DESIGN OF EFFICIENT METADATA CLUSTER IN LARGE DISTRIBUTED STORAGE SYSTEMS 294](#)

LIN XIA, HAN-CONG DUAN, LIN LI, XIAO-WEN NIE

School of Computer Science & Engineering, University of Electronic Science and Technology of China, Chengdu , China

[#02\\_31: DISTRIBUTED ANOMALY DETECTION BY MODEL SHARING 297](#)

JUNLIN ZHOU, DENG JUN, YAN FU, YUE WU

University of Electronic Science and Technology of China, Chengdu 610054, P. R. China

[#02\\_32: TO INTELLIGENTLY SERVE USERS WITH DISTRIBUTED ACTIVE SERVICE PROVIDING SYSTEM 301](#)

QINGHUI ZENG, JUAN YANG, ZHIXING HUANG

Library, University of Electronic Science and Technology of China, Chengdu, 610054, China

[#02\\_33: LOW-COMPLEXITY JOINT BEAMFORMING AND POWER CONTROL FOR SINR BALANCING AND NUMBER OF ANTENNA CONSIDERATIONS IN COGNITIVE RADIO 306](#)

YANG YANG, JIN-LONG WANG, QI-HUI WU

Institute of Communication Engineering, PLA University of Science and Technology, Nanjing 210007, China



## Track 03: Multimedia technology

### #03\_01: SIMULATED ANNEALING AND LOCAL CONTRAST BASED ANISOTROPIC DIFFUSION METHOD FOR 1/F NOISE REDUCTION 313

DENG ZHANG, JEGOON RYU, AND TOSHIHIRO NISHIMURA

Graduate school of Information, Production and Systems, WASEDA University, 2-7 Hibikino, Watamatsu-ku, Kitakyuushyuu, 808-0135 Japan

### #03\_02: A BIO-INSPIRED MODEL FOR COLOR IMAGE SEGMENTATION 317

DE-KUN HU , JIANG-PING LI , S. X. YANG , S. GREGORI

School of Computer Science and Engineering, University of Electronic Science and Technology of China, Chengdu, 610054, China

### #03\_03: ROBUST PERSON IDENTIFICATION WITH FACE AND IRIS BY MODIFIED PUM METHOD 321

JIE LIN, JIAN-PING LI, HUI LIN, JI MING

School of Computer Science and Engineering University of Electronic Science and Technology of China

### #03\_04: ROBUST FACE RECOGNITION BY COMBINING WAVELET DECOMPOSITION AND LOCAL HYBRID PROJECTION ENTROPY 325

YUAN-YUAN HUANG, JIAN-PING LI, JIE LIN, YU-JIE HAO, GUI-DUO DUAN

School of Computer Science and Engineering, University of Electronic Science and Technology of China, Chengdu, 610054, China

### #03\_05: A NEW METHOD OF IRIS IMAGE LOCATION RESEARCH 329

JIN-XIN SHI, XIAO-FENG GU, JIAN-PING LI, JIE LIN, LIN LIU, YUAN-YUAN HUANG

School of Software Engineering, University of Electronic Science and Technology of China, Chengdu, 610054, China

### #03\_06: EARLY DETECTION OF ALL-ZERO COEFFICIENTS IN H.264 BASED ON DCT COEFFICIENTS DISTRIBUTION 333

HAO-MIAO YANG, YUAN-YUAN HUANG, JIE LI

School of Computer Science and Engineering, UEST of China, Chengdu, 610054, China

### #03\_07: FACE DETECTION BASED ON ADABOOST 337

PU HAN, JIAN-MING LIAO

University of Electronic Science and Technology of China, Chengdu, China

### #03\_08: AUTOMATIC SEGMENTATION IN TONGUE IMAGE BY MOUTH LOCATION AND ACTIVE APPEARANCE MODEL 341

XIU-QIN ZHONG, HONG-GUANG FU, JUN-HUA YANG

School of Computer Science and Engineering, University of Electronic Science and Technology, Chengdu, 610054, China

