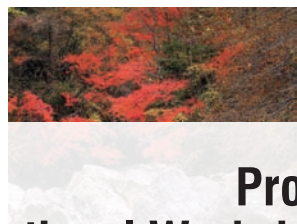
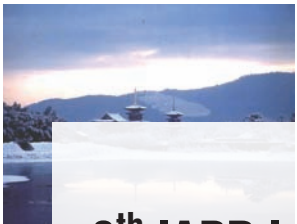


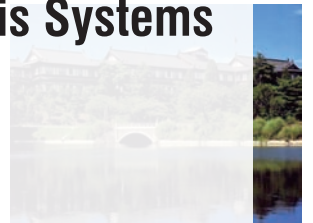
DAS2008 Program



Program of 8th IAPR International Workshop on Document Analysis Systems

September 16-19, 2008

Nara Prefectural New Public Hall, Nara, Japan



Workshop Co-Chairs: Koichi Kise and Hiroshi Sako

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USEFUL PHONE NUMBERS

Nara Prefectural New Public Hall:	0742-27-2630 (From overseas: +81-742-27-2630)
Hotel Nikko Nara:	0742-35-8831 (From overseas: +81-742-35-8831)
Sun Hotel Nara:	0742-25-2111 (From overseas: +81-742-25-2111)
Fire/Ambulance:	119
Police:	110

TIMETABLE

	Tue, Sep. 16	Wed, Sep. 17	Thu, Sep. 18	Fri, Sep. 19
9:00		Opening (9:00-9:10) Keynote 1 (9:10-10:10) Prof. Rangachar Kasturi	Keynote 2 (9:00-10:00) Prof. Toshiro Kamiuchi	Oral 5 (9:00-10:20) Document Analysis Systems
10:00		Noh Theater	Noh Theater	Noh Theater
		Break (10:10-10:30)	Break (10:00-10:30)	Break (10:20-10:50)
11:00		Oral 1 (10:30-11:50) Character Detection and Recognition	Oral 4 (10:30-11:50) Historical and Handwriting Documents	Poster & Demo 2 (10:50-12:10)
		Noh Theater	Noh Theater	
12:00		Lunch (11:50-12:50)	Grouping (11:50-12:00) Lunch (12:00-13:00)	Reception Hall Lunch (12:10-13:10)
		Reception Hall	Reception Hall	Reception Hall
13:00	Tutorial 1 (13:00-15:00) Prof. Dr. Thomas Breuel	Poster & Demo 1 (12:50-14:10)	Discussion (13:00-14:30)	Oral 6 (13:10-14:30) Document Image Processing and Enhancement
14:00		Reception Hall	Conference Room 1&2	Noh Theater
		Break (14:10-14:40)	Bus Transportation (14:30-15:20)	Break (14:30-15:00)
15:00	Room Yuri (Hotel Nikko Nara 5F) Break (15:00-15:30)	Oral 2 (14:40-16:00) Layout Analysis and Super-Resolution		Reports of Discussion Groups (15:00-15:50)
		Noh Theater	Excursion (15:20-17:00)	Noh Theater
16:00	Tutorial 2 (15:30-17:30) Prof. Apostolos Antonacopoulos	Break (16:00-16:20)		Concluding Remarks (15:50-16:00)
		Oral 3 (16:20-17:40) Document Categorization and Indexing	Horyu-ji	
17:00	Room Yuri (Hotel Nikko Nara 5F) Break (17:30-18:00)	Noh Theater	Bus Transportation (17:00-17:40)	
18:00	Welcome Reception (18:00-19:30)		Shower Break (17:40-19:00)	
19:00	Room Hiten (Hotel Nikko Nara 5F)		Banquet (19:00-21:30)	
20:00				
21:00			Room Hiten (Hotel Nikko Nara 5F)	
22:00				

PROGRAM

Keynotes

9:10—10:10 / Wednesday, September 17

Keynote 1	Extraction of Text Objects in Video Documents: Recent Progress <i>Rangachar Kasturi</i>
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9:00—10:00 / Thursday, September 18

Keynote 2	Digital Renaissance—Making Archives, Sharing Wisdoms and Creating Values <i>Toshiro Kamiuchi</i>
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Tutorials

13:00—15:00 / Tuesday, September 16

Tutorial 1	Statistical and Adaptive OCR—a Hands-On Tutorial with OCRopus <i>Thomas Breuel</i>
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15:30—17:30 / Tuesday, September 16

Tutorial 2	Unlocking the World's Knowledge: The Analysis of Historical Documents <i>Apostolos Antonacopoulos</i>
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Oral Sessions

Oral 1: Character Detection and Recognition

Chairs: Horst Bunke and Masayuki Okamoto

10:30—10:50	A Hilbert Warping Algorithm for Recognizing Characters from Moving Camera <i>Hiroyuki Ishida, Ichiro Ide, Hiroshi Murase, and Tomokazu Takahashi</i>
10:50—11:10	Writer Verification of Arabic Handwriting <i>Sargur N. Srihari and Gregory R. Ball</i>
11:10—11:30	A Robust System to Detect and Localize Texts in Natural Scene Images <i>Yi-Feng Pan, Xinwen Hou, and Cheng-Lin Liu</i>
11:30—11:50	An Image Based Watermark String Detection System for Document Security Checking <i>Jun Sun, Yusaka Fujii, Hiroaki Takebe, Katsuhito Fujimoto, and Satoshi Naoi</i>

