

Technical Committee **NEWSLETTER**



IEEE Computer Society Technical Committee on
PATTERN ANALYSIS AND MACHINE INTELLIGENCE
October 1994

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Membership in the Technical Committee on Pattern Analysis and Machine Intelligence is open to individuals who demonstrate willingness to actively participate in the various activities of the TC. A member of the IEEE Computer Society may join the TC as a full member. A non-member of the Computer Society may join as a participating member, with approval from at least one officer of the TC.

This newsletter is an irregular publication of the TC. Contributions are certainly welcome. Opinions expressed in contributions are those of the individual author rather than the official position of the TC, the IEEE Computer Society, or organizations with which the author may be affiliated. Editor's address: Kevin Bowyer, Department of Computer Science and Engineering, University of South Florida, Tampa, FL 33620.

Editor's Welcome

Welcome to the most recent issue of the PAMI TC Newsletter. As you already knew, or have certainly realized if you did not already know, this newsletter is published at “irregular” intervals. It has perhaps been more irregular since passing from the capable hands of Azriel Rosenfeld to my own. But I hope that you will find something of current interest in this issue of the newsletter. Also, I hope that people will make contributions to the newsletter and that it will take on a more regular schedule.

The first item in this issue is the minutes of the PAMI TC meeting held at CVPR in Seattle this past June. The next item is a short report on CVPR. This is followed by an announcement of the Best Paper Awards presented at the conference.

There is also a list of upcoming meetings sponsored by the PAMI TC, along with advance programs and call for papers.

Next comes some material meant to generate reader response. The first item is a survey that seeks to get at the question — what are the qualities of a journal that cause you to submit your work there? The next two items are graphs of the average time to acceptance and the average time to appearance of articles in five journals that publish articles in the general area of pattern and image analysis and machine intelligence. Every attempt was made to be consistent in compiling the information for the different journals, but the information had to come from the dates published on the articles and there is no assurance that each journal compiled dates in the same way. Responses to any of this are welcome.

Finally, there are some miscellaneous announcements.

Kevin Bowyer
Computer Science and Engineering
University of South Florida
kwb@csee.usf.edu

From the Chair

I am pleased to report that the PAMI TC is in good shape and getting better all the time. The problem with the membership list has finally been solved. The Computer Society now has a more modern database system (thanks go to Elliot Chikofsky, Chair of the Software Engineering TC, for his help) and is sending us quarterly on-line copies of our official membership list. Radha Krishnan, our Membership Chair, is working with the on-line lists and recent conference lists to identify and get membership forms to our active members who were not on the official list. At CVPR94 in Seattle, seventy-five people signed up. So our membership list is beginning to reflect our active membership.

Our budget problems are not totally solved, since we still don't get all the profits we generate and we won't as long as we are a TC. However, we do get back one-third of our conference surpluses, and our conferences are doing well. This year we have plenty of money for our newsletters, for our membership drive, and some extra that is tagged for image database work. I have chosen to use some of this money to start a PAMI TC home page on Mosaic, to construct one image database, and to help other groups make their image databases available via the home page. Groups who have databases of images that they wish to make available through Mosaic, please contact graduate student Andy Berman, aberman@cs.washington.edu, who is working on the project. I hope you will all take a look at the home page and send comments and suggestions to me. The home page is now accessible on Mosaic via:

<http://www.cs.washington.edu/research/vision/pamitc.html>

Linda Shapiro
Computer Science and Engineering
University of Washington

Minutes of PAMI TC MEETING
(Held June 21, 1994, at CVPR '94 in Seattle)

Call to order at approximately 7:00 by Linda Shapiro, Chair.

ANNOUNCEMENTS:

1. Membership Drive: L. Shapiro / R. Krishnan.

Discussion of mailing list form of membership database, signup.

2. 1994 Budget: L. Shapiro.

Budget is larger this year because of meeting surplus. A large part is newsletters, but the editor was CVPR conference chair and it fell behind. Some discussion of the budget (\$14,700), membership promotion, newsletter, students, travel (to TAB) and other topics (Image database, Mosaic).

Steve Shafer: The Mosaic "computer vision home page" exists at CMU (one of the 10 most referenced pages at CMU; send mail to Steve Shafer at CMU for more info; Steven_Shafer@IUS5.IUS.CS.CMU.EDU).

Question about membership size: currently about 800;

REPORTS:

1. CVPR '94: K. Bowyer.

Just as information for people's consideration, a rough estimated breakdown of the advance member CVPR registration fee of \$325: Program committee activities 40, Office support 22, Advance program 22, Call for papers 15, Proceedings 32, Final program 10, Audio/visual 5, Keynote speakers 10, Registration 15, CS Admin 24, Contingency 17, Treasurer and bank / credit card services 5, Breaks 40, Reception 20, Banquet 45, Misc 6. There is some impression of "padding" in the way that IEEE suggests that the budget be formulated. Future conference organizers should be aware and handle it however they feel is appropriate.

There are 383 paid registrants at this point. (Versus 372 in NYC last year.) Students about 150 of this. (Future organizers should look carefully at these totals in budget planning). IEEE does build in a cushion, so be careful and plan for this.

[Editor's note: final paid registration just barely exceeded 400.]

2. 2nd Document Analysis and Recognition Conference: R. Haralick.

This meeting was held in Tsukuba, Japan this fall. There were over 260 papers; 20 long, 124 short. Approximately 400 persons attended. Document analysis is fast moving and growing area.

ISSUES FOR DISCUSSION:

1. The “PAMI Society”: S. Shafer

Report on the question — should we form a society?

Issues from last year: PAMI pages, money, awards, conference fees, etc. Can we do anything to improve this.

Possible alternatives: continue as is, negotiate changes, jump ship, become society, leave IEEE.

All of these, except continue as is, involve doing a lot of work. There are not a lot of people ready, willing and able to devote the time and effort to do the necessary work.

Question: IEEE puts great restrictions on meetings and PAMI makes money — can we get any?

No. Journals have nothing to do with the TCs. Other journals in CS are less related, or are related to multiple TCs. For example, Robotics came from several societies rather than CS.

Question: What influence can we have on limits on PAMI pages?

This really comes from total subscriptions. The budget allows us to ask for more money (in addition to the entitlement).

