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## IN MEMORIAM



### **Howard Kaufman (1940–1999)**

Professor Howard Kaufman died suddenly on January 31, 1999 while cross-country skiing. He was 58 years old. Survivors include his wife Eve, two sons David and Jeffrey, and a daughter Deborah.

Professor Kaufman received his B.S., M.S., and Ph.D. in 1962, 1964, and 1965, respectively, all from Rensselaer Polytechnic Institute, Troy, New York. After working in Cornell Aeronautical Laboratory and GE Research and Development Laboratory, he rejoined RPI in 1969, where he was promoted in 1980 to full professor in the Department of Electrical, Computer, and Systems Engineering. In the summer of 1972, he was a NASA Summer Faculty Fellow at NASA–Langley Research Center, and in the summer of 1982, he was an NSF Industrial Research Participant at General Electric Corporate Research and Development. He was on sabbatical leave at Knolls Atomic Power Laboratory when this untimely death occurred.

Professor Kaufman was active in the research of adaptive systems. One of his specialties was the application of adaptive control to drug delivery systems and other biomedical applications. He co-authored the popular text "Direct Adaptive Control Algorithms: Theory and Application." He supervised 23 Ph.D. students and numerous MS students. He had published more than 100 papers in various journals and control conferences. He was also active in conference organizations and a senior member of IEEE.

Professor Kaufman was an avid outdoorsman. He enjoyed hiking, skiing, walking, bicycling, and kayaking. He was also deeply religious. He was one of the founders of Congregation Beth Shalom in Clifton Park, New York, twenty-five years ago. He served as the head of religious education for several years. Professor Kaufman also was key to leading the organizations affiliated with the Northeastern New York federation of Jewish Agencies to develop applications on the worldwide web.

Professor Kaufman had the utmost respect for and interest in his multi-cultural colleagues and students, and enjoyed his many trips overseas. He looked forward to the IEEE Mediterranean Conference on Control and Automation that he was to co-chair in Israel this summer. Going to Israel, as he had frequently done in the past years, was very special to him since it was a merging of his private Jewish and public professional life.

In memory for his dedicated service to RPI, the faculty at RPI has set up a Kaufman fellowship fund, which will be used to support graduate students.

**Joe H. Chow**  
Rensselaer Polytechnic Institute.

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**MED99**

**Welcome**

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## COMMITTEES/ORGANIZATIONS

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### Conference Secretariat

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IEEE Control Systems Society  
Israel Association for Automatic Control (IBA)  
The Institute for Advanced Studies in Mathematics at the Technion  
Technion — Israel Institute of Technology  
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Tel-Aviv University  
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## GREETINGS FROM THE GENERAL CHAIR

On behalf of the MED99 Organizing Committee and the co-sponsors, I welcome you to Haifa, Israel and the MED99 Conference. MED99 is the 7th of a very successful series of conferences, which take place every summer on the shores of the Mediterranean. In view of the unparalleled quality and number of contributions and the large attendance expected, I am convinced that MED99 will be the best MED Conference ever.

MED99 will be taking place in Haifa, one of the marvelous cities in Israel. Perched along the green slopes and peaks of the Carmel Mountains, it affords beautiful vistas of the Haifa Bay spread out below, Acre silhouetted against the curling coastline, long beaches and the expansive sea beyond. Looking inland, the vistas are filled with the wooded Carmel hilltops. Haifa is a city of many facets. A fascinating tourism town, it offers museums, busy port and Druze villages. Haifa has the largest R&D high-tech center in Israel and is also an academic city containing both the Technion- Israel Institute of Technology and the Haifa University.

The organizing committee has worked hard to make the theme:

“MED99 — a conference you will never forget”

a reality. In addition to the excellent technical program assembled, the organizing committee has gone out of its way to provide an exceptional social program at extraordinary locations. MED99 will be highlighted by a gourmet banquet, sumptuous buffet lunches and excellent Tishbi wines. The organizing committee has also planned pre and post-Conference tours to promote your enjoyment of the Conference and enable you to learn more about the wonderful land of Israel.

Organizing the MED99 Conference involved a lot of work by many dedicated volunteers. I would like to thank the members of the organizing committee for their diligent and professional work.

Our work as organizers, though essential, does not make the Conference. It is made by the contributions of the authors, the session organizers and the leading specialists who deliver the plenary talks. I am thankful to all of them. My gratitude also goes to the Foundations, Institutions and Companies that gave their generous financial support to MED99. Their support enabled us to grant twenty-four fellowships to participating authors from Eastern Europe, Asia and other Developing Countries.

Sadly, my co-chair, Howard Kaufman, died suddenly in the midst of the preparations for the conference. It was his initiative to have MED99 take place in Israel. It is really unfortunate that Howard didn't live to see his wish fulfilled.

With the strong technical program and the special social events, I believe that everyone will enjoy this MED Conference. I wish you a successful visit affording you both a professional and a cultural experience that will be long remembered.



