

---

## PREFACE

The scope of the International Book Series "Information Science and Computing" (IBS ISC) covers the area of Informatics and Computer Science. It is aimed to support growing collaboration between scientists from all over the world. IBS ISC is official publisher of the works of the members of the ITHEA International Scientific Society.

The official languages of the IBS ISC are English and Russian.

IBS ISC welcomes scientific papers and books connected with any information theory or its application.

IBS ISC rules for preparing the manuscripts are compulsory.

The rules for the papers and books for IBS ISC are given on [www.foibg.com/ibsisc](http://www.foibg.com/ibsisc) .

The camera-ready copies of the papers should be received by ITHEA Submission System <http://ita.ithea.org> .

The camera-ready copies of the books should be received by e-mail: [info@foibg.com](mailto:info@foibg.com) .

Responsibility for papers and books published in IBS ISC belongs to authors.

This issue contains a collection of papers that concern the problems of interrelations between humans and information systems. The mathematical and philosophical aspects are discussed. Central part of the issue is concerned to the problems of moder (-e) learning in informatics.

Papers are peer reviewed and are selected from the several International Conferences, which were part of the Joint International Events of Informatics "ITA 2009" – summer session, Varna, Bulgaria.

ITA 2009 has been organized by

ITHEA International Scientific Society

in collaboration with:

- Institute of Information Theories and Applications FOI ITHEA
- Dorochnyyn Computing Centre of the Russian Academy of Sciences
- International Journal "Information Theories and Applications"
- International Journal "Information Technologies and Knowledge"
- Association of Developers and Users of Intelligent Systems (Ukraine)
- Association for Development of the Information Society (Bulgaria)
- V.M.Glushkov Institute of Cybernetics of National Academy of Sciences of Ukraine
- Institute of Mathematics and Informatics, BAS (Bulgaria)
- Institute of Information Technologies, BAS (Bulgaria)
- Institute of Mathematics of SD RAN (Russia)
- Taras Shevchenko National University of Kiev (Ukraine)
- Universidad Politecnica de Madrid (Spain)
- BenGurion University (Israel)
- Rzeszow University of Technology (Poland)
- University of Calgary (Canada)
- University of Hasselt (Belgium)
- Kharkiv National University of Radio Electronics (Ukraine)
- Astrakhan State Technical University (Russia)
- Varna Free University "Chernorizets Hrabar" (Bulgaria)
- National Laboratory of Computer Virology, BAS (Bulgaria)
- Uzhgorod National University (Ukraine)

The main ITA 2009 events were:

<b>KDS</b>	XVth International Conference "Knowledge - Dialogue – Solution"
<b>i.Tech</b>	Seventh International Conference "Information Research and Applications"
<b>MeL</b>	Fourth International Conference "Modern (e-) Learning"
<b>INFOS</b>	Second International Conference "Intelligent Information and Engineering Systems"
<b>CFDM</b>	International Conference "Classification, Forecasting, Data Mining"
<b>GIT</b>	Seventh International Workshop on General Information Theory
<b>ISSI</b>	Third International Summer School on Informatics

More information about ITA 2009 International Conferences is given at the [www.ithea.org](http://www.ithea.org) .

The great success of ITHEA International Journals, International Book Series and International Conferences belongs to the whole of the ITHEA International Scientific Society.

We express our thanks to all authors, editors and collaborators who had developed and supported the International Book Series "Information Science and Computing".

General Sponsor of IBS ISC is the **Consortium FOI Bulgaria** ([www.foibg.com](http://www.foibg.com)).

*Sofia, June 2009*

*Kr. Markov, V.Velychko, Kr. Ivanova, I. Mitov*