Question: What is the relative advantage of IEEE-sponsored vs private journal?

PAMI circulation is about 10K copies, no other one journal in the area is at 1K. Advantage is wide circulation because of being within IEEE, and the low cost. Private publishers are happy to publish 300 library copies. Profit from PAMI is 300K and goes partly to support other meetings. CVPR generates maybe 10K surplus. Today there are not a lot of other conferences that make much money.

Question / point on service awards:

We have given them, but we haven't done it lately and we should do that.

Also we need people to nominate IEEE Fellows.

Question / comment: Point missed, did this group want to have an organization itself?

At the moment it is not clear that we do not really want to have one.

Steve Shafer: At the moment we do not have the pressures to drive it.

Avi Kak: Currently IEEE CS takes too much money and we do not get much in return, but it requires a lot of work for the people doing it.

Steve Shafer: Are there enough people who feel that we should look at it more?

Ram Nevatia: Not sure we have the critical mass to become a society, most of us want to to be with IEEE, to have low cost journal.

Maybe Robotics and Automation is better now than CS.

Eric Grimson: Herb Freeman hit the issue — control over our fate in addition to the funding. Should we investigate further?

Steve Shafer: Afraid that the number of people that would commit to the time is low.

Linda Shapiro: We do use some of the pieces, do we want to provide the servies and time.

Avi Kak: Robotics and Automation runs a big conference without all of the infrastructure that IEEE CS has (but only that one).

Bir Bhanu: We should look at forming a PAMI society.

Steve Shafer: Discuss last year's proposal that we should reconsider.

Avi Kak: We should send a petition to IEEE to form the new society.

Avi Kak: Will draft a petition tonight for sending to IEEE.

Steve Shafer: R&A really was formed by the efforts of one person.

Eric Grimson: Finiancial management?

?: How things have changed? One year ago the budget was \$4K.

Now it is bigger and we have some of what we want. Current relationship is better than past.

Eric Grimson: We have a larger budget because we made money on CVPR.

Steve Shafer: Partly surplus and asking for more.

Linda Shapiro: I'm not sure what we should spend the money on; it is hard to get people to do the work to spend the money.

Bir Bhanu: Others spend on student scholarships.

Eric: Move Avi's suggestion:

Establish a committee (Avi) to Draft a petitiion (and signed by over 100 people) to IEEE that we be a separate society under IEEE.

Secoded.

Passed with 1 opposed.

Comment on critical mass for a society; dues enough to cover expenses.

2. An Electronic Newsletter: Keith Price.

3. CVPR '97: Ram Nevatia.

Discussing 1997 may seem early. But perhaps we could consider some resort after 5 meetings in cities (well, Champaign-Urbana?). There are several reasons to consider Hawaii, but the east coast is the right cycle. Two choices to consider are US Virgin Islands and Cancun (Mexico). Formal motion on CVPR 97 that the USC group will handle the organization. Admendment that the dates will be held until Boston in 95. Vote: Passed.

Discussion on dates of ICCV/CVPR and conflicts.

MEETING ANNOUNCEMENTS/APPROVALS:

1. International Workshop on Face Recognition: T. Huang.
Fall 1995, Zurich

Steering Committee: T.S. Huang, A. Pentland, P. Stucki, sponsored by Univ of Zurich with PAMI TC as cooperating.

2. International Workshop on Graphics Recognition: R. Kasturi
August 1995, Penn State.

End of August. Title really means document recognition.

Call for paper is available at CVPR. Mandate related to ICDR, but in the week before. Financial responsibility with IAPR, this is an announcement.

3. Workshop on Context based Vision: Joe Mundy and Tom Strat June 1995
Boston.

(Joe) Roughly speaking, the use of information not involved with the internals of algorithm.

Function, Language, Scenarios, Sporting Activities etc. are the types of ideas. Also tied to ARPA Radius where context is used. Time Tied to ICCV.

[Editors' note — see the call for papers for this meeting in this issue.]

4. Third International Conference on Document Analysis and Recognition
(ICDAR '95): C. Y. Suen
August 1995 Announced.

5. Fourth International Conference of Document Analysis and Recognition J Shurmann (R Haralick). Run by ICPR. Discussion of the 4th. 1996 in Germany, with various vice chairs from different countries.

6. ICCV95: E. Grimson

June 20-23 at MIT. Paper deadline Nov 15 1994 — really. Program committee of 50 people. Try to add other workshops around ICCV, if you want other workshops get the ideas in. Some supported by the meeting and others. Physically at MIT. For the A/V facilities, for students (\$34/night).

[Editors' note — see the call for papers for this meeting in this issue.]

7. Shape and Pattern Matching in Computational Biology Workshop:
A. Califano (Motion to make annual)

This is not Jurassic Park. Yesterday the first one was held. Fully covered the cost. The proposal is to have another one next year (CVPR schedule). Explore why the problems have an overlap. Passed with 2 opposed. Uncountable was for.

8. Workshop on Computer Vision (Visual Motion): D. Goldgof, G. Medioni, S Negahdaripur (November 1995, Miami MTW before Thanksgiving).

Medioni: In 1995 there is only 1 major conference, so we propose to have a CV workshop. IROS is being held in Pittsburgh in August (not much overlap). There will be a motion track, expect to have 2 tracks (there is a motion workshop with it). The paper deadline is June 1, results by Middle of September. Innovation is that the submission is in the Final form - 6 pages in final form and only 6 pages in final form. This reduces the lag time and controls the content. T.S. Huang General Chair. Negahdaripur local. Goldgof/Medioni program chair.

[Editors' note — see the call for papers for this meeting in this issue.]

9. CVPR96: K Ikeuchi and B Bhanu, June 1996, San Francisco
Week of June 16 Hotel Nikko. (Not signed yet, but that is the plan). As always, encourage associated workshops like this one. C Dyer/Ikeuchi program chair, Bhanu as general chair.

Adjourn 8:55PM.

Brief Report on CVPR '94

The Computer Vision and Pattern Recognition Conference was held in Seattle on June 21 through 23 of 1994. There were three related workshops and five tutorials held just before the conference and another three related workshops held after the conference. The workshop topics included the Role of Functionality in Object Recognition, Shape and Pattern Matching in Computational Biology, Visual Behaviors, Visualization, Performance Versus Methodology, and Biomedical Image Analysis. The Biomedical Image Analysis workshop turned out to be the largest, garnering attendance of approximately 100 people! In general, the scheduling of related workshops around the main conference seemed to help both the workshop and the main conference, and so also the attendees.

