



IWANN 2011

11th International Work-Conference on Artificial Neural Networks (IWANN'2011) (Advances on Computational Intelligence)

Hotel Meliá Costa del Sol, Torremolinos-Málaga, Spain; June 8-10, 2011

ORGANIZING COMMITTEE

Honorary Chairs:	Alberto Prieto Francisco Sandoval
Conference Chairs:	Joan Cabestany Gonzalo Joya Ignacio Rojas
Technical Program Chairs:	Francisco García Miguel Atencia
Satellite Workshops Chairs:	Juan M. Corchado Jose Bravo
Publicity and Publication Chairs:	Pedro Castillo Alberto Guillén Beatriz Prieto

SCOPE

This biennial meeting seeks to provide a discussion forum for scientists, engineers, educators and students about the latest ideas and realizations in the foundations, theory, models and applications of hybrid systems inspired on nature (neural networks, fuzzy logic and evolutionary systems) as well as in emerging areas related to the above items. As in previous editions of IWANN, it also aims to create a friendly environment that could lead to the establishment or strengthening of scientific collaborations and exchanges among attendees. During the present edition, the following associated satellite Workshops will be organized:

- **4th International Conference on Computational Intelligence in Security for Information Systems (CISIS'11)**
- **International Workshop of Intelligent systems for context-based information fusion (ISCIF'11)**
- **3rd International Workshop on Ambient Assisted Living (IWAAL)**

The proceedings will include all the presented communications to the conference. As in previous editions of IWANN, we are arranging the publication of the proceedings with Springer-Verlag on Lecture Notes on Computer Science (LNCS) series, and the books will be available on-site. It is also foreseen the publication of an extended version of selected papers in a special issue on several specialized journals (such as **Neurocomputing, Soft-Computing, Neural Processing Letters**).

IWANN is included in the ranking of the best conferences established by the Computer Science Conference Ranking based on the "Estimated Impact of Conference (EIC,2009)", concretely in position 55 among 701 considered (in the Artificial Intelligence field), and in the rank B in Computing Research and Education Association (CORE). Also the IWANN papers are indexed by CiteSeer.IST, and by the organization Computing Research and Education Association (CORE).

PROGRAM COMMITTEE (tentative)

Andreas Andreu	Kathryn Klemic
Plamen Angelov	Amaury Lendasse
Cecilio Angulo	Kurosh Madani
Antonio Artés Rodríguez	Jordi Madrenas
Antonio Bahamonde	Luis Magdalena
R. Babuska	Dario Maravall
Sergi Bermejo	Bonifacio Martín
Piero Bonissone	Francesco Masulli
Andreu Catalá	José M. Molina
Pert Cauwenberghs	Augusto Montisci
Jesus Cid-Sueiro	Claudio Moraga
Rafael Corchuelo	Juan M. Moreno
Oscar Cordón	Klaus-Robert Müller
Carlos Cotta	José Muñoz
Marie Cottrell	Alan F. Murray
Alicia d'Anjou	Jean-Pierre Nadal
Javier de Lope	Nadia Nedjah
Luiza de Macedo Mourelle	Erkki Oja
Dante del Corso	Madalina Olteanu
Angel P. del Pobil	Julio Ortega
Richard Duro	Kevin M. Passino
Reinhard Eckhorn	Witold Pedrycz
Marcos Faundez-Zanuy	Fco. J. Pelayo
J. Manuel Fernández	Andrés Perez-Uribe
Javier Fdez de Cañete	Vicenzo Piuiri
Ramon Ferrer Cancho	Carlos G. Puntinet
Dario Floreano	Leonardo Reyneri
Jean-Claude Fort	Eduardo Ros
Kunihiko Fukushima	Ulrich Rückert
Chistian Gamrat	Eduardo Sanchez
Patrik Garda	J. V. Sanchez-Andrés
F. J. Gonzalez	Juan A. Sigüenza
Karl Goser	Jordi Solé-Casals
Manuel Graña	Peter SZolgay
Anne Guérin-Dugué	John Taylor
Hani Hagaras	Carme Torras
Alister Hamilton	I. B. Turksen
Barbara Hammer	Mark Van Rossum
Martin Hasler	Marley Vellasco
Jeanny Héroult	Alfredo Vellido
Francisco Herrera	Michel Verleysen
Cesar Hervás	Thomas Villman
Tom Heskes	Changjiu Zhou
Pedro Isasi	Ahmed Zobaa
Simon Jones	Pedro Zufiria
Christian Jutten	

TOPICS

The topics of interest include, but are not limited to:

1. **Mathematical and theoretical methods in computational intelligence.** Mathematics for neural networks. RBF structures. Self-organizing networks and methods. Support vector machines and kernel methods. Fuzzy logic. Evolutionary and genetic algorithms.
2. **Neurocomputational formulations.** Single-neuron modelling. Perceptual modelling. System-level neural modelling. Spiking neurons. Models of biological learning.
3. **Learning and adaptation.** Adaptive systems. Imitation learning. Reconfigurable systems. Supervised, non-supervised, reinforcement and statistical algorithms.
4. **Emulation of cognitive functions.** Decision Making. Multi-agent systems. Sensor mesh. Natural language. Pattern recognition. Perceptual and motor functions (visual, auditory, tactile, virtual reality, etc.). Robotics. Planning motor control.
5. **Bio-inspired systems and neuro-engineering.** Embedded intelligent systems. Evolvable computing. Evolving hardware. Microelectronics for neural, fuzzy and bioinspired systems. Neural prostheses. Retinomorphic systems. Brain-computer interfaces (BCI) Nanosystems. Nanocognitive systems.
6. **Hybrid Intelligent Systems.** Soft Computing. Neuro-fuzzy systems. Neuro-evolutionary systems. Neuro-swarm. Hybridization with novel computing paradigms: Quantum computing, DNA computing, membrane computing. Neural dynamic logic and other methods; etc.
7. **Applications.** Image and Signal Processing. Ambient intelligence. Biomimetic applications. System identification, process control, and manufacturing. Computational Biology and Bioinformatics. Internet Modeling, Communication and Networking. Intelligent Systems in Education. Human-Robot Interaction. Multi-Agent Systems. Time series analysis and prediction. Data mining and knowledge discovery.

IMPORTANT DATES

November 18, 2010	Submission of Special Session proposals
November 28, 2010	Special Session acceptance.
January 30, 2011	Submission of papers by authors
February 25, 2011	Notification of provisional acceptance.
March 11, 2011	Submission of final papers.
March 11, 2011	Early registration (special rates).
June 8-10, 2011	IWANN Conference.

HOME PAGE

<http://www.iwann-conference.es>
<http://iwann.ugr.es/>

Spanish Chapter of IEEE CIS



IEEE Computational Intelligence Society
MIMICKING NATURE FOR PROBLEM SOLVING

