

# IAPR Newsletter

Volume 34, Number 2  
April 2012

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## ***Calls for Papers***

### [ANNPR 2012](#)

*5th Workshop on Artificial Neural Networks for Pattern Recognition*  
Trento, Italy  
Deadline: May 6, 2012  
September 17–19, 2012

### [PRIB 2012](#)

*7th IAPR International Conference on  
Pattern Recognition in Bioinformatics*  
Tokyo, Japan  
Deadline: May 28, 2012  
November 8–10, 2012

### [WDIA 2012](#)

*International Workshop on Depth Image Analysis*  
Tsukuba Science City, Japan  
Deadline: June 18, 2012  
November 11, 2012

### [DICTA 2012](#)

*Digital Image Computing Techniques and Applications*  
Fremantle, Western Australia  
Deadline: June 30, 2012  
December 3–5, 2012

### [DGC1 2013](#)

*17th International Conference on  
Discrete Geometry for Computer Imagery*  
Sevilla, Spain  
Deadline: July 2, 2012  
March 20–22, 2013

### [S+SSPR2012](#)

*Joint IAPR International Workshops on  
Structural and Syntactic Pattern Recognition (SSPR)  
and  
Statistical Techniques in Pattern Recognition (SPR)*  
Itsukushima, Hiroshima, Japan  
Deadline: July 6, 2012  
November 7–9, 2012

### [MPRSS12](#)

*1st International Workshop on  
Multimodal Pattern Recognition of Social Signals in Human Com-  
puter Interaction*  
Tsukuba Science City, Japan  
Deadline: July 15, 2012  
November 11, 2012

### [PRHA12](#)

*International Workshop on  
Pattern Recognition for Healthcare Analytics*  
Tsukuba Science City, Japan  
Deadline: August 10, 2012  
November 11, 2012

## ***Call for Submissions***

### ***IAPR Newsletter***

*Articles, announcements, book reviews,  
conference and workshop reports*

Contact the editor:

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**Deadline: June 22, 2012**

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#### **IAPR Newsletter Publication Schedule:**

The IAPR Newsletter is published four times per year  
during the third week of  
January, April, July, and October.

### [MVA 2013](#)

*13th IAPR International Conference on  
Machine Vision Applications*  
Kyoto, Japan  
Deadline: December 14, 2012  
May 21–23, 2013



## Getting to know... Stefano Levialdi, IAPR Fellow

By Stefano Levialdi, IAPR Fellow (Italy)

*Professor Stefano Levialdi, IAPR Fellow*

*ICPR 1994, Jerusalem, Israel*

*For contributions to architectures for parallel image processing  
and service to the IAPR*

I initially became interested in the various aspects of cybernetics (machines that could learn, reason and recognize patterns) and later on in pictures and digital images...it seemed a different world, and this was at the end of the 50's when I had recently graduated in Telecommunication Engineering at Buenos Aires (Argentina). I managed to obtain a scholarship from Marconi Wireless, located at Chelmsford (Essex, U.K.) in 1960. I worked on different kinds of communication equipment but was neither happy about the kind of work nor of its corresponding salary! (Being a foreigner my salary was half of what the locals earned). For these reasons I tried something else, having interviews with Cambridge Instruments, Pye Electronics, Philips, etc. but the jobs were similar even if they had different economical conditions.

By pure chance, I spent Christmas in Italy, in Genoa, where I met a university group that was doing research in Pattern Recognition developing a machine called PAPA, that could even learn, after a short training period, a given class of patterns, like O's and A's.

I spent five years at the Institute of Physics, University of Genoa (1961/65), and, since my paper production was low (few papers in five years) I was told to emigrate, which I did, to another group doing research on Learning Machines, located in Naples at the Institute of Theoretical Physics, University of Naples, where I spent fifteen years designing and

Stefano Levialdi (aka Esteban Levialdi) obtained his degree in Telecommunications Engineering from the University of Buenos Aires (Argentina) in 1959.

He won a scholarship to Marconi Wireless (Chelmsford, UK) in 1960 and subsequently, in 1961, was appointed a Lecturer in Electronics at the University of Genoa, Italy. After working for the Italian National Research Council (CNR) for 13 years and leading a research group working on Parallel Image Processing, he became Full Professor of Computer Science in 1981 at the University of Bari, moving to the "Sapienza" University of Rome in 1983. In 1984 he shifted his research interests to visual interaction, interface design and usability evaluation within the larger area of Human-Computer Interaction, together with a small group of researchers in Hiroshima (Japan).

S. Levialdi has published over 250 papers (in Journals and Proceedings) co-authored by more than 150 different researchers, has edited more than 20 books, and is Associate Editor of Journals devoted to Pattern Recognition and Image Processing. He is founder and co-Editor, together with Prof. Shi-Kuo Chang, of the Journal of Visual Languages and Computing (Elsevier Press), started in 1990.

He has taught Computer Programming, Computer Architectures, Image Processing and, presently, two courses on Human-Computer Interaction. He became IEEE Fellow in 1988 and IEEE Life Fellow in 2001.

From 1979 onwards he became actively involved in the organization of a range of scientific meetings (IEEE Visual Language Symposia and the Advanced Visual Interfaces Working Conferences). He was awarded the Catedra de Excelencia for the Carlos III University at Madrid, starting on November 1, 2008.

He speaks fluent English, Spanish, Italian and French, has given lectures and seminars in over 35 countries and has strong links with Universities in the United States, Japan, Costa Rica, Spain and Argentina. (continued on page 4)

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building machines for parallel image processing. The group in Naples had formalized a set of mathematical equations which were called Neural Network Equations that were supposed to formally describe the neural synapses active in the human brain. In 1968 the Laboratory of Cybernetics was started near Naples and I became the Head of the Image Processing Group during thirteen years, together with other researchers, still active today.

The main activity was the design of parallel image algorithms (shrinking, skeletons, medial axis transform, etc.) which would outperform the standard sequential computer ones. Over 100 papers were published, and we had many visitors staying and cooperating with us. We also travelled very much since the Italian National Research Council generously provided us with funding to visit practically any country we wanted. In 1981, I won the Chair of Computer Science and moved to Bari University on the eastern coast of Italy, where I remained for two years until finally arriving to Rome at Sapienza University where I designed the new curriculum in Computer Science that started in 1989 after six hard years of discussion (whether to start at the Engineering Faculty or at the Sciences Faculty). At present, Computer Science reunited both groups and belongs to a Faculty of Information Sciences, together with Statistics and Electronics. I finally retired in November 2010 after having worked 49 years at different universities.

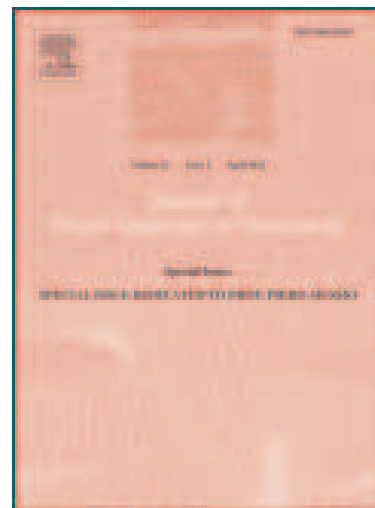
For my work on Parallel Image Processing I was awarded the [IEEE Fellowship](#) (1988), for my overall work in Image Processing I became an [IAPR Fellow](#) (1994), and next a VL/HCC Fellow (2008) for my activity in Human/Computer Interaction and Visual Languages. Finally, for my general activity I received the [KSI Fellowship](#) in

2011 (2011) at an International Conference. I have wildly travelled....visiting over 45 countries where I have given talks and started collaborations with local researchers.

I have published over 250 papers plus a book (2011), together with other two authors, ([3C Vision](#): cues, contexts and channels).

My teaching duties at the different universities included the following subjects: Electronics Laboratory, Computer Architectures, Image Processing, Human-Computer Interaction (I and II), all aimed at Computer Science students.

Finally, let me mention the [Journal of Visual Languages and Computing](#) (Elsevier Press) that I started in 1990 (together with Prof. S.K. Chang) and the over 50 International meetings that I have organized along the years, the last one will take place in Capri (near Naples) in May 2012, called [Advanced Visual Interfaces](#), being the 12th edition of the series.





## News from the **IAPR EXECUTIVE COMMITTEE**

by Ingela Nyström (Sweden)

Uppsala April 15, 2012

The IAPR community is preparing for the 21st International Conference on Pattern Recognition (ICPR), to be held in Tsukuba, Japan, on November 11-15, 2012. The ICPR conference series is IAPR's main event. The IAPR Treasurer Aytül Erçil visited Tsukuba and the organizing committee earlier this year. See her [travelogue](#) in this issue. This year, ICPR has attracted more than 2000 (!) submissions of papers for the five tracks. Currently, the reviewing process is underway. The ExCo acknowledges the effort by the ICPR organizing committee, the members of the program committee, and all the reviewers. The Conference Program will be available in due time, as well as other news on the event, at the ICPR 2012 web site [www.icpr2012.org](http://www.icpr2012.org).

