TC10

GRAPHICS RECOGNITION
IAPR

Newsletter   N°134

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In This Issue

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Call for Contributions

Please contribute relevant news to TC10 groups.

Please send any relevant event, notice, dataset or link to us via contact us form on the website or via email on iapr.tc10@gmail.com

Message from the editor

Dear TC10 members,

I am Christophe Rigaud, the new TC10 Communications Officer (previously named as "newsletter editor"). I will succeed Motoi Iwata in this role. I would like to thank Motoi Iwata for his work during the last term. I will do my best to collect and share with you information about our community for the coming term.

In this edition of the TC10 newsletter, you will find the call for papers for GREC 2019, the call for participation at ICDAR competitions, the call for nominations for ICDAR 2019 Awards and the special issues at PRL.

We are also pleased to announce the new TC10 website and logo.

Follow us at twitter:
https://twitter.com/IAPR_TC10

Christophe Rigaud

TC10 website and logo

We are pleased to announce the new TC10 logo and website. The website aims to serve as a platform to find updated information about conferences, summer schools, recent papers, competitions, databases, etc.

We are currently finalizing transferring the contents of the old TC10 website to the new one. We will maintain the URL. In order to update the TC10 mailing list, we will soon send you an email for registering to new mailing list which is GDPR compliant. In meantime you may visit the new website and explore it.

The TC10 website: http://iapr-tc10.univ-lr.fr/

Best regards,

Muzzamil Luqman

TC10 webmaster

GREC 2019 : first announcement

13th International Workshop on Graphics Recognition (GREC)

September 20-21, 2019

Sydney, Australia

http://grec2019.univ-lr.fr/

GREC workshops provide 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. Graphics Recognition is a subfield of document image analysis that deals with graphical entities in engineering drawings, comics, musical scores, sketches, maps, architectural plans, mathematical notation, tables, diagrams, etc.

The aim of this workshop is to maintain a very high level of interaction and creative discussions between participants, maintaining a "workshop" spirit, and not being tempted by a "mini-conference" model.

GREC 2019 will continue the tradition of past workshops held at the Penn State University (USA), Nancy (France), Jaipur (India), Kingston (Canada), Barcelona (Spain),, Hong Kong (China), Curitiba (Brazil), La Rochelle (France), Seoul (Corea), Lehigh (USA), Nancy (France) and Kyoto (Japan).

The workshop will comprise several sessions dedicated to specific topics related to graphics in document analysis and graphic recognition. For each session, there will be an invited presentation describing the state of the art and stating the open questions for the session's topic, followed by a number of short presentations that will contribute by proposing solutions to some of the questions or presenting results of the speaker's work. Each session will be concluded by a panel discussion.

For this 13th edition, we would like to highlight three topics related to graphic recognition.

Three special sessions will focus on :

- Music Scores Recognition,

- Comics Analysis and Understanding

- Sketch Recognition and Understanding.

We encourage the authors to submit papers on these topics.

However papers on the following topics are of course expected.

Topics

- Analysis and interpretation of graphical documents, such as: Engineering drawings, floorplans, mathematical expressions, comics, maps, music scores, patents, diagrams, charts, tables, etc.

- Recognition of graphic elements, such as symbols, logos, stamps, dropcaps, drawings, etc.

- Identification and localization of graphical mark-ups and annotations in written documents.

- Raster-to-vector techniques.

- Graphics-based information retrieval.

- Historical graphics recognition and indexing.

- Forensics (Writer identification/verification) in graphic documents.

- Description of complete systems for interpretation of graphic documents.

- Datasets and performance evaluation in graphics recognition.

- Authoring, editing, storing and presentation systems for graphics multimedia documents.

- 3-D models from multiple 2-D views (line drawings).

- Digital ink processing.

- Sketch recognition and understanding.

- Camera-based graphics recognition.

- Graphics recognition in born digital documents.

- Analysis of graphics on new digital interfaces.

- Graphics detection and recognition in real scenes.

- Graphics analysis in medical images

After the workshop authors will be invited to submit an extended version of their papers for publication in an international journal. The name of the journal will be announced soon.

