IAPR

Spring 2002
Volume 24 No 2

Newsletter of the International Association for Pattern Recognition Inc
(An affiliate member of the International Federation for Information Processing)

PRESIDENT BECOMES HONORARY DOCTOR

THE IAPR PRESIDENT GABRIELLA SANNITI DI BAJA received the degree "Doctor of Philosophy, *honoris causa*" at the faculty of Science and Technology, Uppsala university, Sweden, on 25 Jan. 2002.

This honorary degree is given only to a few select scientists, that are internationally recognised and also have some connection to Uppsala university. In this case, the motivation (brief version) for the honour can be translated as: "The faculty of Science and Technology confers the degree of Doctor of Philosophy, honoris causa, to Director of research Gabriella Sanniti di Baja at Isituto di Cibernetica, National Research Council, Naples, Italy, for her development of basic methods in digital image analysis, specially regarding digital shape, and for her long service to IAPR, where she presently is President."

THE DEGREE OF HONORARY DOCTOR IS GIVEN AT THE SAME TIME AS THE NEW DOCTORS "IUVENES" (i.e. after exam) are promoted. This ceremony is very solemn and follows a pattern that has been essentially the same since the late middle ages. The ceremony at Uppsala University has been the same since the year 1600. Three symbols are bestowed: the golden Ring symbolising fidelity to science, the Hat or Laurel (depending of faculty, e.g. theology, law, and technology uses a hat, humanities and science a laurel), and the Diploma.

The key part is where the Promotor, who is a senior Professor at the new Doctor's faculty, greets the Promovenda, crowns her with hat or laurel, gives her the golden ring and the diploma, takes her by the hand and leads her over the "Parnassus" (a raised platform) and says farewell. At the same time a canon is fired, (a real canon that makes a big Booom) one shot for each of the honorary doctors, three for the faculty group of Iuvenes. Most faculties still use Latin: "*Salve*"; "*Accipe corona*"; "*Accipe annulum*"; "*Accipe diploma*"; "*Vale praeclarissima* doctor". However, some now prefer Swedish, as did Gabriella's Promoter. In this way the new doctor is received in the international and intertemporal community of accomplished scientists.

This year the winter ceremony was rightly named. We had snow and about -10 degrees - which is fine for men in tails, but less fine for women in long dress frocks and appropriate shoes. In the photo Gabriella is braving the cold on the stairs of the main University building, just after the promotion. She wears the laurel of science, the ring (not visible), and the diploma. The day ended with a wonderful dinner and ball at the Castle of Uppsala, where about 500 people caroused in the Hall of State, where so many other important events of Swedish history took place.

Gunilla Borgefors

ELCVIA ELECTRONIC LETTERS ON COMPUTER VISION AND IMAGE ANALYSIS

http://www.cvc.uab.es/elcvia elcvia@cvc.uab.es

ELCVIA is a new international electronic journal on Computer Vision and Image Analysis that tries to make all possibilities that the internet offers today available to the authors for a better dissemination of their research results.

The ELCVIA project started at the ICPR'2000 conference in Barcelona, when an international group of researchers expressed their interest in creating an electronic journal based on new web technologies.

The journal encourages research groups from all over the world to submit their contributions on Computer Vision and Image Analysis, including applications. The journal considers three types of contributions:

- **SURVEY:** A contribution by invitation of the Editors in Chief or members of the Advisory Board, 12-20 pages (recommended).
- **ARTICLE:** A regular contribution of 8-12 pages (recommended).
- **DRAFT:** An article of 8-12 pages (recommended) freely submitted to the web site, with a forum for discussion.

The different fields covered by the journal (but not limited to these) are: Computer Vision and Image Analysis algorithms, Artificial Intelligence approaches in Computer Vision and Image Analysis, Pattern Recognition, Image segmentation, 3D reconstruction, Active vision, Tracking, Video and image sequence analysis, Vision applied to robot navigation, Computer Vision Architectures, Vision Applications, etc.

