

Document Recognition and Retrieval XXI

Wednesday - Thursday 5 - 6 February 2014

Conference Sessions At A Glance

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Plenary Session and Society Award Presentations
Symposium Demonstration Session
Plenary Session and Conference Award Presentations
Interactive Paper Session-Wednesday

- 1: Handwriting
- 2: Form Classification
- 3: Invited Presentation I
- 4: Text Recognition
- 5: Handwritten Text Line Segmentation
- 6: Invited Presentation II
- 7: Layout Analysis
- 8: Information Retrieval
- 9: Data Sets and Ground-Truthing

Panel Discussion: Data Sets and Ground-Truthing

Important Dates

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Abstract Due:
22 July 2013

Author Notification:
7 October 2013

Manuscript Due Date:
25 November 2013

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TUESDAY 4 FEBRUARY

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Session Plen1: Plenary Session and Society Award Presentations

Tuesday 4 February 2014

8:30 AM - 9:50 AM


Location: Continental Ballroom 5

Using fMRI To Reverse Engineer the Human Visual System (Plenary Presentation)

Paper 9011-301

Time: 8:30 AM - 9:15 AM

Author(s): Jack L. Gallant, Univ. of California, Berkeley (United States)

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Symposium Demonstration Session

Tuesday 4 February 2014

5:30 PM - 7:30 PM

Location: Continental Ballroom 4

A symposium-wide demonstration session will be open to attendees 5:30 to 7:30 pm Tuesday evening. Demonstrators will provide interactive, hands-on demonstrations of a wide-range of products related to Electronic Imaging.

WEDNESDAY 5 FEBRUARY

[Show All Abstracts](#)

Session Plen2: Plenary Session and Conference Award Presentations

Wednesday 5 February 2014

8:30 AM - 9:50 AM


Location: Continental Ballroom 5

Integrated Imaging: Creating Images from the Tight Integration of Algorithms, Computation, and Sensors (Plenary Presentation)

Paper 9011-300

Time: 8:30 AM - 9:15 AM

Author(s): Charles A. Bouman, Purdue Univ. (United States)

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Session PWed: Interactive Paper Session-Wednesday

Wednesday 5 February 2014

9:50 AM - 11:10 AM

Location: Continental Ballroom and Golden Gate Level Foyers


Interactive papers will be placed on display after 8:30 am on Wednesday. An interactive paper session, with authors present at their papers, will be held Wednesday morning, 9:50 to 11:10 am. Refreshments will be served.

Two-stage approach to keyword spotting in handwritten documents

Paper 9021-24

Time: 9:50 AM - 11:10 AM

Author(s): Mehdi Haji, IMDS Software (Canada), Concordia Univ. (Canada); Mohammad R. Ameri, Concordia University (Canada); Tien D. Bui, Ching Y. Suen, Concordia Univ. (Canada); Dominique Ponson, IMDS Software (Canada)


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Extraction and labeling high-resolution images from PDF documents

Paper 9021-25

Time: 9:50 AM - 11:10 AM

Author(s): Suchet K. Chachra, Zhiyun Xue, Sameer Antani, Dina Demner-Fushman, George R. Thoma, National Library of Medicine (United States)


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Structure analysis for plane geometry figures

Paper 9021-26

Time: 9:50 AM - 11:10 AM

Author(s): Tianxiao Feng, Xiaoqing Lu, Lu Liu, Keqiang Li, Zhi Tang, Peking Univ. (China)


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On-line signature verification method by Laplacian spectral analysis and dynamic time warping

Paper 9021-27

Time: 9:50 AM - 11:10 AM

Author(s): Changting Li, Liangrui Peng, Changsong Liu, Xiaoqing Ding, Tsinghua Univ. (China)


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A slant removal technique for document page

Paper 9021-28

Time: 9:50 AM - 11:10 AM

Author(s): Ergina Kavallieratou, Univ. of the Aegean (Greece)


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Robust binarization of degraded document images using heuristics

Paper 9021-30

Time: 9:50 AM - 11:10 AM

Author(s): Jon Parker, Georgetown Univ. (United States), Johns Hopkins Univ. (United States); Ophir Frieder, Gideon Frieder, Georgetown Univ. (United States)


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A machine learning based lecture video segmentation and indexing algorithm

Paper 9021-31

Time: 9:50 AM - 11:10 AM

Author(s): Di Ma, Bingqing Xie, Gady Agam, Illinois Institute of Technology (United States)

