

Information processing is rapidly converting into the main kind of human activity in all its areas: industry, science, medicine, education, among others. It is probably the most rapidly growing, most dynamic and influencing area of research and development nowadays.

Artificial Intelligence is a major part of information processing research. Historically this name referred to computational modeling of basic human intellectual activity such as to think, to learn, to see, and to speak. Later it was expanded to other tasks inspired by nature and evolution. Nowadays a wide variety of tasks that involve "intelligent" coping with uncertainty are embraced by Artificial Intelligence.

Computer Science, in the narrow sense, are all other areas of computing that involve more precise data processing with a lesser degree of uncertainty. A major part of Computer Science is the issues of "internal" organization of the computer: organizing data processing inside the computer, methodologies for development of computer programs, etc. Both Artificial Intelligence and Computer Science include applications of their methods to real-life problems, such as education or medicine.

This volume contains 37 carefully selected papers by 101 authors from 13 countries: Algeria, Brazil, China, Cuba, Finland, Germany, Ireland, Italy, Japan, Mexico, Spain, and USA. These papers present the most recent developments in a range of areas related to information processing and computing. The papers are arranged in two large thematic groups:

Artificial Intelligence, including such topics as Neural Networks and Genetic Algorithms, Intelligent Agents, Logical Reasoning, Computer Vision and Pattern Recognition, Natural Language Processing, and Classification; and

Computer Science, including such topics as Database Technologies, Software Engineering, Security, Geoprocessing, Bioinformatics, Distance Education, Automatic Control, and Digital Signal Processing.

ISSN: 1665-9899

