Preface

This volume contains proceedings of the third conference on Analysis of Images, Social Networks, and Texts (AIST 2014). The first two conferences in 2012 and 2013 attracted a significant number of students, researchers, academics and engineers working on data analysis of images, texts, and social networks.

The broad scope of AIST makes it an event where researchers from different domains, such as image and text processing, exploiting various data analysis techniques, can meet and exchange ideas. We strongly believe that this may lead to cross-fertilisation of ideas between researchers relying on modern data analysis machinery. Therefore, AIST brings together all kinds of applications of data mining and machine learning techniques. The conference allows specialists from different fields to meet each other, present their work, and discuss both theoretical and practical aspects of their data analysis problems. Another important aim of the conference is to stimulate scientists and people from the industry to benefit from the knowledge exchange and identify possible grounds for fruitful collaboration.

Following an already established tradition, the conference was in Yekaterinburg, capital of Urals region in Russia during April 10–12, 2014. The key topics of AIST are analysis of images and videos; natural language processing and computational linguistics; social network analysis; machine learning and data mining; recommender systems and collaborative technologies; semantic web, ontologies and their applications; analysis of socioeconomic data.

The Program Committee and reviewers of the conference featured well-known experts in data mining and machine learning, natural language processing, image processing, and related areas from Russia and all over the world.

We received 74 high-quality submissions mostly from Russia but also from France, Germany, India, Poland, Spain, Ukraine, and USA, among which only 22 papers were accepted as regular oral papers (12 long and 10 short). Thus, the acceptance rate of this volume was around 30 %. In order to encourage young practitioners and researchers we included 3 short industry papers in the main volume and 33 submissions as posters in the supplementary proceedings. Each submission was reviewed by at least three reviewers, who are experts in their field, in order to supply detailed and helpful comments.

The conference also featured several invited talks and tutorials, as well as an industry session dedicated to current trends and challenges.

Invited talks:

- Boris Mirkin (Higher School of Economics, Moscow, Russia), Data Clustering: Some Topics of Current Interest
- Jaume Baixeries (Universitat Politècnica de Catalunya, Barcelona, Spain), Characterization of Database Dependencies with FCA and Pattern Structures

- Dmitriy Kolesov (NextGIS, Moscow, Russia), GIS as an Environment for Integration and Analysis of Spatial Data
- Natalia Konstantinova (University of Wolverhampton, UK), Relation Extraction – Let's Find More Knowledge Automatically

  Tutorials:

- Jaume Baixeries (Universitat Politècnica de Catalunya, Barcelona, Spain), Introduction to Formal Concept Analysis and Attribute Dependencies (in 2 parts)
- Konstantin Voronstov (CCAS of RAS and Yandex, Moscow, Russia), Tutorial on Probabilistic Topic Modeling: Additive Regularization for Stochastic Matrix Factorization
- Natalia Konstantinova (University of Wolverhampton, UK), Introduction to Dialogue Systems, Personal Assistants are Becoming a Reality
- Natalia Konstantinova (University of Wolverhampton, UK), Academic Writing – Getting Published in International Journals and Conferences

  The industry speakers also covered a rich variety of topics:

- Iosif Itkin (Exactpro Systems), Network Models for Exchange Trade Analysis
- Leonid I. Levkovitch-Maslyuk (EMC), Big Data for Business
- Alexander Semenov (http://jarens.ru/), Recent Advances in Social Network Analysis
- Irina Radchenko (http://iRadche.ru), Current Trends in Open Data and Data Journalism
- Oleg Lavrov (KM Alliance Russia), Knowledge Management as a Link between Business & IT
- Yury Kupriyanov (WikiVote!), IT Trends and Challenges in Knowledge Management

We would like to mention the best conference paper selected by the Program Committee. It was written by V.B. Surya Prasath and Radhakrishnan Delhibabu and entitled "Automatic Contrast Parameter Estimation in Anisotropic Diffusion for Image Restoration."

We would like to thank the authors for submitting their papers and to members of the Program Committee for their efforts in providing exhaustive reviews. We would also like to express special gratitude to all the invited speakers and industry representatives. We deeply thank all the partners and sponsors, and owe our gratitude to the Scientific Fund of Higher School of Economics for providing five AIST participants with travel grants. Our special thanks go to Springer editors who helped us, starting from the first conference call to the final version of the proceedings. Last but not least, we are grateful to all organisers, especially to Eugeniya Vlasova and Dmitry Ustalov, whose endless energy saved us in the most critical stages of the conference preparation.

The Russian word "aist" is more than just a simple abbreviation ("аист" in Cyrillic), it means a "stork". Since it is a wonderful free bird, a symbol of happiness and peace, this stork brought us the inspiration to organise the AIST conference. Storks, which can

nest even in the polar areas of Russia, make long trips to South Europe, Middle East, India, and North Africa every year. So we believe that this young and rapidly growing conference will be bringing inspiration to data scientists around the World!

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