Activities Report
2014-2016

This paper presents a brief overview of the most relevant activities of the Technical Committee on Graphics Recognition TC10 of IAPR.

1. TC Background Information

1.1. Listing of TC Leadership Team

Differently from most of the other TCs, TC10 leadership team changes synchronized with ICDAR, the International Conference on Document Analysis and Recognition, a biannual event that happens at odd-years. Thus, this report outlines the final activities of the past team led by Jean-Marc Ogier (Université de La Rochelle, France) and the first year of the activities of present team.

There was a "Call-for-applicants" for the TC10 Chairmanship widely circulated among the TC10 member list and in the Newsletter. Two well-known equally qualified members of the TC10 community applied to serve as Chairperson. The plans and CV of applicants were analyzed by a board of past TC10 Chairmen led by Jean-Marc Ogier. The final decision criterion was geographic alternation of the TC10 Chairmanship, but the two applicants decided to work together as the chair and vice-chair of TC10.

The current TC10 leadership team is:

Chair: Rafael Dueire Lins (Universidade Federal de Pernambuco, Brazil).
Vice-chair: Bart Lamiroy (Université de Nancy, France)
Secretary and TC-10 Webmaster : Jean-Christophe Burie,
Université de La Rochelle, France
Dataset curator: Syed Saqib Bukhari,
German Research Center for Artificial Intelligence – Germany.

Educational officer and Newsletter editor: Alicia Fornes,
Universitat Autònoma de Barcelona, Spain

1.2. TC website URL - http://iapr-tc10.univ-lr.fr/

1.3. Number of members (people on mailing list) – 320 people

1.4. Communication types used: Newsletters – monthly

1.5. Listing of key events usually organized by TC10

ICDAR 2015

Nancy, France
August 23-26, 2015

The most important event of TC10 is ICDAR, the International Conference on Document Analysis and Recognition, organized in conjunction with TC11.
ICDAR 2015 was originally organized to be held in Tunisia in August/2015. Unfortunately the tragic events in Tunisia forced a "*last minute*" change of location to Nancy. Despite such relocation ICDAR 2015 repeated the success of the previous years. The joint effort of the Tunisian Organizing Committee and the staff of the Nancy University led by Abdel Belaid and Bart Lamiroy granted its success.

ICDAR – Workshops
Traditionally, there are several workshops that happen immediately before or after ICDAR. The most important of them that took place at ICDAR 2015 are listed below:

- 3rd International Workshop on Automated Forensic Handwriting Analysis (AFHA2015)
- 6th International Workshop on Camera-Based Document Analysis and Recognition (CBDAR2015)
- NIST Open Handwriting Recognition and Translation Evaluation & Workshop (OpenHaRT2015)
- 5th International Workshop on Multilingual OCR (MOCR2015)
- 3rd International Workshop on Historical Document Imaging and Processing (HIP2015)

ICDAR – Doctoral Consortium
In Nancy, the ICDAR Doctoral Consortium repeated the success of Beijin (ICDAR 2011) and Washington D.C (ICDAR 2013), with a large number of applicants and tutors lively discussing research trends and exchanging experiences that would lead to a successful Ph.D. submission and research career.

GREC 2015

The Eleventh IAPR International Workshop on Graphics Recognition (GREC 2015), took place just before the 13th International Conference on Document Analysis and Recognition (ICDAR).
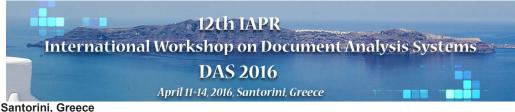
GREC 2015 followed its tradition of providing an excellent opportunity for researchers and practitioners at all levels of experience to meet colleagues and to share new ideas and knowledge about graphics recognition methods. The workshops enjoy strong participation from researchers in both industry and academia.

The GREC 205 post-proceedings are about to be released as a Springer Verlag LNCS volume 9657.

DAS 2016

Santorini, Greece
April 11-14, 2016

DAS 2016 was the 12th edition of the 100% participation single-track IAPR sponsored workshop focusing on system-level issues and approaches in document analysis and recognition. The workshop comprises invited speaker presentations, oral, poster, tutorial and demo sessions as well as working group discussions. DAS 2016 repeated the success of DAS 2014 held in Tours, France.

MANPU 2016

Cancun, Mexico
December 4, 2016

MANPU is a new initiative directly linked to the TC10/TC11 community focusing on comics, a medium constituted of images combined with text and other visual information in order to narrate a story. Nowadays, comic books are a widespread cultural expression all over the world. From the research point of view, comics images are attractive targets because the structure of a comics page includes various elements (such as panels, speech balloons, captions, leading characters, …), the drawing of which depends on the style of the author and presents a large variability. Therefore comics image analysis is not a trivial problem and is still immature compared with other kinds of image analysis.

2. Activities in the last two years (since ICPR2014)

2.1. Website updates
The TC10 website (http://iapr-tc10.univ-lr.fr/) is regularly updated by Jean-Christophe Burie (Université de La Rochelle, France), the TC10 Webmaster. Among the several information provided at TC10, the most relevant of them are pinpointed below.

