

# Preface

This volume contains the papers selected for presentation at the 6th International Conference on Pattern Recognition and Machine Intelligence (PReMI 2015), which was held at Warsaw University of Technology, Warsaw, Poland, during June 30 – July 3, 2015.

PReMI is a conference series that started in 2005. Held every two years, PReMI provides an international forum for exchanging scientific, research, and technological achievements in pattern recognition, machine intelligence, and related fields. In particular, major areas selected for PReMI 2015 include pattern recognition, machine intelligence, image processing, retrieval and tracking, data mining techniques for large-scale data, fuzzy computing, rough sets, bioinformatics, and applications of artificial intelligence. In addition, two special sessions were organized; namely, Special Session on Data Mining Techniques for Large-Scale Data and Special Session on Scalability of Rough Set Methods. Four plenary keynote talks and two tutorials were delivered. The PReMI 2015 conference was accompanied by the Industrial Session on Machine Intelligence and Big Data in the Industry.

PReMI 2015 received 90 submissions that were carefully reviewed by three or more Program Committee members or external reviewers. Papers submitted to special sessions were subject to the same reviewing procedure as those submitted to regular sessions. After a rigorous reviewing process, 54 papers were accepted for presentation at the conference and publication in the PReMI 2015 proceedings volume. This volume also contains one invited paper and three extended abstracts by the plenary keynote speakers.

It is truly a pleasure to thank all those people who helped this volume to come into being and to turn PReMI 2015 into a successful and exciting event. In particular, we would like to express our appreciation for the work of the PReMI 2015 Program Committee members and external reviewers who helped assure the high standards of accepted papers. We would like to thank all the authors of PReMI 2015, without whose high-quality contributions it would not have been possible to organize the conference. We are grateful to the organizers of the PReMI 2015 special sessions: Julian Szymański and Marcin Błachnik (Special Session on Data Mining Techniques for Large-Scale Data) as well as Jarosław Stepaniuk (Special Session on Scalability of Rough Set Methods). We would also like to express our appreciation to the Organizing Committee chairs (Robert Bembenik and Łukasz Skonieczny) for their involvement in all the organizational matters related to PReMI 2015 as well as the creation and maintenance of the conference website. We are grateful to Bożenna Skalska and Joanna Konczak for their administrative work.

Special thanks go to Andrzej Skowron who was *spiritus movens* for this conference to take place in Warsaw and become a successful scientific event in Warsaw. Furthermore, we want to thank the Industrial Session chairs (Piotr Gawrysiak and Dominik Ryżko), and we also gratefully acknowledge the generous help of the remaining PReMI

2015 chairs – Piotr Andruszkiewicz, Grzegorz Protaziuk, Santanu Chaudhury, Sergei Kuznetsov, as well as of the Steering Committee members – Malay K. Kundu and Andrzej Skowron. We wish to express our thanks to George Karypis, Sankar K. Pal, Roman Słowiński, and Xin Yao for accepting to be plenary speakers at PReMI 2015. We also thank the PReMI 2015 tutorial speakers – Gerald Schaefer and Santanu Chaudhury.

Our thanks are due to Alfred Hofmann of Springer for his continuous support and to Anna Kramer and Christine Reiss for their work on the proceedings.

We believe that the proceedings of PReMI 2015 will be a valuable source of reference for your ongoing and future research activities.

June – July 2015

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