# Newsletter 47, January 1997

### TC10 news #47

Contents:

\_\_\_\_\_

CFP: GREC'97 - Second IAPR Workshop on Graphics Recognition CFP: Graphics Recognition Contest at GREC'97 - Call for Participation

CFP: Fusion Of Earth Data

CFP: Austrian Pattern Recognition Workshop

CFP: BMVC97 - The Eighth British Machine Vision Conference
CFP: ECVP97 - 20th European Conference on Visual Perception
CFP: IWPIA'97 - International Workshop on Parallel Image Analysis

CFP: CVPR'97 Workshop on Content-Based Image Access

Misc: ICCV 98 - Call For Workshop Proposals

CFP: ISPRS WG on Surface Reconstruction - Call for Participation CFP: Adv. in Digital Image Communication - Call for Participation CFP: NSIP97 - Worskshop on Nonlinear Signal And Image Processing

CFP: WebNet97 - World Conference of the WWW, Internet, and Intranet

Dear TC10 members and friends,

Welcome to TC10 news #47. Sorry for the delay in getting this newsletter out.

The first two announcements below are directly related to TC10 activities. First, the call for papers for TC10's workshop on Graphics Recognition (GREC'97). Please remember to submit your 2 page abstracts by March 1. Most upto date information on GREC'97 is available at

#### http://www.loria.fr/~tombre/grec97.html

The second announcement is a call for participation for the Graphics Recognition Contest which will be held at GREC'97. At GREC'95, a dashed line detection contest was organized. The Graphics Recognition Contest is the second contest in this series. I would like to see good participation in the contest. If you need any clarification, or have suggestions, please feel free to contact me. The most upto date information on the Graphics Recognition Contest can be found at

http://www.iapr-tc10.or.kr/contest.htmNow to these two important announcements and other news.

\_\_\_\_\_

- > From: Karl Tombre < Karl. Tombre@loria.fr>
- > Subject: CFP: GREC'97 Second IAPR Workshop on Graphics Recognition

Second Call for Papers GREC'97 Second IAPR Workshop on Graphics Recognition (sponsored by IAPR TC-10)

Nancy, France

August 22-23, 1997

http://www.loria.fr/~tombre/grec97.html

You are invited to participate in a single-track 2-day workshop on methods and systems for graphics recognition organized by IAPR TC-10 (Technical Committee on Graphics Recognition). The workshop will comprise several sessions dedicated to specific topics. For each session, there will be a main paper presentation giving the state of the art and stating the open questions for the session's topic, followed by a number of short presentations where each participant is invited to contribute by proposing solutions to some of the questions or presenting results of his/her work. Each session will be concluded by a panel discussion.

The workshop will be held just after the 4th International Conference on Document Analysis and Recognition (Ulm, Germany, August 18-20, 1997). Nancy is only a 4 hours drive from Ulm and the two cities are directly connected by train.

Attendance will be limited to 75 persons. All participants are expected to contribute actively to the workshop, either by presenting a full state-of-the-art paper, or through an abstract of remarks on a specific topic. You are invited to submit to the program committee an abstract (maximum 2 pages) of your proposed contribution to the workshop. Please indicate also if you would be willing to present a state-of-the-art paper on this topic, if invited to do so by the program committee.

Pre-proceedings of all contributed papers will be available at the workshop for the participants. After the workshop, the program committee plans to publish as a book revised versions of selected key papers, possibly including reports from the panel discussions.

Relevant topics include but are not limited to:

- 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
- 3-D models from multiple 2-D views
- interpretation of low-level ("dumb") CAD data
- description of complete systems for interpretation of graphics in scanned documents
- performance evaluation in graphics recognition

Workshop Organization

#### Chairs:

Karl Tombre INRIA Lorraine & CRIN/CNRS Batiment LORIA 615 rue du jardin botanique, B.P. 101

54602 Villers-les-Nancy Cedex, France Email: tombre@loria.fr, Phone: +33 3 83 59 20 71, Fax: +33 3 83 27 83 19

Atul K. Chhabra NYNEX Science & Technology 500 Westchester Avenue White Plains, NY 10604, USA

Email: atul@nynexst.com, Phone: +1 914 644-2786, Fax: +1 914 644-2561

### Program Committee:

Keiichi Abe Shizuoka University, Japan Adnan Amin University of New South Wales, Australia Dorothea Blostein Queen's University, Ontario, Canada Horst Bunke Bern University, Switzerland Horst Bunke Bern University, Switzerland
Luigi P. Cordella Naples University, Italy
Its'hak Dinstein Ben Gurion University, Israel
David Doermann University Maryland, USA
Dov Dori Technion Haifa, Israel
Robert M. Haralick University of Washington, USA
Osamu Hori Toshiba R&D Center, Japan
Rangachar Kasturi Pennsylvania State University, USA YoungBin Kwon Chung-Ang University, Korea Yves Lecourtier University of Rouen, France Lawrence O'Gorman Bell Labs, USA Arnold Smeulders University of Amsterdam, the Netherlands

### Deadlines:

Abstracts (max. 2 pages, 3 copies): March 1, 1997 Acceptance notification: May 1, 1997 Camera Ready Manuscripts: June 15, 1997

Please send your abstract to one of the co-chairs. Contact either one of the co-chairs for further information.

> From: atul@nynexst.com > Subject: CFP: Graphics Recognition Contest at GREC'97 - Call for Participation

Second IAPR Workshop on Graphics Recognition (GREC'97) Nancy, France August 22-23, 1997

# **GRAPHICS RECOGNITION CONTEST**

This contest is the second in the series that started with the Dashed Line Detection Contest held in conjunction with GREC'95 [1,2,3]. The proposed contest will test the participants' ability to segment text from graphics and to recognize graphical primitives such as lines, arcs, circles, and arrowheads. The specifications and the evaluation protocol for the contest will be intentionally kept simple in order to encourage participation.

All prospective participants must respond to this announcement by contacting the contest chair indicating their intent to take part in the contest (please see the instructions for prospective participants at the end of this message).