2.1.1. Educational information
The importance TC10 gives to education is witnessed by the community with the several initiatives led by TC10 Educational officer Alicia Fornes of the Universitat Autònoma de Barcelona, Spain.

Education material on the areas related to TC10 interests may be found at (http://iapr-tc10.univ-lr.fr/index.php/education)

2.1.2. Reference resources (datasets, evaluation tools)

The TC10 provides some resources for researchers, PhD students and all people interested in graphics recognition such as:

- Dataset (http://iapr-tc10.univ-lr.fr/index.php/datasets-and-software)
- Publications (http://iapr-tc10.univ-lr.fr/index.php/publications)
- Software (http://iapr-tc10.univ-lr.fr/index.php/software)

The TC10 Committee is committed to offering resources to the research community that foster quality experimental research. Typical resources are datasets with annotations (ground-truth), source code, etc. These resources are fundamental for valid peer review and experimental validation through full reproduction of the experimental conditions reported in published works. The TC10 committee encourages the community at large to submit material in each category. The TC10 Dataset curator is Syed Saqib Bukhari from the German Research Center for Artificial Intelligence – Germany.

GREC 2015 showed a positive financial balance, and the TC-10 community agreed to use the funds to digitize 500 documents of the Lehigh Engineering Drawing Collection and make them available to the community. This task is currently in progress and will be finished by December 2016.

2.2 Research Initiatives

The most effective of the TC10 research initiatives are reflected in the conferences, workshops and contests organized by the TC10/TC11 communities, directly or indirectly linked to ICDAR, DAS and satellite events.
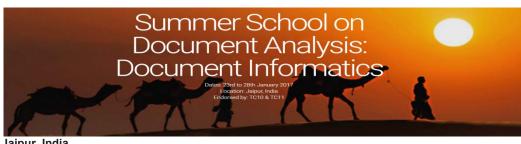
2.2.1. Events organized

The TC10/TC11 technical events already listed in this report are highly reputed as first-quality forums for research dissemination in all areas of document recognition and engineering. The IAPR/IEEE partnership in ICDAR is a recognition of the high standard of the event, widely acknowledged as the most important forum in all areas of document and graphics recognition.

2.2.2. Industrial partnership

The TC10/TC11 communities have a long tradition of industrial partnership. ABBYY, HP, Family Search, iTSOFT, XEROX, FUJITSU, and other companies have not only sponsored events, but also actively take part in them providing keynote speakers, datasets for contests, submitting papers, and sending their researchers as attendees of the technical events.

3. Plans (timeline until ICPR2016 and beyond)

Summer School on Document Analysis

Jaipur, India
January 23-28, 2017

The Centre for Visual Information Technology (CVIT) at International Institute of Information Technology at Hyderabad, India, together with Alicia Fornes and Gernot Fink, TC10 and TC11 Educational   officers are organizing the first Summer School on Document Analysis (http://cvit.iiit.ac.in/SSDA/index.html) . The school aims to provide an in-depth and objective exposure

to researchers of the emerging area of Understanding large scale document collections and highlight open problems in this area. The school will be conducted by world--renowned and experienced researchers. It will have (i) Tutorial talks; (ii) Focused research seminars; (iii) Poster session presenting research of the participants; (iv) Hands---on Exercises; (v) Industrial Presentations.

ICDAR 2017

Kyoto, Japan
November 10-15, 2017

The 14th IAPR International Conference on Document Analysis and Recognition (ICDAR 2017) (http://u-pat.org/ICDAR2017/) will be taken place in Kyoto, Japan. Kyoto is one of the most popular destinations in Japan. Approximately 50 million people visit there every year. Kyoto had been the imperial capital of Japan for more than 1000 years and is known as a city of UNESCO World Heritage, in which about 20% of Japan's National Treasures and 14% of Important Cultural Properties exist. ICDAR2017 will be taken place in the "Autumn leaves" season, in which green leaves change their color to yellow and red gradually and eventually fall. Many people fascinated by the beautiful scenery visit Kyoto in the season. ICDAR2017 will provide an opportunity to the participants to access the best season in Kyoto. There is the confirmed sponsorship of The Telecommunications Advancement Foundation of the Japanese Government. Other sponsors have been contacted.

ICDAR 2019

Brisbane, Australia
September 22-25, 2019

The General Assembly present at ICDAR 2015 voted for the bid to host the 15th ICDAR in Brisbane Queensland, the tourist capital of Australia (September 22nd – 25th, 2019). The first Call-for-papers has been released with all the dates and officers already assigned.

5. Recommendation to ExCo for TC leadership team for 2016-2018 term

As already mentioned, the current leadership term lasts until ICDAR 2017.
A new "Call-for-applicants" for the TC10 Chairperson will be released in January/2017. A board formed by the present TC10 chair and ex-chairs will select the applicants and provide recommendations to the IAPR ExCo for nomination.

The current TC10 Chair will not apply for a second term.

The present TC10 officers have no special recommendation to ExCo for the next leadership team.