Oral 2: Layout Analysis and Super-Resolution

Chairs: Abdel Belaïd and Masakazu Iwamura

14:40—15:00	Feature Extraction for Document Image Segmentation by pLSA Model <i>Takuma Yamaguchi and Minoru Maruyama</i>
15:00—15:20	Grouping Text Lines in Online Handwritten Japanese Documents by Combining Temporal and Spatial Information <i>Xiang-Dong Zhou, Da-Han Wang, and Cheng-Lin Liu</i>
15:20—15:40	Accurate Alignment of Double-Sided Manuscripts for Bleed-Through Removal <i>Jie Wang, Michael S. Brown, and Chew Lim Tan</i>
15:40—16:00	Super-Resolution of Text Images Using Edge-Directed Tangent Field <i>Jyotirmoy Banerjee and C.V. Jawahar</i>

September 17

September 17

Oral 3: Document Categorization and Indexing Chairs: Dan Lopresti and Seiichi Uchida	
September 17	16:20—16:40 Attention-Based Document Classifier Learning <i>Georg Buscher and Andreas Dengel</i>
	16:40—17:00 Categorization of On-Line Handwritten Documents <i>Sebastián Peña Saldarriaga, Emmanuel Morin, and Christian Viard-Gaudin</i>
	17:00—17:20 Combining Multiple Methods for Book Indexing <i>Hervé Déjean and Jean-Luc Meunier</i>
	17:20—17:40 Automated OCR Ground Truth Generation <i>Joost van Beusekom, Faisal Shafait, and Thomas M. Breuel</i>
Oral 4: Historical and Handwriting Documents Chairs: Venugopal Govindaraju and Shinichiro Omachi	
September 18	10:30—10:50 STATE: A Multimodal Assisted Text-Transcription System for Ancient Documents <i>Albert Gordo, David Llorens, Andrés Marzal, Federico Prat, and Juan Miguel Vilar</i>
	10:50—11:10 Authorship Identification of Ukiyoe by Using Rakkan Image <i>Shun Hirose, Mitsu Yoshimura, Kozaburo Hachimura, and Ryo Akama</i>
	11:10—11:30 Writer-Dependent Recognition of Handwritten Whiteboard Notes in Smart Meeting Room Environments <i>Marcus Liwicki, Andreas Schlapbach, and Horst Bunke</i>
	11:30—11:50 Shape Code Based Lexicon Reduction for Offline Handwritten Word Recognition <i>Roman Bertolami, Christoph Gutmann, Horst Bunke, and A. Lawrence Spitz</i>
Oral 5: Document Analysis Systems Chairs: Andreas Dengel and Hisashi Ikeda	
September 19	9:00— 9:20 A Document Analysis System for Supporting Electronic Voting Research <i>Daniel Lopresti, George Nagy, and Elisa Barney Smith</i>
	9:20— 9:40 An End-to-End Administrative Document Analysis System <i>Hatem Hamza, Yolande Belaid, Abdel Belaid, and Bidyut B. Chaudhuri</i>
	9:40—10:00 Re-Targetable OCR with Intelligent Character Segmentation <i>Mudit Agrawal and David Doermann</i>
	10:00—10:20 Symbol Descriptor Based on Shape Context and Vector Model of Information Retrieval <i>T.-O. Nguyen, S. Tabbone, O. Ramos Terrades</i>
Oral 6: Document Image Processing and Enhancement Chairs: Simone Marinai and Shuji Senda	
September 19	13:10—13:30 Skew Estimation by Instances <i>Seiichi Uchida, Megumi Sakai, Masakazu Iwamura, Shinichiro Omachi, and Koichi Kise</i>
	13:30—13:50 A Two-Step Dewarping of Camera Document Images <i>Nikolaos Stamatopoulos, Basilis Gatos, Ioannis Pratikakis, and Stavros J. Perantonis</i>
	13:50—14:10 An Objective Evaluation Methodology for Document Image Binarization Techniques <i>Konstantinos Ntirogiannis, Basilis Gatos, and Ioannis Pratikakis</i>
	14:10—14:30 Contrast Enhancement in Multispectral Images by Emphasizing Text Regions <i>Martin Lettner, Florian Kleber, Robert Sablatnig, and Heinz Miklas</i>

Poster Sessions

Character Recognition

- ♠P1 Affine Invariant Recognition of Characters by Progressive Pruning
Akira Horimatsu, Ryo Niwa, Masakazu Iwamura, Koichi Kise, Seiichi Uchida, and Shinichiro Omachi
- ♥P2 Detecting Gradients in Text Images Using the Hough Transform
Dimosthenis Karatzas
- ♠P3 Multi-Font Rotated Character Recognition Using Periodicity
Hiroyuki Hase, Kohei Tanabe, Thi Hong Ha Tran, and Shogo Tokai