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IAPR

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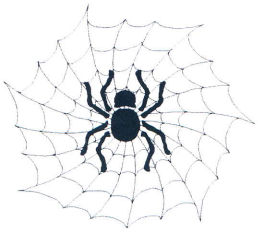
IAPR NEWSLETTER



Published in association with

the IAPR website

http://www.iapr.org

DEADLINE SUMMER 2002 EDITION

(for copy and individual mailing address changes)

17 JUNE 2002

Newsletter will be mailed from the UK
8/9 July 2002

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FROM THE EXCO

In the last newsletter, we announced two issues which were to be submitted to the vote of the Governing Board. First, the C&B committee had worked carefully on a number of suggested amendments to the constitution and bylaws. According to the C&B, such changes require a majority of 2/3 to be adopted. The ExCo was very disappointed by the low participation in the vote: only 35 GB members (out of the total of 51) sent in their ballot, and none of the proposed amendments did reach the requested majority of 34 votes. The ballot must therefore be considered as null and the issues of C&B changes must now be discussed at the GB meeting this summer. We feel uncomfortable with such a large number of GB members not participating in the life of the association, on such important matters.

The second issue we had announced was that IAPR Technical Committee 8 on Industrial Applications has been dormant for several years now. Despite our last call for reactivation, no "life signal" was received. We therefore organized a ballot within the GB, and the result is that the GB has approved the dissolution of TC8 on Industrial Applications. Most of our technical committees are active and demonstrate the vitality of our field, through their many activities and initiatives. The IAPR has also created several new TCs and reorganized other TC activities in the last years. The Executive Committee therefore feels that this dissolution is yet another sign of vitality, and we want to continue to be reactive and dynamic when it comes to terminating dormant technical committees.

The next ICPR will be held this summer, and by the time you receive this Newsletter, a preliminary program and registration information is probably available, or will be very soon. In this connection, we are pleased to announce that the IAPR has received a donation of 4,000 USD provided by the Unipen foundation headed by Professor Schomaker. The ExCo plans to add this donation to the money set aside through the decision made at the last GB meeting, to give a total of 35 travelling stipends of 500 USD each to authors of papers accepted at ICPR, oral or poster, who would not be able to attend the ICPR without this contribution. An application must be sent to the IAPR Secretary. The applicant should provide the following information: name, title, complete affiliation, paper ID, whether he/she is member of an IAPR member society or not, and any other useful information to explain the request for a stipend. The ExCo points out that the applicant should be able to find elsewhere the complementary funds, necessary to cover the ICPR registration fee and the traveling expenses, as the 500 USD amount will be the maximum contribution provided by the IAPR. Precise information about how to send in the application, including deadline, will be posted in due time on the ICPR web site.

One last word about our president: As you will have seen from our front cover, Gabriella Sanniti di Baja, was conferred the degree of *Doctor of Philosophy Honoris Causa* by the University of Uppsala, Sweden, at a ceremony held on January 25, 2002. We wanted to share with all IAPR members the pride and delight we feel about this distinction.

The 2002 King-Sun Fu Prize

The King-Sun Fu Prize is awarded biennially to a living person in recognition of outstanding contributions to the field of Pattern Recognition and honours the memory of Professor King-Sun Fu who was instrumental in the founding of IAPR and served as its first President. He is widely recognised for his own extensive contributions to the field.

The Prize consists of an inscribed plaque and a cash amount and the prize winner is selected by a special Prize Committee. The Prize is made in recognition of a technical contribution of far-reaching significance and impact on the field of Pattern Recognition or its closely allied fields, made at any time in the past.

The name of the 2002 K-S Fu Prize winner will be announced soon on two web sites:

The ICPR site
http://icpr2002.gel.ulaval.ca/
and
The IAPR site
http://www.iapr.org/

The British Machine Vision Association and Society for Pattern Recognition - BMVA

The BMVC dinner is the focal annual event where prizes and honours are awarded

The British Machine Vision Association and Society for Pattern Recognition, is a thriving society of academics and industrialists interested in the broader area of artificial vision, robotics, pattern recognition, image processing and artificial intelligence. **(http://www.bmva.ac.uk).**

The Society has more than 600 members, from Master students to eminent professors. Although the Society is British, it accepts members from all over the world and offers to them the same privileges as UK based members. For example, they receive the IAPR newsletter as well as the BMVA newsletter for free, wherever in the world they are, they have reduced rate of participation in BMVA sponsored events etc .

The main activity of the Society is the annual organisation of the British Machine Vision Conference (BMVC) which takes place usually in mid September each year in a different part of the UK. The conference is usually attended by about 150 people, mainly from Britain, but also from various parts of the world. The conference consists of high quality single track presentations, with a 50% acceptance rate . It represents very good value for money as it is organised at University premises, by a research group, and relies largely on voluntary work.

