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Knowledge Discovery, Knowledge Engineering and Knowledge Management

9th International Joint Conference, IC3K 2017
Funchal, Madeira, Portugal, November 1–3, 2017
Revised Selected Papers

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Preface

The present book includes extended and revised versions of a set of selected papers from the 9th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management (IC3K 2017), held in Funchal, Madeira, Portugal, during November 1–3, 2017.

The purpose of IC3K is to bring together researchers, engineers, and practitioners in the areas of knowledge discovery, knowledge engineering, and knowledge management. IC3K is composed of three co-located conferences, each specialized in one of the aforementioned main knowledge areas: KDIR (International Conference on Knowledge Discovery and Information Retrieval), KEOD (International Conference on Knowledge Engineering and Ontology Development) and KMIS (International Conference on Knowledge Management and Information Sharing). For IC3K 2017, we received 157 paper submissions from 47 countries, of which 12% are included in this book. These papers were selected, after their presentation at the conference, by the Program Chairs. The selection process was based on a number of criteria that included the classifications and comments provided by the Program Committee members, the session chairs' assessment of the presentation and discussion, and finally the program chairs' global view of all papers included in the technical program. The authors of selected papers were then invited to submit a revised and extended version of their papers having at least 30% of innovative material and incorporating the comments received at the conference venue.

The papers selected to be included in this book contribute to the understanding of relevant trends of current research on knowledge discovery, knowledge engineering, and knowledge management. There were ten selected papers from KDIR, six from KEOD, and three from KMIS. The collection of papers from KDIR focused mainly on innovative aspects of research on machine learning, including the papers authored by Andrea Pagliarani et al., Abdullah Alshehri et al., and Sreekanth Madisetty et al.; data and text mining, including the papers authored by Piyush Lakhawat et al., Andrey Timofeyev et al., and Giacomo Domeniconi et al.; and information extraction and data analytics, including the papers authored by Liquan Shao et al., Khaled Nagi, and Stephen Bradshaw et al. From KEOD, we selected papers focusing on ontology engineering, authored by Matthias Frank et al., Adrian Horzyk, and Marzieh Talebpour et al.; decision support systems, including the papers authored by Gianluca Torta et al. and Ahmed Sadik et al., and also one paper focusing on natural language processing and knowledge acquisition, authored by Fumiyo Fukumoto et al. From KMIS, we selected three papers, offering insights on best practices, information sharing, impact measurement of knowledge management, and resilience aspects of information

systems, authored by Nabil Badr, Rauno Pirinen, and Christian Riera et al., respectively. We would like to thank all the authors for their contributions and also the reviewers who helped ensure the quality of this publication.

November 2017

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