

IAPR

www.iapr.org



Newsletter

1978-2018

Volume 40, Number 3
July 2018



Subscribe

IN THIS

Issue

From the Editor's Desk

[CALLS for PAPERS](#)

[Calls from the IAPR Education Committee, Industrial Liaison Committee, and ExCo](#)

NEW

[Happy 40th birthday, IAPR Newsletter!](#)

[Benchmark Datasets](#)

[From the ExCo](#)

[INSIDE the IAPR: Conferences & Meetings Committee](#)

[IAPR Technical Committee \(TC\) News: TC6 and TC11](#)

[ICPR 2018: See you in Beijing!](#)

[Meeting Reports: PreMI 2017, WSB 2018, ICB 2018, ASAR 2018, DAS 2018, and SSB 2018](#)

[Free Books/eBooks](#)

[Bulletin Board](#)

[Meeting and Education Planner](#)



From the Editor's Desk: Happy Birthday!

by Arjan Kuijper

arjan.kuijper@igd.fraunhofer.de

<http://www.gis.tu-darmstadt.de/~akuijper/>

I love birthday parties. I guess most of us do. Though some may prefer not to count the years for these occasions.

With this issue, the *IAPR Newsletter* turns 40 (the first issue was published in August 1978). That's an age that young kids see as "extremely old and boring", but most others recognize as mature and wise. This latter view is exactly where the *IAPR Newsletter* is nowadays. Looking back, the *Newsletter* has become 'an institution unto itself', having a clear position in the IAPR infrastructure as a medium for disseminating news, conference reports, and various calls to the members, as well as information for members to share among themselves in the form of book reviews and interviews with early and later career researchers.

The template has changed several times over the years, with more effort being put into the appearance. You may see Linda's name in the "contact us" on the last page. Remember: the one mentioned at the end is the most important one! Thanks Linda for all

your efforts in getting everything done on time – collecting articles, correcting them if needed, taking care of the layout, etc. ,etc. !

I'd say the *IAPR Newsletter* has reached some kind of maturity.

Now young kids may say that the information is boring, traditional, sometimes a bit old, etc. With all the new and not-so-new-anymore social media, different communication channels have popped up. Twitter, LinkedIn & co. could also serve the purpose of disseminating news from the IAPR to its members and improve the communication among you. The IAPR is thinking of how to use these new channels; LinkedIn is active, we have an IAPR group (<https://www.linkedin.com/groups/8159047>) and you may see Twitter accounts for several IAPR-supported meetings and at ICPR as well!

In a special section of this issue, you'll see statements, thoughts, and stories from previous *IAPR Newsletter* Editors-in-Chief. They'll show how the IAPR, the *Newsletter* and the community as a whole has matured!

continued on next page...



CALLS for PAPERS

For the most up-to-date information on IAPR-supported conferences, workshops and summer schools, please visit the IAPR web site: www.iapr.org/conferences/

DICTA 2018

Digital Image Computing: Techniques & Applications
Canberra, Australia
Deadline: Jul. 30, 2018
Dates: Dec. 10-13, 2018

CCIW 2019

2019 Computational Color Imaging Workshop
Chiba, Japan
Deadline: Oct. 15, 2018
Dates: Mar. 27-29, 2019

PRIP 2019

14th International Conference on
Pattern Recognition and Information Processing
Minsk, Belarus
Deadline: Feb. 1, 2019
Dates: May 21-23, 2019

MVA 2019

16th International Conference on
Machine Vision Applications
Tokyo, Japan
Deadline: TBA
Dates: May 27-31, 2019

ICB 2019

12th IAPR Interantional Conference on Biometrics
Crete, Greece
Deadline: Dec. 15, 2018
Dates: Jun. 4-7, 2019

CAIP 2019

18th International Conference on
Computer Analysis of Images and Patterns
Salerno, Italy
Deadline: TBA
Dates: Sep. 3-5, 2019

IAPR Then and Now...40 Years Ago

Excerpt from
"Chairman's Corner Letter"
IAPR Newsletter, Vol. 1 No. 1, August 1978

During the Second (1974) International Joint Conference on Pattern Recognition in Copenhagen, the Standing Committee approved the proposal of establishing a permanent international professional organization for pattern recognition. After two year's preparation, the International Association for Pattern Recognition (IAPR) was formally established at the Third (1976) International Joint Conference on Pattern Recognition at Coronado, California, and the Standing Committee approved the Constitution of IAPR and elected the Officers of the Executive Committee. Three committees, Publication, Conference, and Membership were appointed for each. A special committee drafted the IAPR Bylaws which were then approved by the Standing Committee early in 1977. IAPR was formally Incorporated under the laws of the State of New York in January 1978.

In the area of publication, a regularly published IAPR Bulletin is our initial goal. Professor Tom Cover has been taking a major responsibility of this effort. In the area of conferences, the Fourth International Joint Conference on Pattern Recognition will be held in Kyoto, Japan, November 7-10, 1978. Professor Michael Watanabe is now receiving proposals for our Fifth (1980) Conference. More than ten national organizations have already contacted the Membership Committee. It is expected that by the time we meet in Kyoto, we will have representatives from about fifteen national organizations for our first Governing Board meeting.

I would like to use this opportunity to thank everyone who has shared our effort and goal for the International Pattern Recognition Community. We certainly welcome any of your comments and suggestions about IAPR.


King-Sun Fu

continued from [previous page...](#)

I also got some hints on how to improve the *Newsletter* further. But even if we applied all the cosmetic improvements we could think of, the most important part would still be the content. Without your help we cannot fill a newsletter. So:

- Read books and write reports!

- Go to conferences and write your summaries!
- Send us your impressions of ICPR 2018 and all the workshops!
- Write something(!) – What did you like? What was funny? What did you learn? Whom did you meet? etc.

Getting old, boring, and dull is bad. In order to avoid that, we need continuous, fresh input. I'm confident we'll get that.

Looking forward to celebrating the next 40 years of IAPR Newsletters!

Happy reading!


Calls from IAPR Committees

From the IAPR Education Committee:

Call for Applications for IAPR Research Scholarships

<http://www.iapr.org/docs/IAPR-EC-RS-Call-2018.pdf>

Description: IAPR Research Scholarships, awarded by the IAPR through its Education Committee (IAPR-EC), seek to make possible mobility across institutions and international boundaries for Early Career Researchers working in fields within the scope of the IAPR's interests. Through this program, the IAPR sees an opportunity to make a significant contribution to the development of Early Career Researchers as well as the wider Pattern Recognition community.

Covered expenses and duration: The scholarship covers round trip travel & basic living expenses for a visit of less than 12 months.

Requirements: The candidate must be a full-time researcher with between one and eight years experience. The candidate must also be a member of an IAPR member society. See [Call for Applications](#) for a full list of requirements.

Contact information:

IAPR-EC Chair
c/o Josep Lladós, josep.llados@cvc.uab.es

IAPR Secretariat
c/o Linda O'Gorman, secretariat@iapr.org

From the IAPR Industrial Liaison Committee:

Call for Internship Listings for the IAPR Internship Brokerage Page

for Companies with internships available
for Students seeking internship opportunities
<http://homepages.inf.ed.ac.uk/rbf/IAPR/INDUSTRIAL/>

Description: The IAPR-ILC wishes to promote opportunities for students to undertake internships at companies working in Pattern Recognition, AI, Computer Vision, Data Mining, Machine Learning, etc. We propose to do this by having a web-based internship listing service. Companies can list their internship opportunities; students can browse the listings and contact the company.

For companies with internships to list: For students:

(see examples at the URL above)

If you are a student, please visit the web site given above.

Please email your listings as follows:

To: Bob Fisher - rbf@inf.ed.ac.uk

Subject: IAPR internship listing

Details:

- Host:
- Location:
- Post Type:
- Specialty:
- Funded:
- Length:
- Degree & Visa Requirements:
- Internship start date:
- Application closing date:
- Details:
- Contact:

NOTE: At the time of publication, there were 21 opportunities listed and more than 5100 views.

Contact Information:

Bob Fisher, rbf@inf.ed.ac.uk
Chair, IAPR-ILC

From the IAPR
Executive Committee (ExCo):

Call for Proposals for "Summer" Schools

Deadline: October 1, 2018
(for schools planned for
December 2018 - March 2019)

"Summer" schools are training activities that expose participants to the latest trends and techniques in the particular pattern recognition field. ("Summer" is used generically; the school can take place in any season.)

To be eligible for a grant, the organizers must work through at least one of the IAPR's technical committees as they develop and present the proposal.

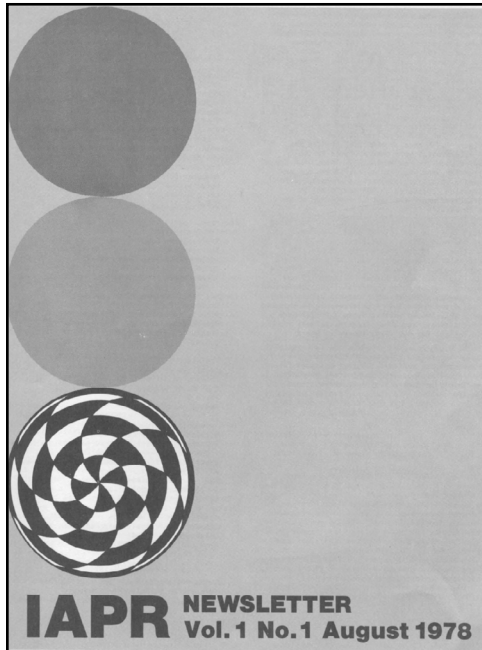
How to Submit: Proposals for IAPR funded summer schools should be submitted to IAPR Secretariat Linda O'Gorman by email (secretariat@iapr.org). A PDF attachment containing all the required information is appreciated.

For detailed guidelines on the proposal, see the **ExCo Initiative on Summer Schools**, <http://www.iapr.org/committees/SummerSchool-2018.pdf>.



Happy birthday,
IAPR Newsletter!

The faces of the IAPR Newsletter over the last 40 years:



Following in the style of a journal, the first two issues of the IAPR Newsletter had a stylized cover page.

The newspaper-like banner page began with Volume 2 Number 2 June 1979 and has remained to now in one form or another.

That simple banner (below left), whether black or "IAPR Purple" also known as Pantone 2597, was in place until Winter 1999.

The current banner was introduced in 2003, and in 2005, the Newsletter moved to an online only distribution with generated html (from MS Publisher) and pdf print versions.

Today's interactive pdf format was introduced in April 2013, Volume 35, Number 2.





List of *IAPR Newsletter* Editors

THE INTERNATIONAL ASSOCIATION FOR PATTERN RECOGNITION

IAPR
www.iapr.org



Newsletter

Editor's note: As I said in this issue's "From the Editor's Desk" on page 1, I feel that the "Newsletter has become 'an institution unto itself', having a clear position in the IAPR infrastructure as a medium for disseminating news, conference reports, and various calls to the members, as well as information for members to share among themselves in the form of book reviews and interviews with early and later career researchers." It has achieved this through the efforts of its (volunteer) EiCs.

Many thanks to all who came before me and to those who will follow me in this job.