Character and Text Segmentation and Extraction

- ♥P4 Difference of Boxes Filters Revisited: Shadow Suppression and Efficient Character Segmentation
Erik Rodner, Herbert Ssse, Wolfgang Ortmann, and Joachim Denzler
- ♠P5 Segmentation of Curled Textlines Using Active Contours
Syed Saqib Bukhari, Faisal Shafait, and Thomas M. Breuel
- ♥P6 Kanji Character Detection from Complex Real Scene Images Based on Character Properties
Lianli Xu, Hiroto Nagayoshi, and Hiroshi Sako
- ♠P7 A Hybrid System for Text Detection in Video Frames
Marios Anthimopoulos, Basilis Gatos, and Ioannis Pratikakis
- ♥P8 A Study for High Performance Character Extraction from Color Scene Images
Keiichiro Shirai, Masanori Wakabayashi, Masayuki Okamoto, and Hiroaki Yamamoto
- ♠P9 Word Extraction Method by Generating Multiple Character Hypotheses
Hiroaki Takebe and Katsuhito Fujimoto
- ♥P10 An Efficient Edge Based Technique for Text Detection in Video Frames
Palaiahnakote Shivakumara, Weihua Huang, and Chew Lim Tan
- ♠P11 Multi-Oriented English Text Line Extraction Using Background and Foreground Information
Partha Pratim Roy, Umapada Pal, Josep Llads, and Fumitaka Kimura
- ♥P12 Text String Extraction from Scene Image Based on Edge Feature and Morphology
Yuming Wang and Naoki Tanaka
- ♠P13 Accuracy Improvement and Objective Evaluation of Annotation Extraction from Printed Documents
Tomohiro Nakai, Kazumasa Iwata, and Koichi Kise

Handwriting

- ♥P14 Multi-Oriented Text Line Extraction from Handwritten Arabic Documents
Nazih Ouwayed and Abdel Belaid
- ♠P15 Writer Identification in Old Handwritten Music Scores
Alicia Forns, Josep Llads, Gemma Snchez, and Horst Bunke
- ♥P16 An Expansion Method for Off-Line Hand-Printed Character Recognition Using On-Line Character Writing Features
Hiromitsu Nishimura and Kazuhisa Yanaka
- ♠P17 A Model-Based Field Frame Detection for Handwritten Filled-in Forms
Juan-Carlos Perez-Cortes, Luis Andreu, and Joaquim Arlandis
- ♠P18 Lexicon Reduction in Handwriting Recognition Using Topic Categorization
Faisal Farooq, Gaurav Chandalia, and Venu Govindaraju

Layout Analysis	
♠P19	Truthing for Pixel-Accurate Segmentation <i>Michael A. Moll, Henry S. Baird, and Chang An</i>
♥P20	On the Reading of Tables of Contents <i>Prateek Sarkar and Eric Saund</i>
♠P21	Unsupervised Decomposition of Color Document Images by Projecting Colors to A Spherical Surface <i>Yuan He, Jun Sun, Satoshi Naoi, Yusaku Fujii, and Katsuhito Fujimoto</i>
♥P22	Fast and Accurate Skew Estimation Based on Distance Transform <i>Itay Bar-Yosef, Nate Hagbi, Klara Kedem, and Itshak Dinstein</i>
♠P23	Physical Layout Segmentation of Mail, Application Dedicated to Automatic Postal Sorting System <i>Djamel Gaceb, Véronique Eglin, Frank Lebourgeois, and Hubert Emptoz</i>
♥P24	Structural Mixtures for Statistical Layout Analysis <i>Faisal Shafait, Joost van Beusekom, Daniel Keysers, and Thomas M. Breuel</i>
♠P25	A Study on Document Structure Recognition of Discharge Summaries for Analogous Case Search System <i>Hiroharu Kawanaka, Yujiro Shiroyama, Shinji Tsuruoka, Tsuyoshi Shinogi, and Koji Yamamoto</i>
♥P26	A Fast Preprocessing Method for Table Boundary Detection: Narrowing Down the Sparse Lines Using Solely Coordinate Information <i>Ying Liu, Prasenjit Mitra, and C. Lee Giles</i>
♠P27	Pre-Printed and Hand-Filled Table-Form Analysis Aiming Cell Extraction <i>Rafaela Dandolini Felipe and Luiz Antonio Pereira Neves</i>
Image Processing	
♥P28	Efficient Binarization of Historical and Degraded Document Images <i>B. Gatos, I. Pratikakis, and S.J. Perantonis</i>
♠P29	A Graphics Image Processing System <i>Linlin Li and Chew Lim Tan</i>
♥P30	A Proposal of Evaluation Method for Balance of White Space in Calligraphy by Using Horizon View Camera <i>Kensuke Tobitani, Nobuyasu Okabe, Kazuhiko Yamamoto, and Kunihito Kato</i>
Document Image Enhancement	
♠P31	Anisotropic Total Variation Method for Text Image Super-Resolution <i>Battulga Bayarsaikhan, Younghee Kwon, and Jin Hyung Kim</i>
♥P32	CCD: Connected Component Descriptor for Robust Mosaicing of Camera-Captured Document Images <i>T. Kasar and A. G. Ramakrishnan</i>
Object Extraction and Recognition	
♠P33	Word and Symbol Spotting Using Spatial Organization of Local Descriptors <i>Marçal Rusiñol and Josep Lladós</i>
♥P34	Performance Evaluation of Symbol Recognition and Spotting Systems: An Overview <i>Mathieu Delalandre, Ernest Valveny and Josep Lladós</i>
♠P35	Object Extraction from Colour Cadastral Maps <i>Romain Raveaux, Jean-Christophe Burie, and Jean-Marc Ogier</i>