As in the previous contest, select participants may be invited to submit an article on their system and algorithms for the post workshop

DETAILS OF THE CONTEST

- o The uptodate version of this document is available at the URL http://graphics.nynexst.com/iapr-tc10/contest.html
- o The source code for generating synthetic images with varying degrees of complexity and varying amount of noise will soon be made available as a compressed tar file at http://graphics.nynexst.com/iapr-tc10/contest97/synth-src.tar.gz

- - -

This code will also generate a ground truth file for every image.

o To assist those who have difficulty compiling the software on their particular hardware/software platform, some sample images and ground truth data generated by the above code will be made available at http://graphics.nynexst.com/iapr-tc10/contest97/synth-img.tar.gz

o Some real scanned images with ground truth data will soon be made available at

http://graphics.nynexst.com/iapr-tc10/contest97/real-img.tar.gz

o Evaluation software will be made available as a compressed tar file at

http://graphics.nynexst.com/iapr-tc10/contest97/eval-src.tar.gz

o After people have had some time to fine tune their software to work with the synthetic and real images, some test images will be provided for the participants to gauge their success for themselves. The test images will be located at http://graphics.nynexst.com/iapr-tc10/contest97/test-img.tar.gz

The participants must return their text extraction and graphics recognition results to the organizers by a specified date. These results will not be used for ranking. They will only be used by the organizers to make sure that the participants are on the right track.

- o The README file in src directory will contain information about the image generation parameters such as line thickness range, font size, etc.
- o Ftp access will be provided soon. Details will be made available in the updates of this document.

Image File Format

- o Only bi-level images will be used in this contest.
- o The images will be in TIFF 6.0 CCITT Group 4 format. The software for generating synthetic images will be linked to the public domain TIFF library available by anonymous ftp at ftp.sgi.com in the directory graphics/tiff

Hardware Platforms and Operating Systems

o Participants in the contest can run their software on any of the following platforms:

Sun SPARC with Solaris or SunOS Silicon Graphics PC's running Windows 3.1 or Windows 95

o The code for generating synthetic images and for evaluation will run only on

Sun SPARC with Solaris or SunOS PC's running Windows 3.1 or Windows 95

Live Contest

o Contestants will have to bring their software to the contest. They will be required to run a live demonstration of their software on several TIFF CCITT Group 4 images that will be provided at the contest. These images will include a mix of synthetic and real images.

FTP access will be made available at the contest to assist participants in downloading their software via the internet. However, participants are strongly urged to still bring a copy of their software on tapes or diskettes.

Evaluation

Programs will be judged on the basis of the following performance metrics :

o Ability to extract text strings from mixed text and graphics where the text could be

- + sparse or dense
- + isolated or touching/overlapping graphics

Characters within text strings could be isolated or touching. No OCR is required. Only the bounding boxes of detected text strings need to be provided to the evaluation software. Fairly loose error tolerance will be allowed in these bounding boxes.

All text will be horizontal or vertical.

o Detect the following graphical primitives

- + lines
- + arcs
- + circles
- + arrowheads

The lines, arcs, and circles could be solid or dashed (only simple dash dash pattern will be used). The arrowheads could be hollow or filled.

- o The following attributes of each graphical primitive must be identified
- + line: start point, end point, thickness, solid or dashed
- + arc: center, radius, start angle, end angle (start and end angles must be in counter-clockwise order), solid or dashed
- + circle: center, radius, solid or dashed
- + arrowheads: tip, direction, hollow or filled

For lines that intersect each other, line segments created by the intersections should be reported as separate lines.

For the above coordinates, the x-y coordinate system must have its origin at the bottom left-hand corner of the image with the y axis pointing upward and the x axis pointing to the right.

The units of the x and y coordinates should be in pixels.

NOTE: The exact evaluation methods are not yet complete and will be posted as soon as they are ready.

\* For further correspondence, contact Atul Chhabra at atul@nynexst.com. Please use the subject heading "GREC Contest Inquiry".

# References

[1] R. Kasturi and K. Tombre (eds.), "Graphics Recognition: Methods and Applications," First International Workshop, University Park, PA, USA, August 1995, Selected papers published as Lecture Notes in Computer Science volume 1072, Springer, 1996

[2] B. Kong, et al., "A Benchmark: Performance Evaluation of Dashed Line Detection Algorithms," In "Graphics Recognition: Methods and Applications," Lecture Notes in Computer Science volume 1072, Springer, 1996.

[3] D. Dori, L. Wenyin, and M. Peleg, "How to win a dashed line detection contest," In "Graphics Recognition: Methods and Applications," Lecture Notes in Computer Science volume 1072, Springer, 1996.

# Instructions for Prospective Participants

All prospective participants must send a formal application to participate in the contest. In addition to the intent to participate, the application must include a brief description of your organization or research group.

Along with the application, please enclose your answer to the following questions:

- 1. Which hardware platform (e.g., Sun SPARC, Intel Pentium, ...) would you like to run your software on for the live demo at the contest?
- 2. Which operating system (e.g., Sun Solaris 2.5, Windows 3.1, ...) would you like to run your software on for the live demo at the contest?
- 3. Do you have access to a Sun SPARC machine or a PC running Windows 3.1 or higher for the purpose of running the synthetic image generation software and the performance evaluation software? If you have access to both, which one would you prefer to use?

The application may be sent in any of the following forms:

Email (plain ascii) to

### atul@nynexst.com

Please use the subject heading "GREC Contest Application"

Regular or express mail to

Atul Chhabra NYNEX Science & Technology 500 Westchester Avenue White Plains, NY 10604, USA

Phone: (914) 644-2786

#### Fay to

### Atul Chhabra at (914) 644-2561

For e-mail, fax, and express mail applications, if you do not receive a response within a week of your submission, please try to reach me to find out if I received your application. For applications sent through regular mail, please allow two weeks to hear back.

Below is a CFP for fusion of point measurements, raster maps, and remotely sensed images

- > From: depre@ds.enst.fr (Elisabeth Depre)
  > Subject: CFP: Fusion Of Earth Data

#### FIRST CALL FOR PAPERS

The European Association of Remote Sensing Laboratories (EARSeL) Societe des Electriciens et Electroniciens de France (SEE) Ecole des Mines de Paris

cordially invite you to the second Conference

FUSION OF EARTH DATA:

merging point measurements, raster maps and remotely sensed images

to be held in Cote d'Azur (France)

26-31 January 1998.

The quantity of data available for the study of the environment, the geosphere and the biosphere has grown very rapidly over the past few years, partly due to the number of space missions devoted to the observation of the Earth. Facing this ever increasing amount of data, researchers as well as engineers need to extract the best information of them. Data fusion techniques are of paramount importance for an optimal exploitation of the synergy of these data.

