

**National Academy of Sciences of Ukraine
International Research and Training Centre
for Information Technologies and Systems
Czech Technical University in Prague**



PROCEEDINGS
of the 7th International Workshop
on Inductive Modelling
IWIM 2015

Kyiv-Zhukyn
2015

The 7th International Workshop on Inductive Modelling (IWIM'2015) was held in Kyiv-Zhukyn on July 20-24, 2015.

The initial Conference ICIM'2002 took place in Lviv, Ukraine, in 2002. Next Conferences and Workshops was held in Kyiv, Ukraine, in 2005, 2008, 2011, 2013, 2014; in Yevpatoria, Ukraine, 2010; in Prague, Czech Republic, 2007, and in Krynica, Poland, 2009.

The series of conferences and workshops on inductive modelling is the only international forum that focuses on theory, algorithms, applications, and new developments of data mining and knowledge extraction technologies which originate from GMDH as a typical inductive modelling method. Based on principles of self-organization, inductive modelling has been 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 4th 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 global challenges.

WORKSHOP ORGANIZERS

- International Research and Training Centre for Information Technologies and Systems of the National Academy of Sciences and Ministry of Education and Science of Ukraine (IRTC ITS)
- Czech Technical University in Prague, Czech Republic (CTU in Prague)

CHAIRS

Volodymyr Stepashko (*Chairman*)

Professor, Head of Department for
Information Technologies and Systems, IRTC ITS
e-mail: stepashko@irtc.org.ua

Pavel Kordík (*Secretary*)

Assistant Professor, Vice Dean
Faculty of Information Technology, CTU in Prague
e-mail: kordikp@fit.cvut.cz

INTERNATIONAL PROGRAM COMMITTEE

Tetiana Aksenova	Grenoble University, France
Hamparsum Bozdogan	The University of Tennessee, USA
He Changzheng	Sichuan University, Chengdu, China
John Elder	Elder Research, USA
Tadashi Kondo	The University of Tokushima, Japan
Pavel Kordík	Czech Technical University, Czech Republic
Frank Lemke	KnowledgeMiner Software, Berlin, Germany
Panos Liatsis	City University London, UK
Nader Nariman-zadeh	The University of Guilan, Iran
Witold Pedrycz	University of Alberta, Canada
Volodymyr Stepashko	IRTC ITS, Kyiv, Ukraine
Miroslav Šnorek	Czech Technical University, Czech Republic

LOCAL ORGANIZING COMMITTEE

Ievgenia Savchenko (Secretary)

Ludmyla Somina

Serhiy Yefimenko

Halyna Pidnebesna

Andriy Pavlov

International Research and Training Centre
for Information Technologies and Systems
of the NAS and MES of Ukraine