

# **2014 4th International eConference on Computer and Knowledge Engineering**

**(ICCKE 2014)**

**Mashhad, Iran  
29-30 October 2014**



**IEEE Catalog Number: CFP1494T-POD  
ISBN: 978-1-4799-5488-9**

## ICCKE 2014 Table of Contents

Paper Title	Authors	Page
<b>Probabilistic Two-Dimensional Canonical Correlation Analysis for Face Recognition</b>	Homayun Afrabandpey, Mehran Safayani, Abdolreza Mirzaei	1
<b>Multitask Speaker Profiling for Estimating Age, Height, Weight and Smoking Habits from Spontaneous Telephone Speech Signals</b>	Amir Hossein Poorjam, Mohamad Hasan Bahari, Hugo Van hamme	7
<b>A new approach for Feature Extraction with applications to Automatic Writer Recognition</b>	Ali Reza Zarei, Reza Safabakhsh	13
<b>Artificial Neural Network Classifier in Comparison with LDA and LS-SVM Classifiers to Recognize 52 Hand Postures and Movements</b>	Afarin Nazemi, Ali Maleki	18
<b>A Density Based Clustering Approach for Web Robot Detection</b>	Mahdieh Zabihi, Majid Vafaei Jahan, Javad Hamidzadeh	23
<b>RLRAUC: Reinforcement Learning based Ranking Algorithm using User Clicks</b>	Vali Derhami, Javad Paksima, Homa Khajeh	29
<b>Strategic agents for Multi-Resource Negotiation Using Learning Automata and Case-Based Reasoning</b>	Monireh Haghghatjoo, Behrooz Masoumi, Mohamad reza Meybodi	35
<b>Application of Machine Learning for NonHolonomic Mobile Robot Trajectory Controlling</b>	Mohammad Gohari, Mona Tahmasebi, Amin Nozari	42
<b>Your Mouse can Tell about Your Emotions</b>	Pardis Lali, Maryam Naghizadeh, Hossein Nasrollahi, Hadi Moradi, Maryam. S. Mirian,	47
<b>Gammatonegram based Speaker Identification</b>	Aref Farhadi Pour, Mohammad Asgari, Mohammad Reza Hasanabadi	52
<b>A New Algorithm for Solving Data Sparsity problem Based-On Non Negative Matrix Factorization in Recommender Systems</b>	Zeinab SharifiMansoor Rezghi, Mahdi Nasiri	56
<b>Learner knowledge level calculation by concept map and concept weight estimation using neural networks</b>	Ahmad Kardan, Negin Razavi	62
<b>An Entity Based RDF Indexing Schema Using Hadoop And Hbase</b>	Fateme Abiri, Mohsen Kahani, Fatane Zarinkalam	68
<b>A Focused Linked Data Crawler based on HTML Link Analysis</b>	Reihaneh Emamdadi, Mohsen Kahani, Fattane Zarrinkalam	74

