Journal of Digital Information Management   Vol. 14   No. 2   April   2016

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• Fifth International Conference on the Future Generation Communication Technologies
(FGCT 2016)

• Sixth International Conference on Innovating Computing Technology
(INTECH 2016)

• SSH 2016: The 4th International Workshop on Service Science for e-Health co-located with 18th
IEEE International Conference on e-Health Networking, Application & Services (HEALTHCOM 2016)

Editorial

We are pleased to release this second issue in the fourteenth volume.

The first paper speaks about concept granule which enables the identification of concept relations in natural language. The construct of such elements can pave the way to build semantic rich systems. Realizing this value the authors *Zhao Jian* and *Leng Kong* in the paper on "**A Novel Algorithm for Classification Rule Discovery based on Concept Granule Structure**" built a GRD algorithm which proved to have higher classification accuracy, simpler rule set, and better generalization than traditional algorithms for classification rule discovery.

Collaborative filtering (CF) as a recommendation technology has been widely deployed and found to have good applications. In the Collaborative filtering a a novel item was established by *Jing YI, Liang ZHANG* and *Phelan*, in their paper on "**A Novel Recommendation Strategy for User-based Collaborative Filtering in Intelligent Marketing**". Results, the authors have found that the novelty of the recommendation system is significantly improved when unknown and dissimilarity are integrated into the recommendation results of the traditional algorithm to recalculate the novelty of the item and set the accuracy threshold.

Many issues exist in the Classification of imbalanced data. In the paper on "**An Improved SMOTE Algorithm Based on Genetic Algorithm for Imbalanced Data Classification**" the authors *GU Qiong, WANG Xian-Ming, WU Zhao, NING Bing* and *XIN Chun-Sheng* have proposed an improved SMOTE algorithm based on genetic algorithm (GA), namely, GASMOTE for the effective classification of different minority classes. The experimental results as indicated by the authors proved that the GASMOTE algorithm have accurately predicted the rock-burst occurrence and thus provided guidance to the design and construction of safe deep-mining engineering structures.

Meng Fei-xiang, Lei Ying-jie, Zhang Bo, Shen Xiao-yong and *Zhao Jing-yu* in the next paper on "**Intuitionistic Fuzzy Petri Nets for Knowledge Representation and Reasoning**" have proposed intuitionistic fuzzy Petri nets (IFPNs) for knowledge representation and reasoning to overcome the single membership degree of FPN.

In the paper on "**Application of the codesof a polynomial residue number system, aimed at reducing the effects of failures in the AES cipher**" the authors *Elena Pavlovna Stepanova, Igor Anatolyevich Kalmykov* and *Ekaterina Viktorovna Toporkova* have increased the reliability of the AES cipher by means of development and application of redundant codes of a polynomial residue number system (PRNS) that are able to correct the errors caused by failures.

Boubaker Kahloula and *Jawad Berri* in the paper on "**Plagiarism Detection in Arabic Documents: Approaches, Architecture and System**" proposed an analysis of approaches, an architecture, and a system for detecting plagiarism in Arabic documents. They proposed a web-based architecture that exhibits the major processing modules of a plagiarism detection system which are articulated into four layers inside a processing component. The architecture has been used to develop a plagiarism detection system for the Arabic language.

In the last paper on "**Study on the Classification of Negative Sentiment Weibo Messages in the Post-disaster Situation**" the authors *BAI, YU* and *XY TIAN* proposed a novel feature selection algorithm called combined frequent pattern (FP)-growth and mutual information theory (CFM) algorithm, to improve the traditional machine learning approaches in this study.

The papers in this issue are marked by innovative approaches and newer methodologies. We do hope that the readers will use them as a tool for further research.

Editors