The high quality of the papers is encouraged by the various prizes awarded: the prize for the best scientific paper and the prize for the most industrially relevant paper are worth £500 each. The latter is sponsored by Computer Recognition Systems, a UK based company .

The prize for the best oral presentation is worth £200, and the prize for the best poster another £200. There is also the best demo prize, worth £200, sponsored by UKIVA and the best model based vision paper prize worth £750 and sponsored by Image-Metrics plc. At the conference dinner where the prizes are awarded, BMVA also announces the annual prize of the best PhD thesis of the previous year, submitted and examined in the UK. This prize was established in memory of Geoff Sullivan, one of the founding members of BMVA, and it comes with a cheque of £350.

In the recent years BMVA also established the prestigious title of BMVA Fellow, awarded only to one person per year, somebody who has contributed most with his/her efforts to advancing the level of research in areas related to BMVA, by working in a British establishment. The recipient receives a crystal engraved trophy and is honoured at the BMVC Conference dinner. BMVA is proud to include so far among its Distinguished Fellows, Professors Mike Duff and Mike Brady.

BMVA also organises a special annual conference on Medical Image Analysis and Understanding, along the same lines as BMVC. This event is usually attended by more than 100 participants. In addition, it sponsors, often with financial underwriting various other events that promote research in the related fields in the UK

BMVA organises on behalf of the Engineering and Physical Sciences Research Council of the UK, the annual Summer School on Computer Vision . It also sponsors the School by funding 5 bursaries for participation. The School is aimed at all first year PhD students who undertake research in the computer vision area. The School has been running at full capacity for the past 8 years, in mid June, at the University of Surrey. Other bursaries are also available to student members to attend conferences abroad .

BMVC Provides a forum for UK researchers to meet and discuss over a cup of coffee whilst browsing industrial exhibitions and academic posters

Finally, BMVA organises for its members one-day technical meetings. These meetings are open to anybody interested, but they are free to the members. They usually cover a topic that is of current interest, often in response to members' requests. There are 4 or 5 such meetings per year, usually held in London. Some recently organised ones were on Mathematical Methods for Computer Vision (a selection of tutorials), on Biometrics, etc.

The Society tries to promote collaboration with various other societies, and often such meetings are held jointly, for example with the Royal Statistical Society, or the Photogrammetry and Remote Sensing Society, etc. It also has good links with the UK Industries in the Computer Vision area and offers the option for its members to demonstrate, free of charge, the results of their research to IPOT, an annual event organised at the National Exhibition Centre in Birmingham, which attracts visitors from all over the world, and exhibitors that show the latest in hardware and software image processing technology.

The annual fee of the association has been unchanged for several years, and it is only £20 per annum (£10 for students) . The ability of the Society to offer so many benefits to its members for such a small subscription rate is due to its careful financial management and the willingness of many of its members to give their personal time to the organisation.

The greatest international recognition of BMVA came when during the ICPR in Brisbane, the Governing Board of IAPR entrusted BMVA with the organisation of ICPR2004. The meeting will take place in Cambridge and BMVA will be proud to host you there.

Maria Petrou - BMVA Chairman

THE IAPR EDUCATION COMMITTEE

The Education Committee home page is at http://www.cs.washington.edu/research/imagedatabase/iapr/. We would like to provide links to web pages for current courses in Pattern Recognition, Image Processing, and Computer Vision for our members to peruse. The Computer Vision courses come from a nice web page that Prof. Bruce Maxwell of Swarthmore College has already set up, and there are quite a few courses. The other two categories need your contributions!

Please send URLs for Pattern Recognition courses and Image Processing courses to:

Linda Shapiro, Chair of the Education Committee

shapiro@cs.washington.edu.
http://www.palantir.swarthmore.edu/extra/cved

and enter your own courses.

BOOK REVIEW

DATA MINING – CONCEPTS AND TECHNIQUES

Jaiwei Han & Micheline Kamber

Academic Press 2001

While the topic of Data Mining still some time ago was known only to an insider circle, it is enjoying meanwhile growing popularity not only in science but also in industry and medicine. Correspondingly the number of books treating this topic from different aspects has increased tremendously. The book of Jaiwei Han and Micheline Kamber is a comprehensive work on this topic. It is written in a clear way and gives the reader a comprehensive insight into the field and also an outlook on the latest developments and trends.