Historical Documents	
♥P36	HistoSketch: A Semi-Automatic Annotation Tool for Archival Documents <i>Joan Mas, José A. Rodríguez, Dimosthenis Karatzas, Gemma Sánchez, and Josep Lladós</i>
♠P37	A Complete Optical Character Recognition Methodology for Historical Documents <i>G.Vamvakas, B.Gatos, N. Stamatopoulos, and S.J.Perantonis</i>
♥P38	Document Image Retrieval to Support Reading Mekkans <i>Akihito Kitadai, Jun Takakura, Masatoshi Ishikawa, Masaki Nakagawa, Hajime Baba, and Akihiro Watanabe</i>
♠P39	Keyword Matching in Historical Machine-Printed Documents Using Synthetic Data, Word Portions and Dynamic Time Warping <i>Thomas Konidakis, Basilis Gatos, Stavros J. Perantonis, and Anastasios Kesidis</i>
Mathematical Documents	
♥P40	A Large-Scale Analysis of Mathematical Expressions for an Accurate Understanding of Their Structure <i>Walaa Aly, Seiichi Uchida, and Masakazu Suzuki</i>
♠P41	An Empirical Measure on the Set of Symbols Occurring in Engineering Mathematics Texts <i>Stephen M. Watt</i>
Text Processing	
♥P42	Named Entity Recognition by Neural Sliding Window <i>Ignazio Gallo, Elisabetta Binaghi, Moreno Carullo, and Nicola Lamberti</i>
♠P43	Exploring Evolutionary Technical Trends from Academic Research Papers <i>Teng-Kai Fan and Chia-Hui Chang</i>
Document Analysis Systems	
♥P44	PaperDiff: A Script Independent Automatic Method for Finding The Text Differences Between Two Document Images <i>Sitaram Ramachandrupa, Gopal Datt Joshi, Noushath.S, Pulkit Parikh, and Vishal Gupta</i>
♠P45	The HCI Paradigm of HyperPrinting <i>Thomas Kieninger and Andreas Dengel</i>
♥P46	MathBrush: A System for Doing Math on Pen-Based Devices <i>George Labahn, Edward Lank, Scott MacLean, Mirette Marzouk, and David Tausky</i>
♠P47	End-to-End Trainable Thai OCR System Using Hidden Markov Models <i>Kriste Krstovski, Ehry MacRostie, Rohit Prasad, and Premkumar Natarajan</i>
♥P48	Comprehensive Global Typography Extraction System for Electronic Book Documents <i>Liangcai Gao, Zhi Tang, Xiaofan Lin, and Ruiheng Qiu</i>
♠P49	Digital Ink to Form Alignment for Electronic Clipboard Devices <i>Jagannadan Varadarajan and Sriganesh Madhvanath</i>
♥P50	Towards Whole-Book Recognition <i>Pingping Xiu and Henry S. Baird</i>
♠P51	Handling of Surface Modifications for Robust Image Based Mail Piece Comparison <i>Katja Worm and Beate Meffert</i>
♥P52	Dolores: An Interactive and Class-Free Approach for Document Logical Restructuring <i>Jean-Luc Bloechle, Catherine Pugin, and Rolf Ingold</i>

