

## Call for Papers ITEE'2003

### General Information

Acquisition, storage and processing of environmental information are becoming vital to preserving the quality of human life. Potentially dangerous changes are happening in the atmosphere, oceans, animal habitats and places where hazardous materials are used, or have been discarded without adequate environmental protections. Terrorist attacks on buildings, water supplies and agricultural production and processing facilities, including the introduction of new, more virulent forms of animal diseases like anthrax, or spreading contamination in the form of nuclear waste could constitute potentially the most damaging environmental threat of our times.

In recent decades public interest in environmental problems has increased enormously, and research into these subjects has been intensifying. At the same time developments in computer and network techniques have led to the creation of sophisticated information systems with increased storage and transmission capacities. Such data can often be accessed by the public using the internet; and the public has become a very concerned participant in discussions about the environment.

In recent years, information technology has become significant to all scientific groups and fields involved in environment engineering. Knowledge based systems which enable the study of environmental changes have been developed, are being extended to manage those environments. New paradigms for designing objects to enable easy disassembly and recovery of components contribute to reuse. Developments in exploiting alternative energy sources are reducing dependence on non-renewable resources. Surveillance techniques enable tracking of persons likely to threaten the lives of persons or their environment.

How can these developments be enhanced?

Further advance is going to be possible only if scientific teams have adequate experience, methods and tools for investigation of the changes in the environment. Success requires a high level of organization both related to technical as well as scientific and human aspects of information handling.

The ITEE 2003 conference will provide a forum for exchanging information among pollution engineers, knowledge engineers and scientists. Some of the objectives include discussion of projects for long term storage of data, data update and validation, and the consistency of data. Research topics and funding opportunities discussed at the conference will be of interest to all researchers. Another objective is to discuss means of assessing the potential of individual teams in implementation and modelling of large scale systems.

### Organizing Committee

Achim Sydow (Honorary General Chair)

Cezary Orłowski Ph.D (General Chair)  
Technical University of Gdansk  
cor@zie.pg.gda.pl  
www.zie.pg.gda.pl/~cor

Edward Szczerbicki (Co-Chair)  
University of Newcastle  
Mechanical Engineering

mees@cc.newcastle.edu.au

Administration and Finance  
NAISO Operating Division The Netherlands

#### Congress Topics

Topics of Information Technologies in Environmental Engineering (ITEE'2003)

1. Tools and measurement techniques
  - Water and air pollution measuring
  - Continuous monitoring of gaseous and particulate pollutants using state-of-the-art monitoring equipment
  - Monitoring of meteorological parameters, dust, wet and dry deposition
2. Formal methods and data processing techniques
  - Pollution engineering and management
  - Air quality management
  - Environmental and water resource engineering
  - Process studies
  - Chemistry of air pollution
  - Urban and suburban transport emissions
  - Data assimilation and sensitivity analysis
  - Data management
  - Data access via the Internet
  - Coupling of models and databases
  - Updating of model calculation during run-time
  - Data visualisation
  - Data interchange formats and standards
  - Geographic information systems
  - Comparison of modelling with experiments
  - Data analysis and observation
  - Data processing and verification, including database management
  - Data security - data mining
  - Management and Distribution of Electrical Energy
  - Power Distribution Systems
3. Modelling and simulation problems
  - Modelling of atmospheric chemical kinetics (gas and aqueous phases)
  - Chemical transformation modelling
  - Aerosol modelling
  - Mesoscale meteorology
  - Urban scale meteorology
  - Emission models
  - Coupling with radiative effects
  - Numerical simulation of transport
  - Numerical simulation of atmospheric chemical kinetics
  - Inverse modelling
  - Ground water pollution modelling
  - Water pollution modelling and prediction
  - Urban pollution modelling
  - Models for ground water (groundwater), surface water, storm water
  - Risk and environmental modelling
  - Soft modelling
4. Information systems
  - System management
  - Agent-based systems

- Planning for environmental engineering (EE)
- Intelligent systems for environmental engineering (EE)
- Artificial intelligence and expert systems for environmental engineering (EE)
- Architectures for building the systems
- Knowledge based integration
- Distributed computing environments
- WWW-based for EE systems
- Decision support systems - distributed systems
- 5. Practical applications and experiences
  - Practical solutions
  - Systematic guide-lines
  - Case studies, pilot projects and experiments
  - Applications in the cities
  - Application in agriculture

