

Editorial

Dear Readers:

Welcome to our special issue of CIT devoted to the ITI (Information Technology Interfaces) 2007 Conference. What follows is a selection of 9 papers (out of 126) originally published in the ITI 2007 Conference Proceedings (IEEE Catalog Number 07EX1589).

As in previous years, we've tried to select papers that, in addition to being highly rated by both international reviewers, reflect the diverse character of the ITI Conference in terms of the scope of subjects covered. A Student Paper Competition for undergraduate and graduate students (with 15 competing papers) was featured again this year as part of the Conference. Two student papers received top awards from the ITI Committee / Conference participants, one of which is included in this group of 9 papers selected for the CIT journal publication.

Out of 13 conference topics, six are represented by at least one paper. These authors/articles were selected so as to give you a feeling for the overall intra- and interdisciplinary communication and ICT interfacing that occurred in Cavtat/Dubrovnik again this past year. Hopefully, this opportunity for technology transfer will encourage you to join us at the upcoming 30th Anniversary June 2008 ITI Conference.

The paper order parallels the Proceedings' topic order starting with two papers presented by our distinguished invited speakers and ending with two papers from the "Networking, Grids, Middleware and Distributed Platforms" topic.

The first paper is from a work by our invited speaker, Anthony C. Atkinson (et al.) on using the forward search in building a regression model. After a brief overview of the forward search methodology, the authors illustrate the proposed technique by applying the forward search to the well known "ozone data set" and by exploring the selected regression model by forward plots of added variable t statistics.

In her invited paper, Marie-Francine Moens points out the importance of automatically analyzing and semantically annotating diverse forms of human expression. The author emphasizes that the challenging tasks for future research are to describe the content with meaningful concepts and to align content across media and languages.

"Knowledge Discovery in Education, Government, Industry and Business" was a primary topic and an opportunity for innovative interfaces among IT-centered researchers, statisticians, data miners, and users this past season. The Special Session was well represented by the work of Vedrana Vidulin, et al. entitled "Training a Genre Classifier for Automatic Classification of Web Pages". An interesting experiment for comparing the performance of two data mining algorithms in classifying web pages by genre is informatively and clearly described.

“Data Mining, Statistics and Biometrics” is represented this year by a paper written by Kay I. Penny and Mohammed Zegham Ashraf. The paper describes a pilot study using hot-deck multiple imputation as a method of comparing performance in one particular course in six colleges using two different modeling scenarios. The results of the study demonstrate that colleges performing well using one modeling approach also perform well in the other.

The next topic “ICT in Education” includes one paper by Kiili Kristian and Harri Ketamo “Exploring the Learning Mechanism in Educational Games”. The authors argue that a problem-based gaming model describes well the gaming process in which the reflection phase seems to be a vital factor and that changes in playing strategies enhance learning.

Two papers are included under the topic “Modeling, Simulation and Optimization”. The first one, by Alfonso Baumgartner et al., proposes a modification to the work function algorithm for solving the on-line k-server problem. The second paper under the same topic, written by Josef Dobeš et al., addresses the problem of using advanced optimization techniques for identifying the model parameters of semiconductor devices. An improved optimization algorithm is presented and its applicability in complicated model scenarios is demonstrated.

This year’s award winning student paper entitled “Visualization Service Based on Web Services”, written by Bojan Blazona and Zeljka Mihajlovic is included under the ITI topic “Networking, Grids, Middleware and Distributed Platforms”. The authors define key aspects of the visualization service which will enable collaborative work over the Internet. For illustration purposes they describe the development of the VMI (Visualization of Medical Data over Internet) System. Another paper selected from the same topic is written by Branimir Radic et al. The authors offer a procedure based on GridFTP which speeds up data transfer of a large number of small or medium sized files. The empirical results of the performance measurements, recorded while using the implemented procedure, are presented.

We hope that you’ll find this selection of articles informative, interesting, and motivating. Again this year, ITI 2007 tried to provide a broad scientific program and to promote stimulating professional interaction and managed to attract participants from 30 different countries. We will continue the Best Student Paper Competition, with stimulating prizes, so as to encourage all young scholars/researchers worldwide, to offer their papers for Competition.

This year’s special topic on Knowledge Discovery in Education, Government, Industry and Business has identified strong interest and enthusiasm for publishing in this area, as is reflected in the selection of articles for inclusion in this edition of CIT. We hope for the same type of response to next year’s special anniversary topic: Computer at the University, which will reflect both the original Conference title and ITI’s continuous focus on ICT in Education.

Finally, if you have ideas on how to improve our selection performance, the CIT article selection process, or quality of the publication in general, contact us at cit@srce.hr.

Thank you again for your subscription, interest, and involvement. Perhaps we’ll see you in Cavtat/Dubrovnik in June 2008 at the **30th Anniversary ITI Conference**.

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