<b>Data Accuracy: What does it mean to LOD?</b>	Behshid Behkamal, Mohsen Kahani, Ebrahim Bagheri, Majid Sazvar	80
<b>2-D DOA Estimation in Wireless Location System Via Sparse Representation</b>	Zavareh Bozorgasl, Mohammad J. Deghani	86
<b>Introducing new ICT- based frequency control strategy in microgrids</b>	Iman khoshian, Mostafa rajabi mashhadi, Younes khoshian	90
<b>A Cloud-based Architecture for Secure and Reliable Service Provisioning in Wireless Sensor Network</b>	Fatemeh Banaie, Seyed Amin Hosseini Seno	96
<b>Managing the knowledge lifecycle: A Integrated Knowledge Management Process Model</b>	Rezvan Hosseingholizadeh	102
<b>Decision Making Improvement in Social Marketing Strategy through Dependent Multi-Dimensional Opinion Formation</b>	Sajjad Salehi, Fattaneh Taghiyareh	111
<b>Learner's Knowledge Modeling Using Annotation and Bayesian Network</b>	Ahmad Kardan, Yosra Bahrani	117
<b>A Proposed Architecture For Collaborative Data Visualization Systems</b>	Negar Hedayati, Maryam Khademi	123
<b>Where is the boundary of knowledge sharing? Identifying Knowledge sharing Criteria</b>	Azar kiani nejad, Rezvan Hosseingholizadeh, Azadeh kiani nejad	128
<b>Marker based Human Pose Estimation Using Annealed Particle Swarm Optimization with Search Space Partitioning</b>	Ashraf Sharifi, Ahad Harati, Abedin Vahedian	135
<b>A hybrid feature selection method for high-dimensional data</b>	Nooshin Taheri, Hossein Nezamabadi-pour	141
<b>Graph Pyramid Embedding in Vector Space</b>	Seyedeh Fatemeh Mousavi, Mehran Safayani, Abdolreza Mirzaei	146
<b>Diversity and Separable Metrics in Over-Sampling Technique for Imbalanced Data Classification</b>	Shadi Mahmoudi, Parham Moradi, Fardin Akhlaghian, Rizan Moradi	152
<b>Disease Detection in Medical Prescriptions Using Data Mining Tools</b>	Mahsa Soudi Alamdari, Mehdi Teimouri, Farshad Farzadfar, Amir Hashemi-Meshkini	159
<b>A Novel Framework, Based on Fuzzy Ensemble of Classifiers for Intrusion Detection Systems</b>	Saman Masarat, Hassan Taheri, Saeed Sharifian	165
<b>Ensemble imbalance classification: Using data preprocessing, clustering algorithm and genetic algorithm</b>	Niloofer afshari abolkarlou, Ali Akbar Niknafs, Mohammad Kazem Ebrahimpour	171

<b>Recommender systems on web service selection problems using a new hybrid approach</b>	Sakineh Shahriyary, Mohmmad Pourmahmood Aghabab	177
<b>A New Method for Mining Maximal Frequent Itemsets based on Graph Theory</b>	Farzad Nadi, Atefeh Foroozandeh, Shahram Golzari Hormozi, Mohammad H. Nadimi Shahraki	183
<b>An Ensemble Learning Model for Single-Ended Speech Quality Assessment Using Multiple-Level Signal Decomposition Method</b>	Farhad Rahdari, Reza Mousavi, Mahdi Eftekhari	189
<b>Cipher-text only attack on hopping window time domain scramblers</b>	Hamzeh Ghasemzadeh, Hamed Mehrara, Mehdi Tajik Khas	194
<b>Percolation Approach to Digital Comparative Holography via Optical Flow Investigation</b>	M. Hossein Ahmadzadegan, Tapio Fabritius	200
<b>Content-Based Human Actions Retrieval by a Novel Low Complex Action Representation</b>	Mohsen Ramezani, Farzin Yaghmaee	204
<b>Leveraging Spatial Analysis on Homogonous Regions of Color Images for Skin Classification</b>	Mohammad Reza Mahmoodi, Sayed Masoud Sayedi	209
<b>Facial Emotion Recognition Method Based on Pyramid Histogram of Oriented Gradient over Three Direction of Head</b>	Shirin Shokrani, Payman Moallem, Mehdi Habibi	215
<b>Regularization convex optimization method with I-curve estimation in image restoration</b>	Abdolreza Rashno, Foroogh Sadat Tabataba, Saeed Sadri	221
<b>A New Similarity Measure for Intensity-Based Image Registration</b>	Mohsen Shirpour, Khadijeh Aghajani, M. T. Manzuri-Shalmani	227
<b>Combining Trust in Collaborative Filtering to Mitigate Data Sparsity and Cold-Start Problems</b>	Vahid Faridani, Majid Vafaei Jahan, Mehrdad Jalali	233
<b>Loss-tolerant Confidential Efficient Authenticated Broadcast Scheme</b>	Hassan Nasirae, Jamshid B. Mohasefi	239
<b>A Hardware Implementation of Simon Cryptography Algorithm</b>	Soheil Feizi, Arash Ahmadi, Ali Nemati	245
<b>A Trust Evaluation Model for Selecting Service Provider in Cloud Environment</b>	Nafiseh Agheli, Bahare Hosseini, Aida Shojaee	251
<b>A Low Power VLSI Compatible Approach for Retina Tree Biometric Matching</b>	F. Amini, M. Habibi, P. Moallem	256
<b>Application of game theory techniques for improving trust based recommender systems in social networks</b>	Mohammad Mahdi Azadjalal, Parham Moradi, Alireza Abdollahpouri	261