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Session 1: Handwriting

Wednesday 5 February 2014

11:10 AM - 12:30 PM

Location: Golden Gate 8


Session Chair: Eric K. Ringger, Brigham Young Univ. (United States)

Writer identification on historical Glagolitic documents

Paper 9021-1

Time: 11:10 AM - 11:30 AM

Author(s): Stefan Fiel, Fabian Hollaus, Melanie Gau, Robert Sablatnig, Technische Univ. Wien (Austria)


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Probabilistic modeling of children's handwriting

Paper 9021-2

Time: 11:30 AM - 11:50 AM

Author(s): Mukta Puri, Sargur N. Srihari, Univ. at Buffalo (United States); Lisa Hanson, Bureau of Criminal Apprehension Laboratory (United States)


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Variational dynamic background model for keyword spotting in handwritten documents

Paper 9021-3

Time: 11:50 AM - 12:10 PM

Author(s): Gaurav Kumar, Univ. at Buffalo (United States); Safwan Wshah, Xerox Corp. (United States); Venu Govindaraju, Univ. at Buffalo (United States)


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Boosting bonsai trees for handwritten/printed text discrimination

Paper 9021-4

Time: 12:10 PM - 12:30 PM

Author(s): Yann Ricquebourg, Christian Raymond, Baptiste Poirriez, IRISA / INRIA de Rennes (France); Aurélie Lemaitre, IRISA, Univ. de Rennes 2 (France); Bertrand Couasnon, IRISA / INRIA de Rennes (France)

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Lunch Break 12:30 PM - 2:10 PM

Session 2: Form Classification

Wednesday 5 February 2014

2:10 PM - 2:50 PM

Location: Golden Gate 8


Session Chair: [Gady Agam](#), Illinois Institute of Technology (United States)

Form similarity via Levenshtein distance between ortho-filtered logarithmic ruling-gap ratios

Paper 9021-5

Time: 2:10 PM - 2:30 PM

Author(s): George Nagy, Rensselaer Polytechnic Institute (United States); Daniel P. Lopresti, Lehigh Univ. (United States)


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Form classification and retrieval using bag of words with shape features of line structures

Paper 9021-6

Time: 2:30 PM - 2:50 PM

Author(s): Florian Kleber, Markus Diem, Robert Sablatnig, Technische Univ. Wien (Austria)

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Session 3: Invited Presentation I

Wednesday 5 February 2014

2:50 PM - 3:40 PM

Location: Golden Gate 8

Session Chair: Bertrand Couasnon, Institut National des Sciences Appliquées de Rennes (France)

OCR for Google Books (*Invited Paper*)

Paper 9021-7

Time: 2:50 PM - 3:40 PM

Author(s): Ray Smith, Ashok Popat, Google (United States)

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Coffee Break 3:40 PM - 4:10 PM

Session 4: Text Recognition

Wednesday 5 February 2014

4:10 PM - 5:10 PM

Location: Golden Gate 8


Session Chair: [Sameer Antani](#), National Library of Medicine (United States)

Utilizing web data in identification and correction of OCR errors

Paper 9021-8

Time: 4:10 PM - 4:30 PM

Author(s): Kazem Taghva, Shivam Agarwal, Univ. of Nevada, Las Vegas (United States)


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How well does multiple OCR error correction generalize?

Paper 9021-9

Time: 4:30 PM - 4:50 PM

Author(s): William B. Lund, Eric K. Ringger, Brigham Young Univ. (United States); Daniel D. Walker, Microsoft Corp. (United States)


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Video text localization using wavelet and shearlet transforms

Paper 9021-10

Time: 4:50 PM - 5:10 PM

Author(s): Purnendu Banerjee, Bidyut B. Chaudhuri, Indian Statistical Institute (India)

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Session 5: Handwritten Text Line Segmentation

Thursday 6 February 2014

8:50 AM - 9:30 AM

Location: Golden Gate 8


Session Chair: [Elisa H. Barney Smith](#), Boise State Univ. (United States)

A Markov chain based line segmentation framework for handwritten character recognition

Paper 9021-11

Time: 8:50 AM - 9:10 AM

Author(s): Yue Wu, Shengxin Zha, Huaigu Cao, Daben Liu, Raytheon BBN Technologies (United States); Premkumar Natarajan, The Univ. of Southern California (United States)


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Handwritten text segmentation using blurred image