### #03\_09: A MODIFIED SPEECH ANALYSIS&SYNTHESIS SYSTEM 345

JIU-HE ZHONG, YI-DE ZHANG

School of Opto-Electronic Information, University of Electronic Science and Technology of China, Chengdu, Sichuan, 610054, China

### #03\_10: IMPLEMENTATION OF FII-BASED IMAGE RETRIEVAL ENGINE 349

TAN HAO, CHEN YU, QIU HANG

Department of Computer Science and Engineering, University of Electronic Science and Technology of China, Chengdu 610054, China

### #03\_11:THE RESEARCH AND IMPROVEMENT OF FINGERPRINT MATCHING ALGORITHM 352

YUE WANG, YUAN-YUAN HUANG, JIAN-PING LI

School of Computer Science and Engineering, University of Electronic Science and Technology of China, Chengdu, 610054, China

### #03\_12:RESEARCH ON SECURE DESTRUCTION OF DIGITAL INFORMATION 356

HAO DONG, SHE KUN, CHENG YU

School of computer science, University of Electronic Science and Technology of China, Chengdu 610054, China

### #03\_13:SYNTHETIC UTILIZING DIFFERENTIAL AND FILTER OPERATOR TO CONSTRUCT WNN FOR IMAGE EDGE DETECTION 360

MAO-ZHI WANG£-SHENG GOU£-KE GUO

College of Information Management, Chengdu University of Technology, Chengdu, 610059, China

### #03\_14:A NEW ALOGRITHM ON LIFTING MULTIWAVELST TRANSFORM FOR IMAGE FUSION 367

ZHEN-XIAN LIN, WEN XUE

Department of Mathematic and Physics, Xi'an University of Post and Telecommunications, Xi'an 710061, China

### #03\_15:INCORPORATED SCHEDULING STRATEGY FOR STREAMING MEDIA BASED ON POPULARITY 371

CHAO YU, LING XING, JIAN-GUO MA, RONG FU

School of Information Engineering, Southwest University of Science and Technology, Mianyang 621010, China

### #03\_16:CACHE REPLACEMENT STRATEGY FOR STREAMING MEDIA BASED ON SEMANTIC MINING 375

LING XING, JIAN-GUO MA, HONG CHENG

School of Information Engineering, Southwest University of Science and Technology, Mianyang 621010, China

#03\_17:ANALYSIS OF GROUP USERS' INTERESTS IN AUDIO/VIDEO PROGRAMS IN NETWORK BACKBONE ENVIRONMENT 379

QIANG MA, LING XING, JIAN-GUO MA

School of Information Engineering, Southwest University of Science and Technology, Mianyang 621010, China



## Track 04: Embedded System and application

### #04\_01:DISTRIBUTED FLOWMETER DATA ACQUISITION SYSTEM BASED ON WIRELESSHART NETWORKS 383

JIANMING LIAO, YU LIU

College of Computer Science and Engineering, University of Electronic Science and Technology of China, Chengdu 611731, China

### #04\_02:AN IMPROVED PARTICLE SWARM OPTIMIZATION USING BEST NEIGHBOR WITH WORST PARTICLE AND ITS APPLICATION IN SOFT-SENSOR OF GASOLINE ENDPOINT 387

HUI WANG

Computer Science and Information Engineering, Shanghai Institute of Technology, Shanghai 200235, China

### #04\_03:COMPUTER SIMULATION FOR THE PROCESS OF THERMAL RESPONSE OF LPG TANKS BASED ON HIGH-TEMPERATURE ENVIRONMENT 391

JIE CHEN, XIU-MEI YANG, SHUN-PENG ZENG, XIU-WEN YANG

College of Mechanical Engineering,Chongqing University of Science and Technology,Chongqing 401331, China