<b>Network Security Risk Mitigation Using Bayesian Decision Networks</b>	Masoud Khosravi-Farmad, Razieh Rezaee, Ahad Harati, Abbas Ghaemi Bafghi	267
<b>Aleph or Aleph-Maddah, That is the Question! Spelling Correction for Search Engine Autocomplete Service</b>	Fatemeh Kaveh-Yazdy, Ali-Mohammad Zareh-Bidoki	273
<b>A Hybrid Approach for Question Classification in Persian Automatic Question Answering Systems</b>	Ehsan Sherkat, Mojgan Farhoodi	279
<b>POSABL: ABL-Based Grammar Induction on POS Tags</b>	Peyman Passban, Mahmoud Shokrollahi-Far	285
<b>A Cache-based Method for SPARQL Query Processing</b>	Alieh Saeedi, Mahmoud Naghibzadeh	292
<b>Query-Independent Learning to Rank RDF Entity Results of SPARQL Queries</b>	Sara Latifi, Mohammadali Nematbakhsh	297
<b>A Modeling Language to Model Mitigation in Emergency Response Environments</b>	Tahereh Adamzadeh, Bahman Zamani, Afsaneh Fatemi	302
<b>2 Conditional Tag Estimation method for DFSA algorithms in RFID systems</b>	Milad HajMirzaei, Zahra Adelani	308
<b>GPS Clock Based One Way Delay Measurement and Modeling in Web Environment</b>	Abdollah Hasan Nezhad, Yaghoob Azizi	312
<b>A Two-Purpose Peer-to-Peer Structure for Vehicle Navigating and Traffic Information Disseminating in Vehicular Networks</b>	AliAsghar Valibak, Mahmood Fathy, NikMohammad Balouchzahi, Ahmad Akbari	316
<b>Coverage Optimization in Wireless Sensor Networks</b>	Esmaeil Kaffashi, Mehdi Taghizade Shoorabi, Sahar Hemmatian bojnourdi	322
<b>Improving Grouping Genetic Algorithm for Virtual Machine Placement in Cloud Data Centers</b>	Shahram Jamali, Sepideh Malektaji	328
<b>Customer Needs Aware Pricing Strategy for a Cloud Provider</b>	Shakiba Kheradmand, Mohammad Reza Meybodi	334
<b>Price and QoS Competition in Cloud Market by Using Cellular Learning Automata</b>	Shakiba Kheradmand, Mohammad Reza Meybodi	340
<b>Improving the Time of Live Migration Virtual Machine by Optimized Algorithm Scheduler Credit</b>	Adel Amani, Kamran Zamanifar	346
<b>Agent-Based Resource Discovery In Cloud Computing Using Bloom Filters</b>	Rojia Nikbazzm, Mahmood Ahmadi	352

<b>Cost Minimization Scheduling for Deadline Constrained Applications on Vehicular Cloud Infrastructure</b>	Leila Aminizadeh, Saleh Yousefi	358
<b>A New Complete Heuristic Approach for Ant Rendezvous Problem</b>	Mahmoud Famouri, Ali Hamzeh	364
<b>Programming Language Criteria for Model Transformation Evaluation</b>	Leila Samimi-Dehkordi, Alireza Khalilian, Bahman Zamani	370
<b>A New Scalable Parallel Spatial Filter Implementation based on data flow graph</b>	Mostafa Koraei, Ali Teymouri, Seyyed Mehdi Fakhraie	376
<b>Flow-Sensitive Points-to Analysis for Java Programs using BDDs</b>	Hamid A. Toussi, Abbas Rasoolzadegan	380
<b>Using Neural Network to Combat with Spam Pages</b>	Moein Shahbazi, Ali Mohammad Zareh Bidoki, Meysam Shehni Birgan	387
<b>Constrained Two-stage Kalman Filter for Target Tracking</b>	Mohammad-Reza Khabbazi, Reza Mahboobi Esfanjani	393
<b>Saliency based Alphabet and numbers of American sign language recognition using Linear Feature Extraction</b>	Majid Zamani, Hamidreza Rashidy Kanan	398
<b>An effective hybrid model based on PSO-SVM algorithm with a new local search for feature selection</b>	Ehsan Eslami, Mahdi Eftekhari	404
<b>How Computational Neuroscience Could Help Improving Face Recognition Systems?</b>	Saeed Karimimehr, Mohammad Reza Yazdchi	410
<b>Driving Point Impedance Restriction in Synthesis of Linear Antenna Arrays Using Competition Over Resources Optimization Algorithm</b>	Reza Gholami, Bijan Zakeri, Sina Mohseni, Hajar Abedi	414
<b>Modified Krill Herd Optimization Algorithm using Chaotic Parameters</b>	Mahdi Bidar, Edris Fattahi, Hamidreza Rashidy Kanan	420
<b>A Hierarchical Fuzzy Approach for Adaptation of Pre-given Parameters in an Interval Type-2 TSK Fuzzy Neural Structure</b>	Shirin Fartash Toloue, Mohammad-R. Akbarzadeh-T	425
<b>Parameter Tuning of GSA Using DOE</b>	Maryam Amoozegar, Esmat Rashedi	431
<b>A Genetic Fuzzy Linguistic Rule Based Approach for Dynamic Classifier Selection in Distributed Data Enviroments</b>	Farnoosh Fatemipour, Mohammad-R Akbarzadeh-T	437
<b>A Novel Artificial Bee Colony Algorithm for Global Optimization</b>	Donya Yazdani, Mohammad Reza Meybodi	443

