ANNPR 2016 Report

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The 7th IAPR TC3 Workshop on Artificial Neural Networks in Pattern Recognition, ANNPR 2016, was held at Ulm University, Germany September 28-30, 2016. The workshop was organized by Dr. Friedhelm Schwenker (Ulm University, Germany), Dr. Neamat El Gayar (Concordia University, Canada), Prof Hazem M. Abbas (Ain Shams University, Egypt) and Prof. Edmondo Trentin (University of Siena, Italy). ANNPR 2016 in Ulm, Germany follows the success of the ANNPR workshops held in Florence (Italy, 2003), Günzburg (Germany, 2006), Paris (France, 2008), Cairo (Egypt, 2010), Trento (Italy, 2012) and Montreal (Canada, 2014). The series of ANNPR workshops have acted as a major forum for international researchers and practitioners working in all areas of neural network- and machine learning-based pattern recognition to present and discuss their latest research, results, and ideas.

ANNPR 2016 was sponsored by Ulm University, the Transregional Collaborative Research Center SFB/TRR 62 *Companion-Technology for Cognitive Technical Systems* at the Ulm University and the Technical Committee on Neural Networks and Computational Intelligence (TC3) of the International Association for Pattern Recognition (IAPR). The scope of TC3 includes computational intelligence approaches, evolutionary computing and artificial neural networks and their pattern recognition applications.

For ANNPR 2016, a total of 32 papers were submitted from which 25 high-quality papers were selected for oral presentation. Papers presented original research in neural networks, machine learning and pattern recognition focusing on both theoretical and applied aspects. The ANNPR 2016 workshop proceeding was published in the Springer LNCS/LNAI series. Participants from different part of the world (Europe, Asia, America and Africa) attended the workshop. During three days, the attendees presented their papers organized in multiple focused sessions. For each session the allotted time was 25 minutes for paper presentation and discussion. The attending researchers were very interested and had plenty of questions and suggestions.
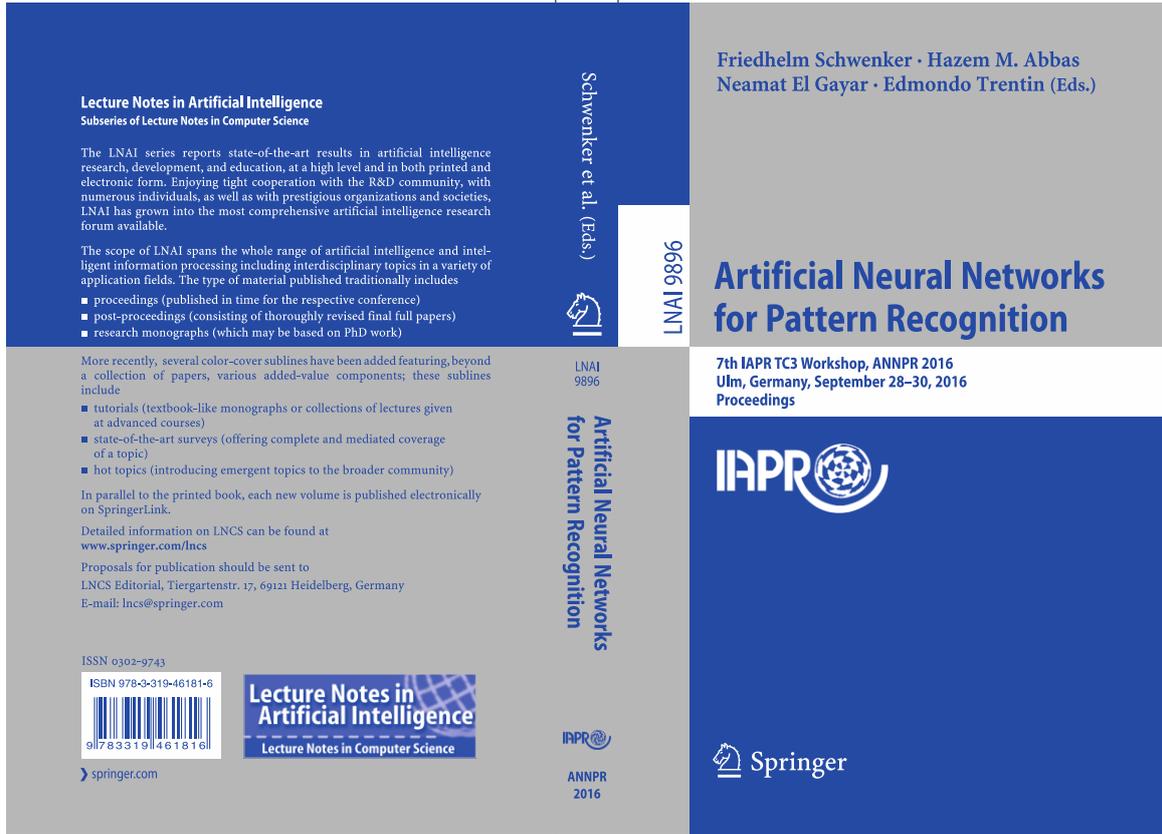
In addition to the regular program three enriching invited talks were given during the

program. The invited talk „A Spiking Neural Network for Personalised Modelling of Electrogastrography" by Prof. Nikola Kasabov (University of Auckland, New Zealand) presented recent results and theoretical evidence showing the superiority of models of spiking neural networks and discusses the issue of learning personalised models. Prof. Dr. Andreas Knoblauch (University of Applied Sciences Sigmaringen-Albstadt) gave an interesting talk on 'Neural Associative Memory' summarizing the major topics and breakthroughs of associative memory models. On the third day, Prof. Dr. Allesandro Sperduti (University of Padova, Italy) gave a talk entitled 'Learning Sequential Data with the Help of Linear Systems', where he demonstrated that linear dynamical systems can be powerful tools when dealing with learning of sequential data.

On the second day the attendees enjoyed a guided tour through the anciet city of Ulm where they visited the "Ulm Münster" the church with the tallest steeple in the world. They finally reached the destination of the workshop banquet at the *Brauhaus Dreikannen*, where the participants enjoyed the excellent local "*schwäbisch*" food in a welcoming and warm atmosphere.

Participants of ANNPR 2016 at Ulm University, September 28-30, 2016.

Schwenker et al. (Eds.)

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