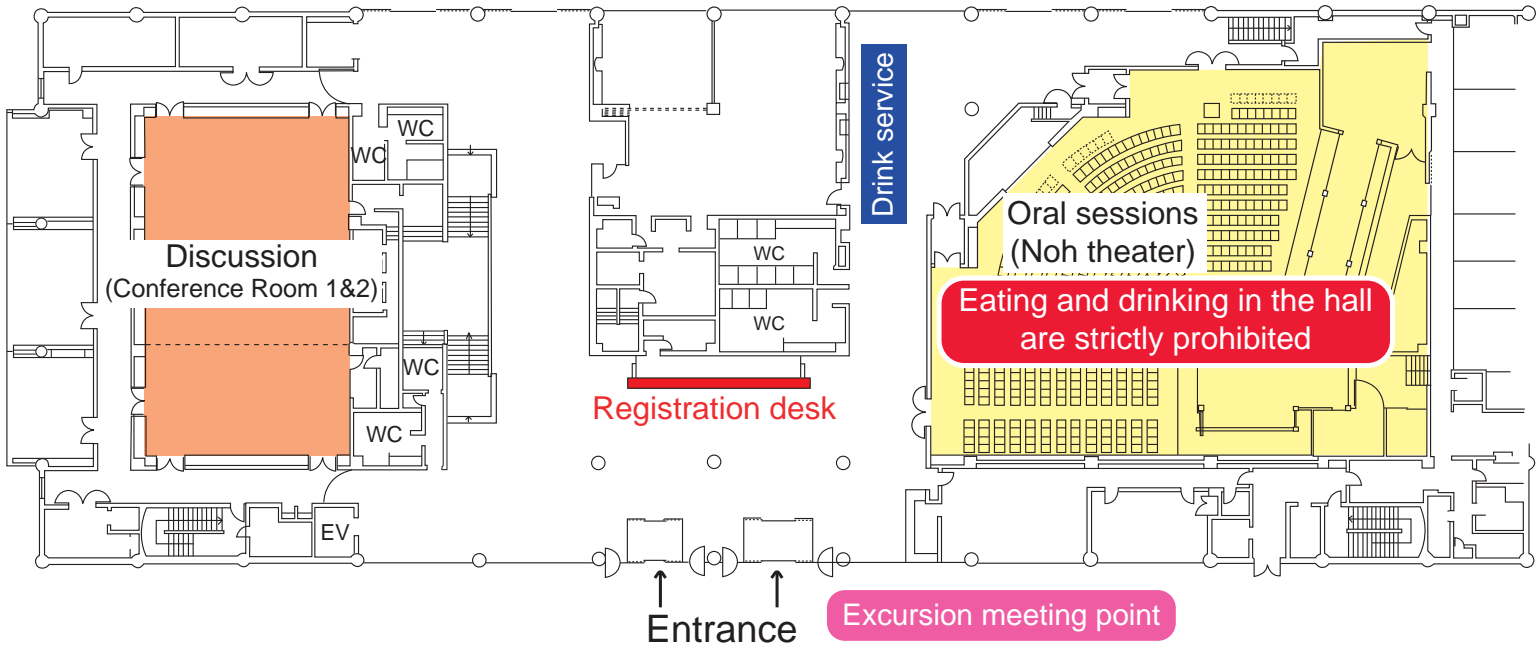
Theories	
♥P54	The Convergence of Iterated Classification <i>Chang An and Henry S. Baird</i>
♠P55	A Comparison of Clustering Methods for Word Image Indexing <i>Simone Marinai, Emanuele Marino, and Giovanni Soda</i>
♥P56	New Oversampling Approaches Based on Polynomial Fitting for Imbalanced Data Sets <i>Sami Gazzah and Najoua Essoukri Ben Amara</i>
Extended Abstracts	
♠P57	Pen and Paper-Based Interaction with the Semantic Desktop <i>Marcus Liwicki, Kinga Schumacher, Andreas Dengel, Nadir Weibel, Beat Signer, and Moira C. Norrie</i>
♥P58	Compound Document Image Compression with Unified Coder <i>Kenneth K. C. Lee and Y. K. Chan</i>
♠P59	A Study on Signboard Image Identification with SIFT Features <i>Hiroshi Yoshida and Naoki Tanaka</i>
♥P60	An Identification Method for Printed European Address Images <i>Tatsuo Akiyama, Katsuhiko Kondoh, and Daisuke Nishiwaki</i>
♠P61	Logical Structure Understanding of PDF Documents for Generating Business Document Templates <i>Masakazu Fujio, Katsumi Marukawa, Hiroshi Shinjo, Takeshi Nagasaki, Minenobu Seki, and Hisashi Ikeda</i>
♥P62	A Manually Annotated HTML Corpus for a Novel Scientific Trend Analysis <i>Richárd Farkas, Róbert Ormándi, Márk Jelasity, and János Csirik</i>
♠P63	Extracting Precise Data from PDF Documents for Mathematical Formula Recognition <i>Josef B. Baker, Alan P. Sexton, and Volker Sorge</i>