<b>Medical Software Runtime checking Using Petri-nets &amp; Software Agents</b>	Negar Majma, Seyed Morteza Babamir	449
<b>MiGSA: A New Simulated Annealing Algorithm with Mixture Distribution as Generating Function</b>	Seyed Hanif Mirhosseini, Hasan Yarmohamadi, Jahanshah Kabudian	455
<b>Introducing a Socio-inspired Swarm Intelligence Algorithm for Numerical Function Optimization</b>	Javad Basiri, Fattaneh Taghiyareh	462
<b>A Modified Differential Evolution Algorithm Based on a New Mutation Strategy and Chaos Local Search for Optimization Problems</b>	Behrouz ahadzadeh, Mohammad Bagher Menhaj	468
<b>A New Model Predictive Current Controller with Common Mode Voltage Alleviation in Three-Phase Inverters</b>	Nima Safari, Arash Khoshooei, Javad Moghani	474
<b>Scheduling Periodic Real-Time Hardware Tasks on Dynamic Partial Reconfigurable Devices Subject to Fault Tolerance</b>	Reza Ramezani, Yasser Sedaghat	479
<b>A Super Scheduler Model for Hierarchical Real-Time Systems with Capability of Urgent Tasks Scheduling</b>	Amin Enayatzare, Yasser Sedaghat	485
<b>Robust Switching Strategy for Buck-Boost Converter</b>	Abdollah Noori, Milad Farsi, Reza Mahboobi Esfanjani	492
<b>Performance and area aware replacement policy for GPU architecture</b>	Fatemeh Kazemi Hassan Abadi, Saeed Safari	497
<b>A New Context-Aware Approach to Traffic Congestion Estimation</b>	Azam Ramazani, Hamed Vahdat-Nejad	504
<b>A Novel Load Scheduling for Session Initiation Protocol Networks</b>	AhamdReza Montazerolghaem, S.-Kazem Shekofteh, Ghazale Khojaste, Mahmoud Naghibzadeh, Mohammad-H. Yaghmaee-M,	509
<b>Improving Saturation Capacity through Verification of Common Control Channel Mechanism in Cognitive Radio Ad-Hoc Networks</b>	Seyed Morteza Mirhoseninejad, Reza Berangi, Mahmood Fathy	515
<b>Implementation of the IEEE 802.11p/1609.4 DSRC/WAVE in NS-2</b>	Nasser Torabi, Behrouz Shahgholi Ghahfarokhi	519
<b>Throughput optimization in OFDMA cognitive radio networks based on node selection and power allocation</b>	P.Shaghaghivand, A.Ebrahimzadeh, M. Najimi, B. Abbasi	525
<b>Spectrum Allocation Using Fuzzy Logic with Optimal Power in Wireless Network</b>	Ali Mohammadi Mohammad Javad Dehghani	532