Such techniques have been recently introduced. They are mostly misunderstood by the user community, in part because their mathematical aspects are often emphasized in place of the practical applications. It is indeed a rich and fascinating area of multidisciplinary investigation which deserves a better comprehension from the remote sensing and geography community.

### GOALS OF THE CONFERENCE

The Conference is conceived as a forum for researchers, engineers and students at PhD level using and studying data originating from different sensors, and scientists working on various aspects of data/image fusion. The first conference, held in 1996, has lead to the creation of a Special Interest Group within EARSeL, enhancing the exchange of information between the members and a better understanding of fundamentals and tools. Such a conference intends to help in understanding what does "data fusion" means by providing clear description of applications, tools and benefits of data fusion. The organizing bodies are determined to respect high standards for this technical conference; the presentations will represent the latest methodologies and the status of applications.

# COMMUNICATIONS

Keynote speakers will present the general aspects of data fusion illustrated by peculiar applications. The organisers will welcome papers describing recent and original work. They will favour papers which contain the three following aspects:

- description of the application needs with respect to multi-sensor data
- description of the fusion techniques used,
- assessment of the quality of the results and of the benefit of the data

Submit 5 copies of the abstract (no more than two A4 pages), enhancing the above-mentioned aspects, before 30 June 1997. The abstract should also include name of authors, address, phone, fax and e-mail.

Proposals may be in the following domains:

- advanced mathematical tools in data fusion, including change in data quality in fusion process and management of data uncertainty,
- meta-data and fusion,
- integration / supplementing ground measurement network by space measurements,
- fusion in oceanography from space
- fusion in natural hazards and global change,
- fusion for computer-aided photo-interpretation,
- and others ?

# SCIENTIFIC PROGRAM COMMITTEE

Dr. L. Wald, Ecole des Mines de Paris, France (Chairman) Prof. Dr. M. Buchroitner, Technical University of Dresden, Germany Prof. Dr. J.-P. Donnay, Universit?de Li?e, Belgium Prof. Dr. A. Farina, Alenia, Italy Dr. M.-J. Lefevre, CNES, France

Dr. G. Pittella, ESA, Italy

Dr. T. Ranchin, Ecole des Mines de Paris, France Dr. T. Rousselin, D??ation G??ale pour l'Armement, France

Dr. R. Vaughan, University of Dundee, United Kingdom

### LOCATION AND ACCOMMODATIONS

French Cote d'Azur is characterized by its beautiful landscape. In winter, the sky is often deep blue with a high visibility. Such a light offers a wonderful contrast between the quiet blue-green Mediterranean Sea and the close snowy Alps mountains. The weather is often dry and comfortable. This is a destination well worth visiting at that time of the year.

Beginning in the 1970's, a part of Cote d'Azur north of Antibes and Cannes evolved into Sophia Antipolis, a famous name in the world for research and high technology. Also in Cannes is Aerospatiale, the leading european satellite maker. The Conference will benefit from this high-tech neighborhood.

#### THEMATIC SESSIONS

There will be several thematic sessions on topics selected from advance proposals. These sessions provide a means to discuss more extensively peculiar subjects. Authors of accepted proposals will serve as session chairman.

### FOR MORE INFORMATION

To receive further information or to submit a communication, pass on your address or abstract to:

Fusion Conference office Groupe Teledetection & Modelisation, Ecole des Mines de Paris **BP 207** 06904 Sophia Antipolis cedex, France Fax: 33 - 4 93 95 75 35 E-mail address: fusion@cenerg.cma.fr WWW page: http://www-datafusion.cma.fr/

#### Deadline dates:

June 30 1997: abstracts due

September 15 1997: notification of acceptance for papers

November 15 1997: early registration (reduced rates for registration and hotel)

November 15 1997: papers due

Fusion Conference Office Groupe Teledetection & Modelisation, Ecole des Mines de Paris BP 207, 06904 Sophia Antipolis cedex, France Fax: (33) 4 93 95 75 35 e-mail:fusion@cenerg.cma.fr

Elisabeth DEPRE GDR-PRC ISIS TEL: 01 45 81 73 60 FAX: 01 45 81 77 45 E-MAIL : depre@ds.enst.fr ENST - 46 rue Barrault 75013 PARIS

Following are CFP's for workshops/conferences on pattern recognition, machine vision, image analysis, image retrieval, etc.

> From: Wilhelm Burger <wilbur@fhs-hagenberg.ac.at> > Subject: CFP: Austrian Pattern Recognition Workshop

CONFERENCE ANNOUNCEMENT and
CALL FOR PAPERS

21st Workshop of the AUSTRIAN ASSOCIATION FOR PATTERN RECOGNITION

in the historic lakeside village of Hallstatt, Austria May 26 - 27, 1997

visit us at http://www.cast.uni-linz.ac.at/oagm/oagm97

# TOPICS INVITED GUEST SPEAKER

Topics include, but are Dr. Terry Caelli not limited to: (Curtin University of Technology, Australia) \* Pattern Recognition on (Signal Analysis, "Uses of Machine Learning in Computer Statistical/Structural Vision and Pattern Recognition" Methods, Speech, OCR, Texture, Compression, PAPER SUBMISSION

<sup>\*</sup> Computer Vision We solicit contributions in the form (Object Modelling and of extended abstracts of up to 3 pages

Recognition, 3D including illustrations, results and Reconstruction, references. Abstracts must contain Geometrical Methods, sufficient content for peer review. ...) Please use the OAGM LaTeX Style

\* Image Processing available from our site for document (Filtering, formatting: Segmentation, ftp.cast.uni-linz.ac.at/pub/oagm/oagm.sty Enhancement, Restauration,...) Please send 3 copies of your paper to \* Applications the Conference Chairman: (Industrial, Remote Sensing, Biomedical, | Dr. Wilhelm Burger Document Analysis, | Johannes Kepler University Linz Multimedia, ...) | Dept. of Systems Science Altenbergerstr. 69 PROGRAM COMMITTEE | A-4040 Linz, Austria

\* Walter Kropatsch mailto:wilbur@cast.uni-linz.ac.at (TU Wien)

Axel Pinz IMPORTANT DEADLINES:

(TU Graz)

Ernst Schuster Submission of extended abstracts: (AKH/Univ. Wien) Friday, March 14, 1997.

