

MAMLAKE 2017

Special Session on Modern Applications of Machine Learning for Actionable Knowledge Extraction

at the 9th Asian Conference on Intelligent Information and Database Systems (ACIIDS 2017)

Kanazawa, Japan, April 3-5, 2017

Conference website: <http://www.aciids.pwr.edu.pl/>

Special Session Organizers

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Objectives and topics

Machine learning is a subfield of computer science and has received great attention of researchers over the last few decades. Machine learning techniques have been successfully used in developing autonomous vehicles, understanding human genome, speech recognition, effective web search and financial forecasting. Machine learning and data mining approaches are used to construct predictive pattern-based model as well as help understand hidden trends in the data. These hidden trends can be used to formulate actionable knowledge. Actionability is one of the most important measures of interestingness and analysts thrive to discover knowledge on which they could take action to their advantage. As it was stated in (Silberschatz & Tuzhilin 1996), the difficulty of capturing actionability arises because defining any pattern to be actionable requires specification of actions for that pattern. Hence, extracting actionable knowledge is considered as one of the greatest challenges in modern studies. The MAMLAKE 2017 Special Session at the 9th Asian Conference on Intelligent Information and Database Systems (ACIIDS 2017) is devoted to the modern applications of machine learning techniques (supervised, unsupervised, semi-supervised and reinforcement learning) and how these techniques are helpful in extracting actionable knowledge. The application domain includes: engineering, retail, marketing, telecommunication, banking, bio-informatics, social sciences, security, health care, education, etc.

We want to offer an opportunity for researchers and practitioners to identify and implement machine learning approaches to novel and existing real world problems and report how these approaches are helping create actionable knowledge to assist in solving problems. The scope of the MAMLAKE 2017 includes, but is not limited to the following topics:

- Theoretical framework for actionable knowledge discovery
- Domain driven data mining
- Novel machine learning applications
- Mining actionable patterns from complex datasets
- Relational and graph mining methods
- Medical informatics
- Predictive analytics
- Temporal analysis
- Data warehouse & cube mining
- Frequent pattern analysis
- Classification

- Cluster analysis
- Outlier detection
- Intrusion detection
- Text understanding (web search, anti-spam)
- Building smart robots
- Pattern visualization
- Image processing
- Mining large data streams
- Mining large scale sensor data

Important dates

Submission of papers: **31 October 2016 (Hard deadline!!!)**

Notification of acceptance: **1 December 2016**

Camera-ready papers: **15 December 2016**

Registration & payment: **15 December 2016**

Conference date: **3-5 April 2017**

Program Committee (to be invited)

Ajit Narayanan, AUT University, New Zealand
 Atta Kaban, University of Birmingham, UK
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 Xiaoying Sharon Gao, Victoria University of Wellington, New Zealand
 Philip Bright, Waiariki Bay of Plenty Polytechnic, New Zealand

Submission

All contributions should be original and not published elsewhere or intended to be published during the review period. Authors are invited to submit their papers electronically in pdf format, through EasyChair. All the special sessions are centralized as tracks in the same conference management system as the regular papers. Therefore, to submit a paper please activate the following link and select the track: ***MAMLAKE 2017: Special Session on Modern Applications of Machine Learning for Actionable Knowledge Extraction***

<https://easychair.org/conferences/?conf=aciids2017>

Authors are invited to submit original previously unpublished research papers written in English, of up to 10 pages, strictly following the LNCS/LNAI format guidelines. Authors can download the Latex (recommended) or Word templates available at [Springer's web site](#). Submissions not following the format guidelines will be rejected without review. To ensure high quality, all papers will be thoroughly reviewed by the MAMLAKE 2017 Program Committee. All accepted papers must be presented by one of the authors who must register for the conference and pay the fee. The conference proceedings will be published by Springer in the prestigious series LNCS/LNAI (indexed by ISI CPCI-S, included in ISI Web of Science, EI, ACM Digital Library, DBLP, Google Scholar, Scopus, etc.).