The CVPR program consisted of 87 regular papers, 78 poster papers, three panel discussions and two plenary talks. All elements of the program were well attended. Judging by the lack of seating in the rooms where the panel discussions were held, these were especially popular. The plenary sessions were of course also well attended. And the location of the poster papers near the refreshments at the breaks led to good interactions with the poster paper authors.

The Seattle location seemed to be enjoyed by the participants. We were lucky to have excellent weather during the week of the conference, so that all of the many attractions that Seattle has to offer could be enjoyed comfortably. The conference banquet was a pleasant boat ride out to Blake Island for a Native American dinner and show. This event was well attended by CVPR participants and their families.

CVPR paid registrations ran to just over 400. This represents a small increase over the previous CVPR held in New York in 1993. The final accounting for the conference is not yet available. However, due to the very conservative budgeting procedures used by IEEE Computer Society (for example, budgeting on projected attendance of 300), some substantial surplus should result.

The CVPR '94 conference proceedings run to just over 1,000 pages. If you were not able to attend the meeting, the proceedings can be ordered from IEEE CS by calling 1-800-CS-BOOKS or e-mail to cs.books@computer.org.

Announcement of the Siemens Best Paper Awards for CVPR '94

Presented at the 1994 IEEE Conference on Computer Vision and Pattern Recognition (CVPR) held in Seattle, Washington on June 21-23, 1994

The organizing committee of the IEEE CVPR '94 is please to announce the following best paper awards. Each award, sponsored by Siemens Corporate Research, consists of a certificate and a check for \$500. These awards are proudly announced as follows.

The award for the Best Paper Presented by a Graduate Student was made to Kiriakos Kutulakos for the paper titled *Occluding contour detection using affine invariants and purposive viewpoint control*. This paper was authored by Kiriakos Kutulakos and Charles Dyer from the Department of Computer Sciences at the University of Wisconsin-Madison.

The award for the Best Paper (without restrictions on the first author) was made to Hiroshi Murase and Shree Nayar for the paper titled *Illumination planning for object recognition in structured environments*. Hiroshi Murase is a research scientist at NTT Basic Research Laboratories, and Shree Nayar is a member of the faculty of the Department of Computer Science at Columbia University.

Linda Shapiro and Steve Tanimoto
University of Washington
Program Chairs, CVPR '94

Kevin Bowyer
University of South Florida
General Chair, CVPR '94

Future PAMI TC Sponsored Meetings

- Workshop on Non-rigid and Articulate Motion
November, 1994
contact Jake Aggarwal, jka@emx.utexas.edu
- Workshop on Applications of Computer Vision
December 5-7, 1994
contact Alan Hanson, hanson@cs.umass.edu
- International Workshop on Face Recognition
Fall 1995, Zurich
contact Thomas Huang, huang@uicssl.csl.uiuc.edu
- International Workshop on Graphics Recognition
August 1995, Penn State
contact R. Kasturi, kasturi@cmpe.psu.edu
- Workshop on Context-Based Vision: J. Mundy and T. Strat
June 1995, Boston
contact Joseph Mundy, mundy@thuban.crd.ge.com
- Workshop on Computer Vision
November 20-22, 1995
contact Gerard Medioni, medioni@dworkin.usc.edu
- International Conference on Computer Vision
June 1995, Boston
contact Eric Grimson, welg@ai.mit.edu
- Computer Vision and Pattern Recognition 1996
June 1996, San Francisco
contact Bir Bhanu, bhanu@shivish.ucr.edu
- Computer Vision and Pattern Recognition 1997
June 1997, U.S. Virgin Islands
contact Ram Nevatia, nevatia@iris.usc.edu

ADVANCE PROGRAM

IEEE Workshop on Applications of Computer Vision Sarasota, Florida • December 5-7, 1994

**Sponsored by the IEEE Computer Society
Technical Committee on Pattern Analysis and Machine Intelligence.**

WORKSHOP

We are pleased to announce the advance program for the second IEEE Workshop on Applications of Computer Vision (WACV '94), to be held in Sarasota, Florida, U.S.A., December 5-7, 1994. Researchers from around the world will present and discuss diverse applications of computer vision. In the spirit of the workshop format, we encourage others to participate and bring related interests of academia, industry, and government to the discussion.

The workshop is scheduled in morning and evening sessions, leaving afternoons free to enjoy the beach and other activities of the Sarasota area. Buffet receptions will accompany the evening sessions, which will include special events (e.g., panel discussions) as well as papers.

SARASOTA

The workshop hotel is the Holiday Inn on Lido Beach in Sarasota, Florida. One of the prime attractions is of course the beach. In addition, the hotel is a two-block walk from St. Armand's Circle, which provides many fine shopping and dining possibilities. Sports activities in the area include various water sports, wind surfing, deep sea fishing, boat rentals, cycling, tennis and golf.

Other attractions in the Sarasota area include the Mote Marine Lab, Myakka River State Park, Ringling Museum, and Sarasota Jungle Garden. Other major attractions within driving distance include Disney World, Epcot, Sea World, Universal Studios (all near Orlando), Busch Gardens (in Tampa), and the Salvador Dali Museum (in St. Petersburg).

GENERAL CHAIR:

Allen Hanson, Univ. of Massachusetts, Amherst

PROGRAM CO-CHAIRS:

Bruce Flinchbaugh, Texas Instruments Yasuo Nakagawa, Hitachi

LOCAL ARRANGEMENTS CHAIR:

Kevin Bowyer, Univ. of South Florida

PROGRAM COMMITTEE:

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Horst Bunke, Univ. of Bern
Henrik Christenson, Univ. of Aalborg
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Philip Kegelmeyer, Sandia National Labs
Ichiro Masaki, MIT and General Motors
Tom Nartker, Univ. of Nevada, Las Vegas
Keith Nishihara, Teleos Research
Shmuel Peleg, Hebrew Univ.
Banavar Sridhar, NASA
Sargur Srihari, SUNY Buffalo
Robin Strickland, Univ. of Arizona
Mohan Trivedi, Univ. of Tennessee
Larry Wolff, Johns Hopkins Univ.