Vaclav Hlavac

(TU Prag) Acceptance notification: Monday,

Gerhard Paar April 14, 1997.

(Joanneum Research)

Ales Leonardis Final camera-ready paper: due at

(TU Wien/Ljubljana) the conference. Mark J. Burge

(Univ. Linz) REGISTRATION:

LOCAL ORGANIZATION A registration fee of ATS 500.- (approx. US\$ 50.-) is \* Wolfgang Mayr payable on site. No early (Univ. Linz) registration is required but please indicate your interest by PROCEEDINGS sending e-mail to mailto:wm@cast.uni-linz.ac.at Workshop proceedings will be also to receive the latest published as a special volume conference information. of the "OCG Schriftenreihe" by R. Oldenbourg, Vienna.

- > From: Adrian F Clark <alien@essex.ac.uk>
- > Subject: CFP: BMVC97 The Eighth British Machine Vision Conference

The Eighth British Machine Vision Conference

8-11 September 1997

University of Essex

### **CALL FOR PAPERS**

The British Machine Vision Conference is the main UK conference for machine vision and related topics. High-quality papers are sought describing recent and novel research in the areas of computer vision, image analysis and processing or pattern recognition. Papers describing research being undertaken in national or international collaborative projects are particularly welcome. The conference is a single-track meeting with both oral and poster presentations. In addition to the contributed papers, there will be talks by invited speakers and a pre-conference tutorial programme (free to registered students).

Contributions are sought on any novel aspect relating to machine vision and pattern analysis, including:

image processing and feature extraction practical applications object recognition and scene analysis model-based coding reconstruction of 3D shape architectures computational issues in perception active vision robotic vision and sensory fusion motion analysis advanced pattern analysis neural networks

Four anonymous copies of full papers not exceeding 10 pages (approx. 5000 words if there are no figures) should be submitted for review. Please include two separate title pages, one containing title and abstract and the other containing title, abstract, and authors' names and affiliation. Papers will be reviewed by the elected BMVA Committee with a small number of specially co-opted members. By submitting a paper to BMVC, the authors 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 BMVC review period. Papers will be accepted either for oral presentation or as posters. A printed copy of the Proceedings will be available to delegates at the conference and a selection of the best papers will be published separately in a special issue of Image and Vision Computing

Up-to-date information on BMVC97, including submission guidelines and information on the format of papers, can be found on the World-Wide Web at

http://peipa.essex.ac.uk/BMVC97/

Papers should be submitted to the Conference Secretariat:

BMVC97 Secretariat Department of Electronic Systems Engineering University of Essex Wivenhoe Park Colchester CO4 3SQ United Kingdom

### Important Dates |

Deadline for paper submission 30 April 1997 | Notification of acceptance 10 June 1997 Deadline for camera-ready copy July 1997 |

The British Machine Vision Association and Society for Pattern Recognition is a Company limited by guarantee, No. 2543446, registered in England and Wales. Registered Office: Granta Lodge, 71 Graham Road, Malvern, Worcs. WR14 2JS. The Association is a non-profit-making body and is registered as charity No. 1002307.

Dr Adrian F Clark http://esewww.essex.ac.uk/~alien/ EMAIL: alien@essex.ac.uk PHONE: (+44) 1206-872432 FAX: (+44) 1206-872900 Dept ESE, University of Essex, Wivenhoe Park, Colchester, Essex, C04 3SQ, UK

- > From: Jukka Hakkinen <jhakkine@cc.helsinki.fi>
- > Subject: CFP: ECVP97 20th European Conference on Visual Perception
- \* ECVP97 ANNOUNCEMENT \*

European Conference on Visual Perception 20th Anniversary

24. - 29. August 1997, Helsinki - Espoo, Finland

#### INVITATION

The XX European Conference on Visual Perception (ECVP) takes place in Helsinki-Espoo, Finland, August 24th-29th, 1997. Scientists and students from Europe and all parts of the world are invited to participate. The conference provides a forum for the presentation of original papers on functional aspects of vision, as well as special symposia reviewing recent developments in selected fields. Abstracts concerning every aspect of visual science are invited.

### **PROGRAM**

The program includes:

- \* invited plenary lectures by leading visual scientists, including Dick Cavonius, Teuvo Kohonen, Dennis Levi, Vilayanur Ramachandran, Torsten Wiesel and Semir Zeki
- \* special symposia on selected topics including \* Progress and Paradigm Shifts in Vision Research during 20 Years of ECVP
- \* Limits to Visual Performance: a Comparative Approach
- \* Across the Modality Borders: Integration of Vision with Other Senses
- \* Brain Imaging
- \* Low Vision
- \* Free communications from the participants, either in the form of 15-min lectures running in two parallel sessions, or as posters. Abstracts will be published as a supplement to Perception. Abstracts will also be put on the web (http://www.pion.co.uk/perception).

# PREPARATION OF ABSTRACTS

Abstracts can be submitted in paper form by post (air mail) or electronically via WWW abstract submission form. If the abstract is sent by post, it should be in triplicate, together with the completed application form, before February 15th, 1997. If the abstract is submitted via WWW submission form, the application form must be sent separately as a hard copy by via post.

The abstract submission form, registration form and additional information can be found from the ECVP97 homepage:

http://www.psych.helsinki.fi/ecvp97

Deadline for submission of abstracts & early registration: February 15th, 1997

Notification about acceptance/rejection of abstracts will be sent by April 30th, 1997.

#### Registration fees:

Early registration FIM 500,- (students FIM 200,-) Late registration FIM 800,- (students FIM 300,-)

ADDRESS FOR CORRESPONDENCE (registration, abstracts, accommodation)

ECVP97 CONGRESS TEAM/Area Travel Agency Ltd. P.O.Box 6 (Paivarinnankatu 1) 00251 Helsinki Finland

Tel: int. +358-9-818383 Fax: int. +358-9-4775811

#### ADDITIONAL INFORMATION

FCVP'97 c/o Prof. Kristian Donner Department of Biosciences P.O. Box 17 (Arkadiankatu 7) FIN-00014 University of Helsinki Finland

FAX +358-9-1917301 e-mail: ecvp97@helsinki.fi

- > From: morita <morita@ke.sys.hiroshima-u.ac.jp>
- > Subject: CFP: IWPIA'97 International Workshop on Parallel Image Analysis

#### CALL FOR PAPERS

The Fifth International Workshop on Parallel Image Analysis (IWPIA '97) -- Theory and Applications ---

Hiroshima, Japan, September 29-30, 1997

IWPIA'97 is the fifth in the series of workshops dedicated to parallel image analysis. Previous meetings took place in Paris (1991), Ube (1992), Washington DC (1994), and Lyon (1995). IWPIA'97 will be held on September 29-30, 1997, in Hiroshima (the workshop site will be specified later). It will consist of invited and contributed papers on theories, algorithms, architectures, and applications in the field of parallel image analysis.

