IAPR

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

NEWSLETTER

Contents

From the Editor's Desk

Dear Everybody,

And when you thought it was safe to forget all about Vienna and 13th ICPR, you got this issue and it brought it all back! This newsletter is dominated by the activities in Vienna and it comes to you hot from the press! In fact it is so hot, that some cookies did not manage to get into the oven before the door shut! So, the report on the technical content of ICPR as well as the New President's address will be included in the January issue of the newsletter. I can of course report that from August 22 this year our Big Boss is **Professor Haralick**, elected as president by the Governing Board in Vienna. Apart from this change, our Executive Committee has a new 1st Vice President, Professor Gelsema, a new 2nd Vice President, Professor Kidode, while the Treasurer remains the same, Dr Bigun, and the secretary, Dr Sanniti di Baja is also the same and of course Professor Kittler remains

on the Committee as the past President. The other exciting news that came out of the GB meeting, was that ICPR 2000 will be in Barcelona, Spain.

There is one thing that makes ICPR different from other prestigious conferences: Its size and diversity. This is something that I hope it will be preserved in the future. There were four parallel tracks and 908 registered participants! We have far too many narrow specialised conferences where people go to hear themselves talking. It is good to be in a conference where one morning you hear about Image Processing and in the afternoon on Neural Networks and the next day on Computer Vision while you had been strongly tempted by the session on clustering.

So, ICPR has grown to record numbers, but its origins were humble: A 52-participants Workshop organised in Puerto Rico, exactly 30 years ago. To celebrate this anniversary, the organisers of 13th ICPR included a special commemorative session that took place during the banquet of the Conference: Three prominent members of the community took part in it, all three past recipients of the prestigious King Sun Fu award: Professors Freeman, Kanal and Rosenfeld. The session was "chaired" by Professor Ahuja. Each participant told us of his recollections of that first gathering. From what I heard, the most consice description of the "then and now" was given by Professor Rosenfeld: "The more it changes, the more it is the same thing!" Let us hope that that is going to be the case in Brisbane in 1998, in Barcelona in 2000, in Anytown in Anytime.

Maria Petrou

IAPR HAS 18 NEW FELLOWS!

The IAPR Fellow Committee received in total 21 nominations for the award of the title IAPR Fellow which honours an outstanding contribution of an individual to IAPR. The Fellow Committee evaluated the respective scores for each nominee in accordance with the current guidelines and confirmed the selection of worthy candidates by a weighted voting process. As a result of this process 17 out of the 21 nominees had been recommended for the award. The recommended candidates were then endoresed by the Executive Committee. By a separate process the Governing Board directly conferred the title of Fellow on Professor Jake Aggarwal for an outstanding service and contribution to IAPR.

The list of IAPR Fellows - elect follows.

Jake K. Aggarwal *For contributions to computer vision, and outstanding leadership in IAPR.*

Carlo Arcelli *For contributions to digital geometry and mathematical morphology in image analysis.*

Henry S. Baird *For contributions to document analysis and for service to IAPR.*

Horst Bunke *For contributions to structural pattern recognition and for service to IAPR.*

Ramalingam Chellappa *For contributions to theory and applications of Markov Random Fields and computer vision.*

Chi Hau Chen *For contributions to pattern recognition and its applications to geophysical and under water acoustics problems.*

Luigi Cordella *For contributions to image analysis and for service to IAPR.*

Masakazu Ejiri *For contributions to the development of machine vision technology and for outstanding service to IAPR.*

Lawrence O'Gorman *For contributions to document analysis.*

Jean Paul Haton *For contributions to speech recognition.*

Anil K. Jain *For contributions to statistical pattern recognition and range data analysis and for service to IAPR.*

Rangachar Kasturi *For contributions to document analysis and for service to IAPR.*

Takashi Matsuyama *For contributions to image understanding and for service to IAPR.*

Hanan Samet *For contributions to hierarchical data structures for image analysis and representation.*

Sargur N. Srihari *For contributions to character recognition and for service to IAPR.*

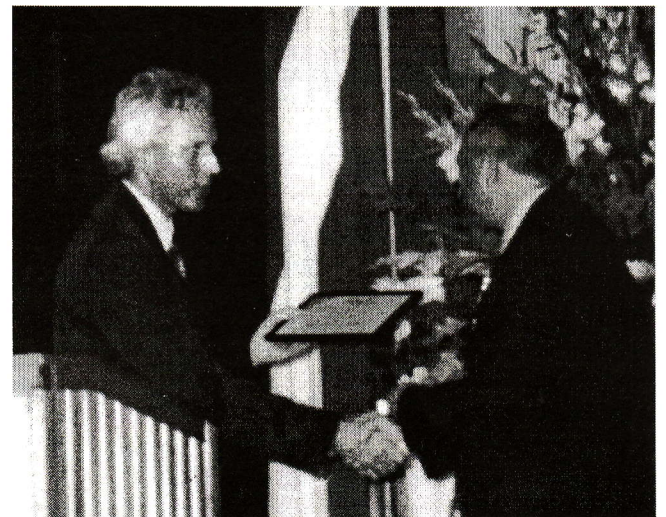**Saburo Tsuji** *For contributions to computer vision and for outstanding service to IAPR.*

Enrique Vidal-Ruis *For contributions to syntactic pattern recognition.*

Kazuhiko Yamamoto *For contributions to character recognition and for service to IAPR.*

THE KING SUN FU AWARD

Teuvo Kohonen, *the 1996 King Sun Fu award winner, receiving his award from the President of IAPR, Josef Kittler, during the opening ceremony of the 13th ICPR, that took place in the lavish Musikverein hall in Vienna. A full article on Professor Kohonen was published in the previous issue of the newsletter.*

Past President Jake Aggarwal receiving his fellowship certificate from (now past) President Josef Kittler.

Directory updates

Past President's Message

The last two years, since the ICPR in Jerusalem, seemed to have passed with the speed of light and my term of office as President of IAPR is over. During my presidency, the IAPR continued to develop its infrastructure and expand its activities. On the publicity front an IAPR www home page has been set up and links to many of the key building blocks of the Association, namely its national member societies and IAPR Technical Committees have been established. The Association welcomed its first industrial affiliate members. The Education Committee, under the chairmanship of Professor Chris Taylor has introduced the "Best Student Paper Award" which had its trial run at the 13 ICPR in Vienna.