~ Arjan Kuijper, IAPR Newsletter EiC, arjan.kuijper@igd.fraunhofer.de

Editor-in-Chief	First issue	Last issue
King-Sun Fu/Tom Cover/Herb Freeman	1978 Volume 1 Number 1	1979 Volume 2 Number 1
Martin Levine	1979 Volume 2 Number 2	1981 Volume 4 Number 1
Ruzena Bajcsy	1981 Volume 4 Number 2	1984 Volume 7 Number 4
Anthony P. Reeves	1985 Volume 8 Number 1	1986 Volume 9 Number 1
Josef Kittler	1986 Volume 9 Number 2	1990 Volume 13 Number 2
Adrian F. Clark	1990 Volume 13 Number 3	1993 Volume 15 Number 4
Maria Petrou	1994 Volume 16 Number 1	1998 Volume 20 Number 4
Michael Duff	1999 Volume 21 Number 1	2002 Volume 24 Number 3
Larry O'Gorman	2002 Volume 24 Number 4	2008 Volume 30 Number 4
Alexandra Branzan Albu	2009 Volume 31 Number 1	2012 Volume 34 Number 4
Arjan Kuijper	2013 Volume 35 Number 1	present



Reflections of Former *IAPR Newsletter* Editors

For this issue of the IAPR Newsletter, we asked its former EiCs to share their thought and, perhaps, to respond to one or more of these questions:

- 1. Why did you accept the offer / opportunity to become EiC?*
- 2. What did you want to achieve? Did you achieve that?*
- 3. Did the IAPR community change during your time as EiC?*
- 4. How much did being EiC influence your career (@work, @IAPR)?*

We were pleased to have received many responses, and we share them with you in this section...

Martin D. Levine: 1979 Vol. 2 No. 2 to 1981 Vol. 4 No. 2

My Time as Editor-In-Chief of the IAPR Newsletter:

I had started my academic career after graduating from Imperial College with a PhD, which involved research in computational methods for determining the solutions to the linear Euler-Lagrange Differential Equations. The control vector was referred to as bang-bang control as it could only take on one of two possible values. These matrix equations resulted in an inherently unstable set of equations that had to be solved on a computer using numerical methods.

Later, as a young professor at McGill University I was asked to teach a course in control theory. At that time King-Sun Fu was at Purdue University doing research in both control theory as well as pattern recognition. Therefore, when I did literature searches on the former, I also came into contact with the latter topic. I had no clue what it was about but found it extremely fascinating as I further investigated the topic. It took me about five years to completely drop the control computations and deeply delve into computer vision.

I decided that the best way for me to get a quick education in this field was to personally meet with the main researchers. McGill University provided me with a grant to pay for visiting professors and this was the way I first met King-Sun Fu and Ariel Rosenfeld, as well as other leaders, such as Herb Freeman, in the field at that time. Later on, Herb offered me the opportunity to become the Editor-In-Chief (There was no other staff) of the IAPR and I accepted. The rest is history.

IAPR Then and Now...

39 Years Ago

Excerpt from

"EDITOR'S COMMENTS"

IAPR Newsletter, Vol. 2 No. 2, June 1979

I am very pleased to accept the responsibility of being the IAPR Newsletter Editor. Both the Association and the Newsletter are relatively new arrivals and I would appreciate your assistance in providing suggestions and material to me. I view the Newsletter as a rather informal communication channel and am prepared to publish any pertinent information related to pattern recognition. Of course, the latter is to be interpreted in its most general sense. Although formal papers are not appropriate, short reviews and comments are indeed welcome. In particular, I would like to hear about the goings on around the world, from areas perhaps most of us do not know very much about.

I will attempt to publish the next issue by next September.

M. D. Levine



Reflections of Former *IAPR Newsletter* Editors

Ruzena Bajcsy: 1981 Vol. 4 No. 2 to 1984 Vol. 7 No. 4

EiC: Why did you accept the offer / opportunity to become EiC?

RB: In the late 70s, the pattern recognition society was the leading society for people who dealt with signal processing and pattern recognition, including robotics and AI. It was a natural place for me to be active.

IAPR Then and Now... 37 Years Ago "EDITORIAL COMMENTS" *IAPR Newsletter*, Vol. 4 No. 2, August 1981

It is my pleasure to accept this job as the editor of the Newsletter of the IAPR. Martin Levine will be a hard act to follow, but I will try.

My ambition is to make this newsletter a forum for the exchange of all ideas related to Pattern Recognition and dissemination of related information. Any data that shows some invariance forms a pattern. Hence, our field touches upon many fields. In particular, I would like to invite writers from the Artificial intelligence, Robotics and Cognitive Science communities to exchange ideas and experiences with us. The boundaries between the fields are fuzzy, perhaps nonexistent. Maybe there are different points of view about the Priority of problems to be solved and about the methodologies applied. I feel, however, that these differences are introduced by people and not by the subject matter, and therefore they could and should be overcome. We could learn from each other.

In order to open discussion I would like to pose some questions that have worried me for some time:

Is Pattern Recognition a science, applied science or engineering?

Should Pattern Recognition retain its name or would a better name be Machine Perception?

If Pattern Recognition is a science, then what is the domain; what are the elementary perceptual or pattern units; what are the underlying principles or laws that can be applied on these units; what are the constraints, assumptions?

If Pattern Recognition is an applied science, then again-what is the domain of application: is it the model- of human perception or is it the automatic aspect of machine perception and cognition?

What is the ideal curriculum for a prospective researcher in Pattern Recognition?

What are the most important and open problems in Pattern Recognition?

There are clearly many more questions. However, I leave them up to you. I hope that by thinking about and formulating these and other related questions we can make our scientific endeavor crisper, more rigorous and effective.

I hope to hear from all of you very soon.

Ruzena Bajcsy



Reflections of Former *IAPR Newsletter* Editors

Anthony P. Reeves: 1985 Vol. 8 No. 1 to 1986 Vol. 9 No. 1

EiC: Why did you accept the offer / opportunity to become EiC?

APR: I read the first newsletter issue by my successor as editor Josef Kittler, and I found that his introduction to being invited to be editor was strikingly similar to my own of how “effortless” the task was to be. Although I can no longer be sure due the passage of time, I do believe that this encouragement came from the same source, the IAPR secretary Dr. Michael Duff.

My expectations were to continue the newsletter mission of timely information dissemination as well as the previous editor, Ruzena Bajcsy, had done by including topics of interest and announcements of upcoming events. I also looked forward to a more electronic form of editing and documents management, and I encouraged submissions through the then “ARPA” net rather than by paper.

EiC: What did you want to achieve? Did you achieve that?

APR: I had hoped to encourage the submission of reviews of current topics and important publications as regular newsletter features. However, soon after I agreed to be the editor, there was an unplanned change in my professional plans, and I spent a good deal of time for the following few years away from Cornell mainly at the University of Illinois. Thus, circumstances dictated that the “effortless” editorship should be passed on to Josef.

IAPR Then and Now... 33 Years Ago "FROM THE EDITORS DESK", *IAPR Newsletter*, Vol. 8 No. 1, April 1985

Dear Colleagues,

This issue of the newsletter has suffered the startup delays associated with a new editor, an intransigent troff and a reluctant laser printer. Future issues should be back to the more regular schedule.

It is sad that the first item to report is the death of K-S Fu In addition to his extensive contributions to the pattern recognition area he was one of the main founders of the IAPR.

This issue contains a letter from the new president and the regular features of reports from Japan, New Book Announcements and Calls for Papers. There have been so many changes to the IAPR directory since the last newsletter that it is being reproduced

in full again in this issue. A new format is being used for the Calendar.

It is now possible to send material to me over the ARPA network in addition to more conventional methods. My network address is *reeves@tesla.ARPA*.

Anthony P. Reeves

IAPR Then and Now... 33 Years Ago "EXECUTIVE COMMITTEE", *IAPR Newsletter*, Vol. 8 No. 1, April 1985

President	Prof. T. Sakai (Japan)	First Vice-President	Dr. P. A. Devijver (Belgium)
Second Vice President	Dr. T. Pavlidis (USA)	Past President	Prof. J-C. Simon (France)
Secretary	Dr. M. J. B. Duff (UK)	Treasurer	Prof. H. Freeman (USA)
Past Chairman 7ICPR	Prof. M. D. Levine (Canada)	Chairman 8ICPR	Prof. J-C. Simon (France)



Reflections of Former *IAPR Newsletter* Editors

Josef Kittler: 1986 Vol. 9 No. 2 to 1990 Vol. 13 No. 2

EiC: Why did you accept the offer / opportunity to become EiC?

JK: I took over the editorship of the IAPR Newsletter in 1986. I did not have any journalistic ambitions and if anything, considered the prospect of the task producing the Newsletter as rather daunting. I accepted the job with the simple goal to serve the IAPR community, as reflected in my inaugural editorial in December 1986.

EiC: What did you want to achieve? Did you achieve that?

JK: During my term of office the role of the IAPR Newsletter was to disseminate basic information about the Association and its activities to the membership. At that time all calls for papers and conference reports were disseminated by snail mail, and the Newsletter was a central source of information for the community. All issues were produced in a printed form and distributed in bulk to the member societies by international postal services. The mailing to individuals was the responsibility of each local organization. It was frustrating and disheartening when in some cases this hard-copy distribution process led to delays, resulting in information arriving almost out of date.

For the four years I was in charge, the content of the IAPR Newsletter was rather routine. There were a few innovations, but the most important principle established during my period of service was the right of the member societies to use the Newsletter as a medium for communicating their views to the rest of the IAPR community.

IAPR Then and Now... 32 Years Ago "FROM THE EDITORS DESK", *IAPR Newsletter*, Vol. 9 No. 2, December 1986

In a moment of weakness, or unchecked enthusiasm for the good of the cause or perhaps just sheer insanity I submitted to IAPR Secretary's persuasive powers and agreed to take on the task of editing the IAPR Newsletter. It must have happened just when Prof Duff was telling me how he effortlessly run a local parish magazine appearing once a month over a period of some six years, with a number of volunteers taking the full responsibility for the various sections of the journal, leaving him only the minor task of coordinating their efforts. I remember the feeling of slight embarrassment that came over me at that point for having initially resisted his approaches. For a while I even wondered, why a few months back I also resisted so vehemently to volunteer my services to fill the vacant post of Editor of the British Pattern Recognition Association Newsletter. My optimistic mood however did not last long. Soon after being formally appointed by Prof Sakai, past IAPR President, I contacted the former editor, Tony Reeves, to learn the ropes and to ask him about his sources of information and volunteer editorial and production staff. His reply turned out to be a thin envelope with a list of reports from Japan, a couple of calls for papers and a clear message: This is a one man show from start to finish.

I managed to get over my deepest depression with the kind help of Dr Dave Pairman of the Department of Scientific and Industrial Research, New Zealand who taught me the basics of Tex and most importantly, generated the Newsletter layout while waiting for his PhD exam at Oxford University. So thanks to him my first output is coming out without an embarrassingly long pause. However even with his help the learning phase left me no spare time to think about new editorial policies and other matters of similar importance. I hope to have clearer ideas on this subject by the time the next issue is ready for publication and expand on them there and then.

Meanwhile allow me to take this opportunity to wish you a happy and successful new year.

Josef Kittler



Reflections of Former *IAPR Newsletter* Editors

Adrian F. Clark: 1990 Vol. 13 No. 3 to 1993 Vol. 15 No. 4

IAPR Then and Now... 28 Years Ago *IAPR Newsletter*, Vol. 13 No. 3, October 1990

"From the Editor's Desk"

WITH THE RECENT CHANGES of officers following the 10th ICPR, the rôle of *Newsletter* editor has passed on from Josef Kittler. I am sure we would all like to thank Josef for his sterling work in producing the *Newsletter* for the last four years and wish him every success in his new position, in charge of publications and publicity.

Being the first *Newsletter* under new editorship, a brief word on its production is perhaps called for. Josef used Prof. Donald E. Knuth's (plain) T_EX to prepare previous issues of the *Newsletter*. For this edition, I have moved to Leslie Lamport's I_AT_EX macro package, using a special 'style file' to give the familiar appearance. (The style file, `iapr.sty`, is available from good T_EX archives.) The title material and photographs were digitised on a Agfa scanner and converted to encapsulated P_OST_SC_RI_PT, merged with the text using James Clark's D_VI_TR_OP_S, and printed on a Linotronic 300 phototypesetter at 1270 dots/inch. P_OST_SC_RI_PT fonts are used throughout. Thanks are due to Peter Abbott of the Aston University Computing Service for his help with the digitising the photographs.