SCHEDULE

MONDAY, DECEMBER 5, 1994

7:30: Registration

8:00: Welcome

8:30: Session: Fish, Coal, Doors, & Integrated Circuits

“A Unified Recognition and Stereo Vision System for Size Assessment,” Andrew Naiberg and James Little (Univ. of British Columbia)

“A Stereoscopic Surface Profiling System, MAPSSIT: Theoretical, Implementation, and Performance Issues,” Philip W. Smith and N. Nandhakumar (Univ. of Virginia)

“Automatic Classification of Wooden Cabinet Doors,” Lynn Abbott and Bin Yuan (Virginia Polytechnic Institute and State Univ.)

“Precise Visual Inspection for LSI Wafer Patterns Using Subpixel Image Alignment,” Takashi Hiroi, et al (Hitachi)

10:30: Session: Mosaics

“Compilation of Mosaics from Separately Scanned Line Drawings,” Rik D.T. Janssen and Albert M. Vossepoel (Delft Univ. of Technology)

“Image Mosaicing for Tele-Reality Applications,” Richard Szeliski (Digital Equipment Corporation)

“Real-Time Scene Stabilization and Mosaic Construction,” M. Hansen, et al (David Sarnoff Research Center)

12:00: Afternoon Adjournment

17:00: Reception

17:30: Session: (panel or talk to be arranged)

18:30: Session: Vehicles & Highways

“A Robust Cognitive Approach to Traffic Scene Analysis,” Dirk Wetzel and Heinrich Niemann (Bavarian Research Center for Knowledge Based Systems)

“A Morphological Model-Driven Approach to Real-Time Street Boundary Detection for Vision-Based Automotive Systems,” Alberto Broggi and Simona Berte` (Univ. of Parma)

“Real-Time Traffic Monitoring,” N.J. Ferrier, et al (Univ. of Oxford)

“Modelling Issues in Vision Based Aircraft Navigation during Landing,” Tarun Soni and Banavar Sridhar (NASA Ames Research Center)

“A Practical Obstacle Detection and Avoidance System,” Sumit Badal, et al (Univ. of Massachusetts at Amherst)

“Application of Optical Flow for Automated Overtaking Control,” M. Tistarelli, et al (Univ. of Genoa)

21:30: Evening Adjournment

TUESDAY, DECEMBER 6, 1994

7:30: Morning Coffee

8:00: Session: Eyes & Faces

“Using Modeling and Fuzzy Logic to Detect and Track Microvessels in Conjunctiva Images,” Carl Wick, et al (U.S. Naval Academy)

“A System for Automated Iris Recognition,” R. P. Wildes, et al (David Sarnoff Research

Center)

“Recognizing a Facial Image from a Police Sketch,” Robert Uhl, et al (Univ. of Central Florida)

“Parameterisation of a Stochastic Model for Human Face Identification,” Ferdinando Samaria and Andy Harter (Univ. of Cambridge)

10:00: Session: Buildings & Terrain

“Model Supported Exploitation: Quick Look, Detection and Counting, and Change Detection,” C. Huang, et al (General Electric)

“Task Driven Perceptual Organization for Extraction of Rooftop Polygons,” Christopher Jaynes, et al (Univ. of Massachusetts at Amherst)

“Model Validation for Change Detection,” M. Bejanin, et al (Univ. of Southern California)

“A System for Aircraft Recognition in Perspective Aerial Images,” SubhODEV Das, et al (Univ. of California, Riverside)

12:00: Afternoon Adjournment

17:00: Reception

17:30: Session: Boxes, Gestures, Forms, Water Meters, & Cans

“Genetic Labeling and its Application to Depalletizing Robot Vision,” Manabu Hashimoto and Kazuhiko Sumi (Mitsubishi Electric Corporation)

“Recursive Identification of Gesture Inputs using Hidden Markov Models,” Jennifer Schlenzig, et al (Univ. of California, San Diego)

“Anatomy of a Hand-Filled Form Reader,” Atul Chhabra (NYNEX)

“Application Constraints in the Design of an Automatic Reading Device for Analog Display Instruments,” Robert Sablatnig (Technical Univ. of Vienna)

“Application of the Controlled Active Vision Framework to Robotic and Transportation Problems,” Christopher Smith, et al (Univ. of Minnesota)

20:00: Session: (panel or talk to be arranged)

21:30: Evening Adjournment

WEDNESDAY, DECEMBER 7, 1994

7:30: Morning Coffee

8:00: Session: Leukocytes, Thyroids, & Anatomical Images

“Leukocyte Classification by Size Functions,” Massimo Ferri, et al (Univ. of Bologna)

“Knowledge-Based Interpretation of Thyroid Scintigrams,” Felix Grimm, et al (Univ. of Bern)

“Registration of MR and CT 3D Volumetric Data Sets,” Rakesh Kumar, et al (David Sarnoff Research Center)

9:30: Session: Tracking, Range, & Recognition

“3-D Tracking of a Moving Object with the Active Stereo Vision System,” Noriaki Maru, et al (Osaka Univ.)

“Real-Time Visual Tracking Using Correlation Techniques,” Mark Eklund, et al (Univ. of Tennessee)

“A Methodology for Evaluating Range Image Segmentation Techniques,” Adam Hoover, et al (Univ. of South Florida)

“Model-Based Path Finding Using Adjacent Area Shape,” Takashi Okada, et al (Nippon Telegraph and Telephone Corporation)

“A Method for Recognition and Localization of Generic Objects for Indoor Navigation,” Dongsung Kim and Ramakant Nevatia (Univ. of Southern California)

“Acquisition of 3D Structure of Selectable Quality from Image Streams,” Arun Dalmia and Mohan Trivedi (Univ. of Tennessee)

12:30: End of Workshop

Hotel Registration

The Holiday Inn on Lido Beach is about 7 miles from Sarasota airport. A taxi from the Sarasota airport to the hotel will cost approximately \$10 one way. The hotel is also about a 75-minute drive from the Tampa airport.