Apart from these innovations, the past problems with the nomination procedures for IAPR Officers have been dealt with. A new open scheme, which allows an additional round of formal nominations in response to nominations drawn by the Nominating Committee has been adopted. Also the procedures relating to the K S Fu Prize have been modified to enhance the visibility of IAPR and its prestigious award. Altogether, many Governing Board ballots relating to various aspects of the IAPR operation have been held in order to deal with as much business as possible between the Governing Board meetings so that the time available at these meetings can be devoted to discussions of strategic issues.

One of the major preoccupations of the Executive Committee during its term of office has been the financial situation of IAPR. Several steps have been taken to correct the budgetary deficit. First of all new conference levy rules have been adopted to generate some revenue from conferences sponsored or organised by IAPR and these changes are beginning to bring in additional income. The Executive Committee strived to reduce its operational costs by handling most of its business over the email. Also the cost of producing the Newsletter have slightly decreased as a result of the responsibility for the Newsletter production reverting to the Newsletter Editor. The measures combined with an increased income have corrected the deficit projected for the past term.

Still on a financial note, but now relating to the K S Fu Prize, the K S Fu Fund Appeal announced early in 1995, generated a generous response. In total US$ 5920 has been received both from individual members and from member societies. The donations exceeded the target set by the challenger whose name I am now delighted to reveal, Professor Herb Freeman, who augmented the sum collected by US$ 2250 to bring the total to US$ 8170. I would like to thank him both for the idea of the K S Fu Fund Appeal and for his generosity. More than half of the donations were received from the Chinese Image Processing and Pattern Recognition Society of Taiwan and its individual members, many of whom knew Professor King Sun Fu personally. Also substantial gifts were received from a number of the K S Fu Award recipients. I would like to thank all the contributors for their generous donations.

I would also like to take this opportunity to express my thanks to many people who devoted their time and energy over the last two years to make the IAPR a successful organisation. First in the list are the organisers of the 13th ICPR, especially its General Chairman, Professor Walter Kropatsch, who created an impressive, successful and record beating conference attended by more than 900 participants.

I would like to thank the members of the Executive Committee and all the chairmen and members of the IAPR Standing Committees for their hard work, support and enthusiasm without which the success of the Association and its activities would not be possible. A special mention is due to Dr Gabriella Sanniti di Baja, the IAPR Secretary, for her outstanding efficiency in supporting the IAPR Executive Committee and the Governing Board. Professor Jake Aggarwal's sound advice and moral support in stressful moments was invaluable and I am very grateful to him for that. The initiative and effort of Professor Herb Freeman as chairman of the Awards Committee (from now known as the K S Fu Prize Committee) is also gratefully acknowledged. Professor Duff's conscientious and efficient discharge of his responsibilities as the chairman of the Constitution and Bylaws Committee greatly contributed to a smooth running of the Association. The devoted effort of Professor Pierre Devijver, the chairman of the Fellow Committee, and Professor Rejean Plamondon, the chairman of the Conferences and Meetings Committee is also gratefully acknowledged.

The life line of IAPR, its Technical Committees, should also not be forgotten and I would like to thank their chairmen and in particular the exemplary efforts of the outgoing TC10 Chairman, Dr Karl Tombre. Last but not least, special thanks to Dr Maria Petrou, the IAPR Newlsetter Editor, for the marvelous job in producing the key instrument of IAPR for communicating with its membership, the IAPR Newsletter.

As there is never enough time to do as much as one would like, there are a number of areas which received some thought during the past period but will now have to be persued by the next administration:

1. Another IAPR Conference: The IAPR should consider the option of establishing another series of biennial conferences. The recent growth in the number of research topics and application areas encompassed by the broad field of pattern recognition suggests, that there is perhaps scope for such a development.

2. Finance Committee: It might be beneficial to establish a small committee to advise the Treasurer on investment and to take responsibility for fund raising.

3. ICPR Guidelines: The current ICPR guidelines are very loose and leave many organisational and financial issues ill defined. For instance the specification of the format of submitted papers, refereeing procedure, conference programme creation, appointment of

News for Members

THE FINISH PATTERN RECOGNITION SOCIETY

The Pattern Recognition Society of Finland has in its Annual Meeting elected Professor Jussi Parkkinen as its president and Professor Erkki Oja and Professor Matti Pietikainen as its representatives in IAPR for the year 1996. The council of the Society has asked Mr Markku Hauta-Kasari to act as Secretary. The number of the members of the society at the present time is 264.

European Conference on Computer Vision (ECCV 96)

The titles and abstracts of the papers presented at the conference can be found at:

http://svr-www.eng.cam.ac.uk/Research/Vision/ECCV/ECCV.html

IEEE TRANSACTIONS ON SIGNAL PROCESSING
Special Issue on
THEORY AND APPLICATIONS OF FILTER BANKS AND WAVELETS

Topics: **Theory:***Theory and design of filter banks, Theory and implementation of wavelets, Hierarchical decompositions, multiresolution techniques and wavelet packets, Time-varying filter banks, Time-frequency analysis and representations, Fast algorithms and implementations for filter banks.* **Applications:***Communications—including wireless, multiuser, ADSL, LPI, spread spectrum and digital audio broadcasting, Signal and data compression, Speech and audio processing, Multiresolution techniques for multimedia applications, Combined source-channel coding, Radar signal processing, Biomedical signal processing, Telemedicine, Other applications.*

This special issue is unique in that it will be published with a complementary companion special issue that will appear in the Transactions on Circuits and Systems II. Accepted papers may be exchanged between the two journals where appropriate.

Send seven copies of your manuscript by February 1 1997, to the Contact Editor, Ali N. Akansu, New Jersey Institute of Technology, Dept of Elec & Comp Eng, Newark, New Jersey 07102 USA, Tel: +1 201 596 5650, Fax: +1 201 596 5680, ali@hertz.njit.edu
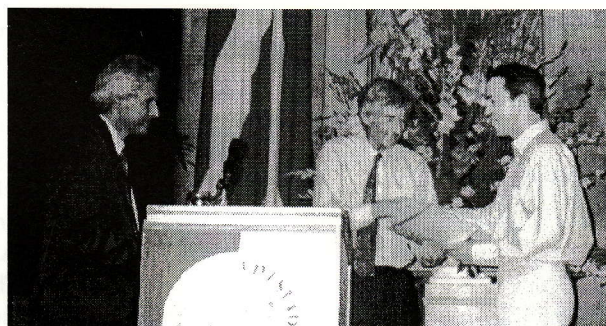

ICDAR'97 Award: Nice if you can get it!
In the previous issue of the newsletter we announced the newly established award in the field of Document Analysis and Recognition. By a mistake the names of the Award committee to whom submissions should be sent were printed just before the announcement, instead of just after! Please note that the closing date for nominations is January 15, 1997. More information can be obtained from Rejean Plamondon, rejean@vlsi.polymtl.ca

Sorry ...