There is a new initiative from the ExCo on Technical Committee activities. This initiative invites proposals for funding to support international summer schools. Please, find details on this [later in this issue of the Newsletter](#) and at [www.iapr.org/committees/SummerSchoolTemplate.pdf](http://www.iapr.org/committees/SummerSchoolTemplate.pdf)

In this April edition of the IAPR Newsletter, we are ["Getting to Know" Professor Stefano Levialdi, IAPR Fellow](#). In addition, we get a glimpse [inside the IAPR Conferences and Meetings Committee](#), an [update on the IAPR journal Pattern Recognition Letters](#), and an announcement of an exciting [lecture series featuring distinguished talks by recipients of the K. S. Fu Prize](#) at Notre Dame University. We can also read a number of conference and workshop reports and a book review.

I am looking forward to meeting old and new colleagues in Tsukuba in November. Please, plan to be there!





**ICPR 2012**

## **Treasurer's Travelogue...**

**by Aytul Erçil (Turkey)**

ICPR 2012 is fast approaching, and we are looking forward to another great conference this year. The Japanese government was kind enough to invite an ExCo member to visit the conference site and discuss with the organizers about the upcoming conference. I had a short visit to Tsukuba city on my way back from my wonderful vacation in Vietnam, Laos, and Cambodia.

My visit was a confirmation of my thoughts that our Japanese colleagues would have a very professional and well organized conference. As we all know, our Japanese friends went through some very rough times recently, however, from what I saw, they have not allowed this disaster to alter their lives in any way, life went on as usual.

Tsukuba Science City was an hour drive away from Tokyo. Even though we were in the middle of winter with snow covering the ground, I could imagine how nice the place will be in the fall with leaves changing colors. It was apparent that the city is a scientific center, with universities and research labs all around.

The conference site is very nice, a modern building with all amenities taken care of. The conference center is within walking distance of the train station, which would make the commute quite easy for those people who would rather stay in Tokyo and enjoy the city life at night. In fact, during the day, we took a high speed train to Tokyo, visited some sights in Tokyo and came back the same day.

In my talk with all the organizers, their eagerness to do the best possible and the typical Japanese way of attending to details left no doubt in my mind that we will have another great conference in November, and I am looking forward to having a great week scientifically and socially.

# **ExCo Initiative: Summer Schools**

*NOTE: The text below represents this new initiative as of April 2012.  
Any changes to the initiative, will be made and posted at the IAPR web site:  
[www.iapr.org/committees/SummerSchoolTemplate.pdf](http://www.iapr.org/committees/SummerSchoolTemplate.pdf)*

**International Association for Pattern Recognition  
Executive Committee Initiative on Technical Committee Activities  
Summer Schools**

April 2012

**Disclaimer:**

This document applies only to Summer Schools organized by IAPR Technical Committees. IAPR support of any other workshop or conference is managed by the IAPR Conferences and Meetings Committee according to [guidelines published at the IAPR web site](#).

**Definitions of relevant terms:**

*Summer School*—a training activity where participants are exposed to the latest trends and techniques in Pattern Recognition

*Event*—a conference or a workshop with a focus on new ideas and where ideas can be challenged through formal and informal discussions

**Motivation**

From time to time groups within IAPR propose to hold summer schools on various topics of interest to segments of the IAPR community. Up to now, IAPR has had no standard process for receiving and evaluating these proposals, and no standing policy on support, publicity, or resource allocation.

The IAPR Executive Committee (ExCo) wishes to encourage the development and offering of summer schools and is willing to commit resources to this effort. The ExCo believes summer schools provide a unique opportunity to engage students and junior researchers with senior scientists in a fruitful way consistent with the mission of IAPR.

The focused nature of summer schools, and the IAPR budgeting process, suggests that they are best handled as Technical Committee (TC) activities. The ExCo requires those wishing to propose holding a summer school to work through at least one TC as they develop and present the proposal. In some cases, more than one TC may be involved, when the subject matter straddles their domains. In fact, the ExCo encourages these sorts of inter-TC collaborations.

Of course, the term “Summer School” is somewhat generic and traditional. There is no requirement

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that a school be offered during the summer (irrespective of hemisphere). The ExCo is confident that summer school organizers will select a time not in conflict with the academic schedules of the target audience and lecturers.

## **How to Submit**

Proposals for IAPR funded summer schools should be submitted to the ExCo TC Liaison (IAPR First Vice President) by electronic mail. A Word or PDF attachment is appreciated.

Proposals must be submitted at least four months in advance of the start of the summer school. The ExCo will endeavor to respond to requests within two weeks of submission.

While there is no firm cap on the amount of funds that can be requested, the ExCo wants to ensure that all those wishing to access these funds have an equitable chance to do so. With that in mind, the ExCo suggests a target amount of US\$5000 for a typical, well developed proposal. However, larger amounts may be awarded for truly innovative, creative proposals that promise exceptional value for the IAPR mission.

## **The Role of the Technical Committee**

The IAPR Technical Committees provide a natural focal point for the generation, vetting, and submission of summer school proposals. It is not necessary that a member of the TC leadership (Chair, Vice Chair, etc.) be one of the proposers. However, a brief note acknowledging support for the proposal as a TC activity from the TC Chair is required. This acknowledgment can be as simple as a one-line email, and does not imply financial support. Nor would such support negatively impact the possibility of support for other worthy TC activities. All the ExCo wants to know is whether the proposed summer school is consistent with the mission of the TC.

However, TCs (or TC leaders) do not have veto power over the offering of summer schools. All proposals must come before the ExCo, who will take the recommendations of the TC Chair and/or other TC leadership (pro or con) under advisement in rendering a decision. Occasionally, there may be another TC(s) better suited to serve as a home for the school. It is the ExCo's intent that as many worthy summer schools as possible to come to fruition with IAPR financial assistance.

Funded summer schools must be identified in all promotional materials and on the web as: "The (nth) IAPR Summer School on X" with a subtitle "An Activity of the IAPR Technical Committee(s) on Y (and Z)". Any specific use of IAPR funds (e.g., student travel grants or fee remission) must be acknowledged.

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In some cases, there may be additional funding sources apart from IAPR. The ExCo will work with the organizers (and, if appropriate, with other funding organizations) to arrive at a mutually satisfactory name and promotional scheme for the summer school. It is the ExCo's intent to cooperate as much as possible with other entities seeking to promote the summer school mission.

## Proposal Contents

Proposals need not be lengthy, but should contain the information in the following list. The ExCo recognizes that some of this information may be incomplete at the time of the proposal, but asks that the proposers provide as much information as possible to give them the best possible basis for evaluation.

- The name of the summer school, including the “edition” if the school has been offered previously. (e.g., The 8th IAPR Summer School on Biometrics)
- The specific focus for the current offering (if any). (e.g., New technologies for forensics and security)
- The sponsoring TC.
- The dates and location.
- A brief summary of the school's intent, organization, scope, and motivation.
- The course (lecture) schedule, with
  - ♦ Lecturers identified (as many as possible).
  - ♦ Any experimental or other investigative activities planned.
  - ♦ Social activities.
  - ♦ Student presentations (if any).
- The expected number of participants. The ExCo is especially interested to know whether the course is expected to draw from multiple countries, and what those countries might be—if the organizers can say. For a first offering, this may be difficult to predict; for subsequent offerings historical data can provide a guide.
- How the course will be promoted and advertised, especially in the interest of building international participation. *Proposals offering a strong international component in participation (lecturers, attendees) will receive priority for funding.*
- Fees for the course.
- Expected costs for accommodations and meals per participant.
- Financial resources requested from IAPR (in addition to use of the IAPR logo and name, which is cost-free). The most prevalent use of IAPR funds is to support grants for students to defray their costs. However, proposers may suggest other funding needs for ExCo consideration.
- How resource allocation decisions will be made. (e.g., On what basis will the organizers decide which students receive support?)

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## Reporting Requirements

Not more than three months following the conclusion of the summer school, a brief report should be submitted to the ExCo TC Liaison (IAPR First Vice President) by electronic mail (Word or PDF appreciated). The ExCo TC Liaison will forward the report to the *IAPR Newsletter* Editor for publication. The report should provide the following:

- Final details on the presentations
  - ♦ Topics
  - ♦ Lecturers
  - ♦ Dates
- Number of participants, by country
- General assessment of the quality of the presentations and of the students' preparation for the school
- Use of IAPR funds
- Summary comments, lessons learned, recommendations for future summer school offerings (for this topic or in general)

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# INSIDE the IAPR

## Q&A on C&M

(Almost) everything you would like to know about  
IAPR support for workshops and conferences



**Simone Marinai (Italy)**  
Chair, IAPR Conferences and Meetings Committee



**Linda J. O'Gorman (USA)**  
IAPR Secretariat

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In this article we summarize the most frequent questions that have been addressed to the IAPR Conferences and Meetings Committee (C&M) about support of events. The questions are divided into four categories: pre-approval questions, post-approval questions, questions about roles and responsibilities, and other.

