The 16th International Conference on Frontiers in Handwriting Recognition

August 5 - 8, 2018 ● Niagara Falls, USA

I C F H R
2018

Niagara Falls, USA
August 5-8, 2018

Opening Session

Welcome!

Agenda

- Organizing Committee and Host Organizations

- Additional Thanks

- Program Committee Report

- 'Birds of a Feather' Discussion Groups

- Notes from the Organizing Chairs

- Closing

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Organizing Committee

General Chairs

Venu Govindaraju   University at Buffalo, USA

R. Manmatha   A9