Important dates

- Submission Deadline: May 20, 2019

- Acceptance Notification: June 15, 2019

- Camera ready due: June 30, 2019

- Main Conference: September. 20 - 21, 2019

Organizers

- Jean-Christophe Burie (jcburie [at] univ-lr.fr)

- Gunther Drevin (gunther.drevin [at] nwu.ac.za)

- Partha Pratim Roy (proy.fcs [at] iitr.ac.in)

- K.C. Santosh (Santosh.KC [at] usd.edu)

More information at: http://grec2019.univ-lr.fr/

ICDAR 2019 competitions related to graphics recognition

The following two competitions, related to graphics recognition, are being organized at ICDAR 2019:

1) ICDAR 2019 Competition on Fine-Grained Classification of Comic Characters

In this competition, we would like to tackle the problem of fine-grained comic character classification which lies between characters detection and identification of individual character (character's name). The competition task aims at classifying the character's images into one of the existing classes of individual comic characters. For example, all image instances of the character "Batman" should be classified in one same class "Batman", all instances of the character "Daredevil" should be in class "Daredevil". The visual distinctions between characters are often subtle, especially for characters in the same album, or in multiple albums of the same authors or the same style. Hence, it is difficult to address with today's general-purpose object classification methods. The comic book image analysis has been initially studied by the Document Image Analysis community. After that, it has been studied in the domain of computer vision using machine learning and graph recognition. The problem of fine-grained classification of comic characters could be handled by different approaches by different techniques. We encourage the participants to image-based approaches, graph-based approaches or hybrid-approaches. For more details about the competition and the deadlines, please visit the website: https://fgc.univ-lr.fr/challenge/

2) ICDAR 2019 Competition on Object Detection/Recognition in Floorplan images

The ICDAR2019-ORF competition will be focusing on a very interesting challenge which makes the foundation for the semantic interpretation of the floorplan images. The ICDAR2019-ORF competition will propose only one task to the participants, which will be Object Recognition in Floorplan images. The participants will be required to detect objects in the floorplan images and provide labels for each of them. The task is important for developing systems that can understand and interpret the floorplan images. An interesting example of application that we imagine is to find all the tables/chairs/beds/sinks in the given floorplan images or to index a floorplan repository on the basis of the objects (or specific organization of objects). For more details about the competition and the deadlines, please visit the website: https://orf.univ-lr.fr

ICDAR 2019: Competitions

ICDAR2019 will organize a set of competitions dedicated to a large set of document analysis problems. You are cordially invited to participate to this scientific event that will be a very good opportunity to objectively compare the quality of algorithms on different categories of challenges. You will find the full list of competitions here: http://icdar2019.org/competitions-2/

Call For Participation:

ICDAR2019 Competition on "Scanned Receipts OCR and Information Extraction (SROIE)": http://rrc.cvc.uab.es/?ch=13

ICDAR2019 Competition: "Challenge on Multi-lingual Scene Text Detection and Recognition": http://rrc.cvc.uab.es/?ch=15

ICDAR2019 Competition on "Form Understanding in Noisy Scanned Documents": https://www.zurich.ibm.com/FormUnderstanding/

ICDAR 2019: Call for Nominations for ICDAR Awards (repost)

Call for Nominations for ICDAR 2019 Awards
International Conference on Document Analysis and Recognition (ICDAR)
http://icdar2019.org/

The ICDAR Award Program is an established program designed to recognize individuals who have made outstanding contributions to the field of Document Analysis and Recognition in one or more of the following areas:

o Research
o Training of students
o Research/Industry interaction
o Service to the profession

Every two years, two awards categories are presented. Namely, the IAPR/ICDAR Young Investigator Award (less than 40 years old at the time the award is made), and the IAPR/ICDAR Outstanding Achievements Award. Each award will consist of a token gift and a suitably inscribed certificate. The recipient of the Outstanding Achievements award will be invited to give the opening keynote speech at the ICDAR 2019 conference, introduced by the recipient from the previous conference.

Nominations are invited for the ICDAR 2019 Awards in both categories.

The nomination packet should include the following:

1. A nominating letter (1 page) including a brief citation to be included in the certificate.
2. A brief vitae (2 pages) of the nominee highlighting the accomplishments being recognized.
3. Supporting letters (1 page each) from 3 active researchers from at least 3 different countries.

A nomination is usually put forward by a researcher (preferably from a different Institution than the nominee) who is knowledgeable of the scientific achievements of the nominee, and who organizes letters of support.

Submission procedure is strictly confidential, and self-nominations are not allowed.

Please send nominations packets electronically to the Awards Committee Co-Chairs Dimosthenis Karatzas [dimos@cvc.uab.es] and Alicia Fornes [afornes@cvc.uab.es] .

Deadline: May 1st, 2019, but early submissions are strongly encouraged.

The final decision will be made by the Awards Committee which is composed of the ICDAR advisory board and the previous awardees.

ICDAR Advisory Board

ICDAR 2023: Call for Hosting Proposals (repost)

CALL FOR PROPOSALS TO HOST ICDAR2023

International Conference on Document Analysis and Recognition (ICDAR)

The ICDAR Advisory Board is seeking proposals to host the 17th International Conference on Document Analysis and Recognition, to be held in 2023 (ICDAR2023).

