

# ICONIP'02 - SEAL'02 - FSKD'02

*Computational Intelligence for the E-Age*

**9th International Conference on  
Neural Information Processing**

**4th Asia-Pacific Conference on  
Simulated Evolution And Learning**

**2002 International Conference on  
Fuzzy Systems and Knowledge Discovery**

***November 18–22, 2002***

***Orchid Country Club, Singapore***

**<http://www.ntu.edu.sg/home/nef>**

**Submission Deadline: *June 30, 2002*** <sup>NEW</sup>

## **Call For Papers**

*Organized by*

School of Electrical and Electronic Engineering  
Nanyang Technological University

*Sponsored by*

Lee Foundation  
US AOARD, ARO-FE  
Asia-Pacific Neural Network Assembly  
Singapore Neuroscience Association  
SEAL and FSKD Steering Committees

*In Co-Operation with*

IEEE Neural Network Society, SPIE  
International Neural Network Society  
European Neural Network Society

CONVENTION CITY  

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SINGAPORE



## Invitation

You are invited to participate in ICONIP'02, SEAL'02, and FSKD'02, to be jointly held in Orchard Country Club, Singapore from November 18 to 22, 2002. The conferences will not only feature the most up-to-date research results in natural and artificial neural systems, evolutionary computation, fuzzy systems and knowledge discovery, but also promote cross-fertilization over these exciting and yet closely-related areas. Registration to any one of the conferences will entitle a participant to the technical sessions and the proceedings of all three conferences, as well as the conference banquet, buffet lunches, and tours to two of the major attractions in Singapore, i.e., Night Safari and Sentosa Resort Island. Early bird registration fee is S\$670 (approximately US\$370). Many well-known researchers will present keynote speeches, panel discussions, invited lectures, and tutorials.

## Scope

The conference topics include but are not limited to:

ICONIP'02	SEAL'02	FSKD'02
Artificial Neural Models Learning algorithms Modeling & architectures Neurodynamics Natural Neural Systems Neuroscience Neurobiology/neurophysiology Learning and memory Brain imaging Cognitive Science Perception, emotion, & cognition Selective attention Vision and auditory models Hardware Implementation Analog, digital, & hybrid neuro-chips Artificial retina & cochlear	Theory Co-evolution Collective behavior Methodology Evolution strategies Genetic algorithms Genetic programming Molecular and quantum computing Evolvable hardware Multi-objective optimization Ant colony Artificial ecology Evolutionary Learning Artificial life Bayesian evolutionary algorithms	Theory and Foundations Fuzzy theory and models Uncertainty management Statistical & probabilistic data mining Computing with words Rough sets Intelligent agents Methods and Algorithms Classification & clustering Information retrieval & fusion Data warehousing & OLAP Fuzzy hardware Visualization & exploration Decision trees Data preprocessing Inductive logic programming
<b>HYBRID SYSTEMS:</b> Evolutionary neural systems, Fuzzy neural systems, Symbolic-neural hybrid systems, Evolutionary fuzzy systems, Evolutionary neuro-fuzzy systems, etc.		
<b>APPLICATIONS:</b> Bioinformatics, Biomedical engineering, Computer vision, Control, Electronic commerce, Design, Expert System, Finance, Image processing, Internet, Manufacturing, Multimedia processing, Natural language processing, Optimization, Power engineering, Robotics, Speech processing, Signal processing, etc.		

## Paper Submission

Authors are invited to submit abstracts and/or full papers through a web submission system. Full papers should be double-column and use 10 pt Times Roman or similar fonts. The file format of a full paper should be PDF (.pdf), PostScript (.ps), or Microsoft Word (.doc). Abstracts should contain sufficient details on the main contributions of the work. Upon acceptance of an abstract, the author(s) will be invited to submit a full paper to be included in the conference proceedings. All papers will be peer-reviewed. A selected number of accepted papers will be expanded and revised for possible inclusion in edited books and peer-reviewed journals, such as *Soft Computing* and *Knowledge and Information Systems: An International Journal* by Springer-Verlag.



## Orchid Country Club (OCC)

The venue for this year's conferences is at one of Singapore's premier country clubs, a 25-minute bus ride from the city. Away from the hustle and bustle of downtown Singapore, the tranquil setting of the resort is ideal for serious technical discussions with an accommodating space and ambience for relaxation. Not to miss out on the splendor of downtown Singapore, the organizer has also secured good quality and affordable accommodation in the heart of the city with pre-arranged transport to/from the OCC. For golf enthusiasts, OCC is equipped with the largest computerized driving range in South East Asia and boasts of a 27-hole golf course with facilities for night golfing, ideal for relaxation after each day of technical discussions. (Website: <http://www.orchidclub.com>)