**Zalman J. Palmor**  
General Chair – MED99.

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## TECHNICAL PROGRAM OVERVIEW

We have received over 260 manuscripts as a result of our call for papers and for invited sessions. All these manuscripts, including the invited sessions, have been reviewed and the decision for their acceptance was based on reviewers recommendations. The final program includes 202 papers to be presented in 39 sessions, 11 out of which are invited sessions. The papers cover a broad range of control and systems related areas and represent the state of the art in research and practice conducted in these areas.

We wish further to highlight some points in our program. There is a whole day (three sessions) dedicated to process control and we look forward to active participation from our local process industry. At the other end of the spectrum, there are four (invited) sessions dealing with the mathematical aspects of infinite dimensional systems theory. A further review of the program reveals the many other areas, such as, robotics, aerospace control, adaptive systems, manufacturing, and many more, included in the conference. We look forward to an exciting and stimulating experience with many exchanges of results and ideas.

This is a good opportunity to thank the colleagues who organized the invited sessions and to all the reviewers who very diligently read the submitted manuscripts and helped in evaluating them.

The program includes five plenary presentations by leading researchers and specialists in the control area. In these presentations we have tried, and we believe with success, to create a mix of research and practice, traditional control and cutting edge new areas.

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## MESSAGE FROM THE MCA PRESIDENT

The MED99 conference in Haifa, Israel is the 7th Mediterranean Conference on Control and Automation (MCCA). Information about all previous Med conferences is included below. The first Med conference was in Crete, Greece in 1993 and there has been strong interest in the MCCA every year since then. The success of the present conference in Haifa bears witness to this fact. What does the future hold? In 2000 MCCA returns to Greece in Patras. In 2001 it goes to Dubrovnik, Croatia and in 2002 MCCA will be Lisbon, Portugal.

In June 1998 the group of researchers who had been supervising the MCCA decided to form a parent organization named the MEDITERRANEAN CONTROL ASSOCIATION (MCA). MCA's interests are in the broad technical fields of Systems, Control and Automation and its main goals are to promote initiatives aiming at enhancing scientific exchanges, to disseminate information, to coordinate research networks and to facilitate technology transfer primarily within the countries of the Mediterranean region. Its main functions are the coordination and supervision of the Mediterranean Conference on Control and Automation (MCCA) and the dissemination of information primarily via electronic means. We are currently in the process of establishing a Web site for easier dissemination of information with mirror sites in Greece and the US. Keep an eye out for us on the Internet in the near future.

I hope to see you next year in Greece!

**Panos Antsaklis**  
MCA President.

## The MED List

- 1ST IEEE MEDITERRANEAN SYMPOSIUM ON NEW DIRECTIONS IN CONTROL THEORY AND APPLICATIONS  
June 21–23, 1993, Handris Hotel, Maleme, Chania, Crete, Greece  
General and Program Chair: Manolis A. Christodoulou  
Program co-Chair: Petros A. Ioannou
- 2ND IEEE MEDITERRANEAN SYMPOSIUM ON NEW DIRECTIONS IN CONTROL AND AUTOMATION  
June 19–21, 1994, Louis Maleme Beach Hotel, Chania, Crete, Greece  
Honorary Chair: George N. Saridis  
General Chair: Kimon P. Valavanis  
Program Chair: Frank L. Lewis
- 3RD IEEE MEDITERRANEAN SYMPOSIUM ON CONTROL AND AUTOMATION  
July 11–13, 1995, Sheraton Hotel, Limassol, Cyprus  
General Chair: Petros A. Ioannou  
Program Chair: Frank L. Lewis
- 4TH IEEE MEDITERRANEAN SYMPOSIUM ON CONTROL AND AUTOMATION  
June 10–13, 1996, Louis Maleme Beach Hotel, Chania, Crete, Greece  
Honorary Chair: Panos J. Antsaklis  
General Chair: Frank L. Lewis  
General Co-Chairs: Petros P. Groumpos and Paris N. Paraskevopoulos  
Program Co-Chairs: Kostas Kyriakopoulos and Petros G. Voulgaris
- 5TH IEEE MEDITERRANEAN CONFERENCE ON CONTROL AND SYSTEMS  
July 21–23, 1997, Phaethon Beach Hotel & Club, Paphos, Cyprus  
<http://www.ecs.umass.edu/ece/djaferis/5thMED/>  
General and Program Chair: Theodore E. Djaferis  
Finance and Special Events Chair: Petros A. Ioannou
- 6TH IEEE MEDITERRANEAN CONFERENCE ON CONTROL AND AUTOMATION  
June 9–11, 1998, Hotel Carlos V, Alghero, Sardinia, Italy  
<http://www.disp.utovrm.it/~med98/>  
General Chair: Antonio Tornambe  
Program Chair: Giuseppe Conte  
Publications Chair: Anna Maria Perdon

7TH IEEE MEDITERRANEAN CONFERENCE ON CONTROL AND AUTOMATION

June 28–30, 1999, Dan Panorama Hotel, Haifa, Israel

<http://meeng.technion.ac.il/MED99.html>

General Chair: Zalman J. Palmor

Co-Chair: Howard Kaufman

Program Chair: Arie Feuer

Finance Chair: Nahum Shimkin

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