ICDAR is the premier IAPR event in the field of Document Analysis and Recognition with 300 to 500 participants. The aim of this conference is to bring together international experts to share their experiences and to promote research and development in all areas of Document Analysis and Recognition.

Any consortium interested in making a proposal to host an ICDAR should first familiarise themselves with the "Guidelines for Organizing and Bidding to Host ICDAR" document which is available on the TC10 and TC11 websites (www.iapr-tc10.org and www.iapr-tc11.org, respectively).

A link to the most current version of the guidelines appears below. Small updates in the guidelines are expected during the next few weeks, so please check on the Web site of TC11 for the latest version.
http://www.iapr-tc11.org/mediawiki/images/ICDAR_Guidelines_2016_02_27.pdf

The submission of a bid implies full agreement with the rules and procedures outlined in that document.

The submitted proposal must define clearly the items specified in the guidelines (Section 5.2).

It has been the tradition that the location of ICDAR conferences follows a rotating schedule among different continents. Hence, proposals from America are encouraged. However, high quality bids from other locations, for example, from countries where we have had no ICDAR before, will also be considered. Proposals will be examined by the ICDAR Advisory Board.

Proposals should be emailed to:
- Dr. Dimosthenis Karatzas at dimos@cvc.uab.es
- Dr. Alicia Fornes at afornes@cvc.uab.es

Deadline: June 1, 2019

ICDAR Advisory Board

Pattern Recognition Letters : Special Issue on Hierarchical Representations

PATTERN RECOGNITION LETTERS
/Special Issue on Hierarchical Representations: New Results and Challenges for Image Analysis/

Submission period of articles
May, 1st – 31st 2019

Image representations based on hierarchical, scale-space models and
other non-regular / irregular grids have become increasingly popular in
image processing and computer vision over the past decades. Indeed, they
allow a modeling of image contents at different (and complementary)
levels of scales, resolutions and semantics. Methods based on such image
representations have been able to tackle various complex challenges such
as multi-scale image segmentation, image filtering, object detection,
recognition, and more recently image characterization and understanding,
potentially involving higher level of semantics.

The proposed virtual special issue will consider extended and updated
versions of papers published at the recent ICPRAI 2018 conference as
well as submissions from anybody proposing innovative methods in the
field of image representation with emphasis, but not restricted to
computer vision and image processing, medical imaging, 2D and 3D images,
multi-modality, remote sensing image analysis, image indexation and

understanding.

Topics:
The main topics of this HIERARCHY virtual special issue include, but are
not limited to:

* image decomposition on the basis of frequency spaces (Fourier,
  wavelets, etc.)
* hierarchies linked to the image space, mathematical morphology,
  connected operators
* scale-space representations
* non-regular / irregular grid image representations
* multi-scale representation in computer-vision
* evaluation of hierarchical image representations

The aim of this special issue is to popularize the use of hierarchical
methods in image processing and analysis. Indeed, although these methods
have become very popular in computer vision over the last 20 years,
their potential impact is largely underexploited in image processing and
analysis.

Submission:
The review process will follow the standard PRLetters scheme. In
particular, each paper will be reviewed by two referees. The referees
will include the program committee members of the special session at
ICPRAI 2018 on the same topic and other invited referees selected from
the EES.

This is an open call-for-papers from outside the ICPRAI 2018 conference,
though participants of the virtual special session on hierarchical
representations of images will be invited to submit an extended article
of their contribution. These articles must include at least 30% of new
contribution (theoretical or experimental results), with different
figures and a different title than the one of the ICPRAI paper. The
common content between the ICPRAI paper and the HIERARCHY article cannot
be exactly the same. This virtual special issue also accepts totally new
proposals; both types of submissions must respect the following guidelines.

All submissions have to be prepared according to the Guide for Authors
as published in the Journal Web Site at
http://www.elsevier.com/journals/pattern-recognition-letters/0167-8655/guide-for-authors

The authors are invited to upload their article through
http://ees.elsevier.com/prletters/ during the submission period (see
previous section), by indicating the virtual special issue acronym
(HIERARCHY). Their contribution should not have been published
previously, or not be under revision for any other publication
elsewhere. In the case of an extension of ICPRAI session, the original
work must be attached, and a description of major changes must be
provided. Guest editors will judge the suitability and scope of each
contribution.

All submitted papers will be reviewed according to the guidelines and
standards of PRLetters. At least two (2) reviewers will be assigned, and
2 reviewing rounds can occur for each submitted article. The maximal
length is 7 pages, except for articles requiring major revision and
additional content by the reviewers, for which the maximal length can be
extended to 8 pages. If an article still need major revision after the
second round, it will be rejected.

Only original, high-quality, technically sound articles and in-line with
the PRLetters standard guidelines, will be considered for publication in

this virtual special issue. Submissions will be judged by their contributions to the virtual special issue topics, clarity of presentation, potential impact to the field, and suitability to publication in an archival journal.

