2013 Ninth International Conference on Semantics, Knowledge and Grids

SKG 2013

Table of Contents

Preface........................................................................................................................................................viii
Organizing Committee................................................................................................................................ix
Program Committee.................................................................................................................................x

Keynotes
A Software Defined Self-Aware Network: The Cognitive Packet Network ...........................................1
   Erol Gelenbe
Recommendation Techniques Based on Off-Line Data Processing
a Multifaceted Survey .................................................................................................................................6
   Yongli Ren, Gang Li, and Wanlei Zhou

Regular Papers
PaaS-Independent Approach to Provision Appropriate Cloud Resources
for SCA-based Applications Deployment ................................................................................................14
   Sami Yangui, Marwa Ben Nasrallah, and Samir Tata
Automated Theorem Finding by Forward Deduction Based on the Semi-lattice
Model of Formal Theory: A Case Study in NBG Set Theory .................................................................22
   Hongbiao Gao, Yuichi Goto, and Jingde Cheng
Semantic Analysis for Keywords Based User Segmentation from Internet Data ...................................30
   Weichang Du and Weihong Song
An Access Control Model for Organisational Management in Enterprise
Architecture ...............................................................................................................................................37
   Khaled Gaaloul and H. A. Proper
Formal Verification of SCA Assembly Model with Event-B ....................................................................44
   Aida Lahouij, Lazhar Hamel, and Mohamed Graielt
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using Association Link Network Model for Organizing Video Resources from Web</td>
<td>52</td>
</tr>
<tr>
<td>Zheng Xu, Xiangfeng Luo, Chen Liang, Fenglin Zhi, and Lin Mei</td>
<td></td>
</tr>
<tr>
<td>Exploring Citation-Based Knowledge Flow in Scientific Research</td>
<td>58</td>
</tr>
<tr>
<td>Junsheng Zhang, Huilin Wang, and Yunchuan Sun</td>
<td></td>
</tr>
<tr>
<td>Semantic-Driven Configuration of Internet of Things Middleware</td>
<td>66</td>
</tr>
<tr>
<td>Charith Perera, Arkady Zaslavsky, Michael Compton, Peter Christen, and Dimitrios Georgakopoulos</td>
<td></td>
</tr>
<tr>
<td>A Resource Evaluation Model Based on Entropy Optimization Toward Green Cloud</td>
<td>74</td>
</tr>
<tr>
<td>Liyun Zuo, Lei Shu, Chunsheng Zhu, and Zhangbing Zhou</td>
<td></td>
</tr>
<tr>
<td>Designing a Hierarchical Graph Kernel for Semantic Link Network</td>
<td>82</td>
</tr>
<tr>
<td>Zhiying Zhang, Li Peng, and Zhixing Huang</td>
<td></td>
</tr>
<tr>
<td>Using Quadtree-Based Semantic Link Network for Image Classification</td>
<td>90</td>
</tr>
<tr>
<td>Li Peng, Lixiang Shi, and Zhixing Huang</td>
<td></td>
</tr>
<tr>
<td>An Efficient Multicore Based Parallel Computing Approach for TSP Problems</td>
<td>98</td>
</tr>
<tr>
<td>Ying Li, Kai Ma, and Jiong Zhang</td>
<td></td>
</tr>
<tr>
<td>An Improved Genetic Algorithm for Cost-Effective Data-Intensive Service Composition</td>
<td>105</td>
</tr>
<tr>
<td>Lijuan Wang, Jun Shen, Junzhou Luo, and Fang Dong</td>
<td></td>
</tr>
<tr>
<td>Threshold and Associative Based Classification for Social Spam Profile Detection on Twitter</td>
<td>113</td>
</tr>
<tr>
<td>Willian Hua and Yanqing Zhang</td>
<td></td>
</tr>
<tr>
<td>Searching in Cloud Object Storage by Using a Metadata Model</td>
<td>121</td>
</tr>
<tr>
<td>Muhammad Imran and Helmut Hlavacs</td>
<td></td>
</tr>
<tr>
<td>Ontology Merging: Compatible and Incompatible Ontology Mappings</td>
<td>129</td>
</tr>
<tr>
<td>Muhammad Aun Abbas and Giuseppe Berio</td>
<td></td>
</tr>
<tr>
<td>A Survey of Semantic Web Services Formalisms</td>
<td>135</td>
</tr>
<tr>
<td>Hai H. Wang, Nick Gibbins, Terry Payne, and Alina Patelli</td>
<td></td>
</tr>
<tr>
<td>Query Expansion Based on the Distance Constraint Activation of Human Memory</td>
<td>143</td>
</tr>
<tr>
<td>Xiaoyu Zhao and Xiangfeng Luo</td>
<td></td>
</tr>
<tr>
<td>Sentimental Space Based Analysis of User Personalized Sentiments</td>
<td>151</td>
</tr>
<tr>
<td>Xinzhi Wang and Xiangfeng Luo</td>
<td></td>
</tr>
<tr>
<td>3-Hop: A Novel Hop-Based Reachability Index</td>
<td>157</td>
</tr>
<tr>
<td>Xiaorui Jiang, Xiaoping Sun, Qiang Zeng, and Hai Zhuge</td>
<td></td>
</tr>
<tr>
<td>Social Sensing Enhanced Time Ruler for Real-Time Bus Service</td>
<td>165</td>
</tr>
<tr>
<td>Jin Liu, Caixin Gong, Juan Li, Jian Li, and Xiaohui Cui</td>
<td></td>
</tr>
</tbody>
</table>
Short Papers

Data Compression Techniques and Algorithms for Effectively and Efficiently Managing Multidimensional Stream Cubes over Grids ................................................................. 173
Alfredo Cuzzocrea

Bridge Rule Based D3 L Reasoning ................................................................. 178
Jianhua Zhang, Wenjie Wang, Zhongzhi Shi, Jinpeng Yue, Baoyuan Qi, and Dongping Tian

A High-Precision Approach of Traffic Anomaly Based on Fractal and Binary Symbolic ........................................................................................................................... 182
Sun Meiyu and Lv Xinjun

An R2RML-based Mapping System from Metal Materials Database to Ontology ................................................................. 186
Chao Dong, Xiaoming Zhang, and Wanzhen Zhou

Research on the Social Acquaintance Network Oriented Group Buying ................................................................. 190
Yiping Wen, Jianxun Liu, and Zhigang Chen

Dynamic Description Logic Based Semantics Web Service Composition ................................................................. 194
Jianhua Zhang, Wenjie Wang, Zhongzhi Shi, Jinpeng Yue, and Bo Zhang

Concept Based Query Expansion ................................................................................................................................. 198
Abdoulahi Boubacar and Zhendong Niu

Rule Based Faceted Navigation on Semantic Link Network ................................................................................................. 202
B. Xu and H. Zhuge

An Incremental Weibo-Oriented Method for Unknown Word and Topic Extraction ................................................................................................................................. 206
Qianren Liu and Lei Wang

Location-Driven Geographical Topic Discovery ................................................................................................................................. 210
Li Zhang, Xiaoping Sun, and Hai Zhuge

Cognitive-Based Multi-document Summarization Approach ................................................................................................................................. 214
Jingqiang Chen and Wei Li

Automatic Maintenance of the Category Hierarchy ................................................................................................................................. 218
Lei He and Xiaoping Sun

Author Index ................................................................................................................................................................................................. 222