The book is comprised of 10 chapters and has 544 pages altogether. In the first chapter the reader is introduced into the topic of Data Mining. The different methods of Data Mining are described and a classification of Data Mining systems is given. The different data types are described from the point of view of their representation in databases, thus preparing the ground for further description of the present trend of integration of Data Mining functionalities with Data Warehouse and OLAP in the second chapter. The multidimensional data model is treated, the Data Warehouse Architecture and the Data Cube Technology are described and the integration of Data Warehouse and Data Mining is depicted also.

In chapter 3 the most essential aspects of data processing are presented. So the reader learns how to deal with missing or noisy data, as it is often necessary to make a data transformation before the Data Mining experiment and as a data reduction can show useful.

Chapter 4 treats the approach of a Data Mining project and thus actually does away with the often harboured illusion that the wanted knowledge can be collected from the database by only pushing a button on the keyboard. Furthermore, Mining Query Languages and System Architectures are discussed in this chapter. After that in chapters 5 to 9 special Data Mining methods are described, such as mining of concept descriptions, association rules, classification and prediction, as well as cluster analysis.

In chapter 9 Data Mining for complex data types, such as texts, spatial data, images or videos is described. The representation for mining of multimedia data remains very general and hardly touches the essential problems of dealing with these data. The system aspect is in the foreground here, but not the methods. Mostly multimedia data cannot be represented by attribute-value pairs, but demand more complex data representations, raising a number of problems in their processing. The Pattern Recognition Community is intensely engaged in these problems on the theoretical part and has taken up the problem of mining images, texts, videos and web documents, which already previously has lead to some substantial contributions.

The complex study of the problem on the part of System Design (multimedia systems) and Theory (pattern recognition) has been left out and is only described as an additional problem of Data Mining. The fact is that precisely in this field a number of new results is to be expected in future and that it will develop into a domain of its own.

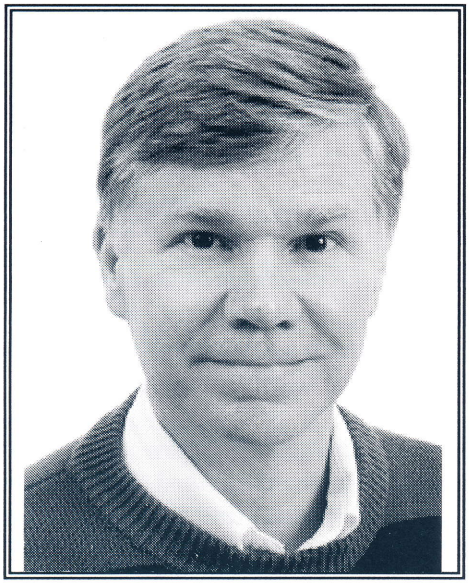
The last chapter gives a review on applications and trends. At the very end the authors venture on an interesting outlook on the social aspects of Data Mining and on the question where to System Development will move. They argue that the trend will move towards the development of application-specific Data Mining systems. Whether Data Mining systems will also assert themselves in personal use remains to be seen and will probably depend on the personal technical orientation of each individual. In any case, the authors' creative view on the domain is refreshing.

Altogether it is a book that can be recommended to all those who want to get a quick and compact review on the topic.

Petra Perner

Human Interactive Proofs and Pattern Recognition

Henry S Baird



FORUM

HOW CAN MACHINES ('BOTS') BE PREVENTED from abusing web services intended for human use? Can we design programs that can tell people and machines apart over a network? In short, can we build fully automatic, industrial-strength Turing tests? In the last few years these questions have triggered a new research field called `human interactive proofs' (HIPs) which poses fascinating challenges to the pattern recognition research community.

Researchers at DEC SRC pioneered this technology [LABB01] and put a version into use at AltaVista to protect "Add-URLs". By the summer of 2000, Yahoo! and PayPal were using similar methods. By the Fall of 2000, Prof. Manuel Blum of Carnegie-Mellon Univ. and his team was studying these and related problems [BAL00]. Soon after a collaboration between the Univ. of California at Berkeley and the Palo Alto Research Center produced a laboratory prototype based on systematically generated image degradations [CBF01].

In January 2002, Prof. Blum, the present author, and Kris Popat ran the first workshop on HIPs, defined broadly as ***a class of challenge/response protocols which allow a human to authenticate herself as a member of a given group --e.g. human (vs. machine), herself (vs. anyone else), an adult (vs. a child), etc -- without burdensome passwords, biometrics, unusual hardware, or special training***.

