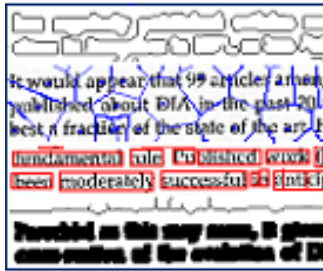




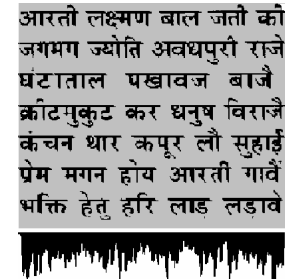
Summer School on Document Image Processing

June 2nd – 12th, 2008, Bangalore, India



Organized by
Medical Intelligence
and Language Engineering Laboratory,
Department of Electrical Engineering,
Indian Institute of Science, Bangalore.

Sponsored by
HP Labs India, Bangalore.



Indian Institute of Science, in its centenary year, is conducting a summer school on document image processing (SSDIP) in collaboration with and sponsored by HP Labs India. This school emphasizes practical implementation based learning. Document image processing has gained importance for creating seamless co-existence of the paper and the digital world. However, the literature and tools required are scattered across multiple research communities. This school brings together experts from across the world to share their research and knowledge through classroom and laboratory sessions. It also creates an avenue for graduate students to interact with researchers.

The first part of the school builds the necessary foundations in image processing and the second part focuses on document image analysis and recognition, including applications to Indian language documents. The lab exercises give hands-on training in implementing image processing algorithms. This school could be of immense value to anyone committed to a long-term career in image processing. Participants have an opportunity to have informal, evening meetings to identify potential research problems and define collaborative research projects.

Faculty

Prof. Prabir K Biswas

Indian Institute Technology, Kharagpur, India

Prof. George Nagy

Rensselaer Polytechnic Institute, NY, USA

Prof. R. Manmatha

University of Massachusetts, Amherst, USA

Prof. Russell M Mersereau

Georgia Institute of Technology, Atlanta, USA

Prof. A G Ramakrishnan

Indian Institute of Science, Bangalore, India

Prof. K R Ramakrishnan

Indian Institute of Science, Bangalore, India

Program Committee

Prof. A G Ramakrishnan, IISc, Bangalore

Prof. K R Ramakrishnan, IISc, Bangalore

Dr. R N V Sitaram, HP Labs, India

Dr. Serene Banerjee, HP Labs, India

Dr. Prasenjit Dey, HP Labs, India

Dr. Anbumani Subramanian, HP Labs, India

Mr. Suresh Sundaram, IISc, Bangalore

Mr. T Kasar, IISc, Bangalore

Dr. Peeta Basa Pati, FIC, Bangalore

Mr. S.Nousath, HP Labs, India

Mr. Kumar Raja, IISc, Bangalore

LAST DATE FOR APPLICATION: 10th April, 2008

Registration Details

Participants will be selected by a technical committee, consisting of academic and industrial researchers. The application form can be submitted online at: <http://ragashri.ee.iisc.ernet.in/ssdip>

Registration Fee

The registration fee is Rs.10,000/- (includes accommodation at the IISc campus, course material and computer lab facility).

✓ 50% discount for academic faculty

✓ 70% discount for students

Payment details will be communicated after selection.

Student Scholarships

A limited number of students will be offered complete scholarships based on merit, for the registration fee, train travel and accommodation.

Accommodation

Accommodation is on 'first-come first-served' basis. Single rooms are available for all participants.

Venue

Centre for Continuing Education, Indian Institute of Science, Bangalore 560012, India.

For any queries email us at ssdip@ragashri.ee.iisc.ernet.in mentioning your institution's name in subject line

Faculty Profiles

Prabir K Biswas is a Professor at the Department of Electronics & Electrical Communication Engineering at IIT Kharagpur. His research interests include Computer Vision, Fuzzy and Neural Computing, Parallel and Distributing Processing.

R Manmatha is a Research Associate Professor of Computer Science at the Center for Intelligent Information Retrieval (CIIR), University of Massachusetts, Amherst. His research interests are in the areas of retrieval of handwritten manuscripts, text detection in images, and image and video Retrieval.

Russell M Mersereau is a Professor of ECE at Georgia Tech. Dr. Mersereau is a Fellow of IEEE. His research interests include enhancement, modeling and coding of computerized images and video, and pattern recognition. He has been on the editorial boards of Proc of IEEE, IEEE Trans ASSP and SP Letters.

George Nagy is a Professor of Computer Engineering at Rensselaer Polytechnic Institute. He has held visiting appointments at Stanford, Cornell, Montreal, Genoa, AT&T and Lucent Bell Laboratories, IBM, McGill, Nevada among others. His research interests include optical character recognition (OCR), document image analysis, interactive visual recognition, geographic information systems and computational geometry, solid modelling, finite-precision spatial computation, and computer vision.

A G Ramakrishnan is an Associate Professor of Electrical Engineering at the Indian Institute of Science and is currently, the President of the Biomedical Engineering Society of India. In addition to medical image processing, his research interests include document analysis & recognition and speech synthesis, with particular reference to Indian languages.

K R Ramakrishnan is a Professor of Electrical Engineering at the Indian Institute of Science. His research interests include watermarking, content based multimedia information retrieval, compressed domain image processing and face recognition.

Tentative Program Schedule

Date\Time	9:00 to 10:30 hrs	11:00 to 12:30 hrs	14:00 to 15:30 hrs	16:00 to 17:30*hrs
Mon. 2 Jun. 08	Overview of DIP, CV and Applications	Sampling theorem, connectivity, neighbourhood, histogram processing	Data structures for image analysis, file formats	Lab 1
Tue. 3 Jun. 08	Spatial domain filtering	Orthonormal Transforms	Lab 2	Lab 2
Wed. 4 Jun. 08	DCT, DFT, KLT	Wavelets, Gabor	Lab 3	Lab 3
Thu. 5 Jun. 08	Image compression	Shape descriptors	Lab 4	Lab 4
Fri. 6 Jun. 08	Morphology	Image segmentation	Lab 5	Lab 5
Sat. 7 Jun. 08	Image restoration	Color image processing	Lab 6	Lab 6
Mon. 9 Jun. 08	State of the art of document image processing	Review of pattern recognition basics	Project Work	Project Work
Tue. 10 Jun. 08	OCR: Layout analysis & pre processing	Printed text recognition	Project Work	Project Work
Wed. 11 Jun. 08	Application (form/logo/barcode/map/other)	Document retrieval, word spotting, digital libraries	Project Work	Project Work
Thu. 12 Jun. 08	Camera based document analysis: 1	Camera based document analysis: 2	Project Work	Concluding Session

*Lab will be open until 20:00 hrs.

Tea Break: 10:30 to 11:00 hrs; 15:30 to 16:00 hrs

Lunch: 12:30 to 14:00 hrs

For more information please visit <http://ragashri.ee.iisc.ernet.in/ssdip>