PREFACE

ITHEA International Scientific Society (ITHEA ISS) is aimed to support growing collaboration between scientists from all over the world. The scope of the books of the ITHEAISS covers the area of Informatics and Computer Science. ITHEA ISSwelcomes scientific papers and books connected with any information theory or its application. ITHEA ISSrules for preparing the manuscripts are compulsory.

ITHEA Publishing House is the official publisher of the works of the members of the ITHEA ISS.

Responsibility for papers and books published by ITHEAbelongs to authors.

This book is engraved in prof. Zinoviy Lvovich Rabinovich memory. He was a great Ukrainian scientist, co-founder of ITHEA International Scientific Society (ITHEA ISS). To do homage to the remarkable world-known scientific leader and teacher this book is published in Russian languageand is concerned to some of the main areas of interest of Prof. Rabinovich.

The book is opened by the last paper of Prof. Rabinovich specially written for ITHEA ISS. Further the bookmaintains articles on actual problems of natural and artificial intelligence, information interaction and corresponded intelligent technologies, expert systems, robotics, classification, business intelligence; etc.

In more details, the papers are concerned in:

- conceptual problems of the natural and artificial intelligent systems: structures and functions of the human memory, ontological models of knowledge representation, knowledge extraction from the natural language texts;
- network technologies;
- evolution and perspectives of development of the mechatronics and robotics;
- visual communication by gestures and movements, psihology of vision and information technologies of computer vision, image processing;
- object classification using qualitative characteristics;
- methods for comparing of alternatives and their ranging in the procedures of expert knowledge processing;
- ecology of programming a new trend in the software engineering;
- decision support systems for economics and banking;
- systems for automated support of disaster risk management;

and etc.

It is represented that book articles will be interesting for experts in the field of information technologies as well as for practical users.

The book is recommended for publication by the Scientific Concil of the Institute of Information Theories and Applications FOI ITHEA.

Papers in this book are selected from the ITHEA ISS Joint International Events of Informatics "ITA 2010":

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| CFDM i-i-i | Second International Conference "Classification, Forecasting, Data Mining" International Conference "Information - Interaction – Intellect" |
| i.Tech | Eight International Conference "Information Research and Applications" |
| ISK | V-th International Conference "Informatics in the Scientific Knowledge" |
| MeL | V-th International Conference "Modern (e-) Learning" |
| KDS | XVI-th International Conference "Knowledge - Dialogue – Solution" |
| CML | XII-th International Conference "Cognitive Modeling in Linguistics" |
| INFOS | Thirth International Conference "Intelligent Information and Engineering Systems" |
| NIT | International Conference "Natural Information Technologies" |
| GIT | Eight International Workshop on General Information Theory |
| ISSI | Forth International Summer School on Informatics |
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ITA 2010 took place in Bulgaria, Croatia, Poland, Spain and Ukraine. Ithas been organized by ITHEA International Scientific Society

in collaboration with:

- ITHEA International Journal "Information Theories and Applications"
- ITHEA International Journal "Information Technologies and Knowledge"
- Institute of Information Theories and Applications FOI ITHEA
- V.M.Glushkov Institute of Cybernetics of National Academy of Sciences of Ukraine
- Taras Shevchenko National University of Kiev (Ukraine)
- Association of Developers and Users of Intelligent Systems (Ukraine)
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- Astrakhan State University (Russia)

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