All commercial uses of HIPs known to us exploit the gap in ability between human and machine vision systems in reading images of machine printed text. An example...

CAN YOU READ THIS WORD, WHICH HAS BEEN pseudorandomly rendered and degraded? Of course you can. Are present-day OCR machines able to read the broad family of images it represents? Don't be too sure.

What does the history of Pattern Recognition suggest are the most intractable obstacles to machine reading: unusual typefaces? poor image quality? merging/fragmentation? What are the conditions under which human reading is peculiarly robust: reading through clutter? `gestalt'? Having chosen one or more of these `ability gaps', how can we reliably generate an inexhaustible supply of challenges that lie `in the gap'? How long can such as HIPs resist attack? Human Interactive Proofs offer many such stimulating challenges to our community.

[BAL00] M. Blum, L. A. von Ahn, and J. Langford, The CAPTCHA Project: ``Completely Automatic Public Turing Test to tell Computers and Humans Apart," www.captcha.net Dept. of Computer Science, Carnegie--Mellon Univ., Pittsburgh, PA.

[CBF01] A. L. Coates, H. S. Baird, R. Fateman, ``Pessimal Print: a Reverse Turing Test," Proc., IAPR 6th Intl. Conf. on Document Analysis and Recognition, Seattle, WA, September 10-13, 2001, pp. 1154-1158.

[LABB01] M. D. Lillibridge, M. Abadi, K. Bharat, A. Z. Broder, ``Method for Selectively Restricting Access to Computer Systems," U.S. Patent No. 6,195,698, Issued February 27, 2001.

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http://www.parc.com/baird

IAPR SPONSORED CONFERENCE REPORT

NATIONAL WORKSHOP ON COMPUTER VISION, GRAPHICS & IMAGE PROCESSING
15 – 16 February 2002 - Madurai, India

THE INDIAN UNIT FOR PATTERN RECOGNITION and Artificial Intelligence (IUPRAI) organized its first National Workshop on Computer Vision, Graphics and Image processing (WVGIP-2002) during 15-16 February 2002 at Madurai in collaboration with Thiagrajar College of Engineering (TCE). Prof. B. Chanda (Secretary, IUPRAI) of Indian Statistical Institute, Kolkata, Prof. S. Choudhury (Jt. Secretary, IUPRAI) of Indian Institute of Technology, Delhi, Dr. C. Muruganatham of TCE, Madurai and Mr. S. Md. M. Roomi of TCE, Madurai were the coordinators.

The main objective of the workshop was to provide a forum for peer interaction among academia, industry, research labs and researchers in the area of Computer Vision, Image Processing, Computer Graphics and Pattern Recognition in India for further development of the subject. Through this workshop IUPRAI also desired to initiate and foster research interests and research activities in these areas among interested students and science teachers. The other aim was to create a mechanism for organizing such workshops and the Indian Conference on Computer Vision, Graphics and Image Processing (that had already been held in 1998, 2000 and planned for 2002) on a regular basis in future.

The workshop consisted of presentations by various Indian experts in the area of Computer Vision, Image Processing, Computer Graphics and Pattern Recognition. These presentations, covering broad research areas being pursued by different research groups in the country, highlighted contributions of the group after providing adequate background so that the non-specialists could also appreciate the presentations.

The technical programme started with a keynote speech by Prof. B. B. Chaudhuri (FIAPR) of ISI, Kolkata. About 10 Overview/Tutorial type lectures, 13 short oral presentations and 19 poster presentations took place in two days. The workshop ended with a Valedictory session. A compendium of these presentations was published.

B M Mehtre

IAPR

REMINDER!

ICPR 2002
16th INTERNATIONAL CONFERENCE ON PATTERN RECOGNITION
11-15 August 2002
Quebec City, Quebec, Canada

http://www.icpr2002.gel.ulaval.ca

ICPR 2002 is the sixteenth international conference of IAPR and is organised by the Canadian Image Processing and Pattern Recognition Society (CIPPRS) in cooperation with the IEEE Computer Society.

