## International Conference on Artificial Intelligence and Pattern Recognition

(AIPR 2014)

Held at the Third World Congress on Computing and Information Technology (WCIT)

Kuala Lumpur, Malaysia 17-19 November 2014

ISBN: 978-1-5108-0881-2

## Printed from e-media with permission by:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

 $Copyright © (2014) \ by \ Society \ of \ Digital \ Information \ and \ Wireless \ Communication \ (SDIWC)$  All rights reserved.

Printed by Curran Associates, Inc. (2015)

For permission requests, please contact Society of Digital Information and Wireless Communication (SDIWC) at the address below.

Society of Digital Information and Wireless Communication (SDIWC) Unit 1010, 10/F, Miramar Tower 132 Nathan Road, Tsim Sha Tsui Kowloon, Hong Kong

Phone: +(202)-657-4603

sdiwc@sdiwc.net

## Additional copies of this publication are available from:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571 USA

Phone: 845-758-0400 Fax: 845-758-2634

Email: curran@proceedings.com Web: www.proceedings.com

## **AIPR Table of Contents**

ComboSplit: Combining Various Splitting Criteria for Building a Single Decision Tree	1
Text Classification Using Computational Model of the Cerebral Cortex	9
Restricted Boltzmann Machines for Modeling Businesses	24
Variables Selection for Multiclass SVM Using the Multiclass Radius Margin BoundBound	29
On the Enumeration of Frequent Patterns in Sequences	40
Predicting Movie Incomes Using Search Engine Query Data	45
Best-Parameterized Sigmoid ELM for Benign and Malignant Breast Cancer Detection	50
Inference Engine for Classification of Expert Systems Using Keyword Extraction Technique	56
Comparison of Classifiers for Retinal Pathology Images using SURF and Bag-of-Words Model	72
Content Based Video Quality Control for Wide-area Video Surveillance Systems	79
Line Detection by Centre and Width Estimation	87
Interactive versus Passive 2D Face Spoofing Detection	99
Dictionary Learning Using EMD and Hilbert Transform for Sparse Modeling of Environmental Sounds	104
Noisy Text Normalization Using an Enhanced Language Model	111
Local Clustering Organization Based Subtour Extract Approach for Large-Scale TSP	. 123
Resource Acceleration of Autonomous Stochastic Moving Multi-Agents with Boundary Effects Effects	134
Using Latent Semantic Analysis to Identify Quality in Use (QU) Indicators from User Reviews	143
Validation of XML Document Content Using Ontology	. 152
Dynamic Bayesian Networks for Multi-Dialect Arabic Isolated Words	. 159
Policy Gradient Method Using Fuzzy Controller in Policies and Its Application	. 167
Empirically Comparing Three Multi-Objective Optimization Approaches for the Automated Evolution of Snake-Like Modular Robots	. 175
Integrating Evolutionary Robotics with 3D Printing for Rapid Fabrication and Deployment of a	404
Physically-Simulated Autonomous Six Articulated-Wheeled Robot	
Quantum Cryptography Protocols with Tri-partite Entanglement	
Terrorist Group Prediction Using Data Classification	199
An Application Support Vector Machine Model (SVM) Technique for Biochemical Oxygen  Demand (BOD) Prediction	209