THE STUDENT PRIZE AWARD AT THE 13th ICPR

Chris Taylor, the chairman of the Educational Committee, giving the Student Prize Award to the recipient **Sebastian Roy,** for his paper *Motion without Structure,* co-authored by **Ingemar Cox.**

THREE WISE MEN...

The three recipients of the King Sun Fu award in previous years: Laveen Kanal, Azriel Rosenfeld and Herbert Freeman, guests of honour at the banquet of the 13th ICPR.

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conference programme committees, involvement of IAPR Technical Committees, is lacking. There is insufficient clarity regarding the applicability of the sponsoring levy. There is no explicit policy on the registration fee structure. There should be a clear definition of the minimum standards for social activities. There is a need for streamlining the ICPR bidding procedure and a mechanism for a better monitoring of adherence to the terms of the accepted bid.

I wish the next administration, under the leadership of the new President, Professor Bob Haralick of the University of Seattle, every success in ensuring the IAPR remains an active organisation with ever growing significance.

Josef Kittler,
University of Surrey, UK

Best Industry-Related Paper Award at 13th ICPR in Vienna

The winner of the Best Industry-Related Paper Award (BIRPA) was Drs Larry O'Gorman and Irina Rabinowich from AT&T Bell Laboratories, Murray Hill, NJ, USA, with the excellent paper entitled "Photo-Image Authentication by Pattern Recognition and Cryptography".

With this award program the IAPR Industrial Liaison Committe (ILC) will encourage researchers and developers from industry to submit their papers to ICPR's and/or to attend IAPR events. Further goal is to encourage cooperative work between academia and industry.

The candidate papers were selected from all papers submitted and accepted for the Applications track of the 13th ICPR, with at least one author from industry. The main criteria for the BIRPA are the applicability of the presented work to problems concerned with industrial, commercial and consumer needs, as well as the careful experimental verification of the results, in addition to the high quality standards for acceptance of the paper by the ICPR programme committee. Thanks to all members of ILC for serving as reviewers for BIRPA.

Gerd Maderlechner (gm@zfe.siemens.de),
Chairman Industrial Liaison Committee

22nd ANNUAL PATTERN RECOGNITION SOCIETY AWARD

This award is made every year for the best paper published in the journal **Pattern Recognition**. Certificates of Honourable Mention are also awarded for outstanding papers. Manuscripts published in volume 28 (1995) have been judged by the Associate Editors of the journal, based on the following criteria: 1)Originality of the contribution and 2)Presentation and exposition of the manuscript. The authors of the winning paper are awarded a cash prize and a bronze metal. This year the winners were:

Masahary Kobashi and **Linda Shapiro** for their paper *Knowledge-based organ identification from CT images.*

Honourable mention was received by **Isabelle Bloch** and **Henri Maitre** for their paper *Fuzzy Mathematical Morphologies: A comparative study*, **Adrian Hilton**, **John Illingworth** and **Terry Windeatt** for their paper *Statistics of Surface Curvature Estimates*, and **Ping-Fai Yang** and **Petros Maragos** for their paper *Min-Max classifiers: learnability, design and application.*

DID YOU KNOW THAT....
Children between the ages of 5 and 10 years use features to recognize faces, while children under the age of 5 or older than 10 use wholistic methods? (*From Rama Chellapa's talk in the 9th IMSP Workshop in Belize.*)

The 1996 European Computer Vision Network Recognition Award for Excellence in Transfer of Technology in Computer Vision

The ECVnet 1996 Recognition Award for Excellence in Transfer of Technology in Computer Vision has been awarded to Dimension GrB of Hanover, Germany, for the 3D visual modeling system "Sphinx 3D". A runners-up award was presented to Project EPIDAURE of INRIA Sophia Antipolis, France, for their work on the medical image analysis systems Crest-Match, Cardio-Match and Voxel-Match. The awards were presented during the banquet at ICPR in Vienna, Austria the 28 of August 1996.

A total of 9 entries before the 15 August deadline representing a cross section of products and development strategies. Entries were judged by an evaluation panel for innovation, generality, potential for market, and overall "interest". Each of the 9 nominations deserved recognition, both to aid in their individual developments, and as a role model for others. Accordingly, a set of technology transfer case studies are to be prepared from the entries. These case studies will be the subject of a technology transfer workshop to be organised in 1997. For more information contact the ECVnet coordinator by email (jlc@imag.fr) or consult the ECVnet coordinator's web server at http://pandora.imag.fr/ecvnet.html)

BOOK REVIEW

Image Based Measurement Systems: Object Recognition and Parameter Estimation by *Ferdinand van der Heijden* John Wiley & Sons, 1994, ISBN 0 471 950629

There is really only one word that describes this book best: "compact". The author takes the approach that an image refers to a 2D representation of objects under measurement and since measurement science is an interdisciplinary topic, encompassing sensor design, estimation theory, pattern recognition, and system identification (to name but a few), then these topics should be brought together under one roof (or between two hard covers!). Unfortunately, this is where the book suffers, as the treatment of the subjects is neither elementary enough to regard it as a suitable reference or university textbook, nor extensive enough or better than anything else in the collection of a seasoned professional. Each subject is treated very compactly and with the book being aimed at third or fourth year undergraduates, the mathematics is sometimes too much, too soon, too fast. This saves space and makes the book thin, but it leaves out important groundwork.

To its credit, the book does take a functional approach with a running example throughout some chapters which can help understand the underlying theory a little better. Moreover, some key issues are graphically illustrated which again helps greatly in taking in the mathematical generalisations.

Following a very brief introduction to computer vision and its applications in Chapter 1, Chapter 2 reviews the image formation process by building a mathematical model. Illumi-

nation and reflection models are followed by the 3D to 2D space mapping of perspective projection. Fourier Analysis is introduced as a technique to model noise characteristics and to specify the resolving power of an imaging device. The chapter ends with a brief treatment of various illumination choices, such as specular or structured illumination.