### Disclaimer:

This document applies to all IAPR supported meetings except the International Conference on Pattern Recognition (ICPR) that is regulated by specific rules outlined in the IAPR By-laws and [described at the IAPR web site](#), and Summer Schools (see **Definitions of relevant terms** below) that are regulated by the IAPR Executive Committee (ExCo) Initiative on Technical Committee (TC) Activities: Summer Schools, [printed in this issue of the IAPR Newsletter](#) and also [available at the IAPR web site](#).

### Definitions of relevant terms:

*Event*—a conference or a workshop with a focus on new ideas and where ideas can be challenged through formal and informal discussions

*Summer School*—a training activity where participants are exposed to the latest trends and techniques in Pattern Recognition

*Series*—multiple editions of the same conference, workshop or summer school

*IAPR support*—sponsorship or endorsement of an event or funding of a summer school

*Endorsement*—a level of support in which

the organizers may use of the IAPR logo and the phrase “endorsed by the IAPR”

the organizers may submit a separate application to the C&M Chair to use part of the levy for activities in the name of IAPR

IAPR will advertise the event at the IAPR web site and in the IAPR Newsletter

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**Sponsorship**—a level of support in which

the organizers may use the name IAPR in the title of the event and may use the IAPR logo and the phrase “sponsored by the IAPR”

the organizers may request financial support in the form of a loan

the organizers may submit a separate application to the C&M Chair to use part of the levy for activities in the name of IAPR

IAPR will advertise the event at the IAPR web site and in the IAPR Newsletter

### **Pre-approval questions:**

#### **Q. Why should I apply for IAPR support?**

A. IAPR members are not obliged to apply for support when organizing events. If they feel that IAPR support (its name and advertising channels) would benefit the event, then they should apply. In particular, if they plan to use the IAPR logo and name in advertisements related to the event (on webpages, call for papers, proceedings etc.), then it is mandatory to get approval from the IAPR C&M *before* any such use of the IAPR name and logo.

#### **Q. My event is organized by an IAPR Technical Committee. Should I apply anyway?**

A. IAPR TCs may organize events or summer schools. (see **Definitions of relevant terms** above). Proposals for IAPR TC Summer Schools should be sent to the IAPR ExCo (see **Disclaimer** above); applications for IAPR support of a workshop or a conference should be sent to the IAPR C&M.

Workshops and conferences organized by IAPR TCs are very good initiatives and are strongly encouraged. Indeed, events organized by a TC are eligible for IAPR sponsorship and can be named “IAPR workshop on ...” (see question “What level of support should I apply for, sponsorship or endorsement?”)

#### **Q. My event is part of a series of IAPR supported events. Should I apply again?**

A. NOTE: See **Disclaimer** above for a link to procedures for IAPR TC summer schools.

Yes. Each edition of a conference or workshop is a new event. There are different organizers, different logistics, and different people in the organizing committee. Of course, if the conference is part of a series and the best practices are followed by organizers, it will be easier for C&M to evaluate the event (and easier for the event to get IAPR support).

#### **Q. What level of support should I apply for, sponsorship or endorsement?**

A. NOTE: See **Disclaimer** above for a link to procedures for IAPR TC summer schools.

In general, events organized by IAPR TCs should apply for sponsorship. Other organizers should apply for sponsorship for events that will receive a large number of widely international submissions. More local events and smaller events should apply for endorsement.

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**Q. Who should submit the application for IAPR support?**

A. The application for IAPR support should be submitted by the person who has primary responsibility for the organization of the event. The General Chair (or similar) is usually the right person. This is the person most able to provide the standard information requested in the application and also to affirm the declarations that must be addressed by the conference in order to gain IAPR support.

While the following individuals have an important role in the success of the event, they are less suitable choices to submit the application for IAPR support:

Honorary chairs are generally less aware of daily status of the conference organization.

While it is a good practice to share organization background from one edition of an event series to the next, the organizers of the previous edition should not file the application, since they will not be involved in the daily organization of the current edition. Note also that from time to time the application rules can also change.

**Q. When should I apply for IAPR support?**

A. While there is no fixed time, a general rule is to apply as soon as the right information is available and more than three months before the first paper submission deadline. One common mistake is the use of the IAPR logo and name before approval by C&M. In most cases, this happens because templates for CfP and websites are passed from one edition of the event to the next. It is important to note that an application is required even for a series that has always been supported by IAPR.

Here is an excerpt from the [IAPR web site page describing the application process](#):

“Please provide the necessary information well in advance of the event (and before any publicity is distributed) to enable quick reactions of the IAPR Conferences & Meetings Committee. It is recommended to submit a request more than 3 months before the first paper submission deadline. Proposals submitted after this deadline could be summarily rejected. Proposals that already use the IAPR logo/name either in publicity material or websites will be summarily rejected without further consideration. ”

If some information is missing and the application deadline approaches, please feel free to consult the C&M Chair to decide how to proceed.

**Q. How should I proceed to submit my application for IAPR support?**

A. The application procedures changed in 2011 with the introduction of an online [application form](#) available at the IAPR website. There are two steps for submitting the application.

complete the online form. The form should be completed by the person submitting the application and will be signed with that person's name and email address. This person is considered the contact point for the event.

make note of the reference number generated when the form is submitted. This number will be used to identify the application in future correspondence with the C&M Chair.

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**Q. What are the requirements to have the request approved?**

A. The general rule states: “Endorsement or sponsorship will be granted to applicants who demonstrate that there is a strong likelihood that the meeting will have an international scope and significant contribution to topics central to the study of pattern recognition and its applications.”

International scope:

We consider that an event has an international scope on the basis of venues and of organizers.

At least half of people on the Program Committee should be from countries different from the hosting country.

In general, the different editions of the event should take place in different countries. Conferences organized by member societies are one exception, and in this case, the event is always organized in the same country; however, the committees should be international and different editions should take place in different locations in the country.

Key persons (e.g. General Chair, Organizing Chair etc.) should also change with subsequent editions of the event. There is nothing bad about having the same people organize a couple of events, but we expect that responsibilities (and honors) will be shared with colleagues over the years. It is a good practice to have senior researchers expert in event organization helping (e.g. serving in Advisory boards), but the key positions should rotate.

Topics:

From a practical standpoint this means there is significant overlap between the topics covered by the event and those of interest to the IAPR community. For example, it is unlikely that a conference on Software Engineering will be supported by IAPR.

**Q. How long does it take to get feedback from the C&M?**

A. The approval process can be completed in a few days or it can take several weeks. It depends on several factors: completeness of the application, availability of the members of the C&M, availability of the organizers. This is why we recommend: apply as soon as you can!

Factors that can cause delay:

The application is related to a new event or to an event that has not yet been supported by IAPR.

The application is incomplete (e.g., names of people on the Organizing or Program Committees are missing).

Some C&M members are not available due to other business. The decision to grant IAPR support to an event is not made by a single person. The C&M Chair is the point of contact for applicants, but the [entire committee](#) must agree to approve an application for IAPR support.

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There is some aspect that requires additional consultation with local members of IAPR Governing Board or with the IAPR Executive Committee.

The timing of the application conflicts with the schedules of those involved. The worst times to apply are around holidays or at times when most people are attending conferences. Another period to avoid is around ICPR (during ICPR a new committee is appointed and there will be some transition between committees).

### **Post-approval questions:**

#### **Q. What communications will I receive from IAPR?**

A. The C&M Chair will notify the contact person for the event that IAPR has approved sponsorship/ endorsement of the event. In addition, the IAPR Secretariat will contact you to officially open the event's account with IAPR. The IAPR Secretariat has responsibility for sending invoices for conference/ workshop levies.

#### **Q. Why should the event pay a levy to IAPR?**

A. The levy is paid to IAPR as a fee for the services provided by IAPR (use the logo, advertisement, etc.). It is possible to use (part of) the levy for activities in the name of IAPR (see below).

The levy for sponsored events is 10% of the gross registration fee or US\$20 per participant, whichever is smaller. The levy for endorsed events is US\$4 per participant with a minimum of US\$150.

#### **Q. How can I apply to use (part of) the levy for activities in name of IAPR?**

A. With the agreement of the C&M Chair and the Treasurer, part of the levy may be applied towards specifically identified activities in the name of IAPR, such as IAPR Travel Stipends, IAPR Distinguished Speakers, IAPR Best Paper Prizes, etc.

In the time period after an event has been granted IAPR support and before any arrangements have been made, a separate application with specific details of the proposed activities in the name of the IAPR (including an estimate of the cost to be deducted from the IAPR levy) must be submitted to the C&M Chair. Requests made after the event will not be considered.

#### **Q. Can I use the IAPR name in the conference title?**

A. Only in case of Sponsorship, but the name and logo should not be used before the IAPR support is granted.

### **Questions about roles and responsibilities:**

#### **Q. What are the responsibilities to IAPR of conference organizers?**

A. Organizers of conferences have few obligations with respect to IAPR, but they should be respected.

Before the event:

prepare and submit the application in due time and with the required information.

