

2014 IEEE International Conference on Orange Technologies

(ICOT 2014)

**Xi'an, China
20-23 September 2014**



**IEEE Catalog Number: CFP14ORA-POD
ISBN: 978-1-4799-6285-3**

TABLE OF CONTENTS

VISUAL TRACKING BASED ON THE COLOR ATTENTION PRESERVED SPARSE GENERATIVE OBJECT MODEL	1
<i>Zheng, Hong ; Tian, Chunna ; Wei, Wei</i>	
SURVEY OF DEEP LEARNING IN FACE RECOGNITION	5
<i>Zhi-Peng, Fu ; Yan-Ning, Zhang ; Hai-Yan, Hou</i>	
REAL TIME SUPER RESOLUTION RECONSTRUCTION FOR VIDEO STREAM BASED ON GPU	9
<i>Hu, Jie ; Li, Hailiang ; Li, Ying</i>	
ANALYSIS OF EYE GAZE POINTS BASED ON VISUAL SEARCH	13
<i>Jian, Wang ; Xinbo, Zhao</i>	
KERNEL REFINEMENT BASED ON BEST LIGHT STREAK FOR MOTION DEBLURRING	17
<i>Xueling, Chen ; Yanning, Zhang</i>	
AN MCD-BASED LOCAL ACE ALGORITHM FOR HYPERSPECTRAL IMAGERY TARGET DETECTION	21
<i>Yan, Hangqi ; Zhang, Yanning ; Wei, Wei ; Zhang, Lei ; Li, Fei ; Wang, Bobo</i>	
ROBUST POINT CORRESPONDENCE BY IMPROVED PROXIMITY MATRIX	25
<i>Yue, Sicong ; Song, Qingsong ; Qu, Weidong</i>	
VISUAL ATTENTION BASED VISUAL VOCABULARY	29
<i>Zhong, Ma ; Xinbo, Zhao</i>	
A LOW-POWER, WIRELESS, WRIST-WORN DEVICE FOR LONG TIME HEART RATE MONITORING AND FALL DETECTION	33
<i>Zhou, Cong-Cong ; Tu, Chun-Long ; Gao, Yun ; Wang, Fei-Xiang ; Gong, Hong-Wei ; Lian, Ping ; He, Chen ; Ye, Xue-Song</i>	
ENHANCING HOME AREA NETWORKS TO FACILITATE TELEHEALTH SERVICES: TEST- BED SCENARIO WITH VIDEO-CONSULTATION-CALLS (VCC)	37
<i>Shah, Mohib A. ; Kim, Jinman ; Khadra, Mohamed ; David Feng, Dagan</i>	
KERNEL SPARSE NMF FOR HYPERSPECTRAL UNMIXING	41
<i>Fang, Bei ; Li, Ying ; Zhang, Peng ; Bai, Bendu</i>	
MULTISPECTRAL IMAGES BASED BRIDGE DETECTION METHOD WITH RX DETECTOR	45
<i>Wei, Wei ; Zhang, Yanning ; Zhang, Lei ; Yan, Hangqi ; Wang, Bobo</i>	
SUPERVISED SEGMENTATION OF VASCULATURE IN RETINAL IMAGES USING NEURAL NETWORKS	49
<i>Ding, Chen ; Xia, Yong ; Li, Ying</i>	
A LIGHT-WEIGHT SYSTEM FOR DETECTING INDOOR WANDERING OF DEMENTED ELDERS LIVING ALONE	53
<i>Zhao, Weichao ; Zhou, Xingshe ; Ni, Hongbo ; Lin, Qiang</i>	
A NOVEL SALIENCY DETECTION FRAMEWORK FOR INFRARED THERMAL IMAGES	57
<i>Yu, Dahai ; Han, Junwei ; Ye, Yibo ; Fang, Zhijun</i>	
ONLINE OBJECT TRACKING BASED ON L1-LOSS SVMs WITH MOTION CONSTRAINTS	61
<i>Zhuo, Tao ; Zhang, Peng ; Zhang, Yanning ; Huang, Wei</i>	
AN APPLICATION OF INTERNET OF THINGS WITH MOTION SENSING ON SMART HOUSE	65
<i>Tseng, Shih-Pang ; Li, Bo-Rong ; Pan, Jun-Long ; Lin, Chia-Ju</i>	
HAPPY STUDYING BY GAMIFICATIONAL ROLE PLAYING	69
<i>Hsieh, Tsung-Han ; Huang, Han Chun</i>	
A CONSTRUCTIVE COURSEWARE DESIGN FOR NURSING EDUCATION: USING INTRAMUSCULAR INJECTION AS A CASE	73
<i>Lin, Chia-Ju ; Su, Yu-Hua ; Lin, Liang-Chiao ; Li, Ji-Ping ; Tseng, Shih-Pang</i>	
A DOPPLER FREQUENCY ESTIMATION ALGORITHM BASED ON BAND MISMATCH	77
<i>Xue, Feng ; Chen, Qiaoling ; Zhang, Yang</i>	
ENHANCEMENT OF LIGHTNING ELECTRIC FIELD SIGNALS USING EMPIRICAL MODE DECOMPOSITION METHOD	81
<i>Yuanlian, Huo ; Yongfeng, Qi</i>	
A NEW STRATEGY FOR IMPROVING THE SELF-POSITIONING PRECISION OF AN AUTONOMOUS MOBILE ROBOT	85
<i>Zhanfu, An ; Dong, Pei ; Hongwu, Yang ; Quanzhou, Wang</i>	

