Preface

Artificial Intelligence has failed to accomplish at least two highly significant predictions as we enter the new millennium. The English mathematician Alan Mathison Turing predicted that by the year 2000 we would have a machine that could pass the Turing test. The film "2001: A Space Odyssey", portrayed an intelligent computer named HAL which, among other things, was able to speak and understand English, and even read the lips of humans having a conversation. Such a machine would be created, according to Arthur C. Clarke, by the year 1997. We have reached the year 2002 and neither of these two predictions have been fulfilled. However, there have been many significant achievements in artificial intelligence and several new challenges are now on the horizon.

Two years ago, we held the first Mexican International Conference on Artificial Intelligence, MICAI 2000, which took place on April 11–14, 2000, in the city of Acapulco, México. After a first highly successful conference, we are pleased to introduce the second Mexican International Conference on Artificial Intelligence, MICAI 2002, which took place on April 22–26 in Mérida, Yucatán, México. The main aim of the conference was to promote research in AI, and cooperation among Mexican researchers and their peers worldwide.

As a historical note, it is worth mentioning that MICAI originated from the union of the Mexican National AI Conference (RNIA) and the International AI Symposium (ISA), organized annually by the Mexican Society for AI (SMIA, since 1984) and by the Monterrey Institute of Technology (ITESM, since 1988), respectively.

Over 85 papers (in English) from 17 different countries were submitted for consideration to MICAI 2002. After a thorough review process, MICAI's program committee and the program chairs accepted 56 high-quality papers which are included in these proceedings.

We would like to acknowledge the support of the American Association for Artificial Intelligence (AAAI), and the International Joint Conference on Artificial Intelligence (IJCAI). We are especially grateful for the warm hospitality and generosity offered by the Universidad Autónoma de Yucatán (UADY) and the Universidad Mesoamericana de San Agustín (UMSA).

A special word of thanks goes to the members of the advisory board, the members of the program committee, our sponsors, and our support staff.

Last but not least, we warmly thank all of the attendants to the conference for their participation.

April 2002

Carlos A. Coello Coello
Alvaro de Albornoz
Luis Enrique Sucar Succar
Osvaldo Cairo

Organization

MICAI 2002 was organized by the Mexican Society for Artificial Intelligence and the Universidad Autónoma de Yucatán (UADY), and the Universidad Mesoamericana de San Agustín (UMSA).

Conference Committee

Conference Chair:	L. Enrique Sucar (ITESM-Cuernavaca, Mexico)
	Osvaldo Cairo (ITAM, Mexico)
Program Chair:	Carlos A. Coello (CINVESTAV-IPN, Mexico)
	Alvaro de Albornoz (ITESM-CCM, Mexico)
Tutorials:	Gustavo Arroyo Figueroa (IIE, Mexico)
Workshops:	Humberto Sossa Azuela (CIC-IPN, Mexico)
Local Arrangements:	Francisco Madera (UADY, Mexico)
	Fernando Curi Quintal (UADY, Mexico)
	Pilar García Santos (UMSA, Mexico)

Advisory Committee

Felipe Bracho	Robert de Hoog	Pablo Noriega
Alan Bundy	Felipe Lara	Judea Pearl
Ofelia Cervantes	Christian Lemaître	Antonio Sánchez
Anthony Cohn	Jay Liebowitz	Xindong Wu
Francisco Garijo	Cristina Loyo	Wolfgang Wahlster
Randy Goebel	Donald Michie	Carlos Zozaya
Adolfo Guzmán	José Negrete	

Program Committee

David W. Aha	Carlos Brizuela	André de Carvalho
Juan M. Ahuactzin	Paul Brna	Argelio de la Cruz Rivera
Enrique Alba	Bill P. Buckles	Antonio D'Angelo
Matías Alvarado	Osvaldo Cairó	Thomas G. Dietterich
Alvaro de Albornoz	Francisco Cantú	Francisco J. Diez
James Allen	François E. Cellier	Jürgen Dix
Ronald Arkin	Jesús Cardeñosa	Bruce Draper
Gustavo Arroyo	Gabriela Cembrano	Wlodizislaw Duch
Gerardo Ayala	Carolina Chang	Vladimir Estivill Castro
Antonio Bahamonde	Carlos A. Coello Coello	Jesús Favela
Ricardo Beausoleil	Ulises Cortés	Joaquín Fdez-Valdivia
Ivan Bratko	Carlos Cotta-Porras	Robert Fisher

Juan J. Flores
Olac Fuentes
Pedro L. Galindo Riaño
José Antonio Gámez
Michael Gelfond
Alexander Gelbukh
Eduardo Gómez Ramírez
José Luis Gordillo
Silvia Guardati
Adolfo Guzmán Arenas
Arturo Hernández
Rafael M. Huber
Fernando Jiménez
Leo Joskowicz
Natalia Juristo
Henry Kautz
Nicolás Kemper Valverde
Ingrid Kirchsning
Mario Köppen
Angel Kuri Morales
Gerhard Lakemeyer
Pedro Larrañaga Mugica
Jean-Paul Laumond
Christian Lemaître
Bing Liu
R. López de Mántaras
Jacek Malec
Ana Ma. Martínez

Horacio Martínez
René V. Mayorga
Julian F. Miller
Maria Carolina Monard
Raúl Monroy
Guillermo Morales
Eduardo Morales
Francisco Mugica
Rafael Murrieta
Alexander Nari'yani
Juan A. Nolazco Flores
Gustavo Núñez Esquer
Konstantine M. Nyunkin
Gabriela Ochoa
Alberto Ochoa
Felipe Padilla Díaz
Andrés Pérez-Uribe
David Poole
Alessandro Provetti
María Cristina Riff
Carlos Ramírez
Patricia Rayón Villela
Jordi Riera Colomer
Katya Rodríguez
Raúl Rojas
Carlos Mariano Romero
Luis Alberto Pineda
Roger Z. Ríos

H. Rodríguez Hontoria
C. Rodríguez Lucatero
Alberto Sanfeliú Cortés
Eugene Santos Jr.
Leonid Sheremetov
Carles Sierra
Wolfgang Slany
Humberto Sossa
Rogelio Soto
Libor Spacek
Thomas Stützle
Enrique Sucar Succar
Ricardo Swain Oropeza
Demetri Terzopoulos
Miguel Tomasena
Carme Torras I Genis
Juan M. Torres Moreno
Edgar Vallejo Clemente
Johan van Horebeek
Maarten van Someren
Rineke Verbrugge
Felisa Verdejo
Toby Walsh
Alfredo Weitzenfeld
Franz Wotawa
Fritz Wysotzki
Shlomo Zilberstein
Carlos Zozaya

Collocated Conferences

TAINA – Workshops on AI

Sponsoring Institutions

The American Association for Artificial Intelligence
International Joint Conference on Artificial Intelligence
The Mexican Society for Computer Science

Supporting Institutions

CINVESTAV-IPN, UADY, UMSA, ITESM, ITAM, CIC-IPN, IIE, Universidad
del Mayab, Estratel, FT Software.