Foreword

Dear colleagues, students, conference participants and guests:

It is a great pleasure, an honor, and a privilege to welcome you to the 2004 IEEE International Conference on Robotics and Automation that is being held at the Hilton New Orleans Riverside Hotel in New Orleans, LA, a metropolitan and cosmopolitan city with an international flavor, the birthplace of jazz music and the city with the worldwide known “French Quarter”.

Over the last few years, robotics and automation technology has been widely used for waste management, hazardous area activities, industrial applications in the oil and gas industry, marine cable route surveys, near shore nautical charting and military surveys, pipeline inspection, and monitoring of sensitive coastal environments. In an attempt to address and explore innovative advances in the field, the primary theme for this year’s Conference is “Environmental Robotics: Technical Innovations and Cutting Edge Technologies in Robotics and Automation for Environment Clean up and Ecosystem Management”.

The conference theme is in line with major coordinated efforts made by the US Government, the European Union, Japan and other countries towards a cleaner and healthier environment. It offers our Society and our professional community a chance to “register” robotics and automation technologies as one of the key contributors to this global effort.

This year’s ICRA marks another record number of submissions: we received 1,457 papers (including invited, special sessions and contributed papers) from 40 countries worldwide. The committee accepted 858 papers (59%), resulting in 172 technical sessions over the three-day conference period (April 28-30, 2004). A total of sixteen Workshops and Tutorials (full day and half-day) on Monday and Tuesday, April 26 and 27, complement the technical program. There are also three distinguished scholars, offering plenary and keynote talks: Dr. Ken Sakamura talks about “T-Engine: The Open Development Platform for Ubiquitous Computing”; Dr. Bill Hamel talks about “The Harsh Realities of Robotic Waste Clean Up”; and Dr. J. Norris talks about “Mars Exploration Rover Operations with the Science Activity Planner”.

This year’s ICRA differs from previous ones in one major aspect. We had half the time to complete the paper review cycle due to the extended paper submission deadline (remember ICRA-2003 took place in September, 2003). In order to make the review process as complete and objective as possible, we added one more feature to the review process: the Program Chair and the three Co-Chairs reviewed - independently from the International Program Committee Members - all submitted papers. As all of us must have realized by now, the review process has been thorough, despite initial questions and concerns. The Program Chairs addressed and responded to each request related to reasons why some papers have not been accepted for presentation.

We would like to express our most sincere appreciation and thanks to all Organizing Committee members, the Technical Program Committee members, the IEEE Conference Management Services, the Hilton New Orleans Riverside personnel and in particular Ms. Vita Feuerstein, our students (in particular Matt Long, Aaron Gage, Laura Barnes, Richard Garcia, Lefteris Doitsidis, Michael Kontitisis), Dr. Andrew Nelson, Ms. Valerie Mira, and the reviewers for working extremely hard to make ICRA 2004 successful. It is not an exaggeration to state that several of us spent sleepless nights before, during and after the holiday period.

Last, but by no means least, we are grateful and we offer a very special “thank you” to all authors for submitting their research work, and to the conference participants and exhibitors. It is you who make ICRA a successful event every year.

So, take advantage of this wonderful opportunity to mix business and pleasure – enjoy the Conference, but also explore this beautiful city with so much to offer!

T. J. Tam and Toshio Fukuda
General Chairs

Kimon Valavanis
Program Chair