Demo Sessions

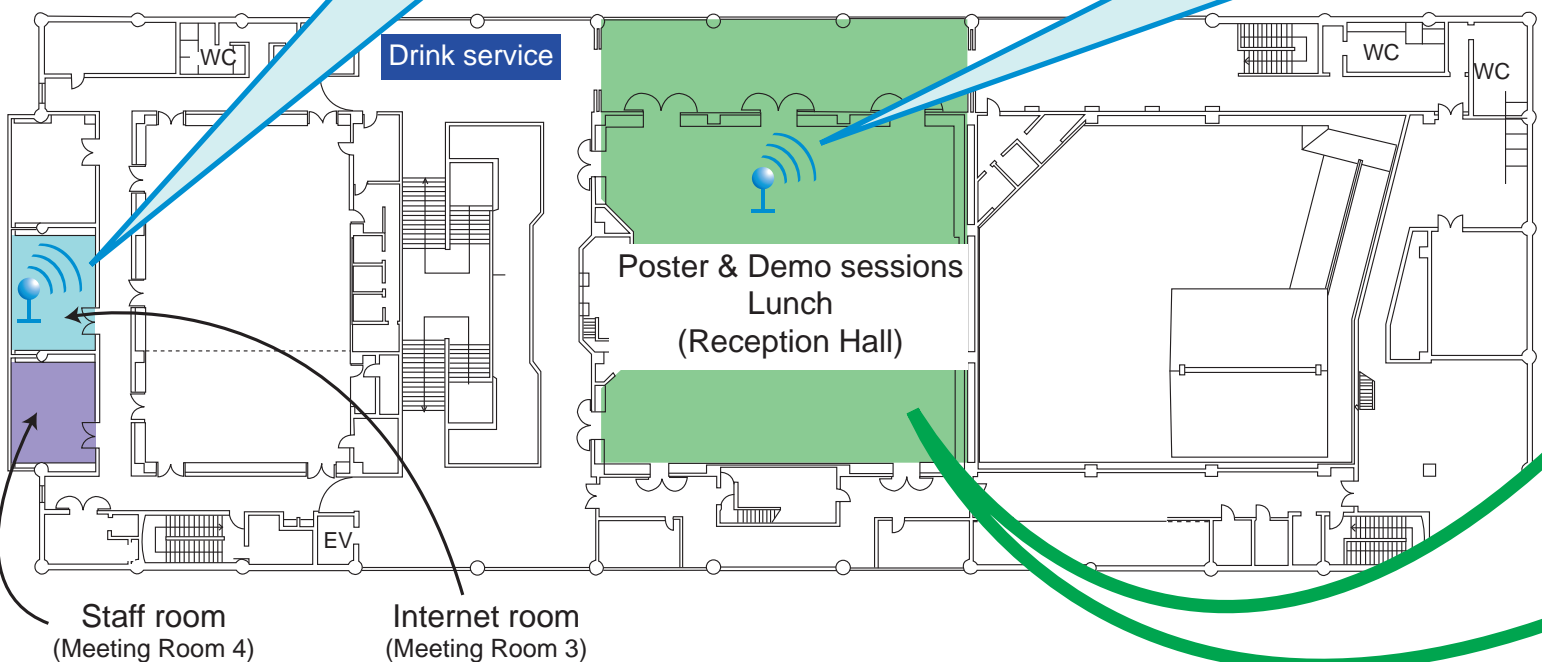
♠D1	MathBrush: A System for Doing Math on Pen-Based Devices <i>George Labahn, Edward Lank, Scott MacLean, Mirette Marzouk, and David Tausky</i>
♥D2	Real-Time Retrieval for Images of Documents in Various Languages <i>Tomohiro Nakai, Koichi Kise, and Masakazu Iwamura</i>
♥D3	Semantic eInk — Pen and Paper-Based Interaction with the Semantic Desktop <i>Marcus Liwicki, Kinga Schumacher, Andreas Dengel, Nadir Weibel, Beat Signer, and Moira C. Norrie</i>
♠D4	Towards Document Understanding for Personalized Knowledge Acquisition <i>Benjamin Adrian, Heiko Maus, Malte Kiesel, and Andreas Dengel</i>
♥D5	An On-Line Handwritten Japanese Text Recognition System Free from Line Direction and Writing Format Constraints <i>Bilan Zhu and Masaki Nakagawa</i>
♠D6	An Image Based Watermark String Detection System for Document Security Checking <i>Jun Sun, Yusaka Fujii, Hiroaki Takebe, Katsuhito Fujimoto, and Satoshi Naoi</i>
♥D7	A System to Help Archaeologists Read Mookans <i>Jun Takakura, Somayeh Sherini, Akihito Kitadai, Masatoshi Ishikawa, Masaki Nakagawa, Hajime Baba, and Akihiro Watanabe</i>

FLOOR PLAN

1st floor



2nd floor



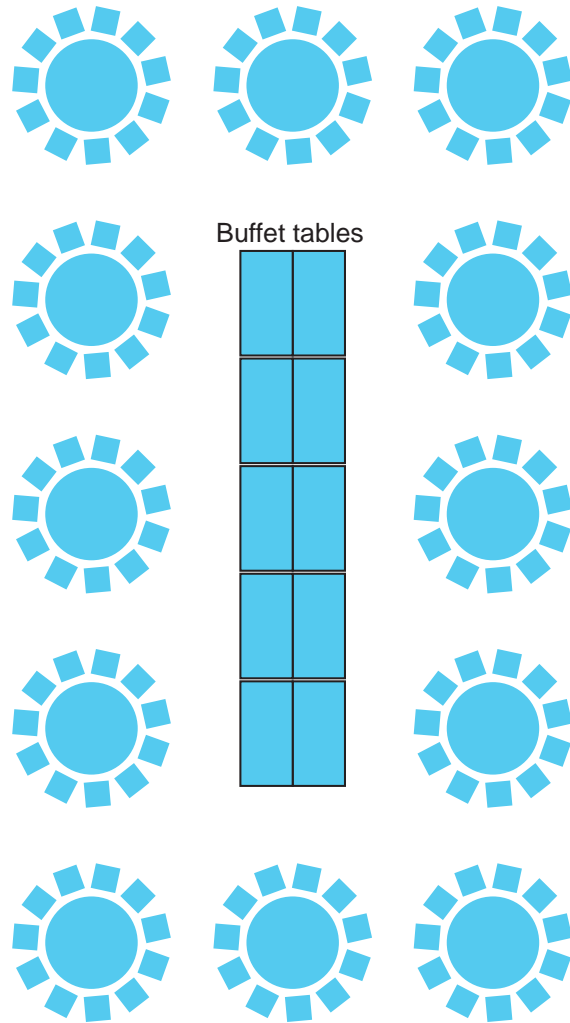
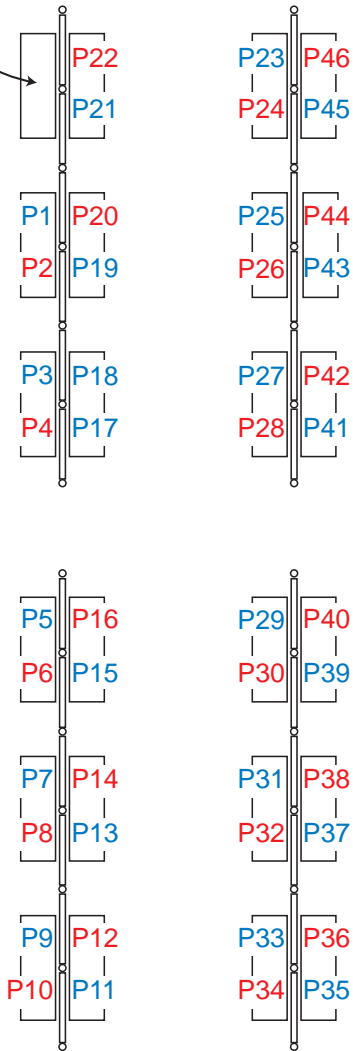
POSTER & DEMO LAYOUT