## Night Safari and Sentosa Resort Island

It is said that a visit to Singapore is not complete without making a trip to two of the Republic's famous attractions. The only one of its kind in the world, the Night Safari provides a setting for visitors to experience what it is like to observe animals in their nocturnal habitat. The island of Sentosa offers some unique attractions and a visit there will also provide a glimpse and imagery of Singapore's past and present. Visits to these two attractions will be included as recreation for the joint conference. (Websites: <http://www.zoo.com.sg/safari/>, <http://www.sentosa.com.sg>)

## Sponsorship/Exhibition

The conferences will offer product vendors a sponsorship package and/or an opportunity to interact with conference participants. Product demonstration and exhibition can also be arranged. For more information, please visit the conference website or contact Tong Seng Quah, Sponsorship/Exhibition Chair ([etsquah@ntu.edu.sg](mailto:etsquah@ntu.edu.sg)), with a copy to Lipo Wang, General Chair (Cc: [elpwang@ntu.edu.sg](mailto:elpwang@ntu.edu.sg)).

## Keynote Speakers

Shun-ichi Amari, *RIKEN Brain Science Institute, Japan*  
David Fogel, *Natural Selection, Inc., USA*

Mitsuo Kawato, *ATR, Japan*  
Xin Yao, *The University of Birmingham, UK*  
Lotfi A. Zadeh, *University of California, USA*

## Panel Discussions

Organizer	Topic
J.M. Zurada, <i>University of Louisville, USA</i>	Future challenges in soft computing: Theory? Computational paradigms? Applications?
Asim Roy, <i>Arizona State University, USA</i>	"Oh sure, my method is connectionist too. Who said it's not?"

## Tutorial Speakers and Topics

Thomas Bäck, *University of Dortmund, Germany*  
Kalyanmoy Deb, *Indian Institute of Technology, India*  
Karl Friston, *University College London, UK*  
Ling Guan, *Ryerson Polytechnic University, Canada*  
Marc van Hulle, *K.U. Leuven, Belgium*  
Visakan Kadirkamanathan, *University of Sheffield, UK*  
Rudolf Kruse, *University of Magdeburg, Germany*  
M. Palaniswami, *University of Melbourne, Australia*  
Witold Pedrycz, *University of Alberta, Canada*  
Asim Roy, *Arizona State University, USA*  
George Vachstevanos, *Georgia Institute of Tech., USA*  
Yi X. Zhong, *University of Posts and Telecomm., China*

Theory of evolutionary strategies  
Multi-objective optimization  
Brain imaging  
Intelligent multimedia processing  
Data mining using neural networks  
Intelligent control systems  
Fuzzy data analysis  
Support vector machines  
Soft computing: from theory to practice  
Learning algorithms  
Intelligent autonomous vehicles  
A framework on knowledge theory



## Special Sessions

A special session is to be organized around a specific topic to encourage in-depth discussions. One organizer of each successfully organized special session with at least 6 registered papers will enjoy a 50% discount on the conference registration fee. To propose a special session, email the session title, name of the conference under which the special session will be organized, contact information of the organizer(s), and a short description on the theme and topics covered by the session to Special Sessions Chair, Xin Yao (x.yao@cs.bham.ac.uk), with a copy to Lipo Wang, General Chair (Cc: elpwang@ntu.edu.sg). The organizers of the special sessions that have been approved so far are:

### ICONIP'02

Wlodzislaw Duch, *Nicholas Copernicus University, Poland*  
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 Asim Roy, *Arizona State University, USA*  
 Hualin Shu, *Guangzhou University, China*  
 Kate A. Smith, *Monash University, Australia*  
 Shiro Usui, *RIKEN BSI, Japan*

Jun Wang, *Chinese University of Hong Kong, China*  
 Xufa Wang, *University of Science and Technology of China, China*  
 Ramin Yasdi, *Lulea University of Technology, Sweden*

### SEAL'02

Hussein A. Abbass, *University of New South Wales, Australia*  
 David Corne, *University of Reading, UK*  
 ZhaoYang Dong, *University of Queensland, Australia*  
 Gary Fogel, *Natural Selection Inc., USA*  
 Bob Mckay, *University of New South Wales, Australia*  
 Kay Chen Tan, *National University of Singapore, Singapore*  
 Yasuhiro Tsujimura, *Nippon Institute of Technology, Japan*

### FSKD'02

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 Witold Pedrycz, *University of Alberta, Canada*  
 A. Ratnaweera, *Univ. of Melbourne, Australia*  
 W. Rattasiri, *Univ. of Melbourne, Australia*

## For more information

Please visit the conference website or contact:



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There is a wide variety of beautifully appointed yet reasonably priced hotels offering impeccable standards of Asian service and hospitality.

And few places on earth promise such a delight for the palate, with gourmet cuisine from over 30 countries.

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To top it all, Singapore has conference facilities that rank amongst the world. For business and pleasure, Singapore has everything to make your convention a productive and a memorable experience.