*(Continued on page 16)*

After support has been granted and before the event has taken place:

send the correct advertisement information to both the IAPR webmaster and the IAPR Secretariat.

use the IAPR logo and name on material related to the event.

be sure that the declarations about reduced fees, multiple papers presented by one author, and no restrictions on attendance are made and respected in the conference organization.

if desired, make a request of the C&M Chair and the Treasurer to use part of the levy funds for activities in the name of IAPR and advertise them on the advertisements, at the website, and during the event.

After the event:

send information to the IAPR Secretariat that is needed to prepare the invoice for any applicable levy (gross registration, number of participants).

promptly pay any applicable levy.

prepare a report for publication in the *IAPR Newsletter*.

**Q. What are IAPR's responsibilities to the event?**

A. IAPR grants use of its logo and will advertise the event at the IAPR website and in the Calls for Papers and Conference Planner sections of the *IAPR Newsletter*.

**Q. Can IAPR send advertisement emails to its members?**

A. It is not IAPR's policy to send advertisement emails to its members. Email advertisement is a duty of conference organizers.

**Other questions:**

**Q. My conference is not sponsored or endorsed by IAPR. Can it be included in the list of IAPR conferences?**

A. Obviously not, but events of interest to the IAPR community can be listed in Conference Planner section of the *IAPR Newsletter*.

**Q. Does IAPR check our budget?**

A. No, but we expect that registration fees are not excessive with respect to other similar events. In general we only support events that are basically "non-profit". When planning events, it is preferable to reduce the fixed costs as much as possible and design budgets that could easily adapt to a variable

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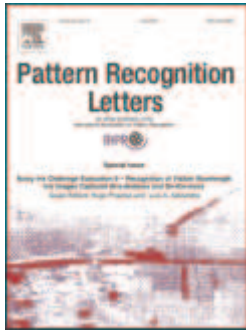
number of accepted papers and attendees. The quality of accepted papers should be the primary goal when drawing a conference program. Therefore the budget should be adaptable to the program and not vice-versa.

**Q. Is there any preferred publisher for proceedings?**

A. We do not have a preferred publisher; any of the most common in computer science and engineering (e.g. IEEE, Springer, ACM) are fine. In general, the proceedings should not be too large a part of the overall budget and should be widely available online. In 2010, the C&M made an investigation of the pros and cons of various options. The results of this analysis are available to conference organizers upon request.

**Q. Any other question?**

A. Please write to IAPR C&M Chair Simone Marinai.



# PR Letters

## State of the Journal

by the Editors-in-Chief:

**Gunilla Borgefors, IAPR Fellow (Sweden)**  
**Gabriella Sanniti di Baja, IAPR Fellow (Italy)**  
**Sudeep Sarkar, IAPR Fellow (USA)**

Pattern Recognition Letters aims at rapid publication of concise articles of broad interest in pattern recognition. Subject areas include all the current fields of interest represented by the Technical Committees of the International Association of Pattern Recognition, and other developing themes involving learning and recognition.

The current state of the journal is excellent. It is continuing on the positive trend that was set by Prof. Tin Kam Ho, who handed the EiC reigns for regular papers to Profs. Gunilla Borgefors and Sudeep Sarkar in 2011. Dr. Gabriella Sanniti di Baja continues to be the EiC for special issues. Over the last year, PR Letters has continued on an upwards trajectory. In the year 2011, more than 1000 articles were submitted, compared to about 900 in 2010. Selectivity has also increased; in 2011 the acceptance rate was around 29%, a decrease of 6% from 2010.

The editorial board consists of 49 associate editors and 4 area editors, who handle papers in high volume subareas in pattern recognition. This diverse board of enthusiastic and dedicated experts has helped keep the review pipeline moving. As an author, the following statistics, derived from last half of 2011, would be of interest.

Time to first decision from submission: 18 weeks (26 weeks in 2010).  
Time to final decision from submission: 30 weeks (38 weeks in 2010).

These demonstrate the excellent job that the board and you, as reviewers, are doing. We are sure they have called upon many of you to review. We hope you will continue to do so.

We would like to share with you some good news. We are pleased to report that the following paper was the most two-year cited paper in 2011 and will receive the 2012 Most Cited Paper Award for Pattern Recognition Letters

Jain, A.K., Data clustering: 50 years beyond K-means (2010) Pattern Recognition Letters 31 (8), Special Issue "Award Winning Papers from the 19th International Conference on Pattern Recognition", pp. 651-666  
([dx.doi.org/10.1016/j.patrec.2009.09.011](http://dx.doi.org/10.1016/j.patrec.2009.09.011))

Prof. Jain was the recipient of the K. S. Fu award in 2008.

The paper with the most citations for a five-year period ending in 2011 was

Wang, X., Yang, J., Teng, X., Xia, W., Jensen, R. Feature selection based on rough sets and particle swarm optimization (2007) Pattern Recognition Letters, 28 (4), pp. 459-471. ([dx.doi.org/10.1016/j.patrec.2006.09.003](http://dx.doi.org/10.1016/j.patrec.2006.09.003))

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The Scopus1000 Award, in recognition of having received over 1,000 citations to date for contribution published in Pattern Recognition Letters goes to

Fawcett, T. An introduction to ROC analysis (2006) Pattern Recognition Letters, 27 (8), Special Issue "ROC Analysis in Pattern Recognition", pp. 861-874 ([dx.doi.org/10.1016/j.patrec.2005.10.010](https://doi.org/10.1016/j.patrec.2005.10.010)). Cited 1125 times.

We invite you to see the most downloaded and most cited articles at

<http://www.journals.elsevier.com/pattern-recognition-letters/>

Information about upcoming special issues also appears there.

In closing we invite you to communicate to us any critical review of the journal that will help make the journal better.

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# **Announcement: Lecture Series with presentations by winners of the K.S. Fu Prize**

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See Upcoming Events at : [www.cse.nd.edu](http://www.cse.nd.edu)

The University of Notre Dame is pleased to announce that it will host a series of six seminars during the Fall Semester, presented by previous recipients of the KS Fu Prize. All lectures are open to the public and anyone interested is welcome to attend. It is planned to record the lectures and make them available online, possibly in form of webinars.

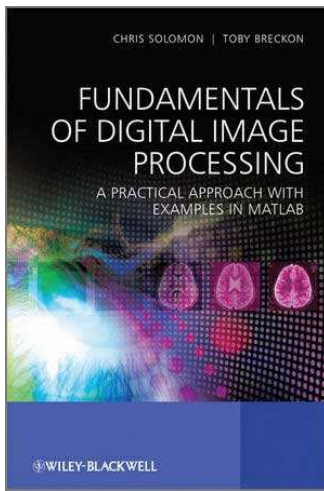
More information on the seminar series, including time, lecture rooms, how to get there, and how to access the recordings will be made available at: [www.cse.nd.edu/Fu\\_Prize\\_Seminars](http://www.cse.nd.edu/Fu_Prize_Seminars).

Kevin Bowyer  
Schubmehl-Prein Professor and Chair  
Department of Computer Science and Engineering  
University of Notre Dame

Horst Bunke  
Prof. Emeritus, University of Bern  
Melchor Visiting Professor, Fall Semester 2012  
University of Notre Dame

<p>SEPTEMBER 10, 2012</p>  <p><b>2000 K.S. Fu Prize</b> <b>Theo Pavlidis</b> Distinguished Professor Emeritus Stony Brook University</p> <p><b>Using Domain Knowledge for Low Level Vision</b></p>	<p>OCTOBER 5, 2012</p>  <p><b>2004 K.S. Fu Prize</b> <b>J.K. Aggarwal</b> Cullen Trust Endowed Professor The University of Texas at Austin</p> <p><b>Recognition of Facial Expressions for Improving Communication Skills of Children with Autism Spectrum Disorders</b></p>
<p>OCTOBER 26, 2012</p> <p><b>2002 K.S. Fu Prize</b> <b>Thomas S. Huang</b> William Everitt Distinguished Professor University of Illinois at Urbana Champaign</p>  <p><b>Human-Computer Intelligent Interaction</b></p>	<p>NOVEMBER 1, 2012</p> <p><b>2006 K.S. Fu Prize</b> <b>Josef Kittler</b> Distinguished Professor University of Surrey</p>  <p><b>Detecting and Distinguishing Nuances of Anomaly in Machine Perception Systems</b></p>
<p>NOVEMBER 29, 2012</p>  <p><b>2008 K.S. Fu Prize</b> <b>Anil Jain</b> Distinguished Professor Michigan State University</p> <p><b>Large-Scale Data Clustering</b></p>	<p>DECEMBER 6, 2012</p>  <p><b>2010 K.S. Fu Prize</b> <b>Horst Bunke</b> Professor Emeritus University of Bern Melchor Visiting Professor University of Notre Dame</p> <p><b>Bridging the Gap Between Structural and Statistical Pattern Recognition</b></p>





## *Fundamentals of Digital Image Processing: A Practical Approach with Exam- ples in Matlab*

by  
**Chris Solomon and Toby Breckon**  
Wiley, December 2010

Reviewed by  
Matthias Elter (Germany)

This book has two key aims. It is an introductory level text that covers modern image processing and pattern recognition techniques. Furthermore, it offers a comprehensive learning framework by providing source code examples, extensive exercises and hands-on computer experiments.