"National Member Associations"

Country	Governing Board Representative	Number of Members
Australia	Mr. A. J. Maeder	42
Austria	Dr. W. G. Kropatsch	75
Belgium	Dr. P. A. Devijver	~45
Bulgaria	Dr. V. Valev	~67
Canada	Prof. R. Plamondon, Prof. C. Y. Suen	~220
P. R. China	Prof. Qingyun Shi	~100
Denmark	Prof. K. Conradsen	~50
FRG	Prof. H. Niemann, Prof. J. S. Pöpl	~450
Finland	Prof. E. Oja, Prof. M. Pietikäinen	203
France	Prof. J. -P. Haton, Prof. S. Castan	~300
DRG	Prof. R. Klette	150
Hungary	Dr. D. Chetverikov	~60
India	Prof. D. Dutta Majmuder	~55
Israel	Dr. Y. Yeshurun	~180
Italy	Prof. V. Di Gesù	~120
Japan	Prof. M. Nagao, Prof. M. Takagi	~400
Netherlands	Prof. E. Backer, Prof. E. S. Gelsema	~205
Norway	Mr. S. Grinaker	117
Portugal	Prof. J. P. Marques de Sá	~30
Spain	Prof. A. Sanfeliu	77
Sweden	Dr. G. Borgefors, Prof. G. Granlund	340
Switzerland	Prof. M. Kunt	33
U. K.	Prof. M. J. B. Duff, Dr. J. Kittler	~400
U. S. A.	Prof. J. K. Aggarwal, Prof. H. Freeman, Prof. R. M. Haralick, Prof. J. Sklansky	~1,000
USSR	Dr. P. P. Koltsov, Prof. Yu I. Zuralev	1,187



Reflections of Former *IAPR Newsletter* Editors

Maria Petrou: 1994 Vol. 16 No. 1 to 1998 Vol. 20 No. 4

IAPR Then and Now... 24 Years Ago

"FROM THE EDITOR'S DESK", *IAPR Newsletter*, Vol. 16 No. 1, January 1994

Dear Friends and Colleagues

From this issue of our newsletter onwards, I have accepted responsibility for its overall production; Susan Duff, in charge of IAPR's Secreariat, has agreed to help me. I must admit, I feel quite overwhelmed by the daunting task and without Susan's help I would not feel able to cope. On the other hand, Adrian Clark, our editor thus far, managed to produce the newsletter on his own without much help from other people. Adrian has now taken over the chair of Technical Committee 5 on Benchmarking and Software and I would like to take this opportunity to thank him for all his good work and wish him good luck with his new responsibilities; his efforts are much appreciated y the whole community.

As the new editor, I would like to use this editorial to express my thoughts for the newsletter. I would like every member of IAPR to feel that this is our voice and our forum for talking to each other. This can only be true with your help and cooperation. If you have some views which might interest the community and you would like to air them, please drop me a line. If you go to a conference and feel strongly about something, or are simply inspired by it and would like to try out your reporting talents (!), please do send me the result. It will be highly appreciated and I will be happy to receive your contributions.

In addition to letters to the editor, another new column we decided to introduce is a column with news of members. Please drop me a line if you think some news item concerning a member is news-worthy. I receive occasionally books for reviewing which I like to pass on to people who are interested in reviewing them. The reviewer has to write his/her opinion of the book and gets to keep the book as a reward; if you would like to participate, please send me a message stating your main interests and your postal address. Further, if you are the author of a book, do tell the marketing department of your publisher to send us a copy so that we have it reviewed, and publicised,

through our columns.

To start things up, and as it has just been the festive season, I thought we might have a bit of fun! What about a cartoon competition? First prize, US \$50. The subject of the competition is open but it would be good if it had some relevance to the interests of the community. Please send your entries to me by mid February.

Please remember: this newsletter will be boring, dull and unexciting unless you want it to be otherwise, unless YOU feel it is yours!

Susan and I promise to do our best for a smooth, timely running, but a successful newsletter cannot be a one-man band - not even a two-women band!

Maria Petrou
Editor



When the IAPR Public Relations Officer, Professor Goodimage, saw the photograph (above) of the newly appointed newsletter editor, he was dismayed!

He asked the Statistics Department of the University of Leeds to do their best to sort it out. This research group applied a technique described in an article by K V Mardia and J Hainsworth in the book "Advances in Applied Statistics: Statistics and Images" (Volume 1, 1993, edited by K V Mardia and G K Kanji). The result is shown below.





Reflections of Former *IAPR Newsletter* Editors

Michael Duff: 1999 Vol. 21 No. 1 to 2002 Vol. 24 No. 3



Editor's note:

Michael and Susan Duff sent their greetings for this Special Issue of the *IAPR Newsletter* in the form of a recent photograph.

In addition to his four years as Editor of this newsletter, Michael had also served as the IAPR Secretary (1984-1990) and President (1990-92).

In 1992, the IAPR Secretariat was set up under Susan's superb management. She held that position until 2004.

~Arjan Kuijper

IAPR Then and Now... 19 Years Ago

Excerpt from "EDITORIAL", *IAPR Newsletter*, Vol. 21 No. 1, Winter 1999

A New Look for the Newsletter

We are going to experiment with some changes both to the appearance and content of the Newsletter. These days, most of us have access to email and the Web and these regularly distribute a plentiful supply of information about forthcoming conferences, new books and journals, technical courses and so on.

Sharing with the Web

We would like to aim at putting useful, hard, factual information on IAPR's excellent web site, leaving the Newsletter free for communications from our Executive Committee and other IAPR officers, for news of our members and their associations and for discussion of ideas about our common research interests and their application. You will now find the IAPR Directory on the Web rather than in one issue of the newsletter [...]

We also want to make sure that IAPR sponsored meetings are brought to your attention with all due emphasis and we want to provide a medium for the TCs to tell you what they are doing and how you can become involved.

The Personal Touch

Working on the assumption that people are interested in people, we will solicit your personal views on topics of general interest to our community and we want to

include photographs of our contributors whenever we can. Our columns will be open for correspondence and I personally will be disappointed if you are not stimulated to write to the Newsletter from time to time, even if only to complain if you don't like it. Hopefully, you might feel moved to comment on views expressed in our articles, especially if authors write critically, honestly and, perhaps, not too discretely. Our newly-appointed Area Correspondents will bring you news from member associations all over the world [...]

Feedback

Please let me know if you would like to see further changes in the Newsletter or if you are unhappy with any of the changes we have made. Most of all, do send us material for publication. Generally speaking, articles should not exceed a page in length (including illustrations) and it would be helpful if you would email me with some idea about what you might like to write before actually submitting it (so we can plan it into a particular issue).

With best wishes,

Editor



Reflections of Former *IAPR Newsletter* Editors

Larry O'Gorman: 2002 Vol. 24 No. 4 to 2008 Vol. 30 No. 4

The most concrete accomplishment from my term as *IAPR Newsletter* Editor was the transition from paper to on-line issues. When I began, we (my wife, Linda, who was and is Layout Editor of the *Newsletter*) had about 7000 copies printed, baled by country, and mailed. Upon the initiative of IAPR President at the time, Rangachar Kasturi, we made the transition. The learning curve fell mainly upon Linda who initially did the layout in Microsoft Publisher, which generated the (admittedly clumsy) html. Ironically, for an association of innovators and document processing scientists, there was some resistance at first (Linda layed out a separate printable pdf version to ease the transition), but today we realize the convenience of timely issues with hyperlinks within and between issues and beyond to the web.

My main initiative for the Newsletter was a quarterly article in which I interviewed scientists about their technology. It was tremendously enjoyable chatting with these people usually by phone, and learning about their work. Here are some of the articles:

- Pattern Recognition in Sports, in which Gopal Pingali and Yves Jean described work to extract tennis metrics with computer vision, now commonplace in TV sports ([Apr. 2003](#))
- Pattern Recognition in Security and Entertainment, in which Ingemar Cox described pioneering work in watermarking ([Jun. 2003](#))
- Pattern Recognition in Maps, in which Herb Freeman described his journey from academia to his startup company, which developed pattern recognition methods for map layout ([Sep. 2003](#))
- Pattern Recognition in Defense, in which Vijayakumar Bhagavatula described his work rejuvenating the matched filter with new theory and applications from defense to face recognition ([Jan. 2004](#))
- Pattern Recognition in Origami, in which Hiroshi Shimanuki described how pattern recognition is used to model the ancient Japanese art of paper-folding (Jan. 2005, the first "electronic edition", [html pdf](#))
- Pattern Recognition in Astronomy and Photonics, in which Tin Kam Ho described her contributions to the field of astronomy with software and methodology for classification and visualization of astronomical data (Apr. 2005 [html pdf](#))
- Pattern Recognition in Traffic Engineering, in which Panos Michalopoulos described his work leading to a pioneering company building machine vision for traffic (Jul. 2005 [html pdf](#))
- Pattern Recognition in Digital Libraries, In which Ian Witten describes development of the open source Greenstone Digital Library software for creation and distribution of digital libraries, used, as an example, to create UNESCO libraries aimed at information dissemination in developing countries (Jul. 2006 [html pdf](#))

IAPR Then and Now... 15 Years Ago "Editor's Note", *IAPR Newsletter*, Vol. 25 No. 1, Winter 2003

Editor's Note

This is my first issue as editor of the IAPR Newsletter. Please send any comments to my email above.

My thanks to Michael Duff for his years of excellence as outgoing editor of the Newsletter, and to Susan Duff for her invaluable help with the transition.

~Larry O'Gorman



Reflections of Former *IAPR Newsletter* Editors

Alexandra Branzan Albu: 2009 Vol. 31 No. 1 to 2012 Vol. 34 No. 4

The *IAPR Newsletter* feels very special to me. Linda and Arjan have done a great job in terms of constantly improving its content and layout so that our *Newsletter* stays relevant in a world where we constantly receive news from a variety of sources.

Looking back at my tenure as *IAPR Newsletter* Editor, I realize that this job has taught me a lot about the spirit and essence of our organization. I hope that the series that I launched, 'IAPR Fellows', featuring contributions from some of our most respected IAPR members has inspired many young researchers.

Most importantly, editing the *Newsletter* allowed me to learn about the complexities and inner workings of the IAPR. To quote psychologist Meg Jay, 'The more we know about how things work, the more we feel a part of things.' This knowledge has given me the confidence and motivation to serve on the IAPR Executive Committee as Secretary for the past four years.

IAPR Then and Now... 9 Years Ago

INSIDE the IAPR "Hello from the New Editor of the IAPR Newsletter" *IAPR Newsletter*, Vol. 31 No. 1, January 2009



With this issue, I begin my tenure as editor of the *IAPR Newsletter*. I accepted this position as it enables me to serve as a liaison between the many "worlds" covered by pattern recognition applications. While most of us work, research and publish in highly specialized areas of pattern recognition, the *Newsletter* offers us the opportunity to reconnect to the big picture and inspires us to expand our thinking beyond our specific domains of interest. Larry O'Gorman, the past editor for six years, has taken us on an incredible journey through his feature articles highlighting pattern recognition successes in sports (April 2003), security and entertainment (June 2003), maps (September 2003), defense (January 2004), astronomy (April 2005), traffic (July 2005), biometrics (January 2006), and digital libraries (July 2006).

Larry O'Gorman has established a high-quality publication standard for the *Newsletter*. It will be hard to follow in his footsteps, although he has made all efforts for smoothing the editorial transition. I am also grateful to Linda O'Gorman, the layout editor, for her much appreciated support with the transition; I am looking forward to working with Linda.

