## **WSC9 Chair's Welcome Message**

On behalf of the 9<sup>th</sup> Online Conference on Soft Computing in Industrial Applications (WSC9) organizing committee, we wish to extend a very warm welcome to this exciting meeting. The conference program committee has organized an exciting and invigorating program comprising of presentations from distinguished experts in the field and important and wide-ranging contributions on state-of-the-art research that provide new insights into the 'Current Innovations in Soft Computing Applications'. All registered participants had the opportunity to attend the various sessions (online papers, presentations and demonstrations) from September 20 to October 08, 2004. For online interaction, several discussion boards were also setup and moderated by the respective session chairs.

During the past few years, WSC conference has achieved steady growth as evident from the support received from the academia and industry. From the very beginning of WSC9, we have been receiving so much support from several institutions around the globe. Our special thanks go to New Mexico Technology, USA; Oxford University, UK; Ben-Gurion University, Israel; Beijing City University, China; University of South Australia, Australia and Fraunhofer-IPK Berlin, Germany for providing the resources to maintain the web sites of WSC9. WSC9 was hosted by the World Federation on Soft Computing' and is technically co-sponsored by IEEE Systems Man and Cybernetics Society, North American Fuzzy Information Processing Society, European Society for Fuzzy Logic and Technology, International Fuzzy Systems Association and Elsevier Science, The Netherlands. Technical submissions were invited in, but not limited to, any of the following areas:

- Fuzzy Control
- Neuro-Fuzzy Systems
- Genetic Fuzzy Systems
- Neuro-Fuzzy-Genetic Systems
- Software Agent Systems and Architectures
- Multi-Agent Architectures and Collaborative Learning
- Ant Colony Optimization
- Fuzzy Information Fusion
- Rough Sets
- Bayesian Networks
- Fuzzy Image Processing
- Bio-inspired Systems
- Artificial Neural Networks
- Support Vector Machines
- Evolutionary Algorithms, Simulated Annealing, Tabu Search
- Evolutionary Multiobjective Optimization
- Hybrid Optimization Techniques (integration of global search and local search techniques)
- Simulation Environments
- Data Mining
- Industrial Applications of Soft Computing
- Intelligent Information Retrieval
- Language Processing
- Robotics
- Autonomous Reasoning
- Fault Diagnosis

- Bioinformatics
- Web Intelligence
- Speech Processing
- Business Information Systems
- Knowledge Management

WSC9 received 6 technical session proposals and over 100 technical papers from 27 countries. These papers focused on a variety of soft computing applications spanning from information security, bioinformatics, manufacturing, scheduling, and so on. Each submission was peer reviewed by three or more program committee members. These accepted papers offer stimulating insights into emerging soft computing technologies and their applications. The papers are grouped into several technical sessions each with a specific application focus. Thanks to Katrin Franke (Fraunhofer IPK Berlin, Germany) for all the wonderful coordination work related to the organization of invited special sessions.

We would like to express our sincere thanks to all the authors and members of the program committee that has made this event a success. We are also grateful to Professors Ronald Yager and Witold Pedrycz for their valuable time in preparing the plenary lectures. Finally, we hope that you will find the presentations and discussions to be a valuable resource in your professional, research, and educational activities whether you are a student, academic, researcher, or a practicing professional. Enjoy!

Ajith Abraham WSC9 – General Chair

Mario Köppen WSC9 – Program Chair



# **WSC9 – Organization**

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Antony Satyadas, IBM, USA

Antony Satyadas, IBM, USA Suthikshn Kumar, Larsen & Toubro Infotech, India

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Janos Abonyi, University of Veszprém, Hungary

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