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# Database and Expert Systems Applications

21th International Conference, DEXA 2010  
Bilbao, Spain, August 30 - September 3, 2010  
Proceedings, Part II



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## Preface

We welcome you to the proceedings of the 21<sup>st</sup> International Conference on Database and Expert Systems Applications held in Bilbao. With information and database systems being a central topic of computer science, it was to be expected that the integration of knowledge, information and data is today contributing to the again rapidly increasing attractiveness of this field for researchers and practitioners.

Since its foundation in 1990, DEXA has been an annual international conference, located in Europe, which showcases state-of-the-art research activities in these areas. DEXA 2010 continued this tradition and provided a forum for presenting and discussing research results in the area of database and intelligent systems and advanced research topics, applications and practically relevant issues related to these areas. It offered attendees the opportunity to extensively discuss requirements, problems, and solutions in the field in the pleasant atmosphere of the city of Bilbao, which is known for its driving industriousness, its top cultural venues and its rich and inspiring heritage and lifestyle. The University of Deusto with its great educational and research traditions, and the hospitality which the university and the city are so famous for, set the stage for this year's DEXA conference.

This volume contains the papers selected for presentation at the DEXA conference. DEXA 2010 attracted 197 submissions, and from these the Program Committee, based on the reviews, accepted two categories of papers: 45 regular papers and 36 short papers. Regular papers were given a maximum of 15 pages in the proceedings to report their results. Short papers were given an 8-page limit. Decisions made by members of the Program Committee were not always easy, and due to limited space a number of submissions had to be left out.

We would like to thank all those who contributed to the success of DEXA 2010: the hard work of the authors, the Program Committee, the external reviewers, and all the institutions (University of Deusto and University of Linz/FAW) that actively supported this conference and made it possible. Our special thanks go to Gabriela Wagner, manager of the DEXA organization, for her valuable help and efficiency in the realization of this conference.

We thank the DEXA Association and the University of Deusto for making DEXA 2010 a successful event. Without the continuous efforts of the General Chair, Pablo Garcia Bringas and his team, and the active support of José Luis del Val from Deusto University, this conference would not have been able to take place in the charming city of Bilbao.

June 2009

Abdelkader Hameurlain  
Gerald Quirchmayr

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