As new editor, I would like to take this opportunity to invite all IAPR members to participate in every aspect of Newsletter that appeals to them. You may wish to propose a new column, volunteer to contribute to one of the regular features, write a special article, propose a theme and act as coordinator for a special issue, etc. We want the Newsletter to represent the interests of IAPR members and to be a useful publication that will be worth your reading. We can only do that with your help. We cannot say this better than Maria Petrou did in 1994: "a successful newsletter cannot be a one-man band - not even a two-women band!"



Reflections of Former *IAPR Newsletter* Editors

Arjan Kuijper: 2013 Vol. 35 No. 1 to present

IAPR Then and Now... 5 Years Ago INSIDE the IAPR

***IAPR Newsletter*, Vol. 35 No. 1, Jan. 2013**

A happy & productive new year! Since I had no clue how to start my introduction as the new Editor-in-Chief of the IAPR newsletter, I thought that this wish would be appropriate.

During 2012, many of you would have attended and presented papers or posters at one or more IAPR-supported meetings, which have been or will be reviewed in the *IAPR Newsletter*. This issue of the Newsletter is dedicated to the IAPR flagship conference, the International Conference on Pattern Recognition (ICPR). You can read more about ICPR 2012 (beginning on Page 8) and one of its satellite conferences, the Joint IAPR International Workshops on Structural and Syntactic Pattern Recognition and Statistical Techniques in Pattern Recognition (S+SSPR 2012). And don't forget to check the ICPR 2012 web site, as the photo album is online! So, read the reports and get inspired— read and review books!—and check the conference planner. :)

In this Newsletter you can find some of the “traditional” news items. What is new is that we have a new Associate Editor for Book Reviews, Zeeshan Zia. Also new is the EiC. I would like to thank Professor Alexandra Branzan Albu who held this position for the past four years. Just as she did, I will do my best to make the IAPR Newsletter a news and information platform for the IAPR community. I'm looking forward to collaborating with Layout Editor Linda O'Gorman and Zeeshan as well as with the IAPR ExCo to provide you with all kinds of relevant and interesting material. The newsletter is not just our hobby (well, yes, it is fun, of course!): it is your source of information about the IAPR and its activities! So if there are things that you would like us to change, incorporate, or add, please let us know (arjan.kuijper@igd.fraunhofer.de)! We have some things in mind: just check the next issues and you'll notice it!

For those interested in who this new EiC actually is: check the October 2009 issue of the Newsletter and find my introduction as Associate Editor for Book Reviews. ;)

IAPR Then and Now... 9 Years Ago INSIDE the IAPR, *IAPR Newsletter*, Vol. 31 No. 4, Oct. 2009

Alexandra asked me to briefly introduce myself as the new associate editor for book reviews— so let's give it a not-too-boring try. I did an MSc in applied math at Twente University in the Netherlands, with a thesis on image enhancement using partial differential equations at the Dutch Forensic Laboratory (1995). After a short period in industry as software engineer for handheld computers issuing parking fines. (I made a lot of friends there!) I did a PhD at Utrecht University on image understanding using Gaussian scale space with some medical context (under supervision of IAPR Fellow Viergever; 2002).

I then moved to Denmark, where I was an assistant research professor at the IT University in Copenhagen, working on shapes, symmetry sets, and medial axes. After three years, it was time to move again—this time to Austria, as senior researcher at the Johann Radon Institute for Computational and Applied Mathematics (RICAM) in Linz, a part of the Austrian Academy of Sciences. Here I continued my work on image processing and understanding using PDEs (and got to know IAPR Fellow Kropatch —Fellows are everywhere! Get to know IAPR Fellow Aggarwal in related article in this issue).

One year ago, I started as research coach at Fraunhofer IGD (and external lecturer at the Technical University Darmstadt) in Darmstadt, Germany (see related article). It basically means that I supervise employees who are in a PhD track, and help them with publishing papers & writing their theses.

BENCHMARK DATASETS

Editor's note: Do you have benchmarking news to share?

Send the link.

Describe the contents.

Include a contact person.

We'll feature your dataset in this series.

~ Arjan Kuijper, IAPR Newsletter EiC, arjan.kuijper@igd.fraunhofer.de



EPIC-KITCHENS

A research collaboration, led by the University of Bristol (UK), along with the University of Catania (Italy) and the University of Toronto (Canada), announced today the release of **EPIC-KITCHENS**, the largest-ever video dataset using wearable cameras, available to the academic research community, for automatic understanding of object interactions in daily living. It is aimed to advance the field of first-person vision, perceiving the world from the wearer's perspective as well as the wearer's intentions and interactions. Wearable vision is believed to be the next step beyond hand-held (e.g. mobile) computer vision, with direct applications to robotics, healthcare and augmented reality.

"First-person vision has been hindered for years by the unavailability of big data," said Dr Dima Damen, Senior Lecturer at the Department of Computer Science, who led the team of researchers. "**EPIC-KITCHEN** will allow training of data-intensive machine learning algorithms, previously unachievable in first-person vision due to the size and nature of public datasets. It offers a bed of interesting challenges from typical object detection – locating objects in the video, to behaviour analysis and action anticipation."

EPIC-KITCHENS consists of 11.5M images, recorded by 32 individuals

Release of EPIC-KITCHENS - the Largest-ever Computer Vision Dataset from Wearable Cameras

1TB of data to advance first-person vision

10 April 2018

in their own homes, over several consecutive days. The dataset is fully annotated for actions and objects in all videos. Around 40,000 action examples and half a million objects have been annotated. The annotation is unique in that it is based on the participants narrating their own videos, thus reflecting true intention. The ground-truth was then crowd-sourced based on these narrations.

EPIC-KITCHENS is the outcome of a 12-months collaboration, and required the effort of 11 researchers across the three universities. Dr Antonino Furnari, a senior research fellow at the University of Catania expressed his excitement at today's release, "I believe **EPIC-KITCHENS** will accelerate research in the field by providing realistic data useful to study and understand human-object interactions." Will Price, PhD student at the University of Bristol noted, "As a first year PhD student, I have found participating in the collection and annotation of a dataset enlightening. Working with a dataset of this size introduced me to the necessity of high performance computing to process data in a timely fashion, and challenged my skills in training and modifying neural networks including architectural improvements."

"It is beyond exciting to see the outcome of this collaboration, a long-awaited effort in the first-person

vision community", said Dr Giovanni Maria Farinella, Associate Professor at the University of Catania. The collaborators invite research groups worldwide to compete on available challenges and introduce new ones. Dr Sanja Fidler, Assistant Professor at the University of Toronto, noted that the plan is to "track the community's progress on established challenges, with held-out test ground truth, via online leaderboards."

The annotation of **EPIC-KITCHENS** was made possible via a charitable donation from Nokia Technologies, as well as seed funding from University of Bristol's Jean-Golding Institute for data intensive research.

Further information:

- Watch the **EPIC-KITCHENS** trailer at: <https://youtu.be/Dj6Y3H0ubDw>
- Dataset Link: <http://epic-kitchens.github.io>



University of
BRISTOL



UNIVERSITÀ
degli STUDI
di CATANIA

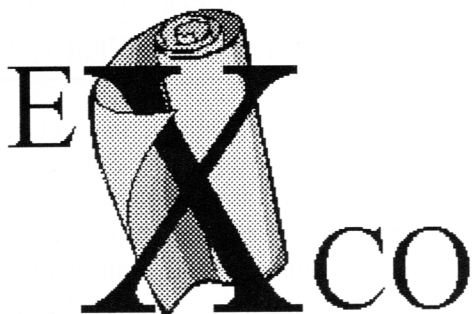


UNIVERSITY OF
TORONTO

Press Release reprinted with permission.

From the

News from the Executive Committee of the IAPR



by [Alexandra Branzan Albu](#) (Canada)
IAPR Secretary



Victoria, July 2018

GDPR

The main things concerning the IAPR ExCo this quarter have been the General Data Protection Regulation (GDPR) and preparations for ICPR 2018 in Beijing.

The GDPR, in effect since May 25, 2018, is the primary law regulating how companies protect EU citizens' personal data. In advance of this date, the IAPR:



- updated and posted its privacy policy; please consult <http://www.iapr.org/aboutus/privacy.php>.
- reviewed and updated all forms on the IAPR web site to include a statement about privacy
- modified the subscription form for the email announcement list to include a statement about privacy
- removed any personal information related to individual members from the information about member societies

ICPR 2018

We hope to see many of you in about one month from now as we gather at ICPR 2018 in Beijing. The IAPR ExCo is pleased to report that IAPR Travel Stipends have been awarded to 25 authors of ICPR papers. The ICPR 2018 organizers received 182 applications, which were ranked according to multiple criteria. The strategy was to give high priority to PhD students, in particular in cases where they were the only authors attending ICPR. Authors of multiple papers and authors from countries with financial difficulty to travel to Beijing were also favored.

The ICPR 2018 Program Committee has taken great care in selecting an excellent program of invited speakers and oral and poster presentations. In addition, we can look forward to the IAPR Award plenary lectures for the King-Sun Fu, J. K. Aggarwal, and Maria Petrou Prizes!

The tentative program of ICPR 2018 is available at <http://www.icpr2018.org/index.php?m=content&c=index&a=lists&catid=18>. It's worth noticing that unlike previous years the main conference will run from Tuesday to Friday, featuring one closing session on the last day with an awards ceremony. Workshops and tutorials will be held on Monday, August 20th.

The conference promises to be very exciting, from both academic and social viewpoints. We hope that many *IAPR Newsletter* readers will be able to come and participate.

Wishing you a happy reading of this special 40th Anniversary Issue of the *IAPR Newsletter*!



INSIDE the IAPR

The IAPR Conferences & Meetings Committee



by [Dan Lopresti](#), Chair

Who we are:

The IAPR Conferences & Meetings Committee (C&M) is a dedicated group of volunteers appointed for two-year terms by the IAPR leadership. This committee is a Standing Committee of the IAPR and currently consists of the following members:

- Elisa Barney Smith (USA),
- Koichi Koichi (Japan),
- Rasmus Larsen (Denmark),
- Laurence Likforman (France),
- Cheng-Lin Lin (China), and
- Marcello Pelillo (Italy).
- Dan Lopresti (USA) is the current C&M Chair, and Apostolos Antonacopoulos (UK) is the Executive Committee Liaison to C&M.

What we do:

The main responsibility of C&M is reviewing applications from conference and workshop organizers for IAPR Sponsorship and Endorsement. These two forms of recognition by the IAPR are intended to be indicators of scientific quality and also adherence to the IAPR Statement of Ethics.

Sponsorship vs. endorsement:

Confusion sometimes arises regarding the difference between "sponsorship" and "endorsement." A simple rule of thumb to keep in mind is that sponsored events

are organized by IAPR Technical Committees and may include the "IAPR" name in the title of the event. Endorsed events also meet IAPR standards, but are not typically organized by IAPR TC's and may not use the IAPR name in the title of the event.

Conference levies—what they are, how much is owed, how they're used, by the IAPR, and how a portion can be used by the conference:

Whether sponsored or endorsed, all IAPR events are expected to pay the IAPR a levy upon conclusion of the event. This fee is in exchange for the IAPR's recognition and publicity, and provides an important source of income for the IAPR.

Recently, the IAPR announced that the levy for sponsored events will be increased from US \$20 per attendee to US \$40 per attendee beginning in the summer of 2019. (The levy for endorsed events will stay the same.) This is to provide additional resources to the IAPR that will then be used to support community activities, including

- [IAPR ExCo Summer School grants](#),
- [IAPR Research Scholarships](#),
- TC activities,
- travel stipends, etc.

If a timely request (made well in advance of the conference) is

made and approved, a portion of the levy may be used in the name of IAPR to support activities that enhance the event (an invited speaker, best paper award, etc.).

Conference websites:

One recent enhancement has been the establishment of a "permanent" URL and archive hosting service for the websites of IAPR Sponsored events. This will serve to guarantee that important historical details of the community's conferences and workshops do not "disappear" from the Web after the event has ended.