Paper 9021-12

Time: 9:10 AM - 9:30 AM

Author(s): Aurélie Lemaitre, IRISA, Univ. Rennes 2 (France); Jean Camillerapp, IRISA / INRIA Rennes (France); Bertrand Couasnon, IRISA / INRIA de Rennes (France)

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Session 6: Invited Presentation II

Thursday 6 February 2014

9:30 AM - 10:20 AM

Location: Golden Gate 8


Session Chair: Eric K. Ringger, Brigham Young Univ. (United States)

What makes big visual data hard? (Invited Paper)

Paper 9021-13

Time: 9:30 AM - 10:20 AM

Author(s): Alexei (Alyosha) Efros, Univ. of California, Berkeley (United States)

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Coffee Break 10:20 AM - 10:50 AM

Session 7: Layout Analysis

Thursday 6 February 2014

10:50 AM - 12:30 PM

Location: Golden Gate 8


Session Chair: [Daniel P. Lopresti](#), Lehigh Univ. (United States)

Optical music recognition on the International Music Score Library Project

Paper 9021-14

Time: 10:50 AM - 11:10 AM

Author(s): Christopher S. Raphael, Rong Jin, Indiana Univ. (United States)


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Document flow segmentation for business applications

Paper 9021-15

Time: 11:10 AM - 11:30 AM

Author(s): Daher Hani, Abdel Belaïd, LORIA (France), Univ. de Lorraine (France)


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LearnPos: a new tool for interactive learning positioning

Paper 9021-16

Time: 11:30 AM - 11:50 AM

Author(s): Cérés Carton, IRISA / INRIA Rennes (France); Aurélie Lemaitre, IRISA / Univ. Rennes 2 (France); Bertrand Couasnon, IRISA / INRIA de Rennes (France)


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Document page structure learning for fixed-layout e-books using conditional random fields

Paper 9021-17

Time: 11:50 AM - 12:10 PM

Author(s): Xin Tao, Zhi Tang, Canhui Xu, Peking Univ. (China)


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Automatic comic page image understanding based on edge segment analysis

Paper 9021-18

Time: 12:10 PM - 12:30 PM

Author(s): Dong Liu, Yongtao Wang, Zhi Tang, Luyuan Li, Liangcai Gao, Peking Univ. (China)

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Lunch Break 12:30 PM - 2:10 PM

Session 8: Information Retrieval

Thursday 6 February 2014

2:10 PM - 3:30 PM

Location: Golden Gate 8


Session Chair: [Xiaofan Lin](#), A9.com, Inc. (United States)

Scalable ranked retrieval using document images

Paper 9021-19

Time: 2:10 PM - 2:30 PM

Author(s): Rajiv Jain, Douglas Oard, David Doermann, Univ. of Maryland, College Park (United States)


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A contour-based shape descriptor for biomedical image classification and retrieval

Paper 9021-20

Time: 2:30 PM - 2:50 PM

Author(s): Daekeun You, Sameer Antani, Dina Demner-Fushman, George R. Thoma, National Library of Medicine (United States)


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Semi-automated document image clustering and retrieval

Paper 9021-21

Time: 2:50 PM - 3:10 PM

Author(s): Markus Diem, Florian Kleber, Stefan Fiel, Robert Sablatnig, Technische Univ. Wien (Austria)


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Fast structural matching for document image retrieval through spatial databases

Paper 9021-22

Time: 3:10 PM - 3:30 PM

Author(s): Hongxing Gao, Maçal Rusiñol, Dimosthenis Karatzas, Josep Lladós, Univ. Autònoma de Barcelona (Spain)

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Coffee Break 3:30 PM - 4:00 PM

Session 9: Data Sets and Ground-Truthing

Thursday 6 February 2014

4:00 PM - 4:20 PM

Location: Golden Gate 8


Session Chairs: Bertrand Couasnon, Institut National des Sciences Appliquées de Rennes (France); Eric K. Ringger, Brigham Young Univ. (United States)

The Lehigh Steel Collection: a new open dataset for document recognition research

Paper 9021-23

Time: 4:00 PM - 4:20 PM

Author(s): Barri Bruno, Daniel P. Lopresti, Lehigh Univ. (United States)

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Session Panel: Panel Discussion: Data Sets and Ground-Truthing

Thursday 6 February 2014

4:20 PM - 5:00 PM

Location: Golden Gate 8