The ICPR 2002 Theme is ***Pattern Recognition for Mankind and the Environment*** and the conference will be an international forum for discussions on recent advances in the fields covered by the four tracks:

- **Track 1:** Computer Vision and Robotics
- **Track 2**: Pattern Recognition, Neural Networks, and Document Analysis
- **Track 3**: Image and Signal Processing
- **Track 4**: Biomedical and Multimedia Applications

Quebec City is known for its French culture and European tradition, its beautiful scenery along the St-Lawrence River, its excellent food and exceptional quality of living. Information on conference registration, hotel accommodation, travel, customs & immigration, and tourist attractions can be found at the conference website (address below).

Conference Secretariat:
ICPR 2002 - Quebec City
c/o Agora Communication
2600, boulevard Laurier
Tour Belle Cour, suite 2680
Sainte-Foy, Quebec, Canada G1V 4M6

E-mail: icpr2002@gel.ulaval.ca
Website: http://www.icpr2002.gel.ulaval.ca

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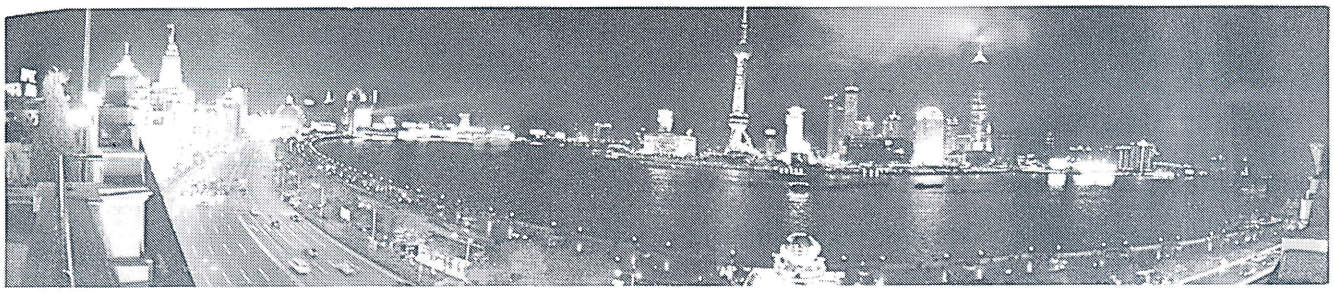

International Conference on Diagnostic Imaging and Analysis

August 18-20, 2002
Shanghai, China

CALL FOR PAPERS

Diagnostic imaging with its computer analysis is an emerging interdisciplinary field involving radiology, surgery, engineering, informatics and healthcare management, among others. The ICDIA provides an ideal and unique opportunity for scientists, engineers, radiologists and clinicians to exchange the most up-to-date ideas, methods, and technologies on research, development and clinical practices in the field of fighting against diseases, especially cancers.

Contributions are sought on new and original research and clinical results on any aspects of diagnostic image analysis, including, but not limited to the following main technical areas:

- **New Technologies in Diagnostic Imaging System**
- **Diagnostic Image Processing and Analysis Using Computer Vision, Pattern Recognition, and Artificial Intelligence Technologies**
- **Diagnostic Image Analysis: Applications to Physiology and Pathology StudyImage Formation and Reconstruction**
- **PACS, Diagnostic Imaging Workstations, and Remote Diagnosis**
- **New Technologies in Medical Image Visualization and Display**

Two hot topics in diagnostic imaging:

- **Cancer Screening, Early Detection and Treatment**
- **Computer-Aided Diagnosis and Its Clinical Significance**

Perspective authors are invited to submit a one-page summary. Each summary should contain the following information:

- Paper title, names, affiliations, city, state, country of all authors
- Name, affiliation, complete mailing address, phone, fax, and email of the contact author
- 500 words abstract with keywords (less than 10)
- Area to submit to

Important Dates:		
	Summary (500 words) Submission:	25 April 2002
	Notification of Acceptance:	01 June 2002
	Camera-ready Paper (6 pages):	15 July 2002

http://www.icdia.fudan.edu.cn *or* **http://www.icdia.fudan.edu.cn**

IAPR International Conference
on
Machine Learning and Data Mining in Pattern Recognition
MLDM´2003

Renaissance Hotel Leipzig, Germany, July 5-7, 2003

Co-chairs

Petra Perner
IBaI Leipzig / Germany

Azriel Rosenfeld
University of Maryland / USA

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Sponsor

International Association of Pattern Recognition (IAPR) IAPR TC 17 Machine Learning and Data Mining