<b>Using Structural Information for Reduced Reference Image Quality Assessment</b>	Ehsanhosein Kalatehjari, Farzin Yaghmaee	537
<b>Image Contrast Enhancement Using Optimum Sub-Histograms Modification and Preserving Brightness Levels Mean without Losing Image Specification</b>	Mohsen Shakeri, Nasim Mehri, Hassan Khotanlou, Yasin Masoumi	542
<b>Using spatial and spectral information for improving endmember extraction algorithms in hyperspectral remotely sensed images</b>	Fatemeh Kowkabi, Hassan Ghassemian, Ahmad Keshavarz	548
<b>Using DLBP texture descriptors and SVM for Down syndrome recognition</b>	Sayed Mohamad Tabatabaei, Abdollah Chalechale	554
<b>Feature Level Combination for Object Recognition</b>	Mehrdad Ahmadi Soofivand, Abdollah Amirkhani, Mohammad Reza Daliri, Gholamali Rezaeirad	559
<b>Blind Image Quality Assessment of Multi-degraded Images</b>	Ehsanhosein Kalatehjari, Farzin Yaghmaee	564
<b>Multiple Human Tracking Using PHD Filter in Distributed Camera Network</b>	Mohammad Khazaei, Mansour Jamzad	569
<b>Qualitative Reinforcement Learning to Accelerate Finding An Optimal Policy</b>	Fatemeh Telgerdi, Alireza Khalilian, Ali Akbar Pouyan	575
<b>An Efficient Inference in Meanfield Approximation by Adaptive Manifold Filtering (Machine learning &amp; Data Mining)</b>	Sara Ershadi Nasab, Sadegh Ramezanpur, Shohreh Kasaei, Esmail Sanaei	581
<b>Incorporating Fully Sparse Topic Models for Abnormality Detection in Traffic Videos</b>	Razie Kaviani, Parvin Ahmadi, Iman Gholampour	586
<b>Improvement of recommendation systems based on cellular learning automata</b>	Hossein Toozandehjani, Mohammad-Reza Zare-Mirakabad, Vali Derhami	592
<b>Training Neural Networks Using Modified Differential Evolution Algorithm For Classification Problems</b>	Behrouz ahadzadeh, Mohammad Bagher Menhaj	598
<b>Low Complexity Downsizer H.264 Decoder</b>	Mohammad Sadegh Alizadeh, Mohammad Sharifkhani	604
<b>Robust Visual Tracking With Occlusion Detection Using Compressive Sensing</b>	Mehdi Khodadadi, Abolghasem Raie	608
<b>A Two-Stage Shot Boundary Detection Framework in the Presence of Fast Movements: Application to Soccer Videos</b>	Farshad Bayat, Mohammad-Shahram Moin	614
<b>Pre-fetching Strategy to Support VCR Operation in P2P VoD Systems</b>	Zeinab Aliakbari, Mehdi Dehghan Takht Fooladi	619