Workshop Committee:

Organization Co-Chairs:

A. Nakamura (Meiji University, Japan)

M. Nivat (University of Paris VII, France)

Program Chair:

K. Morita (Hiroshima University, Japan)
Program Committee:

K.Aizawa (Hiroshima University, Japan)

G.Bertrand (ESIEE Paris, France)

J.M.Chassery (TIMC-IMAG Grenoble, France)

K.Inoue (Yamaguchi University, Japan)

T.Y.Kong (City University of New-York, USA) M.Kunt (EPFL Lausanne, Switzerland)

S.Miguet (ENS Lyon, France)

M.Reed (Oxford University, United Kingdom)

J.-P.Reveilles (LLAIC Clermont, France)

Y.Robert (ENS Lyon, France)

A.Rosenfeld (University of Maryland, USA)

R. Siromoney (Madras Christian College, India)

S.Ubeda (University of St-Etienne, France) P.S.P.Wang (Northeastern University, USA)

Suitable topics are as follows, but not limited to them.

Theories:

array, graph and parallel grammars, 2D/3D and cellular automata,

digital topology

Algorithms:

parallel algorithms for image processing, complexity analysis of

algorithms

Architectures:

parallel architectures for image processing, neural networks

Applications:

image processing systems based on parallel architecture

Authors should send four copies of complete manuscripts of their papers to the program chair

Kenichi Morita

Faculty of Engineering, Hiroshima University

Higashi-Hiroshima, 739, Japan

or send PostScript files to the following address by e-mail.

iwpia@ke.sys.hiroshima-u.ac.jp

Papers must be received by March 20, 1997. Authors will be notified of acceptance by June 20, 1997. Camera-ready copy will be due by August 1, 1997.

Proceedings will be distributed at the Workshop, and the papers will be also considered for inclusion in a special issue of International Journal of Pattern Recognition and Artificial Intelligence.

Up-to-date information will be provided at the following URL on the WWW.

http://kelp.ke.sys.hiroshima-u.ac.jp/iwpia/

\_\_\_\_\_

- > From: Fang Liu <fliu@media.mit.edu>
- > Subject: CFP: CVPR'97 Workshop Content-Based Image Access

IEEE WORKSHOP ON CONTENT-BASED ACCESS OF IMAGE AND VIDEO LIBRARIES

(In Conjunction with CVPR'97)

Puerto Rico June 20, 1997

General Chair:

Rosalind W. Picard, MIT Media Lab

Organizing Committee:

Fang Liu, chair; Glenn Healey, Michael Swain, Ramin Zabih

Program Committee:

Ingemar Cox, Dick Delanoy, David Forsyth, Anil Jain, Ramesh Jain, Takeo Kanade, Rangachar Kasturi, B.S. Manjunath, Wayne Niblack, Alex Pentland, Harpreet Sawhney, Stan Sclaroff, Linda Shapiro, Rohini Srihari, Carlo Tomasi, HongJiang Zhang

The purpose of this workshop is to promote information exchange and interaction among researchers who are interested in various aspects of accessing the content of image and video libraries.

Research in computer vision and pattern recognition is needed to provide tools which give users access to the content of the libraries. This includes the problems of ORGANIZING, REPRESENTING, QUERYING, RETRIEVING, ANNOTATING, and BROWSING large collections of video and image data. The domain of video and image libraries also restates the typical automatic recognition problem as a semi-automatic problem, that of assisting and incorporating human users in the system loop.

NEW REPRESENTATIONS are needed to assist users in interacting with large amounts of visual data, especially for video, which presents the challenging problems which arise in demarcating events or actions of interest.

Research is needed to exploit the PRESENCE OF THE USER, such as obtaining incremental specifications for a query and using user feedback to combine semantic, perceptual, and other criteria in evaluating the results of a query.

A research emphasis is needed on INCORPORATING MULTIPLE MODELS, especially the ones for shape, color, texture, geometry, and syntax, so that the user does not have to specify low-level model parameters and combinations.

When databases and types of queries can be well-specified in advance, then strategies of EFFICIENT INDEXING of visual information are needed, in addition to techniques for combining visual with more traditional database information to respond to queries.

Realistic EVALUATION CRITERIA are needed, including test databases of realistic size in domains of interest, and measures of similarity that allow variations in perceptual, semantic, and other criteria and including measures of accuracy and efficiency in assisting the user.

The workshop will be held on 20 June, the day after CVPR'97. Hotel rates for CVPR'97 have been extended. Papers submitted will be reviewed by the program committee. A proceedings will be made available a few months after the workshop.

Submissions should be 5-8 pages in the format of final papers for CVPR proceedings, including figures and references. There should not be substantial duplication between papers submitted to the workshop and those accepted at the main conference. Send four copies of the paper and a cover sheet stating the (1) paper title, (2) Brief (2-3 sentence) summary of the topic and contribution, (3) contact author's name, (4) address, (5) telephone number, (6) Fax number, and (7) electronic mail address to:

Fang Liu E15-390, MIT Media Lab 20 Ames St. Cambridge, MA 02139 U.S.A

#### Important Dates:

Deadline for Submission: 24 March 1997 Notification of Acceptance: 28 April 1997 Camera-ready Papers Due: 26 May 1997

The workshop homepage is at http://www.cs.uchicago.edu/~swain/cfp-ivl.html

Sponsored by the PAMI Technical Committee of the IEEE Computer Society

- > From: majordomo admin <majordom@bigpine.csee.usf.edu>
- > Subject: Misc: ICCV 98 Call For Workshop Proposals

### CALL FOR PROPOSALS FOR WORKSHOPS

IN CONJUNCTION WITH

ICCV '98 SIXTH INTERNATIONAL CONFERENCE ON COMPUTER VISION January 4-7, 1998, BOMBAY, INDIA.