ICPRs:

The IAPR C&M also plays an important role in soliciting and providing input on ICPR hosting bids. The final decision regarding the location of future ICPRs is made by the Governing Board at the ICPR four years in advance of the conference in question.

To find out more:

For further details, see the IAPR website, and in particular:

<http://www.iapr.org/conferences/sponsorship.php>

<http://www.iapr.org/conferences/proposals.php>

<http://www.iapr.org/committees/committees.php?id=5&subid=47>

If you have any questions, you can send me an email at lopresti@cse.lehigh.edu.

IAPR Technical Committee News

This section the IAPR Newsletter publishes short, timely items by and about the IAPR's Technical Committees.

There are three main aims:

1. to give the IAPR's TCs regular access to the broader IAPR community
2. to introduce the various TCs to those who are new to the IAPR and
3. to keep the rest of the IAPR community interested and informed about TC happenings.

~Arjan Kuijper, IAPR Newsletter EiC

IN THIS ISSUE:

[TC6 Computational Forensics](#)

[TC11 Reading Systems](#)

IAPR TC6 Computational Forensics

<https://sites.google.com/site/compforgroup/>

Jean-Marc Ogier (University of La Rochelle, France), Chair
Chang-Tsun Li (Charles Sturt University, Australia), Vice Chair

Objectives :

[IAPR TC6](#) aims to provide leadership in the multi-disciplinary domain of Computational Forensics (CF). Emphasis is given to research, development, and educational activities within CF that focus on the analysis and recognition of pattern evidence.

CF is a research domain that concerns the investigation of forensic problems using computational methods. The primary goal is the discovery and the advancement of forensic knowledge. CF involves modeling, computer simulation, computer-based analysis and recognition in studying and solving forensic problems.

Since its creation, the group promotes exchange and research in the field of Computational Forensics, mainly through:

- International forum, the IWCF workshops, to peer-review and exchange research results
- Performance evaluation, benchmarking and standardization of algorithms and computational procedures
- Resources in the form of data sets, software tools, and specifications e.g. data formats and system interfaces
- Education and training to prepare current and future researchers and practitioners
- Sources of information on events, related activities and financing opportunities

More detailed information on the motivation and mission statement can be found in the initial [Application for this IAPR Technical Committee](#).

The website is reachable at the following address : <https://sites.google.com/site/compforgroup/>

Past activities:

During ICDAR 2017, which was held in Kyoto (please see report on ICDAR 2017 in issue [40:1](#)), we organized a nice workshop dedicated to computational document forensics (see photo on right). It gathered around 40 participants, with a very nice panel discussion crossing seniors view on document forensics questions.



Future activities:

We are planning the organization of the 7th International Workshop on Computational Forensics to be held at ICPR 2018 (<http://iwcf2018.univ-lr.fr/>).

Contact:

If you are interested in the activities of IAPR TC6 or if you want to join the TC's mailing list, please contact Jean-Marc Ogier Jean-marc.ogier@univ-lr.fr.

More IAPR Technical Committee News

IAPR TC11 - Reading Systems

http://www.iapr-tc11.org/mediawiki/index.php/IAPR-TC11:Reading_Systems

[Dimosthenis Karatzas](#), Chair
[Masakazu Iwamura](#), Vice Chair

 https://twitter.com/iapr_tc11



by [Richard Zanibbi](#), TC11 Communications Officer

Upcoming Conferences

- ICFHR (Niagara Falls, NY, August 5-8): <http://icfhr2018.org>
- ICPR (Beijing, August 20-24): <http://www.icpr2018.org>

International Conference on Frontiers in Handwriting Recognition (ICFHR 2018)

The International Conference on Frontiers in Handwriting Recognition (ICFHR 2018) will be held soon in Niagara Falls, USA. Keynote talks on handwriting recognition in historical documents from different perspectives will be given by Kevin Knight and Gregory R. Crane. A strong technical program has been planned along with social activities that take advantage of the natural beauty of Niagara Falls. Registration is open until the end of July – please join us!



ICPR 2018

There will also be a Document Analysis and Recognition Track at ICPR in Beijing in late August. If you are attending ICPR, please stop by our sessions to see some of the important work being done by members of the TC-11 community.



Report: Workshop on Document Analysis Systems (DAS 2018)

DAS 2018 was held in Vienna this past April, and a [detailed report](#) from the conference can be found elsewhere in this newsletter. 150 people participated in the workshop activities, which included tutorials, paper and poster presentations, and keynote talks given by Lawrence O’Gorman and Rolf Ingold. Congratulations to Conference Chairs Robert Sablatnig and Florian Kleber along with the DAS Organizing Committee on making DAS 2018 a great success!

Report: Summer School on Document Analysis (SSDA)

In early July, the second edition of the TC-10/11 Summer School on Document Analysis was held in La Rochelle, France. A number of excellent lectures were given by leaders in Document Analysis. The students who participated in the school came from around the globe, making this a truly international event. Congratulations to Jean-Christophe Burie and other members of the organizing team on successfully advancing this important activity within our community. A detailed report on this event will be published in a future issue of this newsletter.

Following TC11

You can join the TC11 mailing list using this link: <https://www.jiscmail.ac.uk/cgi-bin/webadmin?SUBED1=iapr-tc11&A=1>, or follow us on our Twitter feed ([#iapr_tc11](#)).

ICPR 2018

See you in Beijing!!!!

**Registration
is still open!**

24th INTERNATIONAL CONFERENCE ON PATTERN RECOGNITION

In Beijing, China — August 20-24, 2018

www.icpr2018.org

ICPR will be an international forum for discussions on recent advances in the fields of Pattern Recognition, Machine Learning, and Computer Vision and on applications of these technologies in various fields.

GENERAL CHAIRS:

Tieniu Tan (China), Josef Kittler (UK), Anil Jain (USA)

PROGRAM CHAIRS:

Cheng-Lin Liu (China), Rama Chellappa (USA), Matti Pietikäinen (Finland)

TRACKS and TRACK CHAIRS:

Track 1: Pattern Recognition and Machine Learning

Dacheng Tao (Univ. of Technology Sydney, Australia)
Daniel Lee (University of Pennsylvania, USA)
Marcello Pelillo (University of Venice, Italy)
Sergios Theodoridis (Univ. of Athens, Greece)

Track 2: Computer Vision

Hongbin Zha (Peking University, China)
Takayuki Okatani (Tohoku University, Japan)
Krystian Mikolajczyk (Imperial College, UK)
Ming-Hsuan Yang (UC Merced, USA)

Track 3: Speech, Image, Video and Multimedia

Changsheng Xu (Inst. of Automation of CAS, China)
Theo Gevers (Univ. of Amsterdam, The Netherlands)
Bhiksha Raj (Carnegie Mellon University, USA)
Yi Yang (University of Technology Sydney, Australia)

Track 4: Biometrics and Human Computer Interaction

Zhenan Sun (Institute of Automation of CAS, China)
Arun Ross (Michigan State University, USA)
Massimo Tistarelli (University of Sassari, Italy)
Brian Lovell (University of Queensland, Australia)

Track 5: Document Analysis and Recognition

Koichi Kise (Osaka Prefecture University, Japan)
Venu Govindaraju (SUNY Buffalo, USA)
Simone Marinai (University of Firenze, Italy)
Apostolos Antonacopoulos (University of Salford, UK)

Track 6: Biomedical Imaging and Bioinformatics

Tianzi Jiang (Institute of Automation of CAS, China)
Dimitris Metaxas (Rutgers University, USA)
Elena Marchiori (Radboud Univ., The Netherlands)
Seong-Whan Lee (Korea University, Korea)

WORKSHOPS, TUTORIALS & CONTESTS

To take place August 20, 2018,
immediately before the main conference

Workshop Co-chairs:

Zhaoxiang Zhang (China)
David Suter (Australia)
Yingli Tian (USA)

Tutorial Co-chairs:

Greg Mori (Canada)
Zhouchen Lin (China)

Contest Co-chairs:

Dimosthenis Karatzas (Spain)
Xiang Bai (China)

Important Links:

Main conference: www.icpr2018.org

Registration: <http://www.icpr2018.org/index.php?m=content&c=index&a=lists&catid=22>

Program Overview: <http://www.icpr2018.org/index.php?m=content&c=index&a=lists&catid=18>

Workshops: <http://www.icpr2018.org/index.php?m=content&c=index&a=lists&catid=46>

Tutorials: <http://www.icpr2018.org/index.php?m=content&c=index&a=lists&catid=45>

Contests: <http://www.icpr2018.org/index.php?m=content&c=index&a=lists&catid=42>



Meeting Reports

Conferences, Workshops & Summer Schools



General Chair:

Sankar K. Pal (Indian Statistical Institute, India)

Program Chair:

Kuntal Ghosh (Indian Statistical Institute, India)

by Kuntal Ghosh, Program Chair

The International Conference on Pattern Recognition and Machine Intelligence (PReMI) has already established itself as one of the premier conferences in the domain of pattern recognition, image processing, machine learning, soft computing and allied areas. It is a biennial conference, some of the early versions of which were held in Kolkata, New Delhi, and Moscow. The 2015 edition in this series was held in Warsaw, Poland, after which it again returned to Kolkata in December, 2017. Through the years, PReMI has provided an international forum, encouraging academic and industrial collaboration among scientists, engineers, professionals, researchers, and students from India and abroad.

This was the seventh edition in this series and it gave us immense pleasure that it was held in the same year that marks the 125th birthday of the late Prof. Prasanta Chandra Mahalanobis, the founder of the Indian Statistical Institute

(ISI), the host organization of 7th PReMI. Professor Mahalanobis, renowned for proposing the Mahalanobis distance, was also the father of modern statistics in India. He was instrumental in inspiring the design of the first analog computer in India in 1953 at the Indian Statistical Institute. He also brought to ISI the first digital computer of India in the year 1955. As a mark of our respect to this monumental personality, we organized a Special Session on “Celebration of 125th Birth Anniversary of Professor P.C. Mahalanobis” during PReMI 2017.

PReMI 2017 was attended by a large number of researchers and leading experts from all over the world. Both the invited and technical sessions featured interesting lectures in classical as well as contemporary aspects of machine learning, with topics ranging from deep learning and Internet of Things (IoT) to computer vision and big data analytics. There were two exclusive special sessions on

“Deep Learning” and “Spatial Data Science and Engineering”.

All together there were 293 submissions out of which 85 papers (29%) were accepted. These papers were published by Springer, Heidelberg, as Lecture Notes in Computer Science, Volume 10597 (<https://www.springer.com/gp/book/9783319698991>). The extended versions of some of the presented papers are currently being considered for publication in the reputed journals like *Fundamenta Informaticae* and *Applied Soft Computing*.

Altogether 25 student authors were provided with Flytxt and Springer fellowships as a mark of encouragement to come and present their work. There were also two awards, one for best student paper, and one for best young researcher presentation, both sponsored by Springer.

As had been the case in its earlier versions, PReMI 2017 had a balanced mixture of keynote

and invited talks some of which were delivered by excellent speakers like Vineet Bafna, Andrzej Skowron, Farzin Deravi, Upinder S. Bhalla, Uday B. Desai, Soumen Chakraborti, and Shalabh Bhatnagar.

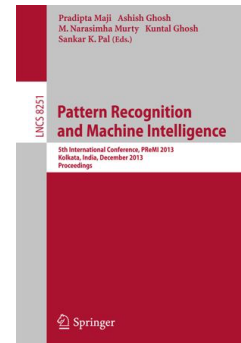
A pre-conference tutorial was specially designed comprising a set of lectures on Rough Sets and Knowledge Discovery.

