DADE 2017

Special Session on Deployment Areas of Dynamic Environments

at the 2017 IEEE International Conference on INnovations in Intelligent SysTems and Applications (INISTA 2017)

Gdynia, Poland, July 3-5, 2017

Conference website: **http://inista.org/**

Special Session Organizers

Jolanta Mizera-Pietraszko
Opole University, Poland
E-mail: Jolanta.Mizera-Pietraszko@pwr.edu.pl

Grzegorz Kołaczek
Wroclaw University of Science and Technology, Poland
E-mail: Grzegorz.Kolaczek@pwr.edu.pl

Ronald R. Yager
Machine Intelligence Institute, USA,
Iona College, USA
E-mail: yager@panix.com

Objectives and topics

In real world a great majority of processes are time-dependant by nature. Therefore, methodologies of processing data and information in dynamic environments are widely studied. In particular, application areas like for instance in business, medicine, or smart cities are expanding rapidly such that the trend creates the challenge for research community to build new infrastructure aimed at meeting the innovative requirements.

One of the fundamental goals in computational intelligence is to achieve the ability to effective computer-assisted learning from noisy, uncertain and incomplete data in order to adapt to constantly changing environments. Examples of such dynamic environments, which require some well-defined and verified methods and tools, include Internet of Things networks and real-time systems. Substantial changes, concept drift and some newly emerging trends in dynamic environments can have an impact on the increasing number of imprecise predictive methods, the rate of false alarms and consequently it may influence the systems performance and/or security.

The special session aims at presenting novel approaches to learning and adaptation to dynamic environments both from theoretical and practical application-oriented perspective.

This Special Session is intended to provide a forum for researchers in this area to exchange new ideas. So that we encourage the research community to submit their work in progress, concept papers, position papers, case studies, reports, review papers to present innovative ideas that can provoke a discussion and provide a feedback to the session participants, initiate collaborations and stimulate some creative thinking about promising research trends.

List of topics:

- Real-time systems
- Concept drift identification
- Methodologies/algorithms/techniques for learning in dynamic environments
- Dynamic environment optimization algorithms

- Incremental e-learning, lifelong learning, cumulative learning
- Mobile robots in a dynamic environment
- Machine learning under concept drift and class imbalance
- Change-detection and anomaly-detection algorithms
- Dynamic cloud applications in PaaS (Platform as a Service) models
- Decision support systems working in real-time
- Predictive information-mining approaches
- Dynamical nature of Web information search including Deep Web layers
- Machine learning scenarios following parametric dataflow
- Simultaneous machine translation systems
- Streaming media
- Geolocalization systems
- RSS-based positioning
- Real-Time traffic data services including emergency services
- 5G communication in Smart cities
- Remote sensing data processing
- Instant messaging paradigms
- Cognitive-inspired approaches to adaptation and learning
- Internet of Things
- Applications of change/anomaly detection, such as:
    - (a) adaptive/Intelligent systems
    - (b) fraud detection
    - (c) fault detection
    - (d) network-intrusion detection and security
    - (e) intelligent sensor networks
    - (f) statistical analysis of time series
    - (g) security challenges in the area of Internet of Things (IoT)

Important dates

Submission of papers: **1 March 2017**
Notification of acceptance: **15 April 2017**
Camera-ready papers: **30 April 2017**
Registration & payment: **15 May 2017**
Conference date: **3-5 July 2017**

Program Committee

Ronald R. Yager, IONA College, Machine Intelligence Institute, USA
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Adam Wasilewski (Wroclaw University of Science and Technology, Poland)
Peter Brida (University of Zilina, Slovakia)
Michał Kędziora (Wroclaw University of Science and Technology, Poland)

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: *DADE 2017: Special Session on Deployment Areas of Dynamic Environments:* **https://easychair.org/conferences/?conf=inista2017**

Paper format: Papers must be prepared using **IEEE templates for conference proceedings.**

Page limit: The maximum page limit is 6 inclusive of figures and tables. INISTA will offer the option to buy limited number of extra pages for submission.

Language: The official language for the conference is English. Less than satisfactory English usage may form the sole basis for rejection of a paper and omission of any such final paper version from the conference proceedings. Authors whose native language is not English are encouraged to check their papers for proper English spelling and grammar using tools such as English grammar checkers available with most word processing application software. Alternatively, proofreading support from a native English-speaking colleague or technical editor may suffice. Some authors may be interested in the paid service available at the following link: **http://www.prof-editing.com/ieee/** for the final version of the paper