♠ Poster & Demo 1: 12:50—14:10 / Wednesday, September 17

♥ Poster & Demo 2: 10:50—12:10 / Friday, September 19



In Memoriam
Prof. Yasuaki Nakano

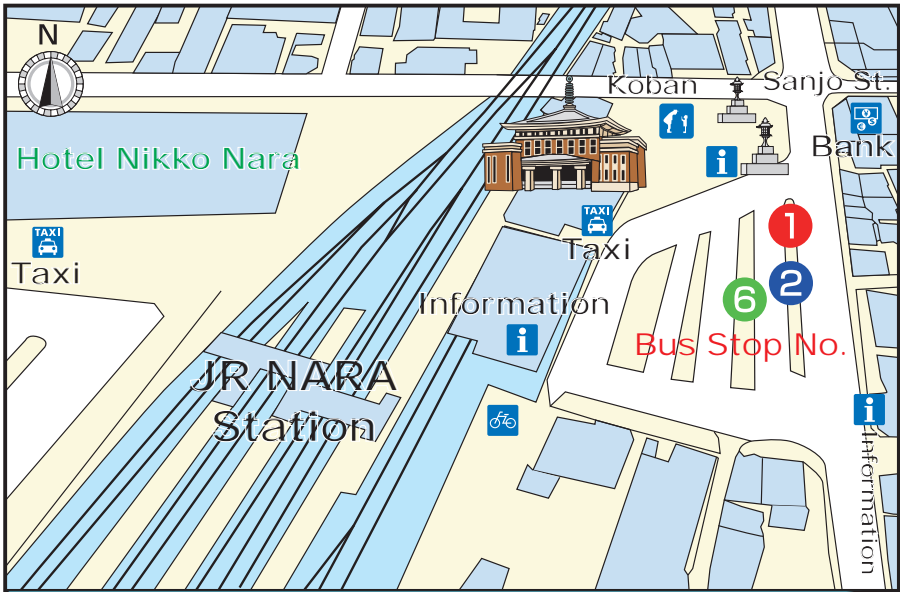


GROUND TRANSPORTATION

Local buses are convenient. They are frequently serviced and the fare is relatively cheap. There are two routes to get to the workshop site (Nara Prefectural New Public Hall) and also two routes to return to the hotels (Hotel Nikko Nara and Sun Hotel Nara).

Taxis are also available from JR Nara Station (at East and West exits). The fare to the conference site is about JPY1,000.

If you need exercise, 30-minute-walk takes you to Nara Prefectural New Public Hall.



To get to the conference site:

Route A1 JR奈良駅 (JR Nara Station) → 県新公会堂 (Ken Shin Kokaido)

The bus stop "Ken Shin Kokaido" is the closest to the conference site. However, bus service is not so frequent. Buses depart from bus stop ①.

Route A2 JR奈良駅 (JR Nara Station) → 大仏殿春日大社前 (Daibutsuden Kasugataisha-mae)

The bus stop "Daibutsuden Kasugataisha-mae" is within a walking distance from the workshop site. Buses depart frequently from bus stops ①, ② and ⑥.

Fare: JPY180, **Time:** about 8 min.

To return to the hotels:

Route B1 県新公会堂 (Ken Shin Kokaido) → JR奈良駅 (JR Nara Station)

The bus stop "Ken Shin Kokaido" is the closest to the conference site. However, bus service is not so frequent.

Route B2 東大寺大仏殿・国立博物館 (Todai-ji Daibutsuden, Kokuritsu Hakubutsukan)
→ JR奈良駅 (JR Nara Station)

The bus stop "Todai-ji Daibutsuden, Kokuritsu Hakubutsukan" is within a walking distance from the workshop site. Bus service is frequent.

Fare: JPY180, **Time:** about 8 - 10 min.



BUS TIMETABLE

All buses listed here will bring you to the destination!!

For Nara Prefectural New Public Hall (the Conference Site)

From: JR奈良駅 (JR Nara Eki; JR Nara Station)

Route A1

To: 県新公会堂 (Ken Shin-Kokaido; Nara Prefectural New Public Hall)

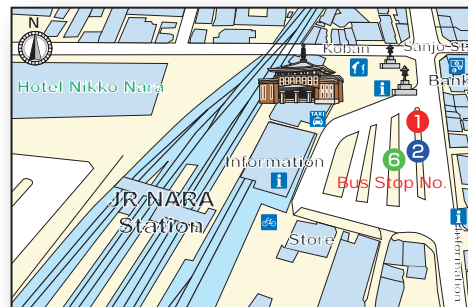
Departure Time

7	54 55
8	12 21 42
9	1 26 38 48
10	2 26 38 56
11	27 38 56
12	27 38 56
13	27 38 56
14	27 38 56
15	27 38 55
16	25 38 56

All buses depart from Bus Stop **1**.