Guest Editors:
- Nicolas Passat _<nicolas.passat at univ-reims.fr>_
- Camille Kurtz _<camille.kurtz at parisdescartes.fr>_
- Antoine Vacavant _<antoine.vacavant at uca.fr>_

Pattern Recognition Letters : Special Issue on PR and AI on cultural heritage

Pattern Recognition Letters Journal (Elsevier)
Special Issue on "Pattern Recognition and Artificial Intelligence Techniques for Cultural Heritage"
Special issue website

MOTIVATIONS
Artificial Intelligence is rapidly contaminating new areas of our life day by day. On the other hand, the management of Cultural Heritage is increasingly in need of new solutions to document, manage and visit (even virtually) the enormous amount of artifacts and information that come from the past. The contamination of these two worlds is now a reality and creates the bounds of the main topics of this Virtual Special Issue (VSI). Currently, Artificial Intelligence (AI) and Pattern Recognition (PR) technologies are already employed in the fields of cultural heritage preservation and exploitation. From these fields, two main issues arise:
the information contained in digital representations of physical objects like scanned documents, scanned artifacts, maps, digital music, etc. are not easy to exploit and some kind of smart analysis is needed;
at the same time, the production of digital material such as augmented reality, Cultural Heritage games, robotics applications, etc. need innovative techniques and methodologies.
The above issues are leading AI and PR researchers to develop new methodologies and applications, which are able to analyze the available data or to generate new ones in a smart way (for augmented reality, serious games, etc.).

The aim of this special issue is to present recent advances in AI and PR for data analysis and representation in Cultural Heritage, bringing together the works of many experts in this multidisciplinary subject that involves different skills and knowledge, which span from the study of the cultural heritage to the development of PR/AI techniques for cultural heritage analysis, reconstruction and understanding. At the same time, the VSI is aimed at highlighting the advances on these topics from a wide-angle perspective, as well as to stimulate new theoretical and applied research for better characterizing the state of the art in this subject.

TOPICS
We are interested in original research that addresses the multitude of issues in handwriting. Topics include, but are not limited to the following:
Ancient document analysis

Digital artifact capture, representation and manipulation
Automatic annotation of tangible and intangible heritage
Interactive software tools for cultural heritage applications
Multimedia music classification and reconstruction
Augmented and Virtual Reality applications
Image processing, classification and retrieval
Semantic segmentation
Serious Game for Cultural Heritage
Robotic applications
Ontology Learning for cultural heritage domain
Knowledge representations and reasoning
Techniques for exploring and interacting with repositories of digital artifacts
IMPORTANT DATES
First submission paper due: June 30, 2019
First review notification: August 10, 2019
Revision submission: September 25, 2019

Second review notification: October 30, 2019
Final notice of acceptance/rejection: November 8, 2019

SUBMISSION GUIDELINES
Paper submissions must conform to the Pattern Recognition Letters format guidelines

Manuscripts can have no more than 7 pages (plus one page after revision) and must be submitted to the online submission system. When submitting their papers through the online system, authors must select the acronym "VSI:PRAICH" as the article type.

Submissions to the special issue must include new, unpublished, original research. Papers must be original and have not been published or submitted elsewhere.

If the submissions are extended works of previously published papers, the original works should be included and a description of the changes that have been made should be provided.

Guest editors will make an initial determination of the suitability and scope of all submissions.

CONTACTS
Special issue website

For enquiries regarding the special issue, send an email to the managing guest editor at:
fontanella@unicas.it

GUEST EDITORS
Francesco Colace, Università di Salerno (ITALY)
Francesco Fontanella, Università di Cassino e del Lazio meridionale (ITALY)
Mario Molinara, Università di Cassino e del Lazio meridionale (ITALY)
Alessandra Scotto di Freca, Università di Cassino e del Lazio meridionale (ITALY)
Filippo Stanco, Università di Catania (ITALY)

Call for papers

Event/Location/Web	Event Date	Deadline (paper submission)
DATECH 2019, Brussels, Belgium Digital Access to Textual Cultural Heritage http://datech.digitisation.eu/call-for-papers/	May 8-10, 2019	- passed -
ICDAR 2019, Sydney, Australia Int. Conf. on Document Analysis and Recognition http://www.icdar2019.org/	September 22-25, 2019	- passed-
GREC 2019, Sydney, Australia Int. Work. on Graphics Recognition https://grec2019.univ-lr.fr/	Sept. 20-21, 2019	May 20, 2019 (paper)
ICCV 2019, Seoul, Korea Int. Conf. on Computer Vision http://iccv2019.thecvf.com/	Oct. 27 - Nov. 3, 2019	March 22, 2019 (paper)