APPLYING PAD THREE DIMENSIONAL EMOTION MODEL TO CONVERT PROSODY OF EMOTIONAL SPEECH	89
<i>Lu, Xiaoyong ; Yang, Hongwu ; Zhou, Aibao</i>	
REALIZING TIBETAN LHASA SPEECH CONCATENATION SYNTHESIS SYSTEM BASED ON A LARGE CORPUS	93
<i>Gan, Zhenye ; Wang, Zhenwen ; Yang, Hongwu</i>	
TOWARDS REALIZING GESTURE-TO-SPEECH CONVERSION WITH A HMM-BASED BILINGUAL SPEECH SYNTHESIS SYSTEM	97
<i>Yang, Hongwu ; An, Xiaochun ; Pei, Dong ; Liu, Yitong</i>	
SPEECH ENHANCEMENT USING ORTHOGONAL MATCHING PURSUIT ALGORITHM	101
<i>Yang, Hongwu ; Hao, Dongliang ; Sun, Hongyin ; Liu, Yitong</i>	
A FUZZY CLUSTERING ALGORITHM VIA ENHANCED SPATIALLY CONSTRAINT FOR BRAIN MR IMAGE SEGMENTATION	105
<i>Ji, Zexuan ; Liu, Jinyao ; Li, Guannan</i>	
A MULTISTEP LIVER SEGMENTATION STRATEGY BY COMBINING LEVEL SET BASED METHOD WITH TEXTURE ANALYSIS FOR CT IMAGES	109
<i>Li, Dengwang ; Liu, Li ; Chen, Jinhu ; Li, Hongsheng ; Yin, Yong</i>	
ACCURATE TUMOR POSITIONING FROM PET-CT BY PERFORMING REGISTRATION BASED SEGMENTATION	113
<i>Li, Dengwang ; Liu, Xueting ; Wang, Jie ; Wang, Qinfen ; Chen, Jinhu ; Yong Yin, Hongsheng Li</i>	
DEVELOPMENT AND EVALUATED FOR INTRACRANIAL ANEURYSM IMAGING RECONSTRUCTION ALGORITHMS BY 320 SLICE DYNAMIC VOLUME CT	117
<i>Cao, Hua ; Chen, Jiazhong ; Cao, Jiayi</i>	
SOLVING TSP BY DISMANTLING CROSS PATHS	121
<i>Pan, Yongsheng ; Xia, Yong</i>	
FACET-BASED TREND MODELING FOR COLD START OF RECOMMENDATION IN SOCIAL MEDIA	125
<i>Chen, Chen ; Chunyan, Hou ; Xiaojie, Yuan</i>	
A VISUALIZATION TOOLKIT FOR ONLINE SOCIAL NETWORK PROPAGATION AND INFLUENCE ANALYSIS WITH CONTENT FEATURES	129
<i>Wang, Bo ; Sun, Yingjun ; Tang, Cheng ; Liu, Yang</i>	
A SPOKEN DIALOGUE SYSTEM WITH SITUATION AND EMOTION DETECTION BASED ON ANTHROPOMORPHIC LEARNING FOR WARMING HEALTHCARE D	133