The source code examples are written in Matlab, which makes the book especially interesting for those who have access to Matlab including the Image Processing Toolbox. While the authors do not mention compatibility with free Matlab alternatives like Octave, most of the examples probably work on these if no Matlab license is available to the reader.

The book is supplemented by a [well-designed website](#) that provides electronic copies of the example code, the example images, additional exercises and even two larger example projects.

Fundamentals of digital image processing is written in a clear style that is easy to read even for non-native speakers like the author of this review.

The book has eleven chapters, the first eight of which cover the fundamental image processing topics: image representation, image formation, pixel operations, image enhancement, frequency-domain image processing, image restoration,

geometry transforms, and morphological operations. The following three chapters, that make up for about one fourth of the book, cover the pattern recognition topics image segmentation, feature extraction, and classification.

The first chapter answers the introductory question: “what is an image?”. It covers topics like image formats, resolution, quantization, color spaces, and the specific representation, I/O, and display of images in Matlab.

Chapter two covers the formation of images. It starts with an introduction to the mathematical background of image formation and proceeds with an overview of the engineering aspects of image formation. The mathematics are described in a practical way instead of covering extensive theoretical derivations, which makes sense with respect to the aims of the book.

In chapter three, pixels, pixel operations, and pixel distribution operations are explained. It covers topics like thresholding, point-based transforms, and histogram operations.

The forth chapter provides an overview of the most fundamental image enhancement

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techniques, such as linear and non-linear filters, edge detection, and edge enhancement.

The Fourier series, Fourier transform and frequency-domain filtering are nicely explained in chapter 5.

Image restoration techniques like Wiener filtering and blind deconvolution are the topics of chapter six, which covers more complex topics than the previous chapters.

Chapters seven and eight are the last chapters focusing on image processing topics. They cover geometry transforms and morphological operations. Especially the chapter on morphological operations provides a comprehensive overview of the topic.

Features and their extraction from images are the topics of chapter nine, which is the first of three chapters on pattern recognition techniques. Given the vast amount of feature extraction methods the authors of course had to focus on a selection of key techniques.

Surprisingly, image segmentation approaches are covered in the following chapter. Considering the typical pattern recognition pipeline, that consists of image segmentation, feature extraction (often based on the segmentation), and finally classification, I would have expected a different sequence. Again, given the extensive amount of segmentation approaches, only a selection of methods could be covered by the authors. The selection, however, makes sense, considering the aim of the book.

The last chapter is on classification techniques and covers linear discriminant functions and Bayesian classification. It also provides an introduction to ensemble classifiers and unsupervised learning techniques by explaining AdaBoost and k-means clustering.

Overall, *Fundamentals of Digital Image Processing* can be recommended to students and professionals who are searching for a hands-on introduction to both image processing and pattern recognition. It is especially well suited for those with access to a Matlab license. However, it is not the only book that covers these topics.

# Conference Report: ICIAP 2011

## 16th International Conference on Image Analysis and Processing

September 14-16, 2011  
Ravenna, Italy

General Chairs:

Giuseppe Maino (Italy)

Gian Luca Foresti, IAPR Fellow (Italy)

Report prepared by Giuseppe Maino, Co-chairman of ICIAP 2011



The International Conference on Image Analysis and Processing (ICIAP) is a series of conferences organized biennially by the Italian Member Society (GIRPR) of the International Association for Pattern Recognition (IAPR). This edition was jointly organized by the Faculty of Preservation of Cultural Heritage of the Alma Mater Studiorum, University of Bologna, and the Department of Mathematics and Computer Science (DIMI) of the University of Udine.

The aim of these conferences is to bring together international researchers for the presentation and discussion of the most recent advances in the fields of pattern recognition, image analysis, and image processing. Therefore, the main topics covered were as follows: Image Analysis and Processing, Pattern Recognition and Vision, Multimodal Interaction and Multimedia Processing, and Applications to Cultural Heritage.

175 Papers were submitted, each of which was refereed by two members of the Program Committee. 121 Contributions were accepted, whose presentation at the conference was divided into 10 oral sessions (44 papers) and three poster sessions, one for each day of the conference (77 papers).

The rate of acceptance of the work was 68%, slightly higher than in previous editions of ICIAP, with a small but significant increase in the number of contributions received since the previous edition. ICIAP 2011 had 197 participants coming from 27 countries, fifty of them being young students. Given the current shortage of research funding, this result is considered positive.

ICIAP 2011 took place in the great hall of the Palazzo dei Congressi in Ravenna, made available by the Flaminia Foundation for the promotion and development of the University in Ravenna, the poster sessions were held in the foyer that surrounds the conference room.

The program included a special session on Low-level Color Image Processing, organized by M. Emre Celebi, Bogdan Smolka, Gerald Schaefer, and Raimondo Schettini, IAPR Fellow; a demo session with the participation of companies and academic institutions; and four invited talks:

1. IAPR Distinguished Speaker, Jake K. Aggarwal (IAPR Fellow, University of Texas, Department of Electrical and Computer

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Engineering, USA) presented Recognition of Human Activities.

2. Horst Bunke (IAPR Fellow, University of Bern, Institute of Computer Science and Applied Mathematics, Switzerland) discussed Bridging the Gap Between Structural and Statistical Pattern Recognition
3. Roberto Cipolla (University of Cambridge Department of Engineering, UK) gave a talk on Novel applications of 3D Shape from Uncalibrated Images, and
4. Kevin Karplus (University of California, Santa Cruz, Department of Biomolecular Engineering, USA) spoke on Bioinformatics Methods .

Three tutorials were held, respectively, on Image and Video Descriptors by Abdenour Hadid, on Beyond Features: Similarity-Based Pattern Analysis and Recognition by Edwin R. Hancock, IAPR Fellow, Marcello Pelillo, IAPR Fellow, and Vittorio Murino, IAPR Fellow, and finally on Video Analytics on Reactive Camera Networks by Christian Micheloni.

The social events ICIAP 2011 consisted of an opening cocktail reception, a social dinner in the 15th century Villa Malagola and its historical park, photographic and painting exhibitions provided by the students of the Faculty of Preservation of Cultural Heritage, Sara Armaroli, Donatella Lombardo and Liu Wan, with the Art & Vision theme. Moreover, the premiere of 3D animation films—entitled, respectively, “From Ravenna to Venice - Film-making for the Preservation of the Cultural Heritage and the Environment”, “The Roman Harbor of Classe”, and “Do not Violate

Mother Earth”—were given, illustrated by the authors Eleonora Cavallini, Giuseppe Rossini, and Bibi Bozzato. Guided tours of the main monuments of Ravenna, listed by UNESCO, were organized for accompanying persons.

At the banquet, the Caianiello Prize, established in memory of Prof. E. Caianiello and awarded to the best article by a young author, was presented to Marcel Spehr for his contribution “Sum-of-superellipses - parameter Model for a Low Amplitude Spectra of Natural Images.” The IAPR Best Paper Award for the best paper presented at the conference, was attributed to the work on Reconstruction for Improving 3D Digital Art Preservation, presented by J. Santos Jr., O. Bellon, L. Silva and A. Vrabel.

Finally, on the fringes of ICIAP 2011, a satellite conference was held at the prestigious Order of the Matha House (the first settlement of higher education in Ravenna, dating from the late Middle Age), namely the 1st International Workshop on Pattern Recognition in Proteomics, Structural Biology and Bioinformatics - PR PS BB 2011, organized by Virginio Cantoni, IAPR Fellow, and myself within the activities of the TC Bioinformatics GIRPR group. The workshop, attended by many researchers, was divided into an introduction part with two invited talks, by Kevin Karplus on “Better than Chance: The Importance of Null Models” and Rita Casadio (University of Bologna) on “Large Scale Annotation of Proteins with Labeling Methods”, and a second one with 12 oral presentations. The proceedings will be published in a special issue of Nuovo Cimento C, and some works will form the basis of another special issue of the European Physical Journal Plus, dedicated to “New Tools and Methods for Pattern Recognition

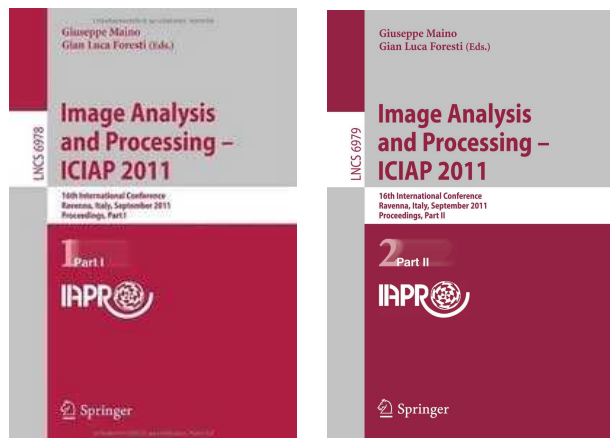
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in Complex Biological Systems".

