

# **International Association for Pattern Recognition**

## **TC 3 Neural Networks and Computational Intelligence**

### **Report to the Executive Committee and Governing Board**

**November 2012- August 2014**

## **1. TC Background Information**

### **1.1 Listing of TC Leadership Team**

**Chair:**

Neamat El Gayar [neamat@encs.concordia.ca](mailto:neamat@encs.concordia.ca)  
Cairo University, Egypt

**Vice-Chair**

Edmondo Trentin [trentin@dii.unisi.it](mailto:trentin@dii.unisi.it)  
University of Siena, Italy

**Leadership Board (New)**

Amir Atiya  
Friedhelm Schwenker  
Simone Marinai

*Information Officer:*  
*Andreas Fischer*

*Newsletter and Website Editor:*  
*Nicola Nobile*

### **1.2 TC website URL**

TC3 website (hosted at the Concordia University, Canada):  
<http://www.cenparmi.concordia.ca/IAPR-TC3/index.html>

### **1.3 Number of members (people on mailing list)**

252 researches are members of the TC3 mailing list.

### **1.4 Communication types used (e.g. newsletters) and frequency**

Newsletters and conference information (approx. 8-10 per year)

## 1.5 Listing of key event(s) usually organised by the TC

The Workshop on Artificial Neural Networks for Pattern Recognition (ANNPR) is the major event of TC3. Since 2011, a bi-annual workshop on Partially Supervised Learning has been started up.

## 2. Activities in the last years

- a. The TC3 website (hosted at Ulm University, Germany) has been re-organized see: <http://www.uni-ulm.de/in/neuroinformatik/iapr-tc3.html>). Currently it is moved to Concordia University and is under further construction.
- b. The TC3 mailing list (hosted at Ulm University, Germany) has been updated (September 30, 2012). Recently the list will be moved to Concordia University.
- c. The 5th IAPR Workshop on Artificial Neural Networks for Pattern Recognition (ANNPR 2012) has been organized in September 2012, in Trento (Italy) and co-chaired by Nadia Mana, F. Schwenker and E. Trentin. The proceeding was published in the Springer Lecture Notes on Artificial Intelligence No 7477. Invited speakers were Nik Kasabov (Auckland, New Zealand), Marco Gori (Siena, Italy) and Guenther Palm (Ulm, Germany). The event was co-sponsored by the International Neural Networks Society (INNS). Please visit the website: <http://annpr2012.fbk.eu>
- d. In conjunction with the International Conference on Pattern Recognition (ICPR), Tsukuba Japan, a new workshop on Multimodal Pattern Recognition of Social Signals in Human Computer Interaction (MPRSS) has been organized by Friedhelm Schwenker (Ulm), Stefan Scherer (LA) and Louis-Philippe Morency (LA). Workshop proceedings are published in the Springer LNAI No 7742 (see <http://neuro.informatik.uni-ulm.de/MPRSS2012/> for more information). Moreover, the 2nd workshop on Multimodal Pattern Recognition of Social Signals in Human Computer Interaction (MPRSS) was organized by Friedhelm Schwenker (Ulm), in conjunction with the IEEE International conference on Cybernetics, June 15th, 2013 in Lausanne Switzerland. The 3rd MPRSS is organised in conjunction with ICPR 2015, Stockholm, Sweden.

- e. The 2nd IAPR Workshop on Partially supervised learning (PSL 2013) took place at the University of Nanjing (China), May 13-14. 2013. Please see the workshop website: <http://neuro.informatik.uni-ulm.de/PSL2013/> . The workshop proceeding is in print in the Springer LNAI No 8183.
  
- f. The term of Friedhelm Schwenker as a chair for TC3 has come to an end after serving 2 periods. We would like to thank him for his great effort to foster the TC3 activities and promote its events and communications.
  
- g. A new leadership board for TC3 is formed. Edmondo Trentin (Italy) has been nominated as vice chair of TC3. We are also happy to have Amir Atiya (Egypt), Friedhelm Schwenker (Germany) and Simone Marinai (Italy) as senior board members to assist in steering and promoting research activities of our TC. Two junior additions to TC3 are: Andreas Fischer (Switzerland) to act as an Information Officer for the committee and Nicole Nobile (Canada) as a newsletter and website editor.
  
- h. A call for proposals for hosting ANNPR 2014 was sent out. We received two competitive proposals from the Chinese University of Hong Kong and Concordia University, Montreal, Canada. The new steering committee of TC3 has considered both proposals carefully and has finally voted in favour of the hosting ANNPR 2014 in Montreal Canada from 6-8 October 2014. [www.annpr2014.com](http://www.annpr2014.com)
  
- i. A special issue on Partially Supervised Learning for Pattern Recognition of the IAPR-affiliated journal Pattern Recognition Letters was co-edited by Friedhelm Schwenker and Edmondo Trentin and published in July 2013. The special issue was a follow-up of PSL2011 and embraced extended versions of selected papers from the workshop along with peer-reviewed brand new submissions according to an open call for papers.

### 3. Plans & Recommendations

- a. The Program Committee of the ANNPR 2014 workshop selected 24 papers for the scientific program, organized in regular oral presentations and a poster session for the event. ANNPR 2014 also announces 3 distinguished guest speakers covering various interesting areas for TC3:
  - Yoshua Bengio, Professor in the Department of Computer Science and Operations Research, University of Montreal, Canada and Head of the Machine Learning Laboratory (LISA) & Canada Research Chair in Statistical Learning Algorithms. Prof. Bengio will hold a talk on the state of the art in 'deep learning neural networks'.
  - Zhi-Hua Zhou, Professor in the Department of Computer Science & Technology, Nanjing University, China & Deputy Director of the National Key Lab for Novel Software Technology. Prof. Zhou will be presenting the latest developments in multimedia information retrieval using machine learning models
  - J. Michael Herrmann, Lecturer at The University of Edinburgh School of Informatics, UK and member of Informatics Life-Sciences Institute U.K. Dr Herrmann will present snapshots of the advances of the research in the area of learning theory in autonomous agents and behavioural neuroscience.
- b. A third edition of the PSL workshop is planned for the year 2015.
- c. The TC3 website is in the process of being redesigned. Currently we are considering purchasing a domain name so that the website is static regardless of change in leadership. An idea to finance it is from potential ANNPR 2014 budget.
- d. Currently educational material including tutorials, demos and interesting applications in the area of computational intelligence is being collected. The new website will include this material in addition to material related to recurrent networks applications areas in document analysis/handwritten recognition, data/text mining and multimodal information processing.