Chapter 3 on image models describes first and second order statistics, along with discontinuities in irradiances, of homogeneous regions to model objects and their surfaces. Chapter 4 is about image acquisition from sensing to spatial sampling and reconstruction. Some of the related points discussed are the issues of area sampling, how best to model the finiteness of the image plane by employing a windowing function to scan it, and how to use a DFT to sample the Fourier transform of the windowed image without the loss of information.

Chapter 5 describes single pixel and local pixel neighbourhood operations. This spans simple thresholding, through general convolution operations and filtering, to a quite thorough treatment of binary mathematical morphology. The next chapter on statistical pattern classification and parameter estimation is one of the highlights of the book. The chapter stands independently and paints an adeqaute picture of the framework needed for an image measurement system. It covers decision making and classification, parameter estimation, supervised learning, classification measures, and feature selection strategies over almost 80 pages.

Many of the issues discussed in the earlier six chapters are then used in the final chapter to characterise the general analysis of images using mainly a bottom-up approach. Image segmentation by pixel, region, and edge is described before skimming over region descriptors. Object recognition, going from object model to image model and using different matching techniques (eg relaxation or graph matching) is also covered. Finally, two appendices on linear algebra and probability theory summarise some of the concepts required as a mathematical background to the book.

This book would suit scientists who already have some experience with the subjects treated and would prefer a handy sized reference companion which speeds over the elementary stuff and can replace a few somewhat bulkier books.

Majid Mirmehdi,
University of Surrey

CONFERENCE REPORT

The 5th International Colloquium on Numerical Analysis
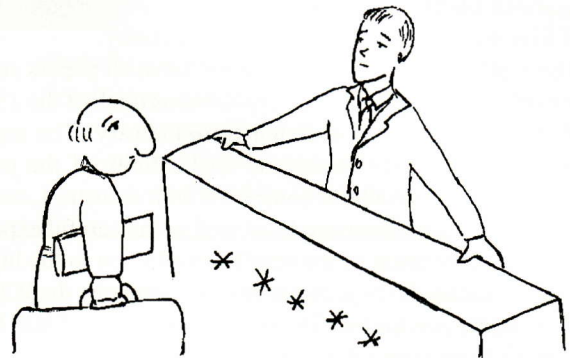*(Plovdiv, Bulgaria, 13–17 August 1996)*

A STORY TO BE TOLD
Dear Professor Anybody...

You are a conscientious, middle of the road researcher, having your niche of research and living a quiet suburban life (metaphorically speaking). One day, you receive a letter personally addressed to you: You are *invited* to give an *invited* talk, at an international colloquium, in a seemingly well established series of colloquia, on a topic peripheral to your research! They even offer to pay you part of your expenses! Bang! You pass out! You suffer from vertigo! You got dizzy!

Dizzy by the heights your fame has reached! Even people you never heard of, even people working on peripheral subjects to yours, have heard of you, know of you, and are prepared to even pay you so that they can hear the pearls of your wisdom for a full hour, even though their country is currently struggling to bring its economy off its knees! You made it! You are famous! "Money is hated by many; glory by nobody!"

Once bitten...

— What do you mean "And do the beds have mattresses" We are a first class hotel Sir!

You can't but gather your transparencies and your fame and go! The fun starts once you are there. You find yourself paying 40 US dollars a night, for a room with no mirror, no hot water, no room service, with a mattress that makes your spinal cord in the shape of treble clef, with a towel of trial size to last you a week, and a wall paper that had forgotten when it had been born! You do not dare to admit that you even expected a TV set or even just a radio in your room, as the horizon of your hopes goes as far as the next door neighbour not to be spying on you through the crack on the wall, and the local Mafia, you have heard so much about, not to give a gentle push on your door in the middle of the night and uproot the ancient hook that "secures" it closed! To add salt to the wound, you find out that the local one-hundred-star hotel charges almost the same price for a room with satellite television, hot water and all the mod cons! And to add insult to injury, you soon find out that *all* participants are *invited* speakers, and *all* received the same letter as you did and that nobody knows when their talk is, because every day the colloquium organiser pins on the wall the programme of the colloquium for that day only!

You somehow pull through looking at the bright side of things: 'The country is beautiful', 'The food is excellent', 'I met several interesting people from very different disciplines', 'The room is clean', 'I did not pay any fee'. And then, at the end of the day, you do exactly what is left for you to do: You philosophise! 'After all it was an interesting experience', 'Politicians talk a lot about the "feel-good factor" and here I am, I got it relatively cheaply for a few months between invitation and event' and other nonsense like these!

Maria Petrou

$$\boxed{\textit{CONFERENCE ANNOUNCEMENTS}}$$

Vision Interface '97 (VI97) [IAPR]
19-23 May 1997   Kelowna, BC, Canada

Vision Interface '97 is the eleventh Canadian conference devoted to computer vision, signal and image processing, and pattern recognition.

Contributions are are solicited (English or French) describing unpublished research results and applications in any area of computer vision, signal and image processing, and pattern recognition. Topics will include, but are not limited to: *Robot Perception, Biomedical Applications, Intelligent Autonomous Systems, Modeling Human Perception and Movement, Multi-sensor Perception, On-line and Off-line Document Processing, Active Perception, Industrial Applications, S/W and H/W Architecture, 3-D Vision, Methods for Image and Scene Analysis, Remote Sensing, Neural Network, Motion Representation, Knowledge Representation, Robust Methods for Signal and Image processing.*

Four copies of full papers should be submitted to the address on p10. Include with the paper full name, address, phone number, fax number and electronic mail address of the contact author.

Deadline for paper submission	**31 October 1996**
Deadline for Workshop Proposals	**15 November 1996**
Notification of acceptance	**20 January 1997**
Deadline for camera ready copy	**31 March 1997**

ICIAP'97: 9th International Conference on Image Analysis and Processing [IAPR]
17–19 September 1997   Florence, Italy

Florence is the capital of the Tuscany region, located on the Arno river, halfway between Rome and Milan. It is one of the most famous cities of culture and art in Italy and in the world. It is connected with the most important Italian cities through excellent highways and is one of the most important railway stations in Italy. The nearest airports are that of Amerigo Vespucci Florence International airport (8km off the city) and the Galileo Galilei Pisa International airport, 80km from Florence.