<i>Su, Bo-Hao ; Fu, Ping-Wen ; Lin, Po-Chuan ; Shih, Po-Yi ; Lin, Yuh-Chung ; Wang, Jhing-Fa ; Tsai, An-Chao</i>	
THE NEURAL SUBSTRATE OF MATERNAL LOVE IN SHOPPING: MOTHERS' WILLINGNESS TO PAY FOR HER CHILD VS. FOR HERSELF: AN FMRI STUDY	137
<i>Kung, Chun-Chia ; Ou, Yang-Yen ; Yeh, Ding-Ruey ; Wang, Chung-Fa</i>	
ENHANCING THE ACCEPTANCE OF INTERACTIVE ONLINE LEARNING OF HEARING-IMPAIRED STUDENTS	141
<i>Chen, Yuh-Tyng ; Liou, Shyhnan</i>	
DETECTING THE NEEDS FOR HAPPINESS AND MEANING IN LIFE FROM GOOGLE BOOKS	145
<i>Qiu, Lin ; Lu, Jiahui ; Chiu, Chi-yue</i>	
SOCIAL DETERMINANTS OF MILD COGNITIVE IMPAIRMENT AMONG THE ELDERLY — A CASE STUDY OF TAIWAN	149
<i>Hsieh, Wen-jen ; Tsai, Shin-ni ; Chen, Yuh-Tyng ; Lee, Jenq-daw ; Huang, Jun-jen ; Minambres Garcia, Ignacio Jose</i>	
EFFICIENT AND PORTABLE CONTENT-BASED MUSIC RETRIEVAL SYSTEM	153
<i>Chiang, Yen-Lin ; Lee, Yuan-Shan ; Hsieh, Wen-Chi ; Wang, Jia-Ching</i>	
SYSTEM IMPLEMENTATION OF ROBUST TIME DIFFERENCE OF ARRIVAL ESTIMATION	157
<i>Shih, Min ; Lin, Yan-Yu ; Lin, Yu-Shan ; Lin, Chang-Hong ; Chen, Ming-Yen ; Li, Jyun-Hong ; Su, Chih-Wei ; Wang, Jia-Ching</i>	
AN AUTOMATIC SPEAKER-SPEECH RECOGNITION SYSTEM FOR FRIENDLY HMI BASED ON BINARY HALVED CLUSTERING	161
<i>Peng, Chih-Hsiang ; Chou, Chih-Hung ; Kuan, Ta-Wen ; Lin, Po-Chuan ; Wang, Jhing-Fa ; Yu, Pen-Yuan</i>	
AUTOMATIC SINGING EVALUATING SYSTEM BASED ON ACOUSTIC FEATURES AND RHYTHM	165
<i>Lin, Chang-Hung ; Lee, Yuan-Shan ; Chen, Ming-Yen ; Wang, Jia-Ching</i>	
AUDITORY-BASED ROBUST SPEECH RECOGNITION SYSTEM FOR AMBIENT ASSISTED LIVING IN SMART HOME	169
<i>Kuo, Hsien-Shun ; Sung, Po-Hsun ; Lee, Sheng-Chieh ; Kuan, Ta-Wen ; Wang, Jhing-Fa</i>	