Organisation

Institute of Computer Vision and Applied Computer Sciences IBaI / Leipzig

The Aim of the Conference

The aim of the conference is to bring together researchers from all over the world who deal with machine learning and data mining in order to discuss the recent status of the research and to direct further developments. Basic research papers as well as application papers are welcome. All kinds of applications are welcome but special preference will be given to multimedia related applications, biomedical applications, and webmining. MLDM03 continues in a series of MLDM events that originally started out as workshops. Paper submissions should be related but not limited to any of the following topics:

- inductive learning including decision tree and rule induction learning
- conceptual learning and clustering
- case-based reasoning and learning
- similarity measures and learning of similarity
- association rules
- visualization and data mining
- video mining
- mining structural representations such as log files, text documents and HTML documents
- statistical learning and neural net based learning
- classification and interpretation of images, text, video
- organisational learning and evolutional learning
- probabilistic information retrieval
- mining gene data bases and biological data bases
- mining images, temporal-spatial data, images from remote sensing
- mining text documents
- knowledge extraction from text, video, signals and images

Participants should submit an electronic version of their paper to the e-mail address: ibaiperner@aol.com *at the Institut für Bildverarbeitung und angewandte Informatik, Arno-Nitzsche-Str. 45, 04277 Leipzig Germany*. For the latest news as well as for the program of the previous MLDM and the publications within MLDM and IAPR TC 17 Machine Learning and Data Mining look at http://www.ibai-research.de/ under the link MLDM2003 or under link TC 17.
The paper should have no more than 15 pages (double-spaced) and present original work of the authors. Papers will be reviewed by the program committee. Accepted papers will appear in proceedings published by Springer Verlag. Extended versions of selected papers will be published in a special issue of an international journal after the workshop.

Important Dates

Deadline for paper submission	**January, 10th 2003**
Notification of acceptance	**April, 1st 2003**
Final Paper submission	**May 1st, 2003**

FORTHCOMING IAPR SPONSORED CONFERENCES

Symposium for Pattern Recognition
DAGM 2002
September 16-18, 2002
Zürich, Switzerland

Papers are invited about the following topics:

- Image analysis and understanding
- Speech recognition and understanding
- Sensor fusion
- Tracking and motion analysis
- Segmentation and grouping
- Man-machine interaction
- 3D Reconstruction
- Cognitive vision
- Active vision
- Medical imaging
- Real-time vision
- Vision and/or Speech Applications

We also invite proposals for workshop sessions on any of the above topic areas.

Papers should be original work, in English and have a maximum of eight pages. They must not have been previously published or have been submitted to, or be in consideration for, any journal, book or conference.

BEST PAPER AWARDS
There will be five prizes awarded. The Olympus award, for an outstanding contribution to the field (5,000 Euro), one DAGM award for the best paper (4,000 CHF) and three additional DAGM awards (each 1,000 CHF).

ELECTRONIC SUBMISSION
Please refer to the author information section located at the DAGM 2002 website:
http://dagm02.vision.ee.ethz.ch/authors_info/index.en.html

Submission deadline: **08/04/02**
Camera-ready copy: **10/06/02**

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CIMPA-UNESCO-INDIA
School of Soft Computing
2 – 13 December 2002 Calcutta, India

The objective of the *Approach to Pattern Recognition and Image Processing* school is to provide an opportunity to researchers, students, teachers and R&D personnel to be aquainted with the emerging soft computing techniques of machine intelligence starting from an introduction to various real life applications. Particular attention will be given to applying these tools to various pattern recognition and image processing problems. The school will also give an opportunity for young researchers to have interaction, and to make contact, with well known senior researchers in the field.

The school will open with three introductory lectures on Pattern Recognition and various soft computing tools. This will be followed by lectures demonstrating the way of applying these tools for different facets of Pattern Recogntion and Image Processing problems. Finally, lecture on hybridisation methodologies and their real life applications will be delivered.

Email: pa2002@isical.ac.in
Website: tp://www.isical.ac.in/~cimpa2002

All deadlines: **01/09/02**

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PRIP'03 Seventh International Conference on Pattern Recognition and Information Processing
May 21-23, 2003 - Minsk, Belarus

The conference will provide a forum for scientists and engineers to exchange up-to-date technical knowledge and experience and define ways of further development of this field. The conference will focus on both theory and applications.