You can submit your paper electronically via anonymous ftp to dsi.ing.unifi.it in the directory iciap97/incoming. Alternatively, send four copies of the manuscript to the address on p10. Papers should not exceed 14 pages (12pt font, 1.5 spacing); a separate page should include the names of authors, their affiliation, and complete address. Papers will undergo blind reviewing by three separate reviewers of the Programme Committee.

Deadline for paper submission	**15 January 1997**
Notification of acceptance	**May 1997**
Deadline for camera ready copy	**June 1997**

International Conference on Recent Advances in 3-D Digital Imaging and Modeling (RADIM) [IAPR]
12–15 May 1997   Ottawa, Ontario Canada

This conference will cover all aspects of digital 3-D Imaging and Modeling from sensors to processing, along with applications. It is being sponsored and organized by the National Research Council of Canada. The Conference Proceedings will be printed by IEEE Press and will be available at the time of the conference. Selected papers from the conference will be considered for publication in a special issue of the Image and Vision Computing Journal.

Ottawa is not only Canada's Capital but the Tulip Capital of North America. Come and enjoy the festival, the world-class museums, the Rideau Canal, the Parliament Buildings and the many other attractions this cosmopolitan city has to offer.

Topics: *3-D Sensing methods, Smart sensors, smart scanning, Sensor calibration and accuracy, View registration and integration, Geometric processing algorithms, Reverse engineering and CAD interfacing, Texture acquisition, integration and mapping, Object digitizing and modeling, Human digitizing and modeling, Site and environment digitizing and modeling, Fusion of optical data with other sensor modalities, Multiresolution 3D representations, Applications (Anthropometry,Industrial,Medical,Entertainment, etc), Standards and data formatting.*

Prospective authors are invited to submit papers in any of the technical areas listed above by submitting five (5) copies of a 2–4 page summary (include figures and references) to the address on p10.

Deadline for paper submission	**4 October 1996**

SMATI '97 Semantic Modeling for the Acquisition of Topographic Information from images and maps
21-23 May 1997   Bonn, Germany

Topics: *Semantic models for topographic objects, Iconic, structural and semantic hierarchies, Semantic cartographic generalization, Appearance models for topographic objects, Process control by scene specific models, Interaction between low and high level analysis, Domain specific grouping, Observability of topographic objects, Representation and use of uncertainty, Learning structural and semantic models, Modeling user interaction in scene analysis.*

Submit four copies of papers (max. 25 pages, 12pt, double spaced, including figures tables and references) to the address on p10. Include two title pages, one with and one without the names of the authors.

Deadline for paper submission	**16 December 1996**
Notification of acceptance	**20 February 1997**
Deadline for camera ready copy	**24 March 1997**

GREC'97: 2nd IAPR Workshop on Graphics Recognition [IAPR, TC-10]
22–23 August 1997   Nancy, France

The workshop will be held just after the 4th International Conference on Document Analysis and Recognition (Ulm, Germany, August 18-20 1997). Namcy is only 4 hours drive from Ulm and the two cities are directly connected by train. Attendance will be limited to 75 persons. For each session there will be first a state of the art presentation giving the open questions of the session topic, followed by short presentations in response to the open questions. Submit a 2-page abstract to the address on p10. Also indicate whether you are willing to present a state of the art paper on your topic.

Relevant topics: *Raster-to-vector techniques, recognition of graphical primitives, recognition of graphic symbols in charts and diagrams, interpretation of engineering drawings, logic diagrams, maps, charts, etc, analysis of line drawings, tables, forms etc, graphics-based information retrieval, 3D models from multiple 2D views, interpretation of low level ("dump") CAD data, desription of complete systems for interpretation of graphics in scanned documents, performance evaluation in graphics recognition.*

Deadline for paper submission	**1 March 1997**
Notification of acceptance	**1 May 1997**
Deadline for camera ready copy	**15 June 1997**

TFTS'97: 2nd IEEE UK Symposium on applications of Time-frequency and Time-scale methods
27–29 August 1997   Coventry, UK

Topics: *Image Processing, Sensor Signal Processing, Medical Signal Processing, Music Analysis and Synthesis, Physics, Geophysics and Astronomy, Remote Sensing, Sonar and Radar Signal Processing, Speech and Audio, Vibration Analysis, etc.*

Submit an extended summary of 1000-1500 words to the address on p10.

Deadline for paper submission	**14 March 1997**
Notification of acceptance	**16 May 1997**
Deadline for camera ready copy	**4 July 1997**

ICIP'97: International Conference on Image Processing
26–29 October 1997   Santa Barbara, CA, USA

Topics: *General Techniques and Algorithms, Computed Imaging, Image Scanning, Display and Printing, Video, Applications*

Submit five copies of a 2-3 page summary including figures and references to the address on p10.

Deadline for paper submission	**31 January 1997**
Notification of acceptance	**25 April 1997**
Deadline for camera ready copy	**13 June 1997**

STIPR'97: IAPR TC1 Workshop on Statistical Techniques in Pattern Recognition
9–11 June 1996   Prague, Czech Republic

The "Statistical Techniques in Pattern Recognition" Workshop aims to start a series of workshops in the "classical" area in which a revival of interest can be noticed not only from researchers in other branches of pattern recognition community but also from other disciplines of mathematics and informatics. It is organized jointly with the Czech Pattern Recognition Society and co-sponsored by ERCIM (European Research Consortium for Informatics and Mathematics). Instructions for submission will be found on the home page given on p10.

Topics: *Statistical Classification Techniques, Dimensionality Reduction, Feature Selection/Extraction, Density Estimation, Approximation by Mixtures, Interactive Exploration of Data, Neural Networks, Clustering Techniques, Contextual Methods, Syntactical and Hybrid Methods, Learning Systems, Random Fields, 2D/3D Object Recognition, Image and Signal Analysis/Processing*

Deadline for paper submission	**28 February 1997**
Notification of acceptance	**10 April 1997**
Deadline for camera ready copy	**30 April 1997**

Machine Vision for Intelligent Vehicles and Autonomous Robots. Dedicated Conference on Robotics, Motion, and Machine Vision in the Automotive Industries (MVIVAR)
16–19 June 1997   Florence, Italy

Topics: *Image Segmentation, Image Sequence Analysis, Active and Real-Time Vision, Low-level Vision, Object Recognition, Pattern Analysis, Vision-based Real-time Robot and Vehicle Navigation, Massively Parallel Architectures for Low-level Vision, Intelligent Sensors for Low-level Vision, Vision-based Guidance of Unmanned Vehicles, Hardware Neural Solutions, Applications.*

Submit 6 copies of the full paper, consisting of 8 single-spaced typewritten pages including title page, abstract, references, and diagrams to the address on p10.

