# 20<sup>th</sup> International Conference on Artificial Neural Networks (ICANN 2010) 15-18 of September 2010, Thessaloniki, Greece

http://delab.csd.auth.gr/icann2010

#### **AIMS AND SCOPE**

The 20<sup>th</sup> International Conference on Artificial Neural Networks (ICANN'2010) will be held in Thessaloniki, Greece. It is an annual event, organized since 1991 by the European Neural Network Society (ENNS) in co-operation with the International Neural Network Society and the Japanese Neural Network Society. Since the first conference in Helsinki, ICANN has been established as a premier event. It provides a great discussion forum for the academic and industrial community on achievements not only related to artificial neural networks but to various other topics of artificial intelligence as well. More specifically, ICANN'2010 endeavours to address new challenges, share solutions and discuss future research directions in neural networks, learning systems, computational intelligence, and real-world applications. Moreover, it aims in promoting the significant benefits that can be derived by the use of neural networks and novel innovative applications are appreciated.

## CALL FOR PAPERS, WORKSHOPS AND TUTORIALS

Prospective authors are invited to contribute high quality papers in the topic areas listed below. Also, proposals for workshops are welcome. A proposal for a Workshop should include a summary statement ( $\sim$ 2 pages) describing the topic and motivation of the workshop and a list of the workshop panelists. No individual papers will be submitted and no papers will appear in the proceedings. Tutorial proposals are welcome as well.

#### **TOPIC AREAS**

The scope of the conference will cover, but is not limited to the following areas:

- Brain-computer interface & cognitive architectures
- Bayesian networks
- Computational intelligence applications to biomedical systems
- Critical infrastructure systems
- Computational neuroscience
- Connectionist cognitive science
- Data analysis and pattern recognition
- Fuzzy systems
- · Graphical networks models, Bayesian networks
- Hardware implementations & embedded systems
- Inductive modelling
- Intelligent control and adaptive systems
- Intelligent environmental systems

- Intelligent Multimedia & Semantic Web
- Learning algorithms
- Mathematical theory of neurocomputing
- Manufacturing systems
- Multi Agent Systems
- Neural and hybrid architectures & learning algorithms
- Neural control, planning & robotics applications
- Neural dynamics & complex systems
- Neuroinformatics & bioinformatics
- Real world applications
- Self-organization
- Sequential & structured information processing
- Signal & time series processing, blind source separation
- Vision & image processing

#### PROCEEDINGS

The conference proceedings will be published in the Springer-Verlag series "Lecture Notes in Computer Science". All papers are limited to 10 pages in Springer LNCS series format.

#### **IMPORTANT DATES**

Tutorial and workshops proposals: Notification of tutorial and workshops proposals: Paper Submission: Notification of paper acceptance: Final paper Submission: Early registration: Conference Dates: February 15, 2010 February 22, 2010 March 29, 2010 May 17, 2010 May 31, 2010 May 31, 2010 September 15-18, 2010

### ORGANIZATION

General Co-Chairs:Konstantinos Diamantaras, Alexander TEI of Thessaloniki, Greece<br/>Wlodek Duch, Nikolaus Copernicus University, Torun, Poland, President of ENNSProgram Committee Chair:Lazaros Iliadis Democritus University of Thrace, GreeceLocal ArrangementsWorkshop Chair:Kostas Goulianas, Alexander TEI of Thessaloniki, Greece<br/>Yannis Manolopoulos, Aristotle University of Thessaloniki, Greece<br/>Ioannis Vlavavas, Aristotle University of Thessaloniki, Greece

## THE CITY OF THESSALONIKI

Thessaloniki, named after Alexander's the Great sister, is the second largest city in Greece populated by one million people. Thessaloniki hosts an annual international trade fair on September, as well as a transportation hub with a major modern port and an international airport connected with near 20 European major cities. Although largely rebuilt in modern style, Thessaloniki still retains its famous white Byzantine walls, the 15th century White Tower, and a Venetian citadel. The city is famous for its many fine churches, notably those of Hagia Sophia (modeled after its namesake in Constantinople), of St. George, and of St. Demetrius with a catacomb. The ruins of the triumphal arch and the palace of Emperor Galerius are there. Thessaloniki is also known for its museums: the Archaeological Museum of Thessaloniki and the Museum of Byzantine Culture. Also, Thessaloniki is home of three universities, namely: the Aristotle University, the University of Macedonia and the Alexander Technological Educational Institute. Thessaloniki is also known for its exceptional nightlife with the famous Ladadika quarter. The music scene s vibrant and diverse and includes nightclubs, dance halls, discos, cafés and music bars, jazz clubs and clubs, and a wealth of live performances, both musical and theatrical. In half an hour distance from Thessaloniki one can visit the Archaeological site of Vergina (the old capital of ancient Makedonia) and where is the venue of Phillip's tomb (the father of Alexander the great) a site full of remarkable treasures of art and culture. Also in a distance of 70 km from Thessaloniki (45 minutes by car) one can visit mount Olympus (the mountain of the ancient Gods) where "Dion" the holly city of ancient Makedonia is located.

## **ORGANIZING INSTITUTIONS**