There are some sad news for Pattern Recognition community associated with this edition of the conference. PReMI this year mourned the loss of its long-time mentor and even PReMI 2017 advisor, Professor Lotfi A. Zadeh who passed away while the preparation for the conference

was in full swing. A special session on Fuzzy sets was organized on the opening day dedicated to his memory. This edition of PReMI also happened to be the last one for our former Program and Organizing Chair, Prof C A Murthy, whose life was suddenly terminated by an unfortunate road accident just weeks after he chose the PReMI 2017 Best Paper Awards as the Chairman of Judges' Committee. With the close of this edition, PReMI bids farewell to these great contributors.

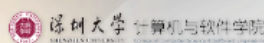
Overall, PReMI 2017 was a successful academic effort that nourished new scientific ideas and avenues of research and opened the gates of possible collaborations within and outside India.

Conference Proceedings



Click on the image to go to the publisher's web site for this volume. The Proceedings are also

available online at [SpringerLink](https://link.springer.com/book/10.1007/978-3-319-69900-4)
[https://link.springer.com/
book/10.1007/978-3-319-69900-4](https://link.springer.com/book/10.1007/978-3-319-69900-4)



IAPR/IEEE WINTER SCHOOL ON BIOMETRICS 2018

29 Jan - 2 Feb 2018 | Shenzhen, China

<http://www.comp.hkbu.edu.hk/wsb18/>

School Directors:

P C Yuen, Hong Kong Baptist University, Hong Kong

Zhenan Sun, Chinese Academy of Sciences, China

Norman Poh, University of Surrey, UK

Summary report:

The 2nd IAPR/IEEE Winter School on Biometrics was jointly organized by the Department of Computer Science, Hong Kong Baptist University, the Institute of Automation, Chinese Academy of Sciences, and College of Computer Science and Software Engineering, Shenzhen University, and co-sponsored by the IAPR, the IEEE, and Ping An Tech. Inc. The school was a training course to promote research in biometrics and related fields.

To consolidate the fundamental knowledge of biometrics and share

the latest biometric development, the program was designed to cover topics including fundamental concepts of different biometric modalities, mobile biometrics, anti-spoofing, and template protection. Based on advanced biometric technology, the main objective was to equip the participants with up-to-date biometric knowledge and provide an opportunity for the participants to develop their own personal and professional connections for future careers. The program included lectures, a poster session, a welcome reception, a gala dinner, and company visits.

Several subjects were taught at

the winter school, forming a total of 24 hours of lectures from 16 different lecturers who covered biometric identification with iris, face, gait, fingerprint, signature, security in biometric systems, deep learning and machine learning for biometrics, spoofing and anti-spoofing, multimodal biometrics and biometrics applications. The covered subjects were conducted by renowned experts from all over the world, selected from the editorial boards of top-level scientific journals and conferences. All lecturers presented the most up-to-date view in biometric data analysis.

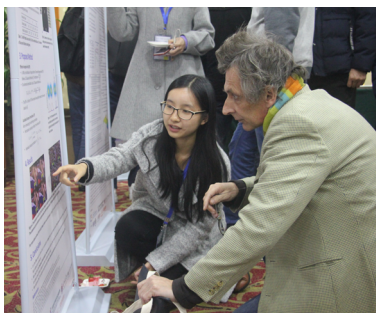


To encourage sharing and communication, an open poster session and a half-day company visiting were organized for participants to present a poster of their research work and to know how biometrics were applied in industry.

Student participation and activities:

There were 62 participants, coming from different universities, industries and research centers in the following 3 different countries/regions (in brackets are the number of participants): Mainland China (60), Hong Kong (1) and Australia (1). Five IAPR Student Travel Grants were awarded.

Participants were highly motivated and involved in the winter school. After each lecture, the participants were very active in Q&A time. Because of the limited time for Q&A, the lecturers were surrounded by the participants with questions during coffee break. Both participants and lecturers have been much involved in continuous technical discussions and potential collaboration opportunities.



In the open poster session, the participants were offered the possibility to present a poster about their research activity. They were so engaged in their lively discussions that the time for the poster session had to be extended by half an hour.

Shenzhen is a high-tech city with a lot of high-tech companies. The participants visited two technology giants headquartered in Shenzhen: Tencent and Ping An. The participants learned the histories of the two companies, and how biometrics can be applied to improve efficiency and security in industry.



List of lecturers and titles

Monday, 29 January

- Prof. Mark Nixon (University of Southampton, UK) Gait and Soft Biometrics
- Prof. Massimo Tistarelli (University of Sassari, Italy) Face Recognition: Past, Present and Future
- Prof. Ajay Kumar (The Hong Kong Polytechnic University, Hong Kong) Biometrics Identification from Ocular Images using Deep Learning
- Prof. David Zhang (The Hong Kong Polytechnic University, Hong Kong) Facial Multi-Characteristics and Applications

Tuesday, 30 January

- Prof. Dong Xu (The University of Sydney, Australia) Machine Learning for Biometrics
- Prof. Matteo Ferrara (University of Bologna, Italy) Fingerprint Recognition
- Prof. Julian Fierrez (Universidad Autónoma de Madrid, Spain) Signature Biometrics and Forensics
- Poster Session

Wednesday, 31 January

- Prof. P C Yuen (Hong Kong Baptist University, Hong Kong) Face Biometrics System Security
- Prof. Qijun Zhao (Sichuan University and Wisisoft Co., Ltd.) 3D Face Reconstruction Towards Practical 3D-Assisted Face Recognition
- Mr. Zhangcheng Huang (Ping An Tech. Inc.) Biometrics Application in Ping An Tech.

Thursday, 1 February

- Prof. Tieniu Tan (Chinese Academy of Sciences, China) Biometric Data Analysis
- Prof. Sébastien Marcel (Idiap and EPFL, Switzerland) Biometric Spoofing and Anti-Spoofing aka Presentation Attack Detection
- Prof. Yasushi Yagi (Osaka University, Japan) Human Gait Analysis
- Prof. Chen-change Loy (The Chinese University of Hong Kong) Deep Learning in Face Analysis

Friday, 2 February

- Prof. Arun Ross (Michigan State University, US) Fusion and Privacy in Biometrics
- Prof. Liang Li (Ant Financial, Alipay) Biometrics Applications in Ant Financial
- Prof. Zhenan Sun (Chinese Academy of Sciences, China) Iris Recognition



General Chairs:

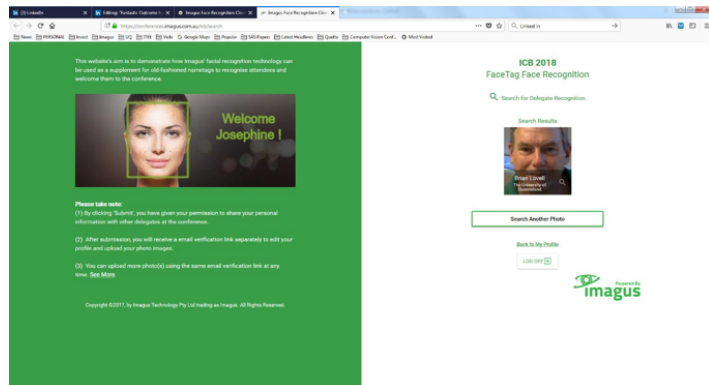
Brian Lovell, University of Queensland (Australia)
 Miguel A. Ferrer, Universidad de Las Palmas de Gran Canaria (Spain)
 Vutipong Areekul, Kasetsart University (Thailand)

World First for IAPR - Face Tags for ICB2018!

As our scientific community wishes to promote and popularize biometrics and demonstrate its applications, we developed a World First Application of mobile face recognition just for ICB2018. Participation was purely voluntary, but it was fun for the delegates, especially at the Welcome Reception.

"Highlights of the 11th IAPR International Conference on Biometrics" prepared by the General Co-Chairs on behalf of the ICB2018 Organising Committee

Delegates self-enrolled one or more photos on the ICB2018 website www.icb2018.org before the event and then they could be recognized at the conference. Photo recognition worked on all devices using the website photo recognition facility. There was also an Android app for mobile recognition.

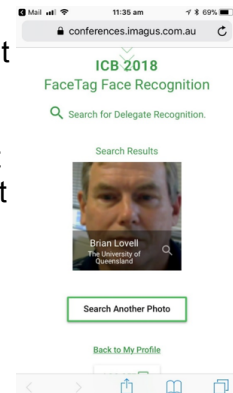


Recognition using a webcam in a browser

We made this face recognition technology available to all delegates on a voluntary basis, so they didn't

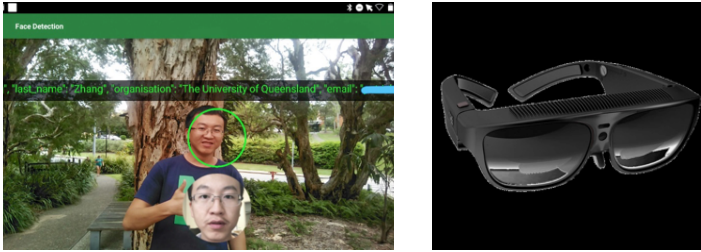
feel intimidated by face technology — the conference organizers weren't being Big Brother, everyone was Big Brother. Also delegates could not search for faces unless they first uploaded their own face. This is a bit like the strongly enforced social rule that you have to be nude to visit a nudist beach.

Now, if a delegate had a set of ODG R7 Augmented Reality Glasses or a high end Android phone, they could try out state of the art live video face recognition on their own devices. This personal recognition app was very popular with the delegates and it worked virtually 100% despite some extremely difficult imaging conditions and a variety of cameras. Everyone who registered became a celebrity and could be recognised by their face. Strangely people who did not upload their faces were much less interesting and popular, so they quickly added themselves to the database and would say "try me now!"



Recognition using a mobile phone

Here is the ICB face recognition app running on the ODG R7 Smartglasses. Thanks Patrick Zhang for the photo.



Here is the app running on Arnold Wiliem's ASUS Zenfone 3. Thanks Arnold.



Finally, here is a photo of the conference app running on the ODG R7 Glasses at the ICB Welcome Reception at the Mantra on View, Hotel. Here General C-Chair Brian Lovell is recognizing Tony Adriaansen, ICB Finance Chair, using the R7s. He's holding up a mobile power pack near his heart, confused as to whether he was the Ironman or the Terminator!



In other event news, this year we were extremely selective a very high quality technical program. We received 130 submissions but only accepted 42 papers (32%). Each accepted paper had a 15-minute oral presentation as well as a 75-minute poster presentation, giving ample opportunity for all delegates to interact with the authors. Despite the low acceptance rate, we had 87 paid and 20 free participants (invited Speakers, volunteers, and student tutorial attendees). The conference was quite successful financially, and the high technical quality may lead to greater participation at ICB2019.

We wish to thank our three superb Keynote Speakers who covered a broad range of Biometric applications. Anil K. Jain "Fingermarks: Whodunnit?", David Chadwick "The Business Use Of Biometrics In The Australian Passport Office", and Svetha Venkatesh "Delivering Efficiencies In Health Care And Manufacturing". We also wish to thank the organising committee and all of the reviewers for your excellent work on ICB2018.

We wish to congratulate all of the paper award winners: *IAPR Best Biometrics Student Paper Award (BBSPA)*: "Fingerprint Distortion Rectification using Deep Convolutional Neural Networks" by Ali Dabouei, Hadi Kazemi, Seyed Mehdi Iranmanesh, Nasser Nasrabadi, and Jeremy Dawson; *Best Paper Award (Silver)*: "Semi-Adversarial Networks: Convolutional Autoencoders for Imparting Privacy to Face Images" by Vahid Mirjalili, Sebastian Raschka, Anoop Namboodiri, and Arun Ross; *Best Paper Award (Bronze)*: "Multi-sample Compression of Iris Images using High Efficiency Video Coding" by Christian Rathgeb, Torsten Schlett, Nicolas Buchmann, Harald Baier, and Christoph Busch. And the *Best Presentation Awards*, as voted each day by the attendees: "Predicting Eye Color From Near Infrared Iris Images" by Denton Bobeldyk and Arun Ross; "The Impact Of Age And Threshold Variation On Facial Recognition Algorithm Performance Using Images of Children" by Dana Michalski; and "Shedding Light on the Veins – Reflected Light or Transillumination in Hand-Vein Recognition" by Christof Kauba and Andreas Uhl.