Deadline for paper submission	**20 December 1997**
Notification of acceptance	**15 March 1997**
Deadline for camera ready copy	**16 June 1997**

JCAI-97: 15th International Conference on Artificial Intelligence
23–29 August 1997   Nagoya, Japan

Submit six copies on A4 paper, following the procedure given on the home page (see p10). All correspondance will be addressed to the first author.

Deadline for paper submission	**21 January 1997**
Notification of acceptance	**28 March 1997**
Deadline for camera ready copy	**28 April 1997**

ANN'97: 5th International Conference on Artificial Neural Networks
7–9 July 1997   Cambridge, UK

Topics: **Architectures and learning algorithms:** *Computational learning theory, Function approximation, Approaches to model selection, Density estimation, Model validation and verification, Comparisons with classical techniques.* **Applications:** *Vision and robotics, Speech and language processing, Monitoring complex systems such as engines, Medical diagnostics, Financial system modelling.* **Advances in implementation:** *Parallel hardware, Software systems.*

Submit five copies of 6 page papers on A4 sheets in 2-column format (each 6.69cm wide with 1.27cm between) in font 10 point Times-Roman with single spacing, to the address on p10.

Deadline for paper submission	**6 December 1996**
Notification of acceptance	**February 1997**
Deadline for camera ready copy	**14 March 1997**

AIM'97: Advanced Intelligent Mechatronics Special session on KANSEI: Image Processing on Human Impression
16–20 June 1997   Tokyo, Japan

Topics among others include new frontiers in Iintelligent Mechatronics, such as fusion of mechanical systems, communication technology and Artificial Intelligence. There will be a special session on KANSEI, with topics: Measurement of human sensitivity and impression in Image Processing, Colour Image Processing, Face recognition, Impression inspection in Production line, Human recognition in security, Impression processing in apparel industry, Impression measurement in cosmetics industry, etc. More information on the special session from hata@ed.kagawa-u.ac.jp

Submit six copies of no more than six page papers to the address on p10.

Deadline for paper submission	**15 January 1997**
Notification of acceptance	**15 March 1997**
Deadline for camera ready copy	**15 April 1997**

QCAV'97: International Conference on Quality Control by Artificial Vision
28–30 May 1997   Burgundy, France

Topics: *Defect detection, Classification, Photogrammetry, Control by Infrared Thermography, Image sensors, 2D and 3D controls, Aspect control, Real time control.*

Submit three copies of a 2-3 page summary to the address on p10.

Deadline for paper submission	**8 January 1997**
Notification of acceptance	**8 March 1997**
Deadline for camera ready copy	**15 April 1997**

Workshop on Self-Organizing Maps (WSOM)
4–6 June 1997   Helsinki, Finland

Topics: *Theory and analysis, engineering applications like pattern recognition, process control and telecommunications, data analysis and financial applications, information retrieval and natural language processing applications, implementations.*

Submission inforemation through the home page on p10.

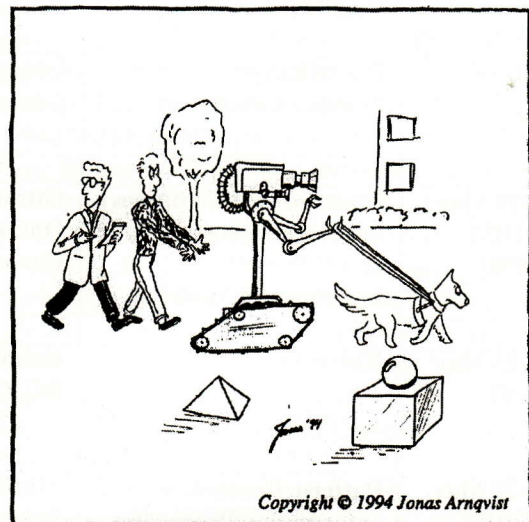|	
Deadline for paper submission	**1 March 1997**

First International Conference on Scale-Space Theory in Computer Vision (SS97)
July 2–4 1997   Utrecht, the Netherlands

Topics: **Methods:** Linear Scale-Space Theory, Nonlinear Scale-Space Theory, Geometric Scale-Spaces. **Special Topics:** Axiomatic Foundation, Differential Geometry and Invariants, Discrete Scale-Spaces and Algorithms, Scale Selection and Deep Structure, Biological Relevance, Relation to Regularization Methods, Fast implementations. **Applications:** Optic Flow and Stereo, Segmentation, Shape Analysis, Texture Analysis, Applications in Medicine and Industry.

Submit 4 copies, 10 pages or less single spaced to the address on p10.

Deadline for paper submission	**15 November 1996**
Notification of acceptance	**15 January 1997**
Deadline for camera ready copy	**15 March 1997**

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Not only did the committee later support Rex' claim of being unfairly omitted from the author's list, they concluded that he was the sole contributor to the success of the project.

"If the car industry had followed the trends of the telecommunications industry, a new car now should cost $100."
Professor Peter Cochrane, British Telecom

