

# Preface

The following preface is a collection of the prefaces of the workshop proceedings of the individual workshops. The workshop papers, grouped by event, form the body of the volume.

## **9<sup>th</sup> International Workshop on Business Process Intelligence (BPI 2013)**

**Organizers:** Boudewijn van Dongen, Diogo R. Ferreira, Barbara Weber, Jochen De Weerd

Business process intelligence (BPI) is an area that is gaining increasing interest and importance in industry and research. BPI refers to the application of various measurement and analysis techniques in the area of business process management. In practice, BPI is embodied in tools for managing process execution quality by offering several features such as analysis, prediction, monitoring, control, and optimization.

The goal of this workshop is to promote the development of techniques to understand and improve business processes based on run-time data collected during process execution. We aim to bring together practitioners and researchers from different communities, e.g., business process management, information systems, database systems, business administration, software engineering, artificial intelligence, and data mining, who share an interest in the analysis and optimization of business processes and process-aware information systems. The workshop aims at discussing the current state of ongoing research and sharing practical experiences, exchanging ideas, and setting up future research directions that better respond to real needs. In a nutshell, it serves as a forum for shaping the BPI area.

The ninth edition of this workshop attracted 13 international submissions. Each paper was reviewed by at least three members of the Program Committee. From these submissions, the top six were accepted as full papers for presentation at the workshop. The papers presented at the workshop provide a mix of novel research ideas, evaluations of existing process mining techniques, as well as new tool support. The paper by Buijs, Van Dongen, and Van der Aalst proposes an extension of the flexible ETM algorithm allowing users to investigate the trade-offs between different quality dimensions. The paper by Rogge-Solti, Van der Aalst, and Weske is motivated by the need for process models enriched with performance information and suggests an approach to discover different classes of stochastic Petri nets. Popova and Dumas describe a technique that is able to deal with process models structured in terms of sub-process models overcoming the limitations of existing discovery methods that are mainly designed to discover a single process model. Vanden Broucke, Delvaux,

Freitas, Rogova, Vanthienen, and Baesens suggest a methodology to obtain insights on the role of event log characteristics regarding the performance of different process discovery techniques. Bolt and Sepúlveda, in turn, describe a technique for generating recommendations regarding the remaining execution time. Finally, Leemans, Fahland, and Van der Aalst introduce an extension of the inductive miner algorithm to discover sound process models efficiently considering infrequent behavior.

For the third time, the workshop was accompanied by the BPI challenge, a process mining contest based on a real-world event log. This year, an event log from Volvo IT Belgium was made available and participants were asked to extract as much information as possible from this log. We invited the jury to comment on the submissions and our sponsors – Perceptive Software and Fluxicon – provided prizes for the best submission and for all other participants.

In total, 12 submissions were received, all of which were of very high quality. The jury selected the submission by C.J. Kang, Y.S. Kang, Y.S. Lee, S. Noh, H.C. Kim, W.C. Lim, J. Kim, and R. Hong, from Myongji University, Korea, as the winner of the challenge. The jury praised the analysis and the reasoning style, which were easy to follow: “The authors made a point of clearly defining their interpretations and arguing for their assumptions.”

The winner received a trophy, designed and handcrafted by Felix Guenther, combined with two tickets to the Process Mining Camp 2014 and licenses for Disco (the process mining tool from Fluxicon) and Perceptive Reflect (the process mining toolset from Perceptive). All other participants also received one or more licenses for these tools. Abstracts of all submissions are included in these proceedings.

As with previous editions of the workshop, we hope that the reader will find this selection of papers useful to keep track of the latest advances in the area of business process intelligence, and we look forward to keep bringing new advances in future editions of the BPI workshop.

## Program Committee

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