Thanks also to all of you for coming and making this such a special event.



ICB 2018 Proceedings are available through

IEEE Xplore®
Digital Library

@

<https://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=8410752>

2nd IEEE Int. Workshop on Arabic & derived Script Analysis and Recognition (ASAR)



12-14 March 2018

The Alan Turing Institute, London, United Kingdom



General Chairs:

[Adel M. Alimi](#), University of Sfax, Tunisia

[Abdel Belaïd](#), University of Lorraine, France

[Mohamed Cheriet](#), ÉTS, University of Quebec, Canada

by Abdel Belaïd, General Co-Chair

This year, the second meeting of the ASAR International Workshop was hosted by the Alan Turing Institute, London, in collaboration with the British Library, [LORIA](#) laboratory (University Lorraine, France) and [REGIM-Lab](#) (University of Sfax, Tunisia). ASAR 2018 was technically co-sponsored by IEEE Region 8, IEEE UK and Ireland section, IEEE Tunisia section, and [IAPR](#), as well as the financial sponsorship of the company [A2ia](#) (France).

The aim of this edition was to consolidate the choices made in the first meeting, expand the scope to other scripts derived from Arabic, and bring together researchers, engineers, and students working on these scripts to share their experiences, datasets, and tools in order to achieve more directed and effective discussion.

After successful orientation of the researchers now, it is easier to refine the objectives to go further towards the definition of the themes and the organization of special events. The openness towards our colleagues in the

Arabic world is already a success. Like the first meeting, this edition was open to colleagues from the Arab world as well as those with Arabic-like scripts from the Middle East and Asia.

This second ASAR workshop attracted much interest in the community, and we received nearly 50 submissions from 23 countries: Algeria, Australia, Canada, Egypt, France, Germany, India, Israel, Japan, Kenya, Lebanon, Libya, Malaysia, Morocco, the Netherlands, Pakistan, Qatar, Saudi Arabia, Spain, Switzerland, Tunisia, the United Kingdom and the United States.

Thirty-three (33) papers were accepted (28 remained after deletion of 5 because of visa issues, etc.). They deal with various topics of document analysis such as Text Detection and Recognition in Videos and Scenes, Segmentation, Online Handwriting and Health Service, Feature Extraction, Historical Documents, Text and Style Recognition, and Neural and Graphical Models.

The program included six oral sessions, with presentations of 15

minutes each, on the main themes of the workshop. It also included discussion groups, keynotes and industry presentations.

This year, for the first time, we organized competitions on two major topics in document analysis:

1. Layout Analysis Competition Challenge: Physical layout analysis of scanned Arabic books, and
2. Arabic Historical Manuscripts Recognition Competition. We received four submissions.

Three invited lectures fill out this scholarly programme:

- The first, by [Tilman Seidensticker](#), from Friedrich-Schiller-Universität Jena, Germany, is entitled “Identifying and dating scribes’ hands in pre-modern Arabic manuscripts: Guess-work, intuition or intersubjectively comprehensible argumentation?”
- The second, by [Volker Märgner](#), from Technische Universität Braunschweig, Germany, is “Handwriting recognition: Is it a solved problem?”

- The third, by, from The British Library, United Kingdom, is “Arabic collections in the British Library.”

From the industrial standpoint, special talks were given by two renowned industrialists, showing the interest and the impact of the theme of the workshop in the economic world. Ashok Popat, from Google Inc. (USA) gave a talk about “A Web-based OCR Service”, and Med Faouzi

Benzeghiba, from A2IA (France) gave a talk entitled: “Text Reader system: Progress and Challenges”.

Registered and Presented papers will be submitted for inclusion into IEEE Xplore as well as other abstracting and indexing (A&I) databases.

In terms of discovery, after a session of “Show and Tell” of important items from the British Library collections, a tour was organized of the Qatar

digitization facility. This showed the participants the richness of the existing collections in Arabic, as well as the efforts made for the conservation and restoration of these collections.



A horseman impaling a bear. From Book 3 of *Nihāyat al-suʿī*, a manual of horsemanship and military arts. Dated 773/1371 (Add.MS.18866, f. 113r)

13th IAPR International Workshop on Document Analysis Systems

Vienna Austria
April 24-27, 2018

<https://das2018.cvl.tuwien.ac.at/en/>



General Chairs:

Robert Sablatnig, TU Wien, Austria
Florian Kleber, TU Wien, Austria

DAS 2018 was the 13th 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 sessions, as well as working group discussions. DAS 2018 includes both long and short papers, posters and demonstrations of working or prototype systems. All submissions underwent a rigorous single blind review process where the vast majority of papers received three reviews considering the originality of work, the quality of research or analysis of experience, the relevance to document analysis systems, and the quality of presentation.

Of the 131 submissions received in an open call for papers, 77 were accepted for presentation at the workshop (58.8%). Of these, 32 papers were designated for oral presentation (24.4%) and 45 for poster presentation (34.35%) after a rigorous review process directed by the four Program Chairs (Basilis Gatos, Koichi Kise, Dan Lopresti and Jean-Marc Ogier). All submissions received at least two reviews from 67 members of the program committee; most papers received three reviews. In addition, 12 short papers describing emerging ideas and work in progress were also accepted for poster presentation (not published in the proceedings but under short papers on the [workshop website](#)).

The final program consisted of

nine oral sessions, two poster sessions and the discussion group sessions. In the final program, authors from 32 different countries were represented.

The most popular topics for accepted papers, in order, include: Text Detection, Word Spotting, Historical Document Analysis, Document Understanding, Automated Text Recognition, and Databases and Benchmarking. We offer our deepest thanks to all who contributed their time and effort to make DAS 2018 a first-rate event for the community. The workshop proceedings were published by the IEEE Computer Society's Conference Publishing Services (CPS) and are available through [IEEE Xplore](#).

The workshop was held at the TU Wien in the heart of Vienna's city center, which placed the attendees within walking distance of a large variety of world-famous historical and cultural attractions. The over 150 participants enjoyed the event held in the Kuppelsaal, which was erected in the year 1818, renovated in 2009, and is mostly still in its original shape.

After the tutorials on the first day, which were conducted René Donner, contextflow, Austria (Introduction to DL in Theory and Practice), Alejandro H. Toselli, Emilio Granell, Joan Puigcerver, UPVLC, Spain (Keyword Spotting for Large-Scale Indexing and Search in massive Document collections), Thomas Breuel, NVIDIA Research, USA (Deep Learning for Document Analysis, Text Recognition, and Language Modeling) and Marcel Würsch, Michele Alberti, Vinaychandran Pondenkandath, Marcus Liwicki, DIVA Group, University of Fribourg, Switzerland (Reproducible Research in Document Image Analysis), the welcome reception took place at TUtheSky, giving attendees an amazing view over the city of Vienna.



Before the workshop banquet, which took place in the city hall of Vienna, the workshop participants enjoyed a guided tramway tour around the world heritage site of the city center of Vienna.

In addition to the contributed papers, the program included two invited keynote presentations by distinguished members



of the research community: Lawrence O'Gorman, Nokia Bell Labs, Murray Hill, NJ, USA, spoke on the topic of "Making Sense of Multimedia Signals While (Unsuccessfully) Avoiding Security", and Rolf Ingold, DIVA Group, University of Fribourg, Switzerland, reported on "Lessons from 10 Years of Experience on Historical Document Analysis".

The IAPR Nakano Best Paper Award was presented during the workshop banquet to the best overall paper presented at the workshop: "Word Spotting and Recognition using Deep Embedding" by Praveen Krishnan, Kartik Dutta and C. V. Jawahar.



The IAPR Best Student Paper Award was presented to Daniel Stromer, Vincent Christlein, Andreas Maier, Xiaolin Huang, Patrick Zippert, Eric Helmecke and Tino Hausotte for their paper

"Non-Destructive Digitization of Soiled Historical Chinese Bamboo Scrolls".



DAS2018 was successful both scientifically and in continuing the community building for which the DAS workshop series is known. Besides the well-known DAS attendees, also a lot of newcomers attended DAS for the first time.

Looking forward to see you all again at the next DAS workshops!

DAS 2018 Proceedings are available through

IEEE Xplore®
Digital Library

@

<https://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=8394761>

15th International Summer School for Advances in Biometric Authentication: *Assuring Trustworthiness of Biometrics*

Alghero, Italy
June 11-15, 2017



Directors:

[Massimo Tistarelli](#) (University of Sassari, Italy)
[Josef Bigun](#) (Halmstad University, Sweden)
Enrico Grosso (University of Sassari, Italy)
[Anil K. Jain](#) (Michigan State University, USA)

by Massimo Tistarelli

The 2018 IAPR summer school on biometrics was the 15th edition of a strongly established training course started in 2003 to promote knowledge dissemination and research in Biometrics and related fields. The school was technically co-sponsored by Eurasip, IAPR and IEEE and co-organized by the EU RISE project IDENTITY.

The school's main theme was related to the application of multimodal biometric systems in forensic and security applications, but with specific attention to ensuring the security or trustworthiness of biometric systems. The school particularly addressed the impact of spoofing and other attacks to biometric systems in criminal investigations and other application scenarios.

Several subjects were taught at the summer school forming a total of 24 hours of theoretical lectures from 17 different lecturers and 4 hours of guided practical sessions on face recognition using MatLab¹ tools. The subjects ranged from fundamentals such as machine learning and pattern recognition techniques, applied to biometrics, as well as more advanced topics such as neuroscience and applied subjects such as biometric spoofing and biometric template protection, large-scale evaluation and the deployment of biometrics technologies in forensic cases. This 15th edition of the summer school, featured a line-up of exceptional lecturers, selected from the editorial boards of top-level scientific journals and conferences.

¹The school committee is grateful to MathWorks for providing a special trial version of MatLab software, specifically for the school students to develop the practical sessions.

Complete list of lecturers and the presented lectures

Monday, June 11

- **Prof. Arun Ross** (Michigan State University, USA) *An introduction to biometrics in forensic applications.*
- **Prof. Alessandro Verri** (University of Genova, Italy) *Machine learning (in biometrics).*
- **Prof. Massimo Tistarelli** (University of Sassari, Italy) *Face recognition: Past, present and future.*
- **Prof. Davide Maltoni** (University of Bologna, Italy) *Fingerprint recognition*

Tuesday, June 12

- **Prof. Arun Ross** (Michigan State University, USA) *Iris recognition*
- **Prof. Mark Nixon** (University of Southampton, UK) *On gait and soft biometrics: Recognition by the way you walk and your description.*
- **Dr. Thirimachos Bourlai** (West Virginia University, USA) *Practical biometric recognition systems and project - PART 1.*
- **Dr. Karthik Nandakumar** (IBM Research labs, Singapore) *Biometric template protection: Crossing the chasm between theory and practice.*
- **Student presentations** (5)

Wednesday, June 13

- **Dr. Jonathon Phillips** (NIST, USA) *Progress and challenges in face and person recognition.*
- **Prof. Sebastien Marcel** (IDIAP, Switzerland) *Biometric spoofing and anti-spoofing: Presentation attack detection.*
- **Prof. Alice O'Toole** (University of Texas at Dallas, USA) *Biological and computational recognition of faces and bodies.*
- **Prof. Ida Gobbini** (University of Bologna, Italy) *Neural mechanisms for recognition of familiar faces in humans.*
- **Prof. James Haxby** (Dartmouth College, USA) *Modeling the shared deep structure of information encoded in fine-scale cortical topographies.*

Thursday, June 14

- **Student presentations** (5)
- **Prof. John Mason** (University of Swansea, UK) *Speaker recognition.*
- **Dr. Maxime Thiebaut** (Idemia, France) *Exploiting biometrics: an industrial perspective.*

Friday June 15

- **Prof. Vishal Patel** (Rutgers University, USA) *Continuous authentication in the mobile world.*
- **Prof. Didier Meuwly** (Netherlands Forensic Institute, Netherlands) *The use of biometric information in forensic practice.*
- **Dr. Thirimachos Bourlai** (West Virginia University, USA) *Practical biometric recognition systems and project - PART 2.*
- **Prof. Emilio Mordini** (Responsible Technology, France) *IDENTIFICATION vs. RECOGNITION – Ethical implications of recognition processes.*
- **Prof. Massimo Tistarelli** (University of Sassari, Italy) *Concluding remarks and discussion.*



Prof. James Haxby, an outstanding neuroscientist, presented a lecture on the representation of visual data in the brain and the topographic mapping to design such representations from fMRI recordings. Dr. Karthik Nandakumar, from IBM research blabs, presented a challenging scenario for the protection of templates in biometric systems. Prof. Vishal Patel, from Rutgers University, presented a lecture on the use of mobile devices for continuous authentication. All lecturers, presented the most up-to-date view in Biometric technologies and Forensic applications.