FORTHCOMING CONFERENCES, WORKSHOPS AND EVENTS

1996	Event	Location	Contact
12–14 Nov MVA'96 [IAPR]	**IAPR Workshop on Machine Vision Applications**	**Tokyo, Japan**	**Prof. Mikio Takagi, Institute of Industrial Science, University of Tokyo, 7-22-1 Roppongi, Minato-ku, Tokyo 106, JAPAN, Tel: +81334790289, takagi@tkl.iis.u-tokyo.ac.jp, http://www.etl.go.jp:8080/etl/gazo/mva96/** Fax +81334026226
1997	**Event**	**Location**	**Contact**
3–4 Feb IAICV '97	13th Israeli Symposium on Artificial Intelligence, Computer Vision and Neural Networks	Tel Aviv, Israel	Amnon Meisels, Dept of Math. and Computer Science, Ben-Gurion University, Beer-Sheva 84105, Israel, am@cs.bgu.ac.il, nk@ee.technion.ac.il, http://www.cs.bgu.ac.il/~IAICV97 Tel: +972 7 646 1622, Fax: +972 7 647 2909
12–14 March AVBPA [IAPR]	**Audio & Video based Biometric person identification**	**Crans-Montana, Switzerland**	**Josef Bigun Swiss Federal Institute of Technology CH-1015 Lausanne, Switzerland, http://www.tele.ucl.ac.be/IMAGES/AVBPA**
20–21 March RecPad'97	Portugese PR Conference	Coimbra, Portugal	recpad97@dee.uc.pt
23–26 March AIME'97	6th Conf on Arificial Intelligence in Medicine Europe	Grenoble, France	AIME'97, 73 bis, Grande-Rue F-38700 - La Tronche, France Tel: +33 76 01 00 54, Fax: +33 76 63 16 36, dcongres@imaginet.fr
2–4 April ICCPOL'97	17th International Conference on Computer Processing of Oriental Languages	Hong Kong	Prof. Seong–Whan Lee, Dept of Computer Science and Engineering, Korea University, Anam–dong, Seongbuk–ku, Seoul 136-701, Korea. Tel: +82 2 9202168, Fax: +82 2 9262168, swlee@human.korea.ac.kr http://human.korea.ac.kr/swlee/swlee.htm
20–23 April SDAIR'97	Document Analysis and Information Retrieval	Nevada, USA	Patty Corhn, University of Nevada, Las Vegas, Information Science Research Institute, 4505 Maryland Parkway, Box 454021, Las Vegas, NV 89154-4021, USA. Tel: +1 702 895 3338, Fax: +1 702 895 1183, sdair@isri.unlv.edu
21–24 April ICASSP'97	International Conference on Acoustics, Speech, and Signal Processing	Munich, Germany	P Steffen, Lehrst. f. Nachrichtentechnik, Univ. of Erlangen-Nuremberg, Cauerstr. 7, D-91058 Erlangen, Germany Tel: +49 9131 85 7102, Fax: +49 9131 303840, steffen@nt.e-technik.uni-erlangen.de
25 April ADIC	Digital Image Communication	Erlangen, Germany	Prof Bernd Girod, Telecommunications Institute, University of Erlangen-Nuremberg, Cauerstrasse 7, D-91058 Erlangen, Germany Tel: +49 9131 857100, Fax: +49 9131 303840, girod@nt.e-technik.uni-erlangen.de
12–15 May RADIM [IAPR]	**International Conference on Recent Advances in 3-D Digital Imaging and Modeling**	**Ottawa, Ontario Canada**	**Dr Gerhard Roth, National Research Council Canada, Institute for Information Technology, Building M-50, Montreal Road, Ottawa, Ontario Canada K1A 0R6. Tel: +1 613 993 1219, Fax: +1 613 952 0215, roth@iit.nrc.ca, http://www.nrc.ca/confserv/digital97/welcome.html**
19–23 May VI '97	**Vision Interface '97**	**Kelowna, BC, Canada**	**Gerhard Roth, Visual Information Technology, National Research Council, Ottawa, Ontario, Canada K1A 0R6. Tel: +1 613 993 1219, Fax: +1 613 952 0215, email:roth@iit.nrc.ca, http://www.csd.uwo.ca/conf/VI97**
20–22 May PRIP'97 [IAPR]	**Pattern Recognition and Information Processing**	**Minsk, Belarus**	**V. Krasnoproshin, Faculty of Applied Mathematics, Belarussian State University, Fr. Scorina Av. 4, 220050 Minsk, Belarus, Fax: +375-172-31 84 03, abl@newman.basnet.minsk.by, dep04@fpm.bsu.minsk.by**
21–23 May SMATI '97	Semantic Modeling for the Acquisition of Topographic Information from images and maps	Bonn, Germany	Prof W Foerstner, Institut fuer Photogrammetrie, Nussallee 15, D-53115 Bonn, Germany. wf@ipb.uni-bonn.de, lutz@uran.informatik.uni-bonn.de, http://www.informatik.uni-bonn.de/~smati97/
28–30 May IWVF3 [IAPR]	**International Workshop on Visual Form**	**Capri, Italy**	**IWVF3 Istituto di Cibernetica, CNR, Via Toiano 6, 80072 Arco Felice, Napoli, Italy, iwvf3@imagm.na.cnr.it, http://amalfi.dis.unina.it/IWVF3/iwvf3cfp.html**

