

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 ITHEA ISS covers the area of Informatics and Computer Science.

ITHEA ISS welcomes scientific papers and books connected with any information theory or its application.

ITHEA ISS rules 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 ITHEA belongs to authors.

This book maintains articles on actual problems of research and application of information technologies, especially the new approaches, models, algorithms and methods of:

- membrane computing and transition P systems;
- decision support systems;
- discrete mathematics;
- problems of the interdisciplinary knowledge domain including informatics, computer science, control theory, and IT applications;
- information security;
- disaster risk assessment, based on heterogeneous information (from satellites and in-situ data, and modelling data);
- timely and reliable detection, estimation, and forecast of risk factors and, on this basis, on timely elimination of the causes of abnormal situations before failures and other undesirable consequences occur;
- models of mind, cognizers;
- computer virtual reality;
- virtual laboratories for computer-aided design;
- open social info-educational platforms;
- multimedia digital libraries and digital collections representing the European cultural and historical heritage;
- recognition of the similarities in architectures and power profiles of different types of arrays, adaptation of methods developed for one on others and component sharing when several arrays are embedded in the same system and mutually operated.

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 Council 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":

CFDM	Second International Conference "Classification, Forecasting, Data Mining"
i-i-i	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

ITA 2010 took place in Bulgaria, Croatia, Poland, Spain and Ukraine. It has 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
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