The WACV conference rates for rooms at the Holiday Inn on Lido Beach are:

	“Cityview”	“Gulfview”
Single	\$59	\$69
Double	\$69	\$79

These rates are subject to a 9% tax. There is a \$10 charge for each additional adult. Children stay free in the same room as an adult. To obtain the conference rates, make your reservation by Sunday, November 13 at 5:00 p.m. Eastern time and mention that you are attending WACV '94. Reservations made after this date will be accepted by the hotel on a “space available” basis. The conference rates are available for a three-day period before and after WACV '94.

All major credit cards are accepted by the hotel. To make your reservation contact the hotel directly by calling (813) 388-3941, fax to (813) 388-4321, or write:

Holiday Inn
Sarasota - Lido Beach
233 Ben Franklin Drive
Sarasota, Florida 34236
U.S.A.

Workshop Registration

To register for the workshop in advance, fill out this form, enclose a check (\$US) payable to "WACV" for the amount due, and mail it to be received by Monday, November 14, 1994 at this address:

Allen Hanson
Computer Science Department
A213 Lederle Graduate Research Center
University of Massachusetts
Amherst, MA 01003

The registration fees include all sessions, two evening buffet receptions, and morning coffees:

	Member	Non-Member	Student
Advance (received by Nov 14):	\$300	\$375	\$100
Late/On-Site:	\$360	\$450	\$120

WACV'94 Registration Form

**IEEE Workshop on Applications of Computer Vision
Sarasota, Florida • December 5-7, 1994**

Name: _____

Email Address: _____

Phone Number: _____

Fax Number: _____

Mail Address: _____

Amount of Check for Registration Fee Enclosed (\$US): _____

CALL FOR PAPERS

FIFTH INTERNATIONAL CONFERENCE ON COMPUTER VISION
Massachusetts Institute of Technology
Cambridge, Massachusetts
June 20–23, 1995

General Chair:

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617-253-5346
Fax: 617-258-6287

Program Co-Chairs:

Steve Shafer	Andrew Blake	Kokichi Sugihara
Dept. of Comp. Sci	Dept. of Eng. Sci	Dept. of Math. Eng.
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		Tokyo 113, Japan
sas@cs.cmu.edu	ab@robots.ox.ac.uk	sugihara@simplex.t.u-tokyo.ac.jp

THE PROGRAM

The program will consist of a single track of highest quality previously unpublished contributed papers, delivered either orally or as a poster. Contributions are sought on new research on any aspect of computer vision, including but not restricted to the following:

- Physics based vision
- Integration of modules and cues
- Active and real-time vision
- CAD-based vision
- Motion analysis
- Stereo
- Shape and object representation
- Object recognition
- Vision-guided robotics

- Medical computer vision
- Learning in computer vision
- Segmentation, grouping
- Low level processing
- Systems and applications
- Invariants, geometry

PAPER SUBMISSION

Four copies of complete manuscripts should be received no later than NOVEMBER 15, 1994 by the general chair at the address listed above. By submitting a paper to ICCV, the author(s) warrant that it (and any related paper with essentially the same technical content) has not been and will not be submitted to any other conference during the ICCV review period.

The manuscript should include the following (in this order):

- (1) Title page — containing the names and addresses of the authors (including e-mail), an abstract of up to 200 words, and one or more categories as listed above or other keywords that can be used to match submissions to reviewers.
- (2) Second Title page — with just the title and abstract (authors and institution not identified).
- (3) Summary page — attach answers to the following questions (please answer each separately):
 - (3.1) What is the original contribution of this work?
 - (3.2) Why should this contribution be considered important?
 - (3.3) What is the most closely related work by others and how does this work differ?
 - (3.4) How can other researchers make use of the results of this work?
- (4) Paper — no more than 30 pages (double-spaced, 12 point font) including text, figures, references.

As has been customary with ICCV, all reviewing will be double blind.

Sponsored by the IEEE Computer Society.

PROGRAM COMMITTEE

Minoru Asada	Osaka	Nicholas Ayache	INRIA
Michael Black	Xerox	Aaron Bobick	MIT
Chris Brown	Rochester	Heinrich Bulthoff	Max Planck
Peter Burt	Sarnoff	Bernard Buxton	GEC
Larry Davis	Maryland	Jim Duncan	Yale
Jan-Olof Eklundh	KTH	Olivier Faugeras	INRIA
Frank Ferrie	McGill	Brian Funt	Simon Fraser
Jonas Garding	KTH	Allen Hanson	U Mass
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Anil Jain	Michigan State	Ramesh Jain	UCSD
Kenichi Kanatani	Gunma	Gudrun Klinker	DEC
Jan Koenderink	Utrecht	Dave Kriegman	Yale
Jim Little	British Columbia	Jitendra Malik	Berkeley
Takashi Matsuyama	Okayama	Gerard Medioni	USC
Roger Mohr	LIFIA	Hans-Hellmut Nagel	Fraunhofer Inst.
Shree Nayar	Columbia	Yuichi Ohta	Tsukuba
Robyn Owens	Western Australia	Pietro Perona	Caltech
Jean Ponce	Illinois	Giulio Sandini	Genoa
Takeshi Shakunaga	NTT	Rick Szeliski	DEC
Demetri Terzopoulos	Toronto	Carlo Tomasi	Stanford
Saburo Tsuji	Wakayama	Shimon Ullman	Weizmann
Luc Van Gool	Leuvan	Alessandro Verri	Genoa
Daphna Weinshall	Hebrew	Andrew Zisserman	Oxford

CALL FOR PAPERS

Special Issue of the IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE on Digital libraries: Representation and Retrieval

Papers are solicited for a special issue of the IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE which will address the subject of Digital libraries: Representation and Retrieval. The Guest Editors for the special issue will be Rosalind W. Picard and Alex P. Pentland, both of the M.I.T. Media Laboratory, USA.

With the rapid increase in worldwide networks, people will soon have access to massive libraries of digital text, sound, image, video and other special-purpose data. The biggest obstacle to this “information glut” is that the technology for organizing, querying, and retrieving data from these multimedia libraries is still in its infancy.