In conclusion, thanks to all the participants and the people engaged in the organization—too numerous to mention them all—who contributed to the success of ICIAP 2011; in particular, thanks are due to the Italian Group of Researchers affiliated with the International Association for Pattern Recognition (GIRPR) for having granted the opportunity to hold their biennial conference in Ravenna, and the International Association For Pattern Recognition (IAPR) for the endorsement given to ICIAP 2011.

**Proceedings of the  
conference have been  
published by Springer  
in the series  
Lecture Notes in  
Computer Science  
(Volumes 6978 and 6979)**





## 1st IAPR TC3 Workshop on Partially Supervised Learning

September 15-16, 2011  
Ulm, Germany

General Chairs:

Friedhelm Schwenker (Germany)

Edmondo Trentin (Italy)

Report prepared by Stefan Faußer and Friedhelm Schwenker

*NOTE: IAPR TC3 is IAPR's Technical Committee on Neural Networks and Computational Intelligence.*

The First IAPR TC3 Workshop on Partially Supervised Learning provided a major forum for researchers in all areas of partially supervised learning. It was organized by the Institute of Neural Information Processing at the University of Ulm and the [Dipartimento di Ingegneria dell'Informazione \(DII\)](#) at the University of Siena, and was sponsored by the International Association for Pattern Recognition (IAPR).

The workshop was organized in one track of oral presentations and posters. We received 23 contributions from 11 countries. Nine high-quality papers were selected for oral presentation and six for the poster session by the scientific committee. The review process was carried out by the scientific committee, and each paper was reviewed by three committee members.

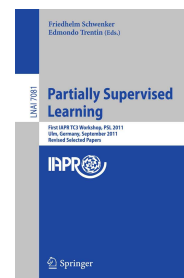
During the two-day workshop, three excellent IAPR Invited Talks were given. Prof. Dr. Zhi-Hua Zhou (Nanjing University, China) presented his ideas on "Unlabeled Data and Multiple Views" where he discussed ensemble methods with unlabeled and partially labeled data. "Online Semi-Supervised Ensemble Updates for fMRI Data" was the title of Dr. Catrin O. Pluympton's (Bangor University, United Kingdom) invited speech. Here she discussed semi-ensemble learning techniques in large fMRI data bases. Dr. Stefan Scherer (Trinity College, Dublin, Ireland) discussed partially

supervised learning in human computer interaction scenarios in his talk entitled "How Partially Supervised Learning can facilitate and enhance user state analysis in naturalistic HCI".

All accepted papers have been published in the Springer LNAI series volume 7081, edited by Dr Friedhelm Schwenker (University of Ulm) and Prof Dr Edmondo Trentin (University of Siena). In addition to the Workshop proceedings a special issue entitled "Partially Supervised learning in Pattern Recognition" will be prepared for the journal [Pattern Recognition Letters](#) (submission deadline: June 30, 2012).

The TC3 steering committee decided that the 2nd Workshop on Partially Supervised Learning (PSL 2013) will be held in Nanjing (China) in May 2013 in conjunction with the Workshop on Multiple Classifier Systems (MCS 2013).

**Proceedings of the conference have  
been published by Springer  
in the series  
Lecture Notes in Artificial Intelligence  
(Volumes 7081)**





# Conference Report: [ACPR 2011](#)

## First Asian Conference on Pattern Recognition

November 28-30, 2011  
Beijing, China

General Chairs:

[Tieniu Tan](#), IAPR Fellow (China)  
[Brian Lovell](#), IAPR Fellow (Australia)  
[Anil K. Jain](#), IAPR Fellow (USA)

Report prepared by [Cheng-Lin Liu](#) (China)



The First Asian Conference on Pattern Recognition (ACPR 2011) was held at the Beijing Jingyi Hotel, Beijing, China. ACPR is a new series of regional conferences to promote scientific exchanges primarily for researchers in the Asian-Pacific Region, though it is open to researchers worldwide. ACPR 2011 was organized and sponsored by the National Laboratory of Pattern Recognition (NLPR) of Institute of Automation of Chinese Academy of Sciences, co-sponsored by the IEEE Beijing Section, and endorsed by the International Association for Pattern Recognition (IAPR). The conference was attended by about 160 researchers from around the world.

ACPR 2011 received 272 submissions. Based on the reviews by 69 program committee

members and 148 additional reviewers, 60 papers were accepted for oral presentation, and 82 papers were accepted for poster presentation. The Proceedings were published by the IEEE, and electronic proceedings (USB drives) were provided to the participants. The oral papers were presented in 12 oral sessions in six time slots. The poster papers were presented in two poster sessions. The main topics of accepted papers were pattern classification and machine learning, feature extraction and selection, image processing and segmentation, computer vision, object detection and recognition, video analysis and activity recognition, face recognition, biometrics, and speech recognition.

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In addition to the regular paper sessions, three internationally renowned researchers were invited to give keynote speeches. Prof. Ioannis Pitas from Greece gave a talk entitled “Recent Advances in Discriminant Non-Negative Matrix Factorization”, Prof. Rama Chellappa, IAPR Fellow, from the US presented “Compressive Sensing, Sparse Representations and Dictionaries for Image and Video-Based Recognition”, and Dr. Jianchang Mao, also from the US, gave his speech on “Large Scale Statistical Modeling of User Response in Computational Advertising.”

The social program was also impressive. The registrants were invited to attend the welcome reception and the banquet. At the banquet, Professor Yasushi Yagi presented the proposal for organizing ACPR 2013 in Okinawa, Japan, November 2013, and addressed the welcome for participation. The shows at the banquet, including folk music, vocal imitation, Beijing opera, Sichuan opera action “change face”, and magic shows, impressed the conference delegates.

At the closing ceremony, three paper awards were announced and presented. The awards were selected based on an evaluation of review scores and presentation quality by a committee led by a program chair. The paper awards and the recipients are as follows:

**IAPR Best Paper Award:** Koichi Kise and Takahiro Kashiwagi, “1.5 Million Subspaces of a Local Feature Space for 3D Object Recognition”

**IAPR Best Student Paper Award:** Xin Zhao, Jianwei Ding, Kaiqi Huang, and Tieniu Tan, “Global and Local Training for Moving Object Classification in Surveillance-Oriented Scene”

**NLPR Best Poster Award:** Genquan Duan, Haizhou Ai, Takayoshi Yamashita, and Shihong Lao, “Human Centric Object Detection in Highly Crowded Scenes”

## IAPR Awards



Presentation of the  
IAPR Best Paper Award



Presentation of the  
IAPR Best Student Paper Award

**Proceedings of ACPR 2011  
have been published by  
IEEE and are available at  
IEEEXplore**

# Conference Report: DICTA 2011

## Digital Image Computing: Techniques and Applications

September 6-8, 2011  
Noosa Heads, Queensland, Australia

### General Chairs:

Andrew Bradley (Australia)

Paul Jackway (Australia)

Yaniv Gal (Australia)

Olivier Salvado (Australia)

Report prepared by Andrew Bradley, General Co-Chair (Australia)



The International Conference on Digital Image Computing: Techniques and Applications (DICTA) is the main Australian Conference on computer vision, image processing, pattern recognition, and related areas. DICTA was established as a biannual conference in 1991 and became an annual event in 2007. It is the premiere conference of the Australian Pattern Recognition Society (APRS).

The venue for DICTA 2011 was the Sheraton Noosa Resort & Spa located between the Noosa River and Noosa's renowned Hastings Street. The format of the conference was dual-track with oral presentations and posters. DICTA 2011 was technically co-sponsored by the IEEE and IAPR.

There were four international keynote speakers:

- Bob Duin, IAPR Fellow, from Delft University of Technology;
- Yi Ma from Microsoft Research Asia;
- David Hawkes from University College

London; and

- Arun Ross from West Virginia University.

Together, these world-leading researchers presented a diverse sample of modern directions within digital image computing, including topics such as dissimilarity representation, analysis of low-rank image structures, medical image diagnosis, and future trends in biometrics. All of the keynote presentations were well received and served to provide an up-to-date overview of their fields and to inspire delegates in new research directions.

DICTA 2011 had 194 papers submitted for review. Each 6-page paper was reviewed by at least two independent review panel members using a double blind system. From these, the committee accepted 112 papers, representing an acceptance rate of just less than 57%. The organizing committee then selected 42 papers for oral and 70 papers for poster presentation. The IEEE published all accepted

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papers and the proceedings appear in the IEEE Xplore online database.

