Special Session on

New Directions in Rough Sets and Near Sets

-RSNS2011-

Under the framework of the 2nd International Conference on Innovations in Bio-inspired Computing and Applications December 16-18, 2011 Shenzhen, China Conference web page: <u>http://bit.kuas.edu.tw/~ibica11</u>

Workshop Chairs Aboul Ella Hassanien, Neveen Ghali and Omar

James Peters

Cairo University, Faculty of Computers and Information, Cairo, Egypt <u>Aboitcairo@gmail.com,dr.omar.soliman@gmail.com</u> nev_ghali@yahoo.com

Soluiman

Introduction: Rough set theory, proposed by Zdzisław Pawlak in 1981, has been attracting researchers and practitioners in various fields of mathematics, science, engineering and technology. The impact of the theory of rough sets and their applications has grown steadily since its inception and is still growing. The simple yet powerful rough set approach to set approximation has become the basis for original developments in both theoretical research in areas such as logic, algebra and topology, and applied research that includes, artificial intelligence and approximate reasoning, data mining and knowledge discovery, decision theory, image processing and pattern recognition to name a few. This research has led to many real life applications in diversified areas such as biology, bioinformatics, chemistry, economics, computer and electrical engineering, environment, finance, medicine, political analysis, robotics, and even art and culture. Near sets stem from a generalization of traditional rough set theory. Near set theory provides methods that can be used to extract resemblance information from objects contained in disjoint sets, i.e., it provides a formal basis for the observation, comparison, and classification of objects. Near sets offer an ideal framework for solving problems based on human perception that arise in areas such as image processing, computer vision as well as engineering and science problems

Selected RSNS Workshop Topics

- Rough sets in information retrieval
- Rough sets in data mining
- Rough Sets in information security
- Rough hybrid techniques
- Rough sets in pattern recognition
- Rough sets in Bioinformatics
- Near sets in swarm intelligence
- Near sets in image analysis and computer vision
- Near sets in object recognition
- Near sets in perceptual computing
- Near sets in tolerance spaces

Computational Intelligence Laboratory, Department of Electrical and Computer Engineering, University of Manitoba, Winnipeg, MB R3T 5V6, Canada. jfpeters@ee.umanitoba.ca

Instructions for Authors:

Papers are invited from prospective authors with interest on the related areas. Each paper should follow the IEEE paper format (DOC, LaTex Formatting Macros, PDF) with title, authors' names, affiliations and email addresses, an up to 150-words abstract, and a two-column body with 4 single-spaced pages and with font size at 10 pts. All papers must be submitted electronically in PDF format only. Before submitting your papers, please register to get the user ID and password for the paper submission.

Tentative Dates of Submission and Acceptance

The deadline for paper submission	July 14, 2011
The date for notification	August 30, 2011
The deadline for camera-ready paper submission	September 30, 2011