Research in pattern analysis and machine intelligence is needed to provide tools for accessing the content of these databases. The papers in this special issue will describe novel and significant tools and techniques that facilitate access to the content of large data collections. Manuscripts will not be accepted if they have been previously published, or if they describe algorithms that have not been carefully evaluated on large databases. Possible topics for papers submitted to the special issue include, but are not limited to:

- Robust recognition and retrieval of classes of information, such as “find all photos containing trees” or “all places where there is laughter.”
- Search on compressed representations, and new representations that facilitate efficient semantic or perceptual searching.
- Intelligent searching through huge amounts of text or data, e.g. for DNA matching or drug design.
- Automatic annotation to generate descriptions of data, especially based on combinations of visual, acoustic, and motion (temporal) features.
- Recognition of video content invariant to viewing conditions, e.g., “Find all other shots of this scene.”
- Computational measures of perceptual similarity: especially texture, shape, color, that have been evaluated on a large set of data, e.g., “computer, are there any other drum patterns that sound like this?” or “find fabrics which look most like this one.”
- Segmentation of video/soundtrack/image as applied to database search and retrieval.
- Automatic extraction of video keyframes, or analogous summarizing information in non-visual media.

All papers will be reviewed by the guidelines of the transactions. Please submit four copies of your paper to:

Prof. Rosalind W. Picard
MIT Media Laboratory, E15-392
20 Ames Street
Cambridge, MA 02139

Schedule:

Deadline for submission of manuscripts:	June 30, 1995
First set of reviews to authors:	December 1, 1995
Final manuscripts due:	March 1, 1996
Publication of special issue:	November, 1996

For further information, contact:

Rosalind W. Picard (picard@media.mit.edu)
or
Alex P. Pentland (sandy@media.mit.edu).

PRELIMINARY CALL FOR PAPERS

IEEE WORKSHOP ON COMPUTER VISION

Biltmore Hotel

Coral Gables, Florida

November 20-22, 1995

GENERAL CO-CHAIRS:

Thomas Huang

Univ of Illinois at Urbana-Champaign University of Miami

Beckman Institute

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Tampa, Florida 33620

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THE PROGRAM: will consist of parallel tracks of previously unpublished contributed papers, delivered either orally or as a poster. Contributions are sought on new research on all aspects of computer vision, including but not restricted to the following:

- Physics based vision
- Integration of modules and cues
- Active and real-time vision
- CAD-based vision
- Motion analysis and understanding
- Stereo
- Shape and object representation
- Object recognition
- Vision-guided robotics
- Medical computer vision
- Learning in computer vision
- Segmentation, grouping
- Low level processing
- Systems and applications
- Invariants, geometry

The conference is not limited to these topics, and authors may specify that a paper falls in two or more categories, or in a different category not listed. Categories are used to

best match papers with the expertise of the reviewers. As customary, all reviewing will be double blind.

PAPER SUBMISSION:

Four copies of complete manuscripts should be received no later than **MAY 22, 1995** by Prof. Medioni at the address listed above.

Papers should be submitted **IN FINAL, CAMERA-READY FORMAT** with 2 columns on 8.5 by 11 sheets. Each column is limited to 3 1/4 inches in width and 8 7/8 inches in length with a 3/8 inch gutter between columns. The margins are 13/16 inch on each side, 1 1/16 inches on the top and bottom. Text is to be typed single-spaced in 10 point Times Roman (or closely resembling), with 12 point interline spacing. The first page of the paper, centered on the top below the top margin, should include the paper title, the authors' name and affiliation. Six pages are allowed for each paper, including references and illustrations. **PAPERS LONGER THAN 6 PAGES WILL NOT BE RE-VIEWED.**

In addition to the manuscript, the submission should include the following:

- (1) A Slightly Different Title page — in which the name and addresses of the authors are replaced by one or more categories as listed above, or by other keywords that can be used to match submissions to reviewers.
- (2) Summary page — attach answers to the following questions (please answer each separately):
 - (2.1) What is the original contribution of this work?
 - (2.2) Why should this contribution be considered important?
 - (2.3) What is the most closely related work by others and how does this work differ?
 - (2.4) How can other researchers make use of the results of this work?

This workshop is sponsored by the IEEE Computer Society Technical Committee on Pattern Analysis and Machine Intelligence.

CALL FOR PAPERS

**IEEE WORKSHOP on CONTEXT-BASED VISION
(In Conjunction with ICCV)
Massachusetts Institute of Technology
Cambridge, Massachusetts
June 19, 1995**

Co-Chairs:	Joseph L. Mundy	Tom Strat
	GE Corporate R&D	SRI International
	Schenectady, NY	Menlo Park, CA
	mundy@crd.ge.com	strat@ai.sri.com

This workshop aims to stimulate and exchange research ideas on the use of context and stored knowledge for the development of reliable computer vision systems. Most current research on computer vision seeks automated methods for extracting information from imagery without the use of a priori information, except perhaps some knowledge of the image acquisition (camera model, light source, etc). Such approaches are very general, but have not yet proven capable of coping with the wide range of variability encountered in real world scenes.

Another school of thought seeks to increase the robustness of computer vision systems by adopting more restrictive assumptions. The use of specific prior information about the geometry, photometry, and semantic constraints in a scene can permit reliable visual understanding by relatively simple vision algorithms.

There are many applications in which the existence of prior scene knowledge is readily available or easily obtainable and provides context for selecting and conditioning computer vision algorithms.

For example:

- Maps or 3D geometric scene models constrain recognition and change detection algorithms.
- Incrementally compiled world maps aid image interpretation for mobile robots.
- Anatomical descriptions guide analysis of medical imagery.
- Manual graphical annotations aid semiautomated computer vision tasks.
- Linguistic descriptions of scenes can be used to focus search

The key questions to be discussed at this workshop are:

- What contextual information, if made available beforehand, could best enhance the reliability of computer vision systems?
- How can computer vision algorithms be designed to best exploit prior knowledge about a scene?

Workshop Format:

The workshop program will be formed from invited and contributed papers. It is expected there will be 25-30 attendees with a program of about 10 papers. The papers will be 30 minutes each including a 5 minute question period. A published proceedings will be available at the workshop.

