First announcement and Call for Papers

2nd International Conference on Inductive Modelling (ICIM'2008)

September 15-19, 2008, Kyiv, Ukraine

The 2nd International Conference on Inductive Modelling (ICIM'2008) dedicated to the blessed memory of **Academician Alexey Grigorievich Ivakhnenko** will be held in Kyiv on September 15-19, 2008.

This year is very remarkable for all those working in the inductive modelling field in view of the **95**th Anniversary from the Ivakhnenko's birthday and **40th** anniversary from publication of the very first Ivakhnenko's article where the Group Method of Data Handling (**GMDH**) was suggested.

The initial Conference ICIM'2002 took place in Lviv, Ukraine, in May 2002. Following the Conference, two Workshops was held in Kyiv, Ukraine, in July 2005 and in Prague, Czech Republic, on September 23-26, 2007. The series of conferences and workshops is the only international forum that focuses on theory, algorithms, applications, solutions, and new developments of data mining and knowledge extraction technologies which originate from GMDH as a typical inductive modelling method. Built on principles of self-organization, inductive modelling has been developing and using in several key areas and can be found in data mining technologies like Polynomial Neural Networks, Adaptive Learning Networks, or Statistical Learning Networks. More recent developments also utilize Genetic Algorithms or the idea of Active Neurons and multileveled self-organization to build models from data.

The motivation of this 2nd Conference is to analyze the state-of-the-art of modelling methods that inductively generate models from data, to discuss concepts of an automated knowledge discovery workflow, to share new ideas on model validation and visualization, to present novel applications in different areas, and to give inspiration and background on how inductive modelling can contribute to solving the current global challenges.

Topics of interest include but are not limited to:

SECTION 1. THEORETICAL FUNDAMENTALS OF INDUCTIVE MODELING
- **Optimal complexity of inductive models, regularization, selection criteria;**
- **Enhanced and optimized GMDH algorithms;**
- **Analytical and numerical validation of inductively generated models;**
- **Inductive algorithms for classification, clusterization, recognition;**
- **Inductive Modelling as an apparatus of Computational Intelligence;**

SECTION 2. NEW APPROACHES IN INDUCTIVE MODELLING
- **Hybrid GMDH-type algorithms and neural networks;**
- **Optimization and evolution of inductive neural networks;**
- **Fuzzy and interval approaches in inductive modelling**
- **Inductive models ensembles, neural networks ensembles;**
- **High-performance computing, including parallel and distributed computing;**
- **Visual data mining, model visualization;**

SECTION 3. REAL-WORLD APPLICATIONS OF INDUCTIVE MODELLING
- **Data&knowledge mining, relationships detection using inductive modelling;**
- **Knowledge discovery workflow automation, automated data preprocessing;**
- **Applied software tools for construction of inductive models;**
- **Time series analysis and prediction by means of inductive models;**
- **Real-world applications, including solutions in ecology, economy, sociology, medicine, technology, bioinformatics and temporal and/or spatial modelling problems.**

IMPORTANT DATES

July 1, 2008 – deadline for extended abstracts submission.
July 15, 2008 – notification of acceptance.
July 31, 2008 – camera-ready due.

SUBMISSION

Original papers not being submitted to journals or other conferences will be considered. All submitted papers will be reviewed by the program committee according to its originality, significance, correctness, presentation and relevance. We encourage authors to present position papers on practical studies and experiments, critique of existing works, emerging issues, and novel ideas under development.

Papers must be submitted electronically via the ICIM 2008 Submission Page (http://icim2008.org/submit/) in *two steps*: 1) extended abstracts (up to an A4 page) submission, and 2) camera-ready manuscript submission. Manuscripts will be limited to 4 pages including all figures, tables, and references. The format of submitted papers must follow the proceedings guidelines (see http://www.icim2008.org/submission.php).

Accepted papers will be published in the workshop proceedings of the 2nd International Conference on Inductive Modelling (ICIM 2008). At least one of the authors of each accepted paper must register as a participant of the workshop for the paper to be included in the proceedings. Authors of selected papers will be invited to extend their contribution to the book "Inductive Modelling: GMDH-based learning algorithms" intended to be published by Wiley or Elsevier.

WORKSHOP ORGANIZERS

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VENUE

The Workshop will be held at the International Research and Training Center (IRTC), in conference hall and lecture rooms of the IRTC. Organizers invite scientists, engineers, specialists, and experts to take part in the Workshop.

International Research and Training Center for Information Technologies and Systems

Kyiv is one of the most attractive cities of the world

GENERAL INQUIRIES

For updated information, please refer to http://www.icim2008.org, contact the workshop chairperson stepashko@irtc.org.ua, secretary kordikp@fel.cvut.cz or local committee savchenko@irtc.org.ua.