International Program Committee

Prof. Janet Aisbett

University of Newcastle, Australia

Prof. Peter G. Anderson

Rochester Institute of Technology, USA

Dr. Andrzej Bargiela

Nottingham Trent University, United Kingdom

Carlos Borrego

University of Aveiro, Portugal

Dr. Nigel Crook

Oxford Brookes University, United Kingdom

Ass. Prof. Contantine P. Yialouris

Agricultural University of Athens (AUA), Greece

Prof. Bogdan Dlugogorski

University of Newcastle, Australia

Dr. Bogdan Gabrys

The University of Paisley, Scotland, United Kingdom

Prof. Raul H. Gallard

Universidad Nacional de San Luis, Argentina

Dr. Adam Grzech

Wroclaw University of Technology, Poland

Dr. Demetrios Kazakos

University of Southwestern Louisiana, USA

Dr. Wassili Kazakos

FZI - Forschungszentrum Informatik, Germany

Dr. Damian Kennedy

Monash University, Australia

Prof. B. Kubiak

University of Gdansk, Poland

Prof. St. Stefano Marsili-Libelli

University of Florence, Italy

Prof. Stanislaw Massel

Institute of Oceanology, Poland

Prof. Mieczyslaw Metzger

Instytut Automatyki, Poland

Prof. Jacek Namiesnik

Technical University of Gdansk, Poland

Assoc. Prof. Guy M. Nicoletti

University of Pittsburgh at Greensburg, USA

Prof. Maria Orłowska

The University of Queensland, Australia

Prof. Jozef M. Pacyna  
Norwegian Institute for Air Research, Norway

Prof.Dr.-Ing. Bernd Page  
University of Hamburg, Germany

Prof. Theodor D. Popescu  
National Institute for Research & Development in Informatics, Romania

Prof. Dr. Claus Rautenstrauch  
University of Magdeburg, Germany

Dr. Hartmut Streuff  
BMU, Bonn, Germany

Dr. Ambalavanar (Rajah) Tharumarajah  
CSIRO Manufacturing Science & Technology, Australia

Andrzej Tubielewicz  
University of Gdansk, Poland

Prof. Dr. sc. Zoran Vukic  
University of Zagreb, Croatia

Prof. hab. Eng. Zofia Wilimowska  
Wroclaw University of Technology, Poland

Prof. Dr. H.-J. Zimmermann  
RWTH Aachen, Germany

Dr. Uwe R. Zimmer  
Australian National University, Australia

#### Scientific Program

ITEE 2003 will include invited plenary talks, contributed sessions, invited sessions, workshops and tutorials. Updated information available on ITEE home page: [www.icsc-naiso.org/conferences/itee2003](http://www.icsc-naiso.org/conferences/itee2003)

#### Special Events

##### Confirmed Plenary Speeches:

Stanislaw R. Massel: 'Measurements, Data Processing and Modelling in the Modern Marine Studies'

Jozef M. Pacyna: 'THE DPSIR Framework as a Scientific Support for Policy Response and Management Options in the Coastal Zone'

##### Confirmed Keynote Speech:

A. Sydow: 'Simulation Software for Air pollution Management'

##### Confirmed Tutorials:

Peter G. Anderson: 'Genetic Algorithms'

Kurt Fedra: 'Urban Environmental Management: towards the City of Tomorrow'

#### Call for Invited Sessions

The organization of invited sessions is encouraged. Prospective organizers are requested to send a session proposal - consisting of 4-5 invited papers - to the general chair and respective area co-chair. Invited sessions should preferably start with the title and the purpose of the session and a tutorial paper. The registration fee of the session organizer will be waived, if at least 4 authors of invited papers register to the conference.

#### Poster Presentations

Poster presentations are encouraged for people who wish to receive peer feedback, and practical examples of applied research are particularly welcome. Poster sessions will allow the presentation and discussion of respective papers, which will also be included in the conference proceedings.

#### Call for Workshops, Tutorials, and other Contributions

Several workshops/tutorials are planned for ITEE 2003. Each workshop/tutorial will focus on a particular topic, and consist of several presentations and open discussions. The proposal for a workshop/tutorial should include the title, topics covered, proposed speakers, targeted audiences, and estimated length (hours) of the workshop/tutorial. The proposal should be submitted to the general chair and respective area co-chair by September 30, 2002

#### Submission of Papers

Submission of papers can be done through our web site. If you submit a paper you will receive a notification e-mail with your paper number. Please use this reference number in the subject line in all correspondence and send us a draft paper by email for review by the International Program Committee. Please do not send us any hard copies.

- Submissions have to be in Adobe Acrobat (.pdf), Postscript (.ps), or MS Word (.doc) format.
- Submissions must be written in English, starting with a succinct statement of the problem, the results achieved, their significance and a comparison with previous work, as well as a list of references.
- Submissions can be draft papers or extended abstracts with a minimum of 4 pages.

#### Important Dates

Submission Deadline	September 30, 2002
Notification of Acceptance	December 31, 2002
Delivery of Manuscripts	February 28, 2003
Early bird-registration	February 28, 2003
Registration	March 31, 2003
Conference	June 24 - 27, 2003

#### Congress Organizer

NAISO The Netherlands (Operating Division)

P.O. Box 1091

3360 BB Sliedrecht

The Netherlands

Phone: +31 184 496999

Fax: +31 184 421065

Email: [itee2003@global-conf.org](mailto:itee2003@global-conf.org) (Operating Division)

[planning@icsc.ab.ca](mailto:planning@icsc.ab.ca) (Planning Division)

[www.icsc-naiso.org/conferences/itee2003](http://www.icsc-naiso.org/conferences/itee2003)