Preface to Special Section on Student Research in Informatics and Information Technologies

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We are pleased to present a collection of papers on various topics within the area of Informatics and Information Technologies (IIT). The whole collection has been authored by students. We approached selected authors of papers originally presented at the annual IIT Student Research Conference, IIT.SRC 2012 which was organized by the Slovak University of Technology in Bratislava and attended by its students studying various study programmes at its Faculty of Informatics and Information Technologies.

The Conference has its program committee, reviewers, reviewing process and accepting/rejection procedure. This year, the IIT.SRC Conference attracted 92 research papers from which 79 were accepted (18 bachelor, 41 master, 20 doctoral students as authors) authored by 86 student authors. The number of papers is rather stable comparing to last year conference. This year we note an increase of papers in bachelor category.

A special award committee reevaluated all the papers and selected the best ones in various categories: 5 papers for Dean’s award, 1 paper authored by Bachelor, Master and Doctoral authors each, 5 papers for ACM Slovakia Chapter prize and 5 papers for Czechoslovakia Section of the IEEE Prize. Thus in this second round of selection process, totally 18 papers were selected out of those 79 accepted ones. This selection became the basis for our editorial work on this special section. We re-read carefully each of these awarded papers and were pleased to be able to conclude that indeed, they (more precisely, their authors) could be invited to submit an amended version of their paper to this special section. From the 18 papers we present here 13 revised amended papers.

Five authors politely declined our invitation as they have already submitted or were in the process of submitting their papers elsewhere. There are even cases of other authors who were able to write new papers based on a substantial expansion of their awarded papers and submit them to international conferences or scientific journals. Some of them have got their new paper already accepted for publication at time of publication of this issue.

The papers in this section appear sorted by name of the first author, which is a rather arbitrary criterion. Let us present here the papers according to broad themes. Traditionally, there are numerous papers investigating various aspects of web as a source or repository of information, or a networking space for collaboration. L. Demović et al. present their results in a very interesting project on enhancing web surfing experience in conditions of slow and intermittent internet connection. K. Ráztocný is concerned with a repository for knowledge tags maintenance in heterogeneous web content. I. Valenčík investigated recognition of semantically related articles in wikipedia. R. Móro studied combinations of different raters for text summarization. Keyword extraction is a related topic, and how to do it using implicit feedback was researched by J. Kříž. M. Lipták dealt with trainable duplicate detection for automated public data refining. Groups and games are gaining relevance in web collaboration. P. Dulačka investigated how to use game to enhance quality of music tags. I. Srba studied collaboration support by groups creation in educational domain. Another paper related to methods for educational domain is a new presentation system with interactive educational activities by M. Hlaký and V. Martinek. A particular contribution to the domain of mobile computing can be found in the paper on wi-fi mobility classification on a mobile phone for energy efficient activity tracking by P. Bielik. The interesting concept of visual vocabularies was applied for object recognition and evaluated by M. Kottman. A nice computer engineering work is presented by F. Kudláčák in his variometer with GPS logger.

These 13 papers give a reasonably good overview of scope and quality of the student research at the Slovak University of Technology in Bratislava in the areas of informatics and information technologies. We hope this special section will encourage our students even more to work hard in their research to achieve excellent results. We also hope their results will be interesting to a wider community.