Program Committee:

Tom Strat SRI Int.	Joseph Mundy GE Corp R&D	Eamon Barrett Lockheed Corp.	Kim Boyer Ohio State
Dan Huttenlocher Cornell Univ.	Avi Kak Purdue Univ.	Laveen Kanal LNK Associates	Mike Kelly BDM
Jean Ponce Univ. of Illinois	Azriel Rosenfeld Univ. of Maryland	Demetri Terzopoulos Univ. of Toronto	Ed Zelnio Wright Labs

Submission:

Please submit three(3) copies of your manuscript to:

Tom Strat
SRI International
333 Ravenswood Avenue
Menlo Park, CA 94025

The deadline for submission is January 16, 1995

Notification of acceptance: March 1, 1995

Final Manuscripts due at IEEE: April 3, 1995

Survey on Important Qualities of Journals

Below are listed some factors that you may possibly consider in selecting a journal to which to submit a paper. Please rank the considerations by placing a number from 1 to 5 to the left of each, where a 1 is “most important” and a 5 is “least important”. You may rank more than one factor at the same level of importance if you wish. You do not have to rank all factors.

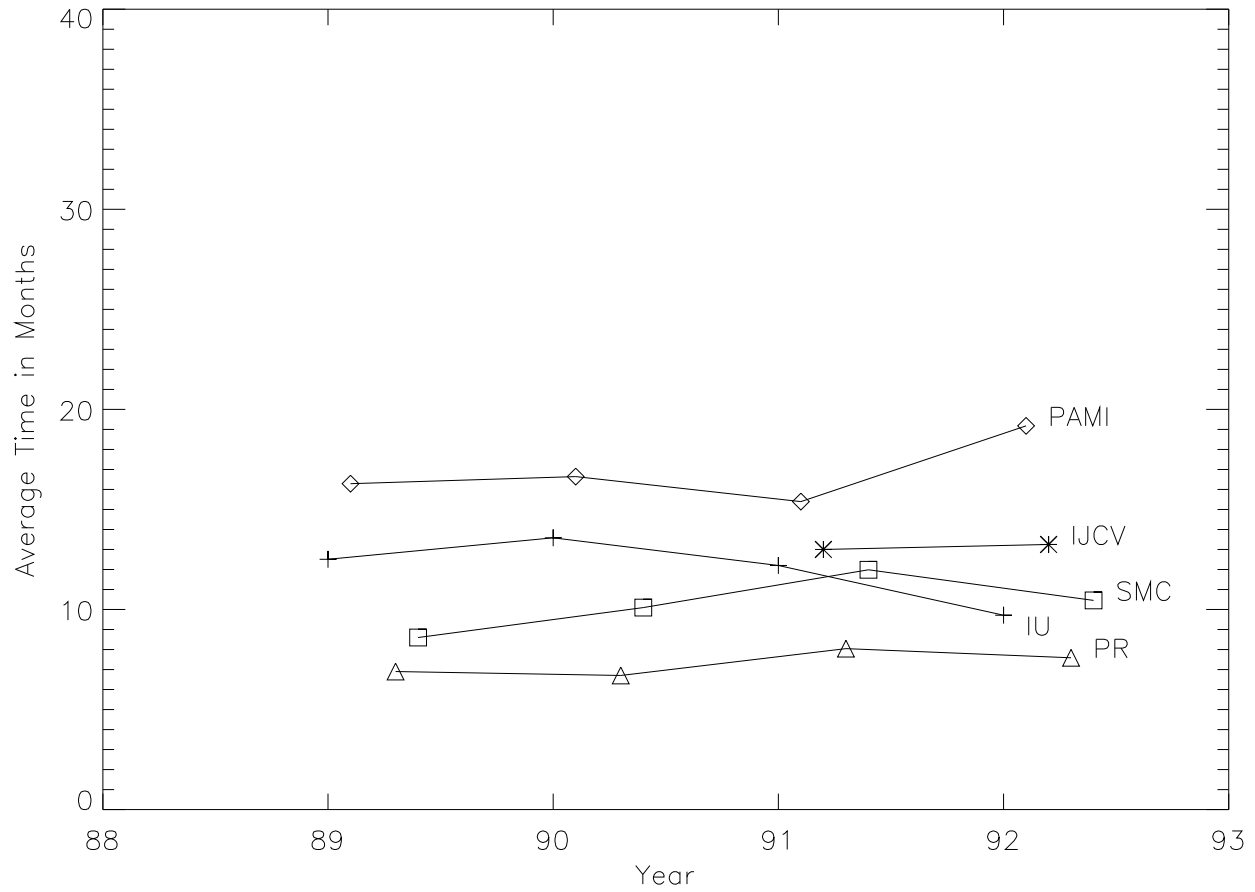
- _____ average time to make an accept / reject decision
- _____ average time until an accepted paper appears in print
- _____ circulation (the number of subscriptions to the journal)
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- _____ how well-known the people on the editorial board are
- _____ reputation for selectivity (high rejection rate)
- _____ a priori likelihood of acceptance (low rejection rate)
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Department of Computer Science and Engineering
University of South Florida
Tampa, Florida 33620

Results will be summarized in a future issue.