**GENERAL CO-CHAIRS:** 

N. Ahuja U. B. Desai U. Illinois IIT, Bombay. ahuja@vision.ai.uiuc.edu ubdesai@ee.iitb.ernet.in

PROGRAM CO-CHAIRS:

L. Davis M. Yachida U. Maryland Osaka U. lsd@umiacs.umd.edu yachida@sys.es.osaka-u.ac.jp

R. Narasimhan A.Zisserman CMC Oxford U. rn@saathi.ncst.ernet.in az@robots.ox.ac.uk

Workshops are planned in conjunction with ICCV'98. Workshops on ICCV related topics but with direct societal relevance are also welcome. If you are interested in organizing one, please complete the following form and

EMAIL it to:

ABSTRACT:

Narendra Ahuja AHUJA@VISION.AI.UIUC.EDU Beckman Institute University of Illinois FAX: USA (217) 244-8371 Urbana, Illinois 61801 USA

DEADLINE for the receipt of the proposals: FEBRUARY 27, 1997.
CUT HERE
PROPOSAL FOR WORKSHOP IN CONJUNCTION WITH ICCV'98
TITLE:
ORGANIZER(S):
DATES:

LOCATION (Could be other than Bombay):

EXPECTED/DESIRED ATTENDANCE:

FINANCIAL PLANS (How will the costs be met?)

..... CUT HERE .....

The proposals will be reviewed by the ICCV chairs and a response will be sent by MARCH 15, 1997. Information about the workshops will be posted at the ICCV website:

http://www.umiacs.umd.edu/users/lsd/iccv/index.html

http://www.cse.iitb.ernet.in/~iccv98

International Society for Photogrammetry and Remote Sensing

COMMISSION III: Theory and Algorithms, 1996 -- 2000

Working Group III/2 -- Algorithms for Surface Reconstruction

Newsletter no. 1: Invitation to join the group

<sup>&</sup>gt; From: Amnon Krupnik < krupnik@techunix.technion.ac.il>

<sup>&</sup>gt; Subject: CFP: ISPRS WG on Surface Reconstruction - Call for Participation

Dear colleague.

With this letter we would like to present the objectives of the working group and to inform you about the planned activities.

The main field of interest of the WG is developing and evaluating algorithms for automatic surface reconstruction. Automatic surface reconstruction has been the constant focus of scientific research in the last few decades due to its great significance for numerous practical applications. Nevertheless, the algorithms developed until now are still not fully successful because of the complexity of the problem; the issue will undoubtedly continue to challenge researches in years to come.

Previous research experience shows that the most promising approach for developing reliable surface reconstruction algorithms lies in integrating different cues (such as stereo, shading, texture) from multiple data sources (imagery, radar data, range data, GIS). Reliability of algorithms is an issue of great importance; therefore, research activity should also concentrate on developing methods for automatic verification and quality control of reconstructed surfaces. Thus, the subject provides a wide range of research activities to be undertaken in different, interrelated fields such as remote sensing, computer vision, and digital photogrammetry, to name a few.

The main objective of the WG is to coordinate the efforts of researchers and developers from different fields related to automatic surface reconstruction and to provide an efficient frame for exchanging ideas, information, and experiences. We see the surface reconstruction subject as part of an extended object reconstruction and modeling task. In addition, theoretical ideas should be also influenced by practical considerations, originated in and software implementations.

Following these objectives, our planned activities include organizing thematic workshops (the first is already planned for next fall), in close cooperation with the other related ISPRS working groups (e.g., III/3 and II/8). We also intend to collect and prepare test datasets that will provide a uniform basis for performance evaluation of different surface reconstruction and quality control algorithms.

Seeing your participation in the WG activities as one of the key components of its successful work, we invite you to join the group by sending us the attached form. This can be done by e-mail (preferred), fax or regular mail. In the following, we present the terms of reference and the list of planned activities. When you join the WG, you will receive further information and updates about the WG activities. You are also invited to visit our homepage.

Please fill free to pass this letter to other colleagues who may be interested in the WG.

Yours sincerely,

Amnon Krupnik, Charles Toth and Maxim Fradkin.

Chair:

Amnon Krupnik
Department of Civil Engineering

Technion -- Israel Institute of Technology, Haifa, 32000 Israel

Phone: +972-4-8292661 Fax: +972-4-8234757

E-mail: krupnik@tx.technion.ac.il

Co-chair: Charles Toth

The Ohio State University Center for Mapping

1216 Kinnear Road Columbus, OH 43212 Phone: +1-614-2927681 Fax: +1-614-2928062

E-mail: toth@cfm.ohio-state.edu

Secretary: Maxim Fradkin Department of Civil Engineering

Technion -- Israel Institute of Technology, Haifa, 32000 Israel

Phone: +972-4-8292660 Fax: +972-4-8234757 E-mail: fradkin@tx.technion.ac.il

WWW-Homepage of the WG: http://www.technion.ac.il/people/krupnik/wg.html

### Terms of reference:

- \* Algorithms for surface reconstruction from different cues, such as stereo, shading, shadows, texture, and spectral properties
- \* Integrating information from different sources, including aerial and satellite imagery, radar data, range data, multiple images, and GIS data
- \* Automatic verification and quality control of reconstructed surfaces
- \* Interrelations between matching and interpolation
- \* Role of surface reconstruction in automatic scene analysis

Planned activities:

January 1997 Start collecting datasets for performance evaluation

September 1997 Workshop in Haifa, Israel (to be finalized; call for papers will be published soon), together with WG III/3 and II/8.

1997 Publish datasets for general use.

July 1998 Sessions at the ISPRS Comm. III meeting in Columbus, OH, USA.

1998-1999 Accept results for test data.

September 1999 Conference on digital photogrammetry, together with WG III/3, III/4 and II/8, in Munich.

July 2000 Sessions at the ISPRS Congress in Amsterdam. Publish test results.

If you are interested in cooperating and would like to receive further information in the future, please fill out the following questionnaire:

ISPRS Working Group III/2 "Algorithms for Surface Reconstruction"

Name: Affiliation: Address: Phone: Fax: Email:

(Cross out one) I have Internet access: .... Yes, .... No

My field of interest is:

(Cross out one): I would like to take an active role in the WG activities: .... Yes, .... No

Please specify (helping organizing workshops, chairing sessions, reviewing abstracts/papers, etc.):

Further comments and proposals to the WG activities:

If you maintain your own WWW-pages that are related to the working group subjects, please give us the address of these pages and a short title, and we will make a link to it.