FROWNING EXPRESSION DETECTION BASED ON SOBEL FILTER FOR NEGATIVE EMOTION RECOGNITION	173
<i>Chung, Shu-Chiang ; Barma, Shovan ; Kuan, Ta-Wen ; Lin, Ting-Wei</i>	
ACTION UNIT RECONSTRUCTION OF OCCLUDED FACIAL EXPRESSION	177
<i>Wu, Chung-Hsien ; Lin, Jen-Chun ; Wei, Wen-Li</i>	
MULTI-LEVEL SMILE INTENSITY MEASURING BASED ON MOUTH-CORNER FEATURES FOR HAPPINESS DETECTION	181
<i>Chang, Chung-Hsien ; Lin, Po-Chuan ; Kuan, Ta-Wen ; Chen, Jing-Min ; Lin, Yuh-Chung ; Wang, Jhing-Fa ; Tsai, An-Chao</i>	
A LOW-COMPLEXITY SOUND RECORDING SYSTEM FOR ELDERLY SECURITY IN HOME-CARE SYSTEM	185
<i>Chang, Chung-Hsien ; Lin, Po-Chuan ; Chiu, Yu-Hao ; Wang, Jhing-Fa ; Kuan, Ta-Wen</i>	
A HIGH-ACCURACY ASR TECHNIQUE BASED ON CORRELATIONAL WEIGHT ANALYSIS FOR ELDERLY USERS	189
<i>Chou, Chih-Hung ; Kuan, Ta-Wen ; Lin, Po-Chuan ; Wang, Jhing-Fa ; Wu, Yi-Jhong</i>	
A HAPPINESS-ORIENTED HOME CARE SYSTEM FOR ELDERLY DAILY LIVING	193
<i>Ou, Yang-Yen ; Shih, Po-Yi ; Kuan, Ta-Wen ; Shih, Shao-Hsien ; Wang, Jhing-Fa ; Wu, Jaw-Shyang</i>	
OPTIMIZED RADIX-2 FFT AND MEL-FILTER BANK IN MFCC-BASED EVENTS SOUND RECOGNITION CHIP DESIGN FOR ACTIVE SMART WARMING CARE	197
<i>Kuan, Ta-Wen ; Wang, Jhing-Fa ; Shang-Hung, Tsai</i>	
A NOVEL FEATURE GENERATION METHOD BASED ON NONLINEAR SIGNAL DECOMPOSITION FOR AUTOMATIC HEART SOUND MONITORING	201
<i>Barma, Shovan ; Chou, Chih-Hung ; Kuan, Ta-Wen ; Lin, Po-Chuan ; Wang, Jhing-Fa</i>	
AN EMOTIONAL FEEDBACK SYSTEM BASED ON A REGULATION PROCESS MODEL FOR HAPPINESS IMPROVEMENT	205
<i>Hung, Yu-Heng ; Ou, Yang-Yen ; Kuan, Ta-Wen ; Cheng, Chin-Hui ; Wang, Jhing-Fa ; Wu, Jaw-Shyang</i>	
REMOVING THIN CLOUD FROM REMOTE SENSING DIGITAL IMAGES BASED ON ROBUST KERNEL REGRESSION	209
<i>Liang, Guohong ; Li, Ying</i>	
A COMPONENT-BASED DESIGN METHOD OF REMOTE DIAGNOSTIC SYSTEM	212
<i>Jing, Guo ; Yanning, Zhang</i>	
A FUSION ALGORITHM OF PET-CT BASED ON DUAL-TREE COMPLEX WAVELET TRANSFORM AND SELF-ADAPTION GAUSSIAN MEMBERSHIP FUNCTION	216
<i>Wei, Xingyu ; Zhou, Tao ; Lu, Huiling</i>	
BUILING THE MOBLE APP SYSTEM OF POSTIVE SOCIAL COUMMITY BY USING SOCIAL CAPITAL THEORY	220
<i>Huang, Hanchun ; Hsieh, Tsung-Han</i>	
A BIONIC MICRO SUCKER ACTUATED BY IPMC	223
<i>Feng, Huashan ; Dong, Wenhao ; Chai, Ningli</i>	
AN OVERVIEW OF KERNEL BASED NONNEGATIVE MATRIX FACTORIZATION	227
<i>Duong, Viet-Hang ; Hsieh, Wen-Chi ; Bao, Pham The ; Wang, Jia-Ching</i>	
AUTOMATIC EMOTION VARIATION DETECTION USING MULTI-SCALED SLIDING WINDOW	232
<i>Fan, Yuchao ; Xu, Mingxing ; Wu, Zhiyong ; Cai, Lianhong</i>	
Author Index	