FORTHCOMING CONFERENCES, WORKSHOPS AND EVENTS

1997	Event	Location	Contact
28–30 May QCAV '97	Quality Control by Artificial Vision	Burgundy, France	QCAV'97 Secretariat - I. U. T. Le Creusot 12, rue de la fonderie, 71200 Le Creusot, FRANCE. Tel: +33 85 80 30 30, Fax: +33 85 80 36 15, qcav97@gere.u-bourgogne.fr
4–6 June WSOM	Workshop on Self–Organizing Maps	Helsinki Finland	http://nucleus.hut.fi/wsom/
9–11 June SCIA'97 [IAPR]	**10th Scandinavian Conference on Image Analysis**	**Lappeenranta, Finland**	**SCIA'97, Department of Information Technology, Lappeenranta University of Technology, P.O.Box 20, FIN-53851, Lappeenranta, Finland, Fax: +358 53 621 3456, Email: SCIA97@lut.fi, WWW: http://www.lut.fi/scia97**
9–11 June STIPR'97 [IAPR]	**Workshop on Statistical Techniques in Pattern Recognition**	**Prague, Czech Republic**	**Pavel Pudil, Inst of Information Theory and Automation, Academy of Sciences, Pod vodarenskou vezi 4, P.O. Box 18, 18208 Prague 8, Czech Republic, Fax: +42 2 6883031 stipr97@utia.cas.cz, http://www.utia.cas.cz/TC1/stipr97.html**
16–19 June MVIVAR	Machine Vision for Intelligent Vehicles and Autonomous Robots	Florence, Italy	Alberto BROGGI Dipartimento di Ingegneria dell'Informazione Universita' di Parma I-43100 Parma, Italy Fax: +39 - 521 905723 Email: broggi@CE.UniPR.IT, http://WWW.CE.UniPR.IT/isata, http://WWW.spincom.com/isata
16–20 June AIM'97	Advanced Intelligent Mechatronics	Tokyo, Japan	Prof Ren Luo, Dept of Elec and Comp Eng, North Carolina State University, Box 7911, Raleigh, NC 27695-7911, USA. Fax: +1 919 515 5523, http://dfs.iis.u-tokyo.ac.jp/AIM97 hata@ed.kagawa-u.ac.jp
2–4 July SS'97	First International Conference on Scale-Space Theory in Computer Vision	Utrecht, the Netherlands	B M ter Haar Romeny, Imaging Center Utrecht, University Hospital Utrecht, E01.334, Heidelberglaan 100, 3584 CX Utrecht, The Netherlands. Tel: +31-30-2508197, Fax: +31-30-2513399, http://www.cv.ruu.nl/Conferences/ScaleSpace97.html, scalespace97@cv.ruu.nl
7–9 July ANN '97	Artificial Neural Networks	Cambridge, UK	ANN97 Secretariat, IEE Conference Services, Savoy Place, London WC2R 0BL, UK. Fax: +44 171 240 8830 nashley@iee.org.uk, joconnell@iee.org.uk
22–23 Aug GREC'97 [IAPR]	**2nd IAPR Workshop on Graphics Recognition (TC-10)**	**Nancy, France**	**Karl Tombre, INRIA Lorraine & CRIN/CNRS 615 rue du jardin botanique, B. P. 101 54602 Villlers–les-Nancy Cedex, France. tombre@loria.fr, Tel: +33 3 8359 2071 Fax: +33 3 8327 8319, atul@nynexst.com**
18–20 Aug ICDAR '97 [IAPR]	**4th International Conf on Document Analysis**	**Ulm, Germany**	**Daimler Benz Research Center Ulm Wilhelm Runge Str. 11 89081 Ulm, Germany, Tel: +49-731-505-2151, Fax: +49-731-505-4105, icdar97@dbag.ulm.daimlerbenz.com, http://wwwicdar97.dbag.ulm.daimlerbenz.com/, http://www.rtna.daimlerbenz.com/spitz/icdar97.html**
23–29 Aug IJCAI–97	15th International Joint Conference on Artificial Intelligence	Nagoya, Japan	IJCAI–97 c/o American Association for Artificial Intelligence 445 Burgess Drive, Menlo Park, CA 94025-3496, USA pollack@cs.pitt.edu, http://ijcai.org/ijcai-97/
27–29 Aug TFTS'97	Time-Frequency and Time-Scale methods	Coventry, UK	Dr Stuart Lawson, Dept of Engineering, University of Warwick, Coventry, CV4 7AL, UK. Tel: +44 1203 523780, Fax: +44 1203 418922, ssl@eng.warwick.ac.uk
10–12 Sep CAIP '97 [IAPR]	**Computer Analysis of Images and Patterns**	**Kiel, Germany**	**Prof Gerald Sommer, Institut fuer Informatik, Christian-Albrechts-Universitaet Kiel, Preusserstr. 1-9, D-24105 Kiel, Germany, http://www.informatik.uni-kiel.de/~caip97/ Fax: +49 431 560481, caip97@informatik.uni-kiel.de Tel +49 431 560473**
17–19 Sep ICIAP'97	**International Conference on Image Analysis and Processing**	**Firenze, Italy**	**Prof Alberto Del Bimbo, Dipartimento di Sistemi e Informatica, Universita di Firenze, Via S. Marta 3, I-50139, Firenze, Italy. iciap97@dsi.ing.unifi.it, http://dsi.ing.unifi.it/iciap97/**
26–29 Oct ICIP'97	International Conference on Image Processing	Santa Barbara, CA, USA	Prof. B. R. Hunt, c/o Courtesy Associates, 655 Fifteenth St. NW, Washingthon, DC 20005, attn: Ms Pamela Wagner ICIP-97. Tel: +1 202 639 4804 Fax: +1 202 347 6109 http://www.ece.ucsb.edu/icip97/

YEAR AT A GLANCE CONFERENCE PLANNER

Contact Addresses Pages: 10–11   Previous Reports are shown in Brackets (volume, number)

• = submission date   □ = final camera ready copy   numbers = actual meeting dates

Conference	Location	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug	Sep	Oct
MVA'96	Tokyo	12–14											
ISAM & VVDC (v18n3)	Boston	18–22											
4-CIC (v18n3)	Arizona	19–22											
UKROBRAZ-96 (v18n3)	Ukraina	26–30											
WACV'96 (v18n3)	Florida		2–4										
HICSS'97 (v18n3)	Hawaii			7–10									
IAICV'97	Tel Aviv			□1	3–4								
AVBPA	Switzerland		□15			12–14							
RecPad'97	Portugal					20–21							
CVRMed (v18n3)	Grenoble		□20			20–22							
AIME'97	Grenoble		□15			23–26							
ICCPOL'97	Hong Kong			□31			2–4						
SDAIR'97	Nevada			□15			20–23						
ICASSP'97	Munich		□15				21–24						
ADIC	Erlangen			□31			25						
RADIM	Ottawa							12–15					
VI97	Kelowna					□31		19–23					
PRIP'97	Belarus		•10			□1		20–22					
SMATI'97	Bonn		•16			□24		21–23					
EMMCVPR'97 (v18n3)	Venice				□			21–23					
QCAV'97	Burgundy			•8			□15	28–30					
IWVF3	Capri							□1, 28–30					
WSOM	Helsinki					•1			4–6				
PRP-V (v18n1)	Vlieland	•1						□1	4–6				
SCIA'97	Lappeenranta			•1		□31			9–11				
STIPR'97	Prague				•28		□30		9–11				
MVIVAR	Florence		•20						□16 16–19				
AIM'97	Tokyo			•15			□15		16–20				
ECSAP-97 (v18n3)	Prague				□14				24–27				
SS'97	Utrecht	•15				□15				2–4			
ANN'97	Cambridge, UK		•6			□14				7–9			
ICDAR'97 (v18n3)	Ulm		•1					□1			18–20		
GREC'97	Nancy					•1			□15		22–23		
IJCAI-97	Nagoya			•23			□28				23–29		
TFTS'97	Coventry					•14				□4	27–29		
CAIP'97 (v18n3)	Kiel				•1				□20			10–12	
ICIAP'97	Firenze		•15						□			17–19	
ICIP'97	Santa Barbara		•31						□13				26–29

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