

PREFACE

Verba volant, scripta manent !

The "**International Journal on Information Theory and Applications**" (IJ ITA) has been established in 1993 as independent scientific printed and electronic media. IJ ITA is edited by the *Institute of Information Theories and Applications FOI ITHEA* in collaboration with the leading researchers from the Institute of Cybernetics "V.M.Glushkov", NASU (Ukraine) and Institute of Mathematics and Informatics, BAS (Bulgaria).

During the years, IJ ITA became as well-known international journal. Till now, including this volume, more than 550 papers have been published. IJ ITA authors are widespread in 39 countries all over the world: *Armenia, Belarus, Brazil, Belgium, Bulgaria, Canada, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Japan, Kirghizia, Latvia, Lithuania, Malta, Mexico, Moldavia, Netherlands, Poland, Portugal, Romania, Russia, Scotland, Senegal, Serbia and Montenegro, Spain, Sultanate of Oman, Turkey, UK, Ukraine, and USA.*

Volume 13/2006 of the IJ ITA contains 56 papers written by 98 authors from 13 countries (marked in italics above), selected from several international conferences, seminars and workshops organized or supported by the Journal.

At the first place, the main source for selection were the ITA 2005 Joint International Events on Information Theories and Applications, (June 20-30, 2005, Varna, Bulgaria):

- XI-th International Conference "Knowledge-Dialogue-Solution" (KDS 2005);
- Third International Conference "Information Research, Applications and Education" (i.TECH 2005);
- International Conference "Business Informatics" (Bi 2005);
- IV-th International Workshop on General Information Theory (GIT 2005);
- International INTAS-FET Strategic Workshop "Data Flow Systems: Algorithms and Complexity",
- Third International Workshop on Multimedia Semantics.

Several papers were selected from the pool of papers directly submitted to IJ ITA.

Main characteristic of ITA 2005 International Conferences was that the papers were combined into thematic sessions. Because of this, the selected papers are published in this volume following the thematic sessions' organisation.

Congratulations to Luis Fernando de Mingo López (Spain) and Milena Dobрева (Bulgaria) who were awarded by the International Prize "**ITHEA**" for the year 2005. The "ITHEA" Prize has been established in 1995. It is aimed to mark the achievements in the field of the information theories and applications.

More information about the IJ ITA rules for preparing and submitting the papers as well as how to take out a subscription to the Journal may be obtained from www.foibg.com/ijita.

Krassimir Markov

IJ ITA Founder and Editor in chief



International Prize "ITHEA"

Awarded Scientists till 2005:

1995	Sandansky	K. Bankov, P. Barnev, <u>G. Gargov</u> , V. Gladun, R. Kirkova, S. Lazarov, <u>S. Pironkov</u> , <u>V. Tomov</u>
1996	Sofia	T. Hinova, K. Ivanova, I. Mitov, <u>D. Shishkov</u> , N. Vashchenko
1997	Yalta	Z. Rabinovich, V. Sgurev, A. Timofeev, A. Voloshin
1998	Sofia	V. Jotsov
1999	Sofia	L. Zainutdinova
2000	Varna	I. Arefiev, A. Palagin
2001	St.Peterburg	N. Ivanova, V. Koval
2002	Primorsko	A. Milani, M. Mintchev
2003	Varna	T. Gavrilova, A. Eskenazi, V. Lozovskiy, P. Stanchev
2004	Varna	B. Kokinov, T. Vamos
2005	Varna	L.F. de Mingo López, M. Dobрева

IJ ITA major topics of interest include, but are not limited to:

INFORMATION THEORIES

<i>Artificial Intelligence</i>	<i>Education Informatics</i>
<i>Computer Intellectualisation</i>	<i>General Information Theory</i>
<i>Intelligent Networks and Agents</i>	<i>Hyper Technologies</i>
<i>Intelligent Technologies</i>	<i>Information Models</i>
<i>Knowledge Discovery and Engineering</i>	<i>Intellectualisation of Data Processing</i>
<i>Knowledge Acquisition and Formation</i>	<i>Knowledge-based Society</i>
<i>Distributed Artificial Intelligence</i>	<i>Logical Inference</i>
<i>Models of Plausible Reasoning</i>	<i>Natural language Processing</i>
<i>AI Planning and Scheduling</i>	<i>Neuroinformatics</i>
<i>Bioinformatics</i>	<i>Philosophy and Methodology of Informatics</i>
<i>Business Informatics</i>	<i>Quality of the Programs</i>
<i>Cognitive Science</i>	<i>Software Engineering</i>
<i>Decision Making</i>	<i>Theory of Computation</i>

APPLICATIONS

<i>Business Information Systems</i>	<i>Multimedia Systems</i>
<i>Communication Systems</i>	<i>Programming Technologies</i>
<i>Computer Art and Computer Music</i>	<i>Program Systems with Artificial Intelligence</i>
<i>Hyper Technologies</i>	<i>Pyramidal Information Systems</i>
<i>Intelligent Information Systems</i>	<i>Very Large Information Spaces</i>