### #04\_04:SPEED CONTROL OF BRUSHLESS DC MOTOR WITH GREY PREDICTOR 395

ZHAO-XIA XIAO, HONG-WEI FANG

School of Electrical engineering and Automation, Tianjin Polytechnic University, Hedong District,Tianjin, 300160, China

### #04\_05:AN EMBEDDED SHORT-RANGE WIRELESS DATA COMMUNICATION PROTOCOL DESIGN 399

ZHENG QIAO, HU WEI-DONG, LIU LI

School of Computer Science, Southwest Petroleum University, Chengdu 610500,China

### #04\_06:DISCRETE NONLINEAR INEQUALITIES IN TIME CONTROL SYSTEMS 403

KE-LONG ZHENG, SHOU-MING ZHONG, MAO YE

School of Applied Mathematics, University of Electronic and Technology of China, Chengdu, Sichuan 610054, China

### #04\_07:SETTING LEAD-TIME IN PROJECT MANUFACTURING ENVIRONMENT BASED ON CCPM

XIA-BAO HUANG, LI-XI YANG

Fujian Institute of Economics Management, Fuzhou 350002, China

[#04\\_08:PERFORMANCE ANALYSIS OF FRONT RUBBER BUSHING STIFFNESS OF LOWER CONTROL ARM ON MCPHERSON SUSPENSION 411](#)

XIN-TIAN LIU, HUANG HU, YI YANG, LI-HUI ZHAO, CHANG-HONG LIU, HUI GUO, YAN-SONG WANG

College of Automobile Engineering, Shanghai University of Science Engineering, Shanghai 201620, China

[#04\\_09:A HARDWARE/SOFTWARE CO-VERIFICATION PLATFORM FOR ASIC DESIGN 416](#)

XUE-QIU DAI, BU-MIN LIU, CHUN-YI XIE, WAN-CAI WANG

Dept. of Microelectronics and Solid-State Electronics, University of Electronic Science and Technology of China(UESTC), Chengdu, China

[#04\\_10:OPTIMIZATION DESIGN OF GAS TURBINE INSTALL TRACK SYSTEM 421](#)

QI XING-MING, HUA ZHI-GANG, JIAO JIN-YI

China Ship Development & Design Center, No.268 ZiYang Road, Wuhan 430064, China

[#04\\_11:THE IMPLEMENTATION OF PCI EXPANSION ROM FOR RAID CONTROLLER CARD 427](#)

XIUJUN GENG, XIAOJUN LU IEEE MEMBER

School of Computer Science and Engineering University of Electronic Science and Technology, Chengdu, China

[#04\\_12:MICRO BANK SYSTEM BASED ON MAINFRAME 431](#)

JIN-QIU LI, DI LIU

Department of computer science and engineering, University of Electronic Science and technology of China, Sichuan Chengdu 610054, China

[#04\\_13:THE RESEARCH ON TRANSACTION SYSTEM BASED ON MAINFRAME 436](#)

QIN LI, DI LIU

School of Computer Science and Engineering, University of Electronic Science and Technology of China, Chengdu 611731, China

[#04\\_14:A UNPACKING AND RECONSTRUCTION SYSTEM-AGUNPACKER 440](#)

YU SAN-CHAO, LI YI-CHAO, LIU DAN, YANG TING

Department School of Computer Science and Engineering, University of Electronic Science and Technology of China Chengdu 610054, China

[#04\\_15:THE OPTIMALIZING DESIGN AND APPLICATION OF A NEW WIRELESS LOW-POWER UNIVERSAL DATA ACQUISITION SYSTEM 444](#)

YYAN-FEI AI, YU-JIE HAO, JIAN-PING LI

Department of Computer Science & Engineering, University of Electronic Science and Technology of China, Chengdu 610054, China

[#04\\_16:RESEARCH ON TENSION CONTROL FOR SIX-AXIS FILAMENT WINDING MACHINE 447](#)

SHI-HUAN WANG, SHU-RONG NING

School of Mechanical & Electrical, Shandong University at Weihai, Weihai 264209, China