Four prizes were awarded at the conference dinner:

- The **APRS/IAPR Best Paper Prize**



Aleš Neubert (right) with Murk Bottema.

awarded by the DICTA 2011 Committee, the IAPR, and the APRS: to Aleš Neubert, Jurgen Frupp, Kaikai Shen, Olivier Salvado, Raphael Schwarz, Lars Lauer, Craig Engstrom, and Stuart Crozier for their paper "Automated 3D Segmentation of Vertebral Bodies and Intervertebral Discs from MRI;"

- The **APRS Best Student Paper Prize**



Geoff West (left) accepts for Thomas Albrecht from Murk Bottema.

awarded by the DICTA2011 Committee and the APRS: to Thomas Albrecht, Geoff West, Tele Tan, and Thanh Ly for their paper "Visual Maritime Attention

Using Multiple Low-Level Features and Naïve Bayes Classification;"

- The **Canon "Best Colour Paper" Prize**

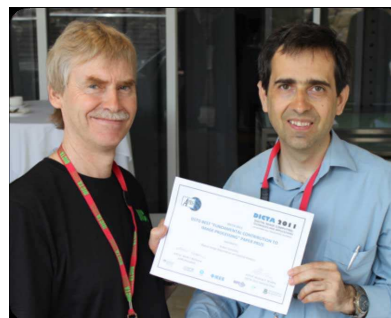


awarded  
by Canon

David Sandberg (left) with Roger Butler (CiSRA)

Information Systems Research Australia (CiSRA): to David Sandberg, Per-Erik Forssen, and Jens Ogniewski for their paper "Model-Based Video Coding Using Colour and Depth Cameras;"

- The **DSTO Best Fundamental Contribution to Image Processing Paper Prize**



Rubin Gonzalez (right) with Murk Bottema.

awarded by Defence Science and Technology Organisation (DSTO): to Ruben Gonzalez for his paper "Robust Image Registration via Cepstral Analysis."

**Proceedings of  
DICTA 2011  
have been published by  
IEEE and are available at  
IEEEXplore**

Please check the ICPR 2012 web site [www.icpr2012.org](http://www.icpr2012.org) frequently.

Online registration will begin in June.

The Early Bird Registration deadline is July 15, 2012.

# ICPR

The 21st International  
Conference on Pattern Recognition

# 2012

N o v e m b e r

# 11-15, 2012

Tsukuba International Congress Center  
Tsukuba Science City, JAPAN

## General chairs

Jan-Olof Eklundh (Sweden), Yuichi Ohta (Japan), Steven Tanimoto (USA)

## Program chairs

Alberto Del Bimbo (Italy), Kim L. Boyer (USA), Katsushi Ikeuchi (Japan)

## Track chairs

### Computer & Robot Vision

Richard Bowden (UK)  
Sing Bing Kang (USA)  
Long Quan (China)

### Virtual Reality & Medical Applications

Tobias Höllerer (USA)  
Gudrun Klinker (Germany)  
Naokazu Yokoya (Japan)

### Pattern Recognition & Applications

Noboru Babaguchi (Japan)  
Rita Cucchiara (Italy)  
Qiang Ji (USA)

### Signal, Speech, and Video Processing

Tsuhan Chen (USA)  
Touradj Ebrahimi (Switzerland)  
Kyoung Mu Lee (Korea)

### Document Analysis

Bidyut B. Chaudhuri (India)  
Koichi Kise (Japan)  
Daniel P. Lopresti (USA)

## Advisory committee

Horst Bunke (Switzerland), Masakazu Ejiri (Japan), Range Kasturi (USA),  
Josef Kittler (UK), Takashi Matsuyama (Japan),  
Gabriella Sanniti di Baja (Italy), Yoshiaki Shirai (Japan),  
Ching Y. Suen (Canada), Johji Tajima (Japan)

### Workshop Co-Chairs

### Tutorial Co-Chairs

### Demos, Exhibits and Contests Co-Chairs

### Publication Co-Chairs

### Finance Co-Chairs

### Publicity and Sponsorship Co-Chairs

### Award Chair

### Web Chair

### Local Arrangement Co-Chairs

### Important Dates

Deadline for paper submission  
Notification of paper acceptance  
Camera ready papers and author registration  
Deadline for workshop proposal  
Deadline for tutorial proposal  
Deadline for contests proposal

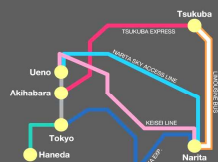
March 31, 2012  
June 15, 2012  
July 15, 2012  
January 15, 2012  
April 30, 2012  
July 15, 2011

Yoichi Sato (Japan), Rahul Sukthankar (USA)  
Andreas Dengel (Germany), Eisaku Maeda (Japan)  
Robert Fisher (UK), Yasuyo Kita (Japan)  
Hideo Saito (Japan), Yoshimitsu Aoki (Japan)  
Hiroshi Sako (Japan), Keiji Yamada (Japan)  
Atsushi Imiya (Japan), Kazuhiro Fukui (Japan)  
Ken-ichi Maeda (Japan)  
Kenji Suzuki (Japan)  
Itaru Kitahara (Japan), Takeshi Kurata (Japan)

The International Conference on  
Pattern Recognition (ICPR)  
is the  
major scientific event  
organized under the auspices of  
the  
International Association for  
Pattern Recognition (IAPR).

The aim of this conference is to  
bring together  
international experts  
to share their experiences  
and to promote  
research and development in  
Pattern Recognition.

# See you in Tsukuba!



# Job Postings

## Junior and senior algorithm developers in computer vision and tracking

**Tobii Technology** is the world leader in solutions for eye tracking – a technology that allows a computer to tell exactly where a person is looking. Eye tracking is used in a broad range of applications such as eye controlled computer interfaces for people with disabilities, market research and scientific research as well as with future multi-model user interfaces and consumer electronics. Tobii's vision is that eye tracking will be used in consumer products and we are rapidly growing to fulfill that dream. If you love problem solving, creating meaningful products and are better than most in your area of expertise, we want to work with you!

Are you looking for a job position where you can apply your knowledge in the fields of computer vision, object tracking and 3D-modelling in development of consumer products? Do you want to be part of the team bringing the next generation computer interaction interface to the mass market? Then keep reading, this is something for you!

In this role, you will be an important part of a core technology team responsible for the development of future eye control modules for use in every laptop. Our latest product, the [IS-2 platform](#) has been well received by the market and now we are planning for future platforms. Our multi-talented team has a wide range of competences, such as electronics, optronics and algorithms. Now that we are taking our technology to mass market applications, we will have extremely challenging requirements on the algorithms to find and track the eyes. This is where you come into the picture.

Whether you are an experienced algorithm developer or new on the job market, we believe that you have the ability, motivation and passion to push the performance beyond today's state-of-the art algorithms. We are now look-

*(Continued on page 33)*

## Post-Doctoral Fellowship in Brain Imaging and Computational Morphometry

**IMT Institute for Advanced Studies Lucca** invites applications for a Post-Doctoral Fellowship in the area of pattern recognition and image analysis. Candidates with a Ph.D. in electrical or biomedical engineering, computer science, imaging, or equivalent are preferable.

We are specifically interested in the development of new data-driven computational methods for morphometric assessment of Magnetic Resonance images of the brain. The fellow will have access to a large collection of datasets modeling human disease of the Central Nervous System. The ideal candidate should have a strong mathematical and computational background, experience in pattern recognition and machine learning and biomedical image analysis and excellent programming skills. Previous experience with brain image processing (e.g., non-linear registration, VBM, TBM) and suites (e.g., FSL, FreeSurfer) will be considered a plus but is not required. Candidates must have an excellent track record of high-impact international publications and an excellent level of both written and spoken English is mandatory.

The fellow will be a member of PRIAn - Pattern Recognition and Image Analysis Research Unit ([prian.lab.imtlucca.it/](http://prian.lab.imtlucca.it/)), and is expected to focus mostly on research and mentoring of Ph.D. students. Limited participation in teaching of graduate courses may be requested.

We offer competitive salary packages and sev-

*(Continued on page 33)*



*(Tobii Technology, Continued from page 32)*

ing to hire several algorithm developers with different levels of experience to our current team. Your job will include a variety of different tasks, e.g.:

- Development and maintenance of eye control products
- Development of algorithms within signal and image processing, computer vision, object detection and tracking, 3D modelling
- Algorithm tuning to maximize performance
- Simulation and test of algorithms
- Optimization to meet timing and memory requirements

We think that you have:

- M.Sc. or Ph.D. in computer vision, or related field
- 0-20 years of work experience in product R&D in fields related to computer vision, image-based object tracking, 3D-modelling
- Experience of C++ programming, preferably also Python
- Interest in embedded systems

As a person you are triggered by mathematical challenges and problem solving. You like working towards defined goals and don't give up until they have been reached. You feel at home in a dynamic organization and an environment characterized by fast development projects, and you enjoy having the possibility of taking a big responsibility in a small group.

Is this you? Apply through our website as soon as possible, we read applications ongoing.

