

The organizers would be grateful if intending participations would, without obligations, completed and return this form by fax or surface mail

- I intend to present a paper with the tentative title:

Title: _____ First name: _____ Surname: _____
Organization: _____
Address: _____
Code/city: _____ Country: _____
Phone: _____ Fax: _____
E-mail: _____
Obs: _____

Authors:

The abstract must be sent by January 14, 2005
The registration must preferential be made at the web page:
www.pk.edu.pl/npsc

Venue

The Symposium will take place in Cracow. As the former capital of Poland, Cracow is a centre of arts and sciences. It integrates tradition and modern trends, cultural heritage and international cooperation. Many historical monuments, churches, museum, music and exhibition halls, and places in the surroundings and region make Cracow a well-known world tourism centre.

NNSC-2005 will be held on the campus of the Cracow University of Technology at a walking distance from the Old City centre.

Registration Fees

The registration fees will cover: book of abstracts and proceedings on CD-ROM, participation in all scientific sessions, lunches and coffee breaks, welcome reception and closing banquet. Early registration fees applicable if received before April 20, 2005 are:

	Early registration	Late registration
Delegates	300 €	350 €
Students	150 €	175 €

Social Programme

A social programme for delegates and accompanying persons will be arranged, including a reception, a banquet and a music evening. Accompanying Persons fee:

Registration: early 150 € late 175 €

Accommodation

A list of hotel reservation will be available on the Symposium site at the beginning of January, 2005.

Conference Secretariat

Institute of Computer Methods in Civil Engineering,
Cracow University of Technology,
Warszawska 24, 31-155 Kraków, POLAND
tel: +48 12 6282546, fax: +48 12 6282034
e-mail: npsc@pk.edu.pl
<http://www.pk.edu.pl/npsc>

Supporting Organizations

European Community on Computational Methods in Applied Sciences (ECCOMAS)
European Group for Intelligent Computing in Engineering
Central European Association for Computational Mechanics
Polish Society for Computational Mechanics
Cracow University of Technology

under auspices of the Chairman of Committee of Civil Engineering of the Polish Academy of Sciences



NNSC-2005

International Symposium on Neural Networks and Soft Computing in Structural Engineering

Cracow, Poland, June 30 - July 2, 2005



Objectives

Increasing complexity of structures, prediction of their durability, design of new materials and many other structural problems affect the development of a new computational structures technology (CST). Neural networks, fuzzy logic and genetic algorithms constitute so-called soft computing (SC). It is a specialized computational method of artificial intelligence (AI) that is the most innovative part of CST. The neurocomputing, related to neural networks (NNs) plays a central role in SC.

In recent years NN&SC have been successfully applied to the simulation, identification and assessment analysis of many problems of structural engineering which were difficult or even unable to be analyzed by the conventional (called also hard or purely numerical) computing.

The main goal of NNSC-2005 is to present and discuss current development of NN&SC and their applications to the analysis of different problems in various areas of structural engineering. New formulations and modifications of SC fitting well to the nature of considered engineering problems and separate applications of the SC constituents in direct and inverse analysis will be highly appreciated both in the frame of deterministic and stochastic or fuzzy analysis. This concerns first of all identification of structural and material parameters, data-dependent modelling of physical relations, updating of FE models and search of global optimum using gradientless SC methods in the analysis for large engineering systems. Special attention will be focused on joining different formulations, e.g. SC and hard computing or SC, and other computational methods of AI, to implement new, numerically efficient and robust hybrid systems and methods.

The Seminar will be addressed to young researchers and engineers who are interested in specialized computational methods of AI and their applications in structural mechanics and engineering.

Conference Topics

NN&SC in:
- structural mechanics
- mechanics of materials
- experimental mechanics

Applications of NN&SC in design and analysis of:
- civil engineering structures infrastructures
- mechanical and chemical engineering structures
- structure soil and structure-environment interaction
- earthquake engineering
- biomedical structures
- other fields of structural life engineering

for the analysis of:
simulation
identification
assessment and optimization
reliability and long life prediction

Conference Chairman

Z. Waszczyszyn Cracow University of Technology, Poland

Conference Secretary

M. Słoński Cracow University of Technology, Poland

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An ECCOMAS Thematic Conference

NNSC-2005 is one of the thematic Conferences of the European Community on Computational Methods in Applied Sciences (ECCOMAS). For further information visit:
www.eccomas.org

Call for Papers

The authors willing to participate in NNSC-2005 are invited to submit two page abstracts of their papers by January 14, 2005. The abstracts should be related to the topics of the conference and describe the main features of the research to be presented at the Symposium.

Authors have to register and submit their abstracts

via the **Conference Web Site**. The instructions defining the format of the abstracts and template files in LaTeX and MSWord will be available on the web-page of NNSC-2005:

www.pk.edu.pl/nnsc.

The abstracts will be published in a Book of Abstracts and the full-length papers on CD-ROM.

Important Dates

Submission of a two page abstract	January 14, 2005
Acceptance of the paper and instructions for writing a full paper	February 25, 2005
Early payment	April 29, 2005
Submitting the full paper	May 20, 2005
Final announcement	June 3, 2005
Beginning of the Symposium	June 30, 2005

NNSC-2005

**Cracow University
of Technology
Warszawska 24
31-155 Kraków
POLAND**

NNSC-2005

**Politechnika
Krakowska
ul. Warszawska 24
31-155 Kraków
POLSKA**