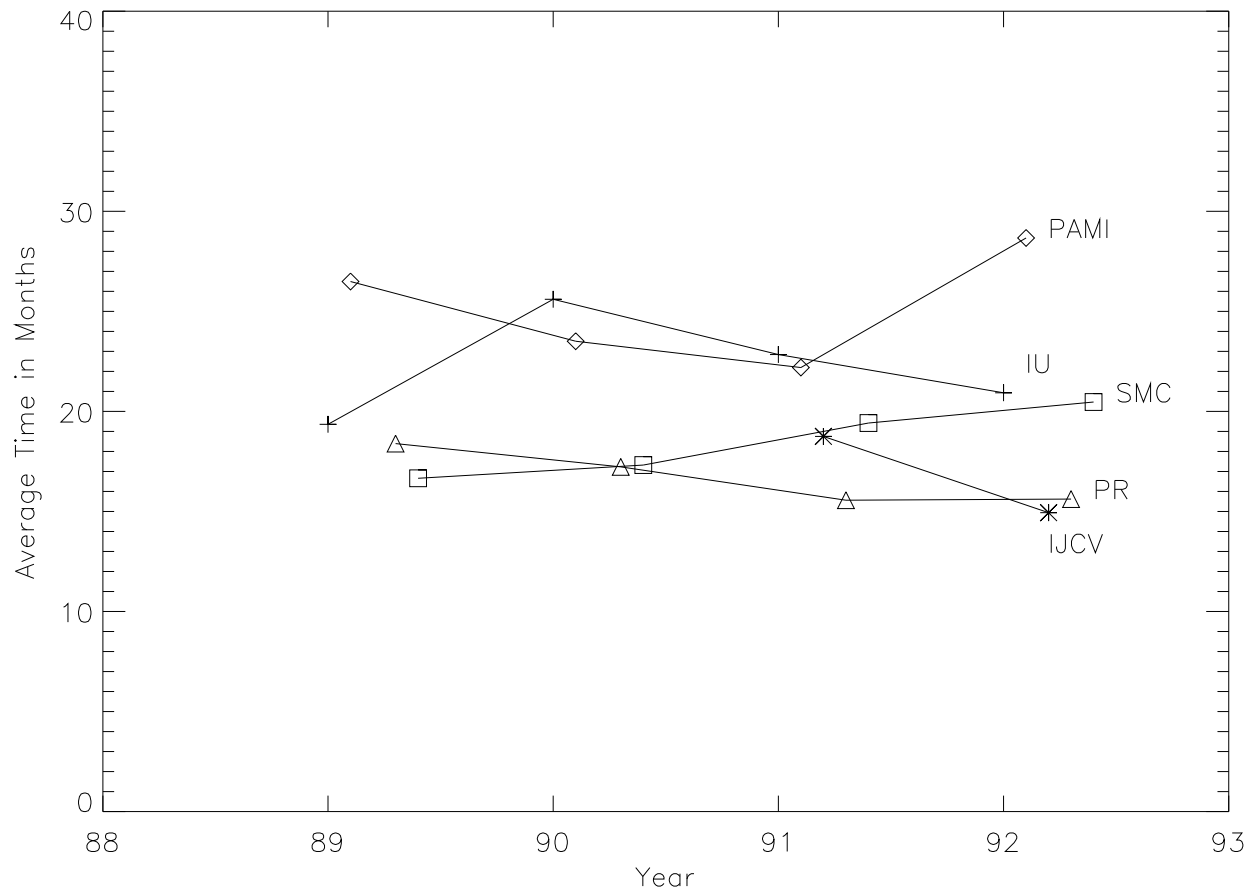
Average Time to Accept a Paper in Five Major Computer Vision Journals



Average time from receipt of manuscript to acceptance date of regular articles. Articles in special issues not included. Invited papers not included. Correspondences not included.

- PAMI IEEE Transactions on PAMI
- IJCV International Journal of Computer Vision
- SMC IEEE Trans. on Systems, Man, and Cybernetics
- IU CVGIP: Image Understanding
- PR Pattern Recognition

Average Time to Publish a Paper in Five Major Computer Vision Journals



Average time from receipt of manuscript to publication date of regular articles. Articles in special issues not included. Invited papers not included. Correspondences not included.

- PAMI IEEE Transactions on PAMI
- IJCV International Journal of Computer Vision
- SMC IEEE Trans. on Systems, Man, and Cybernetics
- IU CVGIP: Image Understanding
- PR Pattern Recognition

Announcements

Fellowship Committee

Professor Azriel Rosenfeld has agreed to head the Fellowship Committee for the Technical Committee on Pattern Analysis and Machine Intelligence. This committee will be involved with identifying TC members who should be considered for Fellow status, finding the appropriate Fellow to make the nomination, and so forth. Suggestions for consideration should be directed to Professor Rosenfeld at ar@cfar.umd.edu.

Planned Mammography Image Analysis Research Database

A project to establish a database for use by the mammographic image analysis research community has been recently awarded a grant through the Breast Cancer Research program of the U.S. Army Medical Research and Development Command. This will be a collaborative effort involving Massachusetts General Hospital, the University of South Florida, and Sandia National Laboratories.

The primary purpose of the database is to facilitate sound research in the development of computer algorithms to aid in screening. Secondary purposes of the database may include the development of algorithms to aid in diagnosis and the development of teaching or training aids. The database will contain approximately 3,000 studies. Each study will include two images of each breast, along with some associated patient history information and specification of parameters of the image digitization process. Images containing suspicious areas will have associated pixel-level "ground truth" information about the locations and types of suspicious regions. Also provided will be software source code both for accessing the mammogram and truth images and for calculating performance figures for automated image analysis algorithms. The database will be accumulated over a period of four years. It is hoped that the initial portion of the database will be available to the research community in mid 1995.

The Massachusetts General Hospital portion of the project is led by Daniel B. Kopans, M.D., Director of the Breast Imaging Division. The University of South Florida effort is led by Professor Kevin Bowyer of the Department of Computer Science & Engineering. The Sandia National Laboratories contribution is led by Dr. W. Philip Kegelmeyer, Senior Staff Scientist at the Center for Computational Engineering.

To place yourself on an electronic mailing list to receive updates about this project, send an e-mail message to woods@bigpine.csee.usf.edu.

Mosaic home page for PAMI TC

The PAMI TC now has a Mosaic home page. The address is:

<http://www.cs.washington.edu/research/vision/pamitc.html>

Send comments to aberman@cs.washington.edu.

The “Computer Vision Home Page”

While you are playing with Mosaic, check out the computer vision home page at:

<http://www.cs.cmu.edu:8001/afs/cs.cmu.edu/project/cil/ftp/html/vision.html>

It includes, for example, pointers to lots of vision groups, image databases, and so on. This page is reasonably widely known and used: it gets about 500 accesses per week every week.

Personal Subscription Rate for Machine Vision and Applications An International Journal

Managing Editor: R. Kasturi, University Park/PA

Machine Vision and Applications publishes technical contributions in machine vision research and development, and places particular emphasis on engineering and technology aspects of image processing and computer vision. Examples of topics covered by the journal are:

- algorithms
- architectures
- VLSI implementations
- AI-techniques and expert systems for machine vision
- languages
- front-end sensing applied to image-related problems
- multidimensional and multisensor machine vision
- optical computing
- real-time techniques

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The Image and Vision Computing Journal has established an individual subscription rate. The Associated Individual Rate entitles any individual whose university / company already subscribes at full rate to subscribe at the price of \$95 (ten issues in 1995).

A free sample copy is available on request.

Published now for over a decade, Image and Vision Computing has covered all the significant stages in the evolution of computer vision research and continues to publish key papers from around the world which make a major contribution to its development. A rigorous peer-reviewing procedure ensures that emphasis is placed on the application of methods to real world scenes and on encouraging a deeper understanding in the discipline.

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