WWW address:

Short title:

Please return this form by e-mail (preferably), fax or regular mail to Maxim Fradkin (see address above).

Thank you for your cooperation!

Here are a couple of announcements related to image communication and

image processing.

- > From: Erlangen Symposium 1997 <sympos97@nt.e-technik.uni-erlangen.de>
- > Subject: CFP: Adv. in Digital Image Communication Call for Participation

# CALLFORPARTICIPATION

2nd Erlangen Symposium ADVANCES IN DIGITAL IMAGE COMMUNICATION

APRIL 25, 1997 Telecommunications Institute University of Erlangen-Nuremberg Erlangen, Germany

Following the successful 1st Erlangen Symposium in June 1995, the 2nd Erlangen Symposium will again be held at the Telecommunications Institute of University of Erlangen-Nuremberg. The Symposium will feature:

- Invited lectures by internationally renowned speakers (Prof. Robert M. Gray, Prof. A. Murat Tekalp, Dr. Ralf Schaefer)
- Contributed talks by international scientists
- Conference proceedings
- Demonstrations of ongoing work in the Image Communication Group of the Telecommunications Institute (Prof. Bernd Girod)
- Banquet at historic Atzelsberg Castle

# LOCATION

The symposium site is a convenient taxi-drive from Nuremberg Airport with direct flights to major European cities. By train or car, Erlangen is less than 2 hours from Munich, the site of ICASSP-97. The 2nd Erlangen Symposium will take place on the day right after ICASSP-97.

REGISTRATION

The registration fee ranges from 280.- to 450.- DM and includes proceedings, coffe/lunch, and the banquet at Atzelsberg Castle. Reduced fees are offered for authors, IEEE members, and members of non-profit organisations, as well as for advance registration BEFORE FEB. 15, 1997. On-site registration will also be possible in the morning.

### **FURTHER INFORMATION**

For further information on program, registration, hotel reservation or travel information please refer to our WWW site

http://www-nt.e-technik.uni-erlangen.de/sympos97

or send email to

### sympos97@nt.e-technik.uni-erlangen.de

or contact

Prof. Dr.-Ing. Bernd Girod Telecommunications Institute University of Erlangen-Nuremberg Cauerstrasse 7, D-91058 Erlangen, GERMANY phone: +49-9131-857100, fax: +49-9131-303840 email: girod@nt.e-technik.uni-erlangen.de

### WE WOULD BE GLAD TO WELCOME YOU IN ERLANGEN!

### INTERNATIONAL STEERING COMMITTEE

Bernd Girod, University Erlangen-Nuremberg (chair) Jan Biemond, Delft University of Technology Murat Kunt, Ecole Polytechnique Federale Lausanne Andrew B. Lippman, Massachusetts Institute of Technology Hans Georg Musmann, University of Hannover

### PROGRAM COMMITTEE

Bernd Girod (Chair) Khaled Ben Younes Reinhard Bernstein Peter Eisert Niko Faerber Frank Hartung Uwe Horn Eckehard Steinbach Klaus Stuhlmueller Thomas Wiegand

# ORGANIZING COMMITTEE

Uwe Horn (Chair) Thomas Wiegand (Vice Chair, Special Projects) Frank Hartung (Finance) Klaus Stuhlmueller (Registration)
Niko Faerber (Publicity)
Eckehard Steinbach, Peter Eisert (Proceedings) Reinhard Bernstein (Technical Support)

- > From: NSIP97 Conference <nsip97@ecn.purdue.edu>
- > Subject: CFP: NSIP97 Worskshop on Nonlinear Signal And Image Processing

Final Call for Papers for the 1997 IEEE/EURASIP Worskshop on NONLINEAR SIGNAL AND IMAGE PROCESSING

September 7-11, 1997 Grand Hotel, Mackinac Island, Michigan

http://www.ecn.purdue.edu/NSIP

FINANCIAL SPONSORSHIP BY: IEEE Signal Processing Society
IEEE Circuits and Systems Society European Association for Signal Processing (EURASIP)

The 1997 Workshop on Nonlinear Signal and Image Processing will be the third in a series of international workshops on these topics. The first was held in the winter of 1993 in Tampere, Finland, and the second was held in the summer of 1995 in Neos Marmaras, Greece.

The '97 workshop will continue the practice of being located at unique vacation spots. It will be held in the early Fall at Grand Hotel (http://www.grandhotel.com) on Mackinac Island in northern Michigan. The island is located in the Mackinac Straits, where Lake Michigan flows into Lake Huron. It is very scenic and has pleasantly warm, clear weather in September. It is unique in that no automobiles are allowed; all transportation on the island is by bicycle, foot, horse, or carriage. A wide variety of outdoor activities are available, and there are many

shops and historic sites to visit. The Grand Hotel is known for its luxurious accommodations and gourmet food.

#### WORKSHOP GOALS AND TOPICS:

The workshop will be a forum for the discussion of the most recent work in the area of nonlinear signal and image processing. Participation in the workshop will be by both invitation and by submission of papers.

The topics to be addressed are intended to cover the theory and application of nonlinear techniques in both signal and image processing. Specific topics addressed by previous NSIP workshops and included in this one are:

- Morphological signal/image processing and analysis
- Order statistic type filters: medians, weighted medians, LI filters, stack filters, etc.
- Volterra and general polynomial type filters
- Neuromorphic networks for signal processing
- Chaotic Systems
- Nonlinear circuits and signal processing
- Applications of nonlinear signal and image processing
- Implementation of nonlinear systems

### SPECIAL SESSIONS:

The following special sessions are being organized for the workshop. If you are interested in contributing to these sessions, please contact the indicated organizer via email.

- -- Nonlinear Models for Inverse Problems -- organized by Charlie Bouman (bouman@ecn.purdue.edu) and Ken Sauer (sauer.1@nd.edu) -- Design and Applications of Morphological Filters --
- Design and Applications of Morphological Filters -organized by Steve Marshall (s.marshall@eee.strath.ac.uk)
- -- Nonlinear Techniques in Image and Video Coding -- organized by Moncef Gabbouj (moncef@cs.tut.fi)
- -- Neuromorphic Systems -
- organized by Vwani Roychowdhuri (vwani@ee.ucla.edu)

### SPECIAL FEATURE OF NSIP'97 -- VIDEO ON THE WEB:

NSIP'95, which was chaired by Prof. loannis Pitas and held in Neos Marmaras, Greece, was the first workshop we are aware of to post the entire text of the workshop proceedings on the web. We will attempt to extend this innovation by capturing video of the talks at the workshop and posting them on the web along with the text of the workshop proceedings. Prof. Ed Delp of Purdue University has volunteered for the position of Video Coordinator for the workshop, and will be overseeing our efforts in this area. Be sure to attend the workshop to see if we can make this work.