The school week also included three special, evening sessions on Monday, Tuesday, and Thursday devoted to an informal meeting and open discussion among the participants and lecturers. Monday evening was devoted to a Doctoral Consortium meeting, moderated by Prof. Thirimachos Bourlai. Tuesday evening, Prof. Arun Ross guided a discussion on the "Ethics of Biometrics". Finally, Prof. Didier Meuwly, proposed some burning issues on the application of Forensic Biometrics to real cases.

48 participants attended the school lectures. The class was formed by students coming from different universities, industries and research centres in the following 19 different countries (in brackets are the number of participants, if greater than one): Australia, Brazil (4), China, Cuba (2), Czech

Republic (2), Finland, Germany (2), India, Israel (2), Italy (14), Malaysia, Mexico, Netherlands (3), Norway (2), Poland, Russia (2), Sweden, United Kingdom (3), UAE, USA (3).

This year's students demonstrated a strong interest in the application of biometrics to forensic cases as well to other scenarios, and most of them are either working directly in the design of biometric systems or pursuing high-level scientific research in the field. This not only facilitated the interaction between students and lecturers, but also stimulated and challenged even the most experienced lecturers with questions and requests for explanations in the course of almost all presentations. As a result, both the students and lecturers were much involved in technical discussions and plans for collaborations. Most of the students actively took part in the practical sessions. A project was assigned to breakout group and an award was given to the best projects.

Remarkably, representatives of government agencies and forensic laboratories also attended the school courses. This not only denotes the high reputation gained by the school, but also the deep interest of different government offices in the adoption and newer biometric technologies in the service of the citizens.

Seven students from six countries were partially supported by

a grant from the IAPR. They were selected based on: public recognition of their research record (number of publications, patents, talks at workshops/conferences, participation in previous meetings); years of enrolment in a Phd program (more advanced students were given preference); and active participation in IAPR activities.

The school participants were offered the possibility to display a poster on their research activity and to submit a research paper to be orally presented at the special session organized during the week. The participants presented 23 posters, which were available during the entire week.

Ten Phd students made oral presentations of their on-going research work: **Sudipta Banerjee** (USA) "A Preliminary Study on Generating an Image Phylogeny Forest from Near-Duplicate Iris Images"; **Paola Barra** and **Carmen Bisogni** (Italy) "Fast QuadTree-Based Pose Estimation for Security Applications using Face Biometrics"; **Michal Dvořák** (Czech Republic) "New acquisition method for hand-geometry based biometrics"; **Ying Hu** (USA) "Personality Trait Inferences from 3D Body Shapes"; **Mohammad Tavakolian** (Finland) "Deep Spatiotemporal Representation of the Face for Automatic Pain Intensity Estimation"; **Katy Castillo Rosado** (Cuba) "Fingerprint Matching Using Distinctive Ridge Points Features"; **Nelson Méndez Llanes** (Cuba) "Face Frontalization Using Shape Adaptation"; **Connor Parde** (USA) "Predicting social-trait inferences from deep convolutional neural networks trained for face identification"; **Patrick Schuch** (Norway) "Estimating the Data Origin of Fingerprint Samples"; and **Sumegh Tharewal** (India) "3D Face & 3D Ear recognition: Process and Techniques".

FREE BOOKS / eBOOKS

Springer and CRC Press have partnered with the IAPR Newsletter to offer free books/ebooks to reviewers.

If you have interest in and some knowledge of the topic, email us. Depending upon the publisher's availability, you will get an ebook or a hardcopy book or both. In some cases, the publisher may send the ebook first and the hardcopy after review. In future issues of the Newsletter, we may publish a list of pending reviews.

~[Owais Mehmood](#), Associate Editor for Book Reviews



We are offering the following Springer titles for review:

Titles published in Springer's "Advances in Computer Vision and Pattern Recognition" series are:

- * **"Nonlinear Eigenproblems in Image Processing and Computer Vision"** by Guy Gilboa: <http://www.springer.com/book/9783319758466>
- * **"Domain Adaptation in Computer Vision Applications"** by Gabriela Csurka (Ed.): <http://www.springer.com/book/9783319583464>
- * **"Deep Learning for Biometrics"** by Bir Bhanu et al. (Eds.): <http://www.springer.com/book/9783319616568>
- * **"Decision Forests for Computer Vision and Medical Image Analysis"** by Antonio Criminisi and J. Shotton (Eds.) <http://www.springer.com/gb/book/9781447149286>



We are offering any of the following from CRC Press:

- * **Remote Sensing Time Series Image Processing** by Qihao Weng: <https://www.crcpress.com/Remote-Sensing-Time-Series-Image-Processing/Weng/p/book/9781138054592>
- * **Remote Sensing and Cognition: Human Factors in Image Interpretation** by Raechel A. White, Arzu Coltekin, and Robert R. Hoffman: <https://www.crcpress.com/Remote-Sensing-and-Cognition-Human-Factors-in-Image-Interpretation/White-Coltekin-Hoffman/p/book/9781498781565>
- * **High Spatial Resolution Remote Sensing: Data, Analysis, and Applications** by Yuhong He and Qihao Weng: <https://www.crcpress.com/High-Spatial-Resolution-Remote-Sensing-Data-Analysis-and-Applications/He-Weng/p/book/9781498767682>
- * **Image Processing and Data Analysis with ERDAS IMAGINE®** by Stacy A. C. Nelson and Siamak Khorram: <https://www.crcpress.com/Image-Processing-and-Data-Analysis-with-ERDAS-IMAGINE/AC-Nelson-Khorram/p/book/9781138034983>



We are offering any of the following from Sebtel Press, Sheffield, UK:

- * **Principles of Neural Information Theory: Computational Neuroscience and Metabolic Efficiency** by Dr. James V. Stone: <http://jim-stone.staff.shef.ac.uk/BookNeuralInfo/NeuralInfoMain.html>

IAPR



This bulletin board
contains items of interest to the
IAPR Community

Don't miss these important items in this issue:

[Calls from IAPR Committees:](#)
[Education Committee.](#)
[Industrial Liaison Committee](#)
[Executive Committee](#)

[The IAPR and GDPR](#)

[An INSIDE look at the](#)
[IAPR Conferences & Meetings Committee](#)

[See you at ICPR2018 in Beijing!](#)

Want to get

FREE

**eBOOKS/
BOOKS?**

Click [here...](#)



Meeting and Education Planner

The IAPR web site has the most up-to-date information on IAPR events. Click [here](#).

NOTE: Highlighting indicates that the paper submission deadline is still open.

* Asterisks denote non-IAPR events *

	Meeting	Report on previous edition	Venue
2018	ICFHR 2018 : 16th International Conference on Frontiers in Handwriting Recognition	ICFHR 2016	USA
	S+SSPR 2018 : IAPR Joint International Workshops on Statistical Techniques in Pattern Recognition (SPR 2018) and Structural and Syntactic Pattern Recognition (SSPR 2018)	S+SSPR 2016	China
	PRRS 2018 : 10th IAPR Workshop on Pattern Recognition in Remote Sensing	PRRS 2016	China
	MIPPSNA 2018 : 2018 Multimedia Information Processing for Personality and Social Networks Analysis Workshop (an ICPR 2018 Workshop)		China
	RRPR 2018 : 2nd Workshop on Reproducible Research in Pattern Recognition (an ICPR 2018 Workshop)		China
	MPRSS 2018 : 5th Intl. Workshop on Multimodal Pattern Recognition of Social Signals in human computer interaction (an ICPR 2018 Workshop)	MPRSS 2016	China
	IWCF 2018 : 7th International Workshop on Computational Forensics (an ICPR 2018 Workshop)		China
	CVAUI 2018 : 3rd Workshop on Computer Vision for Analysis of Underwater Imagery (an ICPR 2018 Workshop)	CVAUI 2016	China
	FFER 2018 : 3rd International Workshop on Face and Facial Expression Recognition from real world video (an ICPR 2018 Workshop)	FFER 2016	China
	AUG ICPR 2018 : 24th International Conference on Pattern Recognition	ICPR 2016	China
	SEP ANNPR 2018 : 8th IAPR TC3 Workshop on Artificial Neural Networks in Pattern Recognition	ANNPR 2016	Italy
	CVIP 2018 : Third International Conference on Computer Vision and Image Processing	CVIP 2017	India
	NOV ISAIR 2018 : 3rd Intl. Symposium on Artificial Intelligence and Robotics		China
CIARP 2018 : 23rd Iberoamerican Congress on Pattern Recognition	CIARP 2017	Spain	
DEC DICTA 2018 : Digital Image Computing: Techniques and Applications	DICTA 2017	Australia	
2019	MAR CCIW 2019 : 2019 Computational Color Imaging Workshop	CCIW 2017	Japan
	MAY PRIP 2019 : 14th Intl. Conf. on Pattern Recognition and Information Processing	PRIP 2016	Belarus
	MVA 2019 : 16th International Conference on Machine Vision Applications	MVA 2017	Japan
	JUN ICB 2019 : 12th IAPR International Conference on Biometrics	ICB 2018	Greece
	SEP CAIP 2019 : 18th Intl. Conf. on Computer Analysis of Images and Patterns		Italy

2020 meetings on next page...



Meeting and Education Planner

The IAPR web site has the most up-to-date information on IAPR events. Click [here](#).

NOTE: Highlighting indicates that the paper submission deadline has not yet passed.

* Asterisks denote non-IAPR events *

		Meeting	Report on previous edition	Venue
2020	AUG	ICPR 2020: 25th International Conference on Pattern Recognition		Italy
	SEP	ICFHR 2020 : 25th International Conference on Pattern Recognition		Germany



Thoughts on articles you've read in this issue of the IAPR Newsletter?

Ideas for features you'd like to see in the IAPR Newsletter?

Send your comments to:

Arjan Kuijper, Editor-in-Chief
arjan.kuijper@igd.fraunhofer.de

IAPR



<https://www.linkedin.com/groups/8159047>

The *IAPR Newsletter* is published in association with the IAPR website, www.iapr.org
 The *IAPR Newsletter* is published four times per year, January, April, July, and October.



Deadline for the next issue: September 17, 2018

To contact us:

Arjan Kuijper, Editor-in-Chief, arjan.kuijper@igd.fraunhofer.de

Owais Mehmood, Associate Editor for Book Reviews, owais.mehmood@york.ac.uk

Linda J. O'Gorman, Layout Editor, secretariat@iapr.org