

# **2015 International Conference on Informative and Cybernetics for Computational Social Systems (ICCSS2015)**

**Chengdu, Sichuan, China  
13-15 August 2015**



**IEEE Catalog Number: CFP1588X-POD  
ISBN: 978-1-4673-7246-6**

## Table of Contents

### **Session 1: Thursday, August 13, 1:30PM-3:00PM, Room: Infrastructure Teaching Building B302, Sichuan University**

#### **Chair: Chen-Chia Chunag**

Robust Audio Watermarking Scheme via QIM of Correlation Coefficients using LWT and QR decomposition, Jinfeng Li, Tao Wu.....	1
Deep Learning and its Application to general Image Classification, Po-Hsien Liu, Shunfeng Su, Mingchang Chen, Chih-Ching Hsiao.....	7
The research of automatic horizontal adjustment of stereoscopic video shooting cradle head, Qi Guo , Nan Wang , Shilei Bai.....	11
A Novel Feature Fusion Method for Predicting Protein Subcellular Localization with Multiple Sites, Dong Wang, Shiyuan Han, Xumi Qu, Wenzheng Bao, Yuehui Chen, Yuling Fan, Jin Zhou .....	15
A Novel Approach for Virtual Facial Shape Cloning and Makeup Reproducing, Chiu-Shan Chen, Yu-Ju Lin, Tzu-Ang Chen, Ying-Qi Chen and Cheng-Chin Chiang.....	20

### **Session 2: Thursday, August 13, 3:30PM-5:00PM, Room: Infrastructure Teaching Building B302, Sichuan University**

#### **Chair: Jin Zhou**

A Distributed K-means Clustering Algorithm in Wireless Sensor Networks, Jin Zhou, Yuan Zhang, Yuyan Jiang, C. L. Philip Chen, Long Chen.....	26
A Flick Biometric Authentication Mechanism on Mobile Devices, Dong-Her Shih, Chia-Ming Lu, Ming-Hung Shih.....	31
Intelligent Mobile Web Service for Bioinformatics Systems, Chen-Chia Chuang, Jin-Tsong Jeng, Chih-Ching Hsiao, Yu-Yang Ho, Yue-Shiang Liu.....	34
Enhanced Hierarchical Fuzzy Model using Evolutionary GA with Modified ABC Algorithm for Classification Problem, Ting-Cheng Feng, Tsung-Ying Chiang, Tzuu-Hseng S. Li.....	40
Matrix completion via extended linearized augmented Lagrangian method of multipliers, Feng Ma, Mingfang Ni, Wei Tong, Xinrong Wu.....	45

### **Session 3: Friday, August 14, 9:00AM-10:30AM, Room: Infrastructure Teaching Building B302, Sichuan University**

#### **Chair: Junwei Duan**

Formation Control for Multiple Nonlinear Autonomous Agents Based on Iterative Method, Xixin Yang, Shiyuan Han, Dong Wang, Jin Zhou.....	50
Approximate optimal vibration control for systems with delayed state under persistent disturbances, Shi-Yuan Han, Yue-Hui Chen, Dong Wang, Jin Zhou, Cheng-Hui Zhang.....	55
Adaptive RFWCMAC Cooperative Formation Control for Multiple Ballbots Incorporated with Coupling Dynamics, Ching-Chih Tsai, Chang Hsuan Chiang, Feng-Chun Tai, Kao-Shing Hwang.....	59
Control of Nonlinear Systems with Full State Constraints Using Integral Barrier Lyapunov Functionals, Jing Li, Yan-Jun Liu.....	66
An Improvement of Recommender System to Find Appropriate Candidate for Recruitment with Collaborative Filtering, Chanawee Chanavaltada, Panpaporn Likitphanitkul, Manop Phankokkruad.....	72

**Session 4: Friday, August 14, 11:00AM-12:30PM, Room: Infrastructure Teaching Building B302, Sichuan University**

**Chair: Zhulin Liu**

An Improved LMMSE Algorithm for SC-FDMA, Yating Luan, Chunrong Kan, Haoyang Du, Qian Zhao.....	78
Prediction of Protein Structure Classes, Dong Wang, Wenzheng Bao, Shiyuan Han, Yuehui Chen, Likai Dong, Jin Zhou.....	84
Instant Flicker Detection and Automatic Resolution for Smart Remote Collaboration Systems, Hyoseok Yoon, Se-Ho Park, Kyung-Taek Lee.....	89
Two-Step Gravitational Search Algorithm, Tsung-Ying Chiang, Ting-Cheng Feng, Tzuu-Hseng S. Li.....	95
A New Fast-F-CONFIS Training of Fully-Connected Neuro-Fuzzy Inference System, Jing Wang, C. L. Philip Chen, Yuan-Yan Tang, Chao-Tian Chen.....	99
Mixed Radix Systems of Fully Connected Neuro-Fuzzy Inference Systems with Special Properties, Jing Wang, C. L. Philip Chen, Chao-Tian Chen, Yong-Quan Yu.....	105

**Session 5: Friday, August 14, 2:00PM-3:30PM, Room: Infrastructure Teaching Building B302, Sichuan University**

**Chair: Change Ren**

Collaborative Filtering Recommendation Combining FCM and Slope One Algorithm, Yan Ying, Yan Cao.....	110
Detecting Image Forgery Using Linear Constraints Based on Shading and Shadows, Huayong Ge, Shujuan Fang.....	116
Detection Method for Cheating Behavior in Examination Room Based on Artificial Bee Colony Algorithm, Yongzheng Lin, Jin Zhou.....	122
Separate Modal Analysis using Scale Invariant Feature Transform (SIFT) with Digital Image Elasto Tomography (DIET) for breast cancer screening test, Mubashir Hussain, Hamood Ur Rehman, Owais Nazir, Amer Kashif, Ali Hassan, Muhammad Awais Dildar.....	126
Time-varying Universe Based Linguistic Dynamic Analysis of Timing Design for Parallel Traffic Light, Hong Mo, Fei-Yue Wang, Fenghua Zhu.....	130