Bus Route No. / Destination

- 70 春日大社本殿
- 97 春日大社本殿
- 98 春日大社本殿



From: JR奈良駅 (JR Nara Eki; JR Nara Station)

Route A2

To: 大仏殿春日大社前 (Daibutsuden Kasugataisha-mae)

Departure Time

5	50
6	3 11 24 24 33 35 46 48 54 55
7	3 8 15 17 19 25 32 33 39 40 41 46 46 51 52 53 58
8	2 4 10 11 15 15 22 22 31 35 39 44 49 51 57
9	0 1 5 7 11 15 17 25 25 31 33 35 42 45 50 58
10	0 1 7 15 15 20 21 23 32 35 40 48 55 57 58
11	5 10 11 13 15 22 28 30 30 38 40 47 55 55 58
12	3 10 12 20 20 28 30 37 40 45 53 55
13	2 10 10 18 25 27 31 35 40 43 52 55
14	0 8 10 15 17 25 25 33 40 42 50 55 58
15	1 7 10 15 15 23 25 32 40 40 48 55 57
16	1 5 6 14 24 24 32 33 36 41 41 43 51 53
17	0 3 8 17 19 26 28 31 31 36 36 38 45 46 56 56
18	3 6 10 14 15 18 23 25 27 31 31 37 42 44 45 51 56 57 59
19	1 8 10 17 20 20 24 29 34 37 41 44 51 51 53 53 59
20	6 7 15 19 23 25 29 31 38 39 48 49 53 55 58
21	5 7 17 17 31 32 38 39 42 55 57
22	6 7 16 28 28 36 37 53 55
23	7 14 21 34 35 54
0	10 22

From Bus Stop **1**:

Bus Route No. / Destination

- 2 JR 奈良駅
- 72 高畑町
- 87 高畑町
- 89 大仏殿春日大社前

From Bus Stop **2**:

Bus Route No. / Destination

- 56 山村町
- 57 藤原台
- 58 山村町
- 59 藤原台
- 61 鹿野園町
- 62 山村町

From Bus Stop **6**:

Bus Route No. / Destination

- 120 奈良市都祁交流センター
- 122 下水間
- 123 奈良春日病院前
- 124 北野

For JR Nara Station

From: 県新公会堂 (Ken Shin-Kokaido; Nara Prefectural New Public Hall)

Route B1

To: JR奈良駅 (JR Nara Eki; JR Nara Station)

Departure Time	
8	16 29 33 37 48 59
9	9 27 53
10	7 24 53
11	7 24 53
12	7 24 53
13	7 24 53
14	7 24 53
15	7 24 53
16	7 24 53
17	7 24

Bus Route No. / Destination

JR 奈良駅

70 六条山

88 近鉄郡山駅

97 法隆寺前



Route B2

From: 東大寺大仏殿・国立博物館 (Todai-ji Daibutsuden, Kokuritsu Hakubutsukan; Todai-ji Temple's Colossal Hall of the Great Buddha, National Museum)

To: JR奈良駅 (JR Nara Eki; JR Nara Station)

Departure Time	
5	56
6	7 8 19 23 30 32 39 41 49 52 56
7	2 3 7 13 14 15 20 21 25 27 28 33 35 41 42 46 47 51 53
8	0 1 1 4 9 9 15 16 17 21 22 29 30 32 33 34 34 37 37 39 39 43 49 49 51 57 59
9	0 6 9 10 11 14 15 23 23 27 28 32 41 41 49 49 52 54 58 59
10	6 9 12 14 22 23 25 31 34 39 47 48 52 54 56
11	4 5 9 9 13 16 21 25 26 29 38 39 46 50 54 54
12	1 3 9 11 14 19 25 28 31 36 44 44 47 53 54 55
13	1 1 9 9 14 18 25 26 31 34 43 44 51 54 56 59
14	1 8 9 14 16 24 25 26 31 33 41 44 49 51 54 56 58 58
15	1 6 7 9 14 14 23 25 31 31 38 39 41 44 48 53 54 55 56
16	2 4 9 14 15 23 23 25 25 27 31 32 36 41 42 45 50 51 53 54 58
17	3 9 9 11 17 18 25 25 32 37 40 42 44 52 53 55
18	0 4 10 11 14 18 19 20 32 34 39 40 41 42 45 48 51 55 59 59
19	3 5 10 11 14 24 27 31 33 40 42 44 49 56 56
20	5 13 16 17 21 29 31 40 44 53 54 55
21	3 5 17 26 26 39 46
22	2 5 15 27 29 45 55
23	19

Bus Route No. / Destination

1 JR 奈良駅

52 法隆寺前

55 JR 奈良駅

56 JR 奈良駅

57 JR 奈良駅

59 JR 奈良駅

61 JR 奈良駅

62 JR 奈良駅

70 六条山

72 六条山

87 シャープ前

88 近鉄郡山駅

89 近鉄郡山駅

97 法隆寺前

120 JR 奈良駅

122 JR 奈良駅

123 JR 奈良駅

124 JR 奈良駅



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