Link to the ad: <http://www.tobii.com/en/group/careers/job-openings/job-list/details/?vacancy=710085>

*(IMT Institute, Continued from page 32)*

eral benefits. More information regarding the position, as well as the online application form, can be found here: [www.imtlucca.it/faculty/positions/junior\\_faculty\\_recruitment\\_program.php#brain\\_imaging](http://www.imtlucca.it/faculty/positions/junior_faculty_recruitment_program.php#brain_imaging)

IMT Lucca (<http://www.imtlucca.it>) is a public international Graduate School and Institute of Technology that acts as a research university situated in Lucca, Italy.

The deadline for applications is May 20th 2012.

Visit the Institute on YouTube

([www.youtube.com/watch?v=q4gE-2RrB8](http://www.youtube.com/watch?v=q4gE-2RrB8)).

## Free Books!

The *IAPR Newsletter* is looking for reviewers for the books listed below.

If you have interest and some knowledge in the topic, email us with your mailing address. We will send you a copy of the book—which you may keep—and will expect in return a review for the *Newsletter*.

[Arjan Kuijper](#), IAPR Newsletter Associate Editor for Book Reviews

The following titles are available to be reviewed:

### ***Guide to Medical Image Analysis: Methods and Algorithms***

Toennies, Klaus D.

Series: [Advances in Computer Vision and Pattern Recognition](#)

2012, 2012, XX, 468 p. 327 illus.

[www.springer.com/computer/image+processing/book/978-1-4471-2750-5?cm\\_mmc=NBA- -Mar-12 WEST 10126872- -product- -978-1-4471-2750-5](http://www.springer.com/computer/image+processing/book/978-1-4471-2750-5?cm_mmc=NBA- -Mar-12 WEST 10126872- -product- -978-1-4471-2750-5)

### ***Soft Computing Techniques in Vision Science***

Patnaik, Srikanta; Yang, Yeon-Mo (Eds.)

Series: [Studies in Computational Intelligence](#), Vol. 395

2012, 2012, XII, 218 p. 101 illus., 56 in color.

[www.springer.com/mathematics/computational+science+%26+engineering/book/978-3-642-21607-7?cm\\_mmc=NBA- -Mar-12 WEST 10126872- -product- -978-3-642-21607-7](http://www.springer.com/mathematics/computational+science+%26+engineering/book/978-3-642-21607-7?cm_mmc=NBA- -Mar-12 WEST 10126872- -product- -978-3-642-21607-7)

### ***Visualization in Medicine and Life Sciences II: Progress and New Challenges***

Linsen, L.; Hagen, H.; Hamann, B.; Hege, H.-C. (Eds.)

Series: [Mathematics and Visualization](#)

1st Corrected ed. 2012. Corr. 3rd printing 2012, 2012, VIII, 290 p. 132 illus., 116 in color.

[www.springer.com/mathematics/computational+science+%26+engineering/book/978-3-642-21607-7?cm\\_mmc=NBA- -Mar-12 WEST 10126872- -product- -978-3-642-21607-7](http://www.springer.com/mathematics/computational+science+%26+engineering/book/978-3-642-21607-7?cm_mmc=NBA- -Mar-12 WEST 10126872- -product- -978-3-642-21607-7)

### ***Automatic Calibration and Reconstruction for Active Vision Systems***

Zhang, Beiwei, Li, Y. F.

Series: [Intelligent Systems, Control and Automation: Science and Engineering](#), Vol. 57

2012, 2012, VII, 164 p. 79 illus., 44 in color.

[www.springer.com/engineering/robotics/book/978-94-007-2653-6?cm\\_mmc=NBA- -Feb-12 WEST 9935000- -product- -978-94-007-2653-6](http://www.springer.com/engineering/robotics/book/978-94-007-2653-6?cm_mmc=NBA- -Feb-12 WEST 9935000- -product- -978-94-007-2653-6)

# Meeting and Education Planner

*NOTE: This is not an exhaustive list of workshops, conferences, and summer schools. It is a list of meetings supported by IAPR plus additional meetings that have been brought to the attention of the editor (these non-IAPR meetings are denoted with an \*). The [IAPR web site](#) has more up-to-date information about [IAPR workshops](#), [conferences and summer schools](#). Additional meetings that may be of interest to the IAPR Community can be found at USC's Institute for Robotics and Intelligent Systems list of [Computer Vision Conferences](#).*

*(A. Branzan Albu, ed.)*

Highlighting indicates that paper submission deadline has not yet passed.  
An asterisk \* denotes a non-IAPR event.

## 2012

<a href="#">ICIEV 2012</a>	International Conference on Informatics, Electronics & Vision	Dhaka, Bangladesh	18-19 May 12
<a href="#">CIP2012</a>	3rd International Workshop on Cognitive Information Processing	Parador de Baiona, Spain	28-30 May 12
<a href="#">AVI 2012 *</a>	12th International Working Conference on Advanced Visual Interfaces	Capri Island (Naples), Italy	21-25 May 12
<a href="#">Summer School *</a>	10th IEEE EMBS International Summer School for Biomedical Imaging *	Berder, France	22-30 Jun 12
<a href="#">ICIAR 2012 *</a>	9th International Conference on Image Analysis and Recognition *	Aveiro, Portugal	25-27 Jun 12
<a href="#">WSCG 2012 *</a>	20th International Conference on Computer Graphics, Visualization and Computer Vision *	Plzen, Czech Republic	25-28 Jun 12
<a href="#">MCPR2012</a>	4th Mexican Conference on Pattern Recognition	Huatulco, Mexico	27-30 Jun 12
<a href="#">ICISP2012</a>	5th International Conference on Image & Signal Processing	Agadir, Morocco	28-30 Jun 12
<a href="#">Summer School *</a>	Building Trust in the Information Age: Summer School in Computer Security & Privacy *	Cagliari, Italy	27-31 Aug 12
<a href="#">CIARP 2012</a>	17th Iberoamerican Congress on Pattern Recognition	Buenos Aires, Argentina	3-6 Sep 12
<a href="#">ANNPR 2012</a>	5th Workshop on Artificial Neural Networks for Pattern Recognition	Trento, Italy	17-19 Sep 12
<a href="#">ICFHR 2012</a>	13th International Conference on Frontiers in Handwriting Recognition	Bari, Italy	18-20 Sep 12
<a href="#">BTAS 2012 *</a>	The IEEE Fifth International Conference on Biometrics: Theory, Applications and Systems *	Washington, D.C., USA	23-27 Sep 12
<a href="#">PRIB 2012</a>	7th IAPR International Conference on Pattern Recognition in Bioinformatics	Tokyo, Japan	8-10 Nov 12
<a href="#">WDIA 2012</a>	International Workshop on Depth Image Analysis	Tsukuba Science City, Japan	11 Nov 12
<a href="#">MPRSS12</a>	1st International Workshop on Multimodal Pattern Recognition of Social Signals in Human Computer Interaction	Tsukuba Science City, Japan	11 Nov 12
<a href="#">PRHA12</a>	International Workshop on Pattern Recognition for Healthcare Analytics	Tsukuba, Science City, Japan	11 Nov 12

*(Chart continued on next page 36)*

# Meeting and Education Planner

## (continued)

Highlighting indicates that paper submission deadline has not yet passed.  
An asterisk \* denotes a non-IAPR event.

(Continued from page 35)

### 2012 (continued)

<a href="#"><u>PRRS12</u></a>	Pattern Recognition in Remote Sensing	Tsukuba, Science City, Japan	11 Nov 12
<a href="#"><u>VAIB12 *</u></a>	Visual observation and analysis of animal and insect behavior *	Tsukuba, Science City, Japan	11 Nov 12
<a href="#"><u>IWCF12 *</u></a>	5th International Workshop on Computational Forensics *	Tsukuba, Science City, Japan	11 Nov 12
<a href="#"><u>PRCA12 *</u></a>	First International Workshop on Pattern Recognition and Crowd Analysis *	Tsukuba, Science City, Japan	11 Nov 12
<a href="#"><u>TrakMark 2012 *</u></a>	The 3rd International Workshop on Benchmark Test Schemes for AR/MR Geometric Registration and Tracking Method *	Tsukuba, Science City, Japan	11 Nov 12
<a href="#"><u>ICPR 2012</u></a>	21st International Conference on Pattern Recognition	Tsukuba, Science City, Japan	11-15 Nov 12
<a href="#"><u>S+SSPR2012</u></a>	Joint IAPR International Workshops on Structural and Syntactic Pattern Recognition (SSPR) and Statistical Techniques in Pattern Recognition (SPR)	Tsukuba, Science City, Japan	11-15 Nov 12
<a href="#"><u>DICTA 2012</u></a>	Digital Image Computing Techniques and Applications	Fremantle, Western Australia	3-5 Dec 12

### 2013

<a href="#"><u>DGCI 2013</u></a>	17th International Conference on Discrete Geometry for Computer Imagery	Sevilla, Spain	20-22 Mar 13
<a href="#"><u>MVA 2013</u></a>	13th IAPR Conference on Machine Vision Applications	Kyoto, Japan	21-23 May 13
<a href="#"><u>CAIP 2013 *</u></a>	15th International Conference on Computer Analysis of Images and Patterns *	York, UK	27-29 Aug 13