<b>VISUAL OBJECT TRACKING USING KALMAN FILTER, MEAN SHIFT ALGORITHM AND SPATIOTEMPORAL ORIENTED ENERGY FEATURES</b>	Amir Ghahremani, Amir Mousavinia	625
<b>Human articulated body parts bending motion classification based on Dictionary-Learning Sparse Representation</b>	Lida Asgharian, Hoseein brahimnezhad	630
<b>Linear Surface Interpolation for Salt-and-Pepper Noise Removal</b>	Farzad Pahlavani, Mojtaba Nabaee	636
<b>Progressive SAR Image Compression Using Low Complexity Bandlet Transform and Modified EZBC</b>	Maryam Kuchakzadeh, Habibolah Danyali, Sadegh Samadi	642
<b>An EZBC based approach for polarimetric SAR data compression</b>	Ali Reza Hooshmand Sarvestani, Mohammad Sadegh Helfroush, Kamran Kazemi, Habibollah Danyali	647
<b>Particle Filter Supported with the Neural Network for Aircraft Tracking Based on Kernel and Active Contour</b>	Mohammad Izadkhan, Mojtaba Hosseini, Hossein Fayyazi	653
<b>An Effective Segmentation Method for Dermoscopy Images</b>	Neda Razazzadeh, Mehdi Khalili	659
<b>An Efficient 3D Gradient-Based Algorithm for Medical Image Registration Using Correlation-Coefficient Maximization</b>	S. Etemadi, M. Saadatmand-Tarzjan, M. Shamirzaei, J. Khosravi	663
<b>Classification of liver diseases using ultrasound images based on feature combination</b>	Alaleh Alivar, Habibollah Daniali, Mohammad Sadegh Helfroush	669
<b>Precise Spatial Normalization through Novel Neonatal Brain MRI and CT Atlas Templates</b>	Omid Mehdizadeh Dastjerdi, Hamid Abrishami Moghaddam, Fabrice Wallois, Reinhard Grebe	673
<b>Reversed-Mel Cepstrum Based Audio Steganalysis</b>	Hamzeh Ghasemzadeh, Meisam Khalil Arjmandi	679
<b>Stop Tracking Me: An Anti-detection Type Solution for Anonymous Data</b>	Mehran Alidoost Nia, Amir Hasani Karbasi, Reza Ebrahimi atani	685
<b>An Entropy-based VoIP Flooding Attacks Detection and Prevention System</b>	Reihaneh Haji Mahdizdeh Zargar, Mohammad Hossein Yaghmaee Moghaddam	691
<b>Automatic External Persian Plagiarism Detection Using Vector Space Model</b>	Peyman Mahdavi, Zahra Siadati, Farzin Yaghmaee	697
<b>HPCMalHunter: Behavioral Malware Detection using Hardware Performance Counters and Singular Value Decomposition</b>	Mohammad Bagher Bahador, Mahdi Abadi, Asghar Tajoddin	703
<b>SpatialPDP: A Personalized Differentially Private Mechanism for Range Counting Queries over Spatial Databases</b>	Nadia Niknami, Mahdi Abadi, Fatemeh Deldar	709

<b>A Survey on Security of Hadoop</b>	Masoumeh RezaeiJam, Leili Mohammad Khanli, Mohammad Kazem Akbari, Morteza Sargolzaei Javan	716
<b>Design of Energy-aware QoS Routing Algorithm in Wireless Sensor Networks Using Reinforcement Learning</b>	Sara Zafar Jafarzadeh, Mohammad Hossein Yaghmaee Moghaddam	722
<b>RTLB-DSR: a Load-Balancing DSR Based QoS Routing Protocol in MANETs</b>	Hanif Maleki, Mehdi Kargahi, Sam Jabbehdari	728
<b>A Double Threshold Energy Detection Cooperative Spectrum Sensing Scheme over Nakagami and Rician Fading Channels</b>	Iman Mohammad Sharifi, Shahpour Alirezaee, Ramiyar Heydari, Majid Ahmadi, Shervin Erfani, Mohammad Naserian	736
<b>Modeling of Self-Similar Network Traffic Using Artificial Neural Networks</b>	Mohamad Mehdi Mirzaei, Kiarash Mizanian, Mehdi Rezaeian	741
<b>A TDMA-based Channel Access Scheme for Achieving Fairness in Inter-Vehicle Communications</b>	Nasser Torabi, Behrouz Shahgholi Ghahfarokhi	747
<b>VoIP Performance Comparison In Wireless Networks With Different Encryption Methods</b>	Saeid Ashouri, Hossein Khosraviroshkhari, Seyed Amin Hosseini Seno, Mohammad Hossein Yaghmaee Moghaddam	753
<b>A Rendezvous-Based Data Collection Algorithm with Mobile Sink in Wireless Sensor Networks</b>	Leila Bagheri, Mehdi Dehghan Takht Fooladi	758
<b>A Hybrid Batch Job Scheduling Algorithm For Grid Environment</b>	Shirin Dehghani Zahedani, GholamHossin Dastghaibyfar	763
<b>Hyperspectral Image Classification via Within Class Similarity for Limited Training Samples Problem</b>	Reza Seifi Majdar, Hassan Ghassemian	769
<b>Mutation Score Evaluation in Terms of Object-Oriented Metrics</b>	Mahshid Helali Moghadam, Seyyed Morteza Babamir	775
<b>Energy Balancing in Cooperative Sensor Networks</b>	Shahpour Alirezaee, Majid Ahmadi, Shervin Erfani, Saber Akbari, Arash Ahmadi, Mohammad Naserian	781
<b>An approach for classifying large dataset using ensemble classifiers</b>	Sajad Khodarahmi Jahan Abad, Mohammad-Reza Zare-Mirakabad, Mehdi Rezaeian	785