Topics include (but are not limited to):

- Pattern Recognition
- Image Analysis
- Signal Processing
- Systems and Parallel Architectures for Signal and Image Processing
- Knowledge -based Expert and Decision Support System
- Application of Pattern Recognition and Image Analysis
- 3D Image Processing and Modeling

Further information:
PRIP`2003
Prof. V. Krasnoproshin
Belarusian State University
F. Skaryna av. 4
220050 Minsk, Belarus

E-mail: prip@bsu.by
Website: http://www.prip.bsu.by

Submission deadline: **15/12/02**
Acceptance notification: **15/02/03**

IAPR SPONSORED CONFERENCES & WORKSHOPS

Please check updated information on: http://www.iapr.org

2002	Event	Location	Deadlines		Contact
27-29 May VI'2002	15th International Conference on Vision Interface	Calgary Canada		*Deadlines Passed*	dmitry.gorodnichy@nrc.ca http://www.visioninterface.org/vi2002
24-26 June MCS 2002	Multiple Classifier Systems 2002	Cagliari Italy		*Deadlines Passed*	Roli@diee.unica.it http://www.diee.unica.it/mcs
27-28 June RecPad'2002	12th Portuguese Conference on Pattern Recognition	Aveiro Portugal		*Deadlines Passed*	recpad2002@ieeta.pt http://www.ieeta.pt/recpad2002
7-8 July VI'XI	Vision Geometry XI	Seattle USA	Abstract Final Manuscript	*Deadline Passed* 10/06/2002	latecki@math.uni-hamburg.de http://www.math.uni-hamburg.de/home/latecki/
6-9 Aug SSPR2002	Int Workshop on Syntactical & Structural PR & Statistical PR	Ontario Canada		*Deadlines Passed*	amin@cse.unsw.edu.au http://www.ph.tn.tudelft.nl/Organisation/ssspr2002/
11-15 Aug 16'ICPR	16th International Conference on Pattern Recognition	Quebec City Canada		*Deadlines Passed*	icpr2002@gel.ulaval.ca http://www.icpr2002.gel.ulaval.ca
16 Aug PRRS	2nd IntWorkshop on Pattern Recognition in Remote Sensing	Niagara Falls Canada	Abstract Final Manuscript	*Deadline Passed* 10/06/2002	m.petrou@ee.surrey.ac.uk http://www.ee.surrey.ac.uk/Personal/M.Petrou/2nd.html
18-20 Aug ICDIA	International Conference on Diagnostic Imaging and Analysis	Shanghai China	Abstract Final Manuscript	25/04/2002 15/07/2002	http://www.icdi, a.fudan.edu.cn http://www.icdia.fudan.sh.cn
19-21 Aug DAS'02	Fifth IAPR International Workshop on Document Analysis Systems	Princeton, NJ USA	Abstract Final Manuscript	*Deadline Passed* 15/06/2002	das2002@research.avayalabs.com http://www.research.avayalabs.com/DAS2002
16-18 Sept DAGM 2002	DAGM Symposium for Pattern Recognition	Zurich Switzerland	Abstract Final Manuscript	*Deadline Passed* 10/06/2002	http://dagm02.vision.ee.ethz.ch/authors_info/index.en.html
2-13 Dec CIMPA 2002	CIMPA-UNESCO-INDIA School on Soft Computing	Kolkata India	All Deadlines	01/09/2002	cimpa@isical.ac.in http://www.isical.ac.in/~cimpa2002 ,
11-13 Dec MVA 2002	2002 IAPR International Workshop on Machine Vision Applications	Nara Japan	Abstract Final Manuscript	10/06/2002 11/10/2002	ki@iis.u-tokyo.ac.jp http://www.cvl.iis.u-tokyo.ac.jp/mva
2003	**2003**	**2003**	**2003**		**2003**
21-23 May PRIP'2003	7th International Conference on PR and Information Processing	Minsk Belarus	Abstract Final Manuscript	15/12/2002 15/02/2003	prip@bsu.by http://www.prip.bus.by
5-7 July MLDM'2003	Int Conference on Machine Learning & Data Mining in PR	Leipzig Germany	Abstract Final Manuscript	10/01/2003 01/05/2003	ibaiperner@aol.com http://www.ibai-research.de/MLDM2003

IAPR Newsletter Printed in the UK by THE K&N PRESS LTD Unit 10, 19 Lyon Road, Hersham, Surrey KT12 3PU, UK Tel: +44 1932 232307

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