



POLISH ACADEMY OF SCIENCES

Systems Research Institute

**DEVELOPMENT OF METHODS
AND TECHNOLOGIES
OF INFORMATICS
FOR PROCESS MODELING
AND MANAGEMENT**

Editors:

**Jan Studzinski
Olgierd Hryniewicz**



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This book consists of papers describing applications of informatics in process modeling and management and in environmental engineering. Problems presented in the papers concern development of methods supporting process management, development of calculation methods for process modeling and development of technologies of informatics for solving some problems of environmental engineering. In several papers results of the research projects supported by the Polish Ministry of Science and Higher Education are presented.

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PREFACE

This book is published by the Systems Research Institute of the Polish Academy of Sciences as the continuation of the series of publications that begun in 2005 with the publication entitled '*Applications of Informatics in Environment Engineering and Medicine*'. The purpose of this series is to monitor, inspire and popularize the developments of information sciences and informatics in the areas of environmental engineering, environment protection, and process and knowledge management.

The books published in this series contain the papers carefully and thematically selected from the works presented at the scientific conferences '*Multiaccess Computer Systems*', organized every autumn in Ciechocinek, Poland, by the Systems Research Institute and the Bydgoszcz University of Technology and Agriculture.

During these conferences separate sessions with presentations in English are organized since 2005, and during these sessions, renown foreign lectures are invited to present their papers from such important, modern and recently rapidly developing research area as the applications of informatics in environmental engineering, management and process modelling.

A very important aim of these international sessions, and the debates that follow them, is the creation of a common forum for establishing and tightening multilateral contacts between Polish and foreign scientists.

In our opinion such the possibility of personal contacts is especially important at the present time when Poland has become an active participant of the European market of research and economy after joining the European Union in 2004.

The present book consists of eleven papers written by eleven authors working for seven research organizations from Poland, the USA, and Germany. The papers are grouped in three chapters devoted to process management and development of management tools (Chapter 1 with five papers), development of methods of mathematical modeling (Chapter 2 with two papers) and development of informatics technologies for solving various problems of environmental engineering (Chapter 3 with 4 papers).

We would like to stress that five from these eleven papers present the results of research projects financed by the Polish Ministry of Science and Higher

Education. This is a good indicator of the governmental support for the research concerning the development of information sciences in the environmental protection, and also serves as the good determinant of research activities of Polish research institutions working in this area.

We hope that our idea of the organization of special international sessions during annual conferences in Ciechocinek, and the subsequent publication of collections of papers in the form of peer-reviewed books will result in the near future with bilateral research works with our foreign session partners and also with doing together international research projects.

Jan Studzinski
Olgierd Hryniewicz

Warsaw, August 2006

Jan Studzinski, Olgierd Hryniewicz (Editors)

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