# SCHEDULE FOR AUTHORS:

February 15, 1997 --> Submission of two-page summary March 30, 1997 --> Notification of acceptance June 15, 1997 --> Receipt of final five page manuscript

Your two page summary should be submitted to Prof. Edward J. Coyle at the address listed below. Please attach a cover sheet to your two page summary, and on this cover sheet please list the paper title, authors, and point of contact. Be sure to include the email addresses of all authors.

### REGISTRATION AND HOTEL COSTS:

The registration fee for the workshop will be \$320, and includes the banquet on the evening of the second day of the workshop. The hotel registration fees include a full breakfast and a gourmet dinner each day and start at \$140/night/person in a double room. Large rooms and suites are also available.

### TO SUBMIT A PAPER OR FOR FURTHER INFORMATION:

Prof. Edward J. Coyle TEL: +1 317 494 3470 Electrical and Computer Engr. FAX: +1 317 494 3358 1285 EE Building, Purdue Univ. EMAIL: coyle@purdue.edu West Lafayette, IN 47907-1285 http://www.ecn.purdue.edu/NSIP USA

Lastly, a conference that may of general interest to everyone in this day and age of the world wide web.

The complete WebNet 97 Call for Participation may be obtained by returning the information request form below or online at:

http://www.aace.org/conf/webnet

\* \* We b N e t 9 7 \*

\* \* World Conference of the WWW, Internet, and Intranet \*

\* \* Oct. 31-Nov 5, 1997 \* Toronto, CANADA \*

\* \* ANNOUNCEMENT / CALL FOR PARTICIPATION \*

\* \* Submission Deadline: March 7, 1997 \*

\* \* Papers \* Short Papers \* Panels \* Tutorials \*

\* Workshops \* Demonstrations \* Posters \*

\* Organized by \*

\* AACE \*

\* Association for the Advancement of Computing in Education \*

in cooperation WWW/Internet businesses & industry \*

### INVITATION

WebNet 97 -- The second World Conference of the WWW, Internet, and Intranet is an international conference, organized by the Association for the Advancement of Computing in Education (AACE) in cooperation WWW/Internet businesses & industry.

This annual conference serves as a multi-disciplinary forum for the exchange of information on the development, applications, and research on all topics related to the Web. This encompasses the use, applications and societal and legal aspects of the Internet in its broadest sense.

This conference is a must for all who plan to use the Internet to access information, communicate or conduct transactions or, who are currently running or planning to run servers on the Internet.

We invite you to attend the WebNet 97 conference and submit presentations proposals for papers, panels, tutorials, workshops, demonstrations/posters, and SIG discussions. All proposals are reviewed for inclusion in the conference program.

Major Topics include (but are not limited to):

Advances in Multimedia Application Development Tools **Authoring Tools** Browsing and Navigation Tools Computer-Human Interface (CHI) Issues Country Specific Developments Collaborative Learning and Work Courseware Development Data and Link Management Didactic Issues for Web Presentations Digital Libraries and Museums Distance Education **Educational Multimedia** Electronic Commerce Electronic Publishing and Design **Financial Transactions** Firewalls Future Issues in Web Technology Hardware and Software Technologies Industries and Services Integration of Web Applications and Services Interaction and Feedback International Issues and Developments JAVA Technology Applications Legal Issues Marketing Mobile Computing
Net-Based Multimedia/Hypermedia Systems Psychology of Web-Use Search Engines Security and Privacy Social and Cultural Issues Statistical Tools and User Tracking Teaching Teleworking The Web as Discussion Forum Virtual Reality Web Page Design Tools Web Servers

Web Site Tools

# The WebNet Annual Conference Is Unique:

First, WebNet takes a more general view of the topic than other WWW conferences, dealing with a variety of Internet applications, tools, issues, and research. Attendees are able to focus on the topics which interest and concern them, not someone else's agenda or primarily vendor presentations.

The WebNet conference complements existing other events such as the INET and WWW conferences. The organization of the former is, by definition, more concerned with providing global Internet services and the latter's organization is specifically oriented towards one particular system WWW and its technology.

Second, WebNet is not a trade show. After careful review, presentations are selected by the Program Committee based upon the value of the content for attendees. Participants learn what works and does not work from their peers.

Third, WebNet is a participatory event. While there will be leaders in the field as speakers, the conference enables participants to meet people and not just listen to them. Attendees are as important to WebNet as the formal speakers and, therefore, come to participate.

The WebNet conference series began in 1996 in San Francisco. WebNet 97 is the second in this series of internationally respected events. WebNet 98 is expected to be held in Hawaii.

++   WebNet 97 Deadlines     Submissions Due: March 7, 1997     Authors Notified: May 28, 1997     Camera Ready Copy Due: July 11, 1997     Early Registration: September 15, 1997   ++
Cut Here
INFORMATION REQUEST
To receive future WebNet 97 announcements, please complete this form and return to the address below.
Name:
Address:
City/State/Code:
Country:
E-Mail:
Please send me: WebNet 97 Conference Advance registration material Conference proceedings ordering information Brochure on Association for the Adv. of Computing in Ed. (AACE)
Return to: WebNet 97/AACE P.O. Box 2966 Charlottesville, VA 22902 USA E-mail: AACE@virginia.edu; 804-973-3987; Fax: 804-978-7449
That's all for now. Hope to receive plenty of GREC'97 submissions by March 1. Also, hope to hear from you about the contest announcement (please reply to me; do not try to reply to the TC10-list.)
Your TC10 chairman.
Atul K. Chhabra Phone: (914)644-2786 NYNEX Science & Technology Fax: (914)644-2561 500 Westchester Avenue Email: atul@nynexst.com

TC10 WWW URL: http://www.iapr-tc10or.kr/

White Plains, NY 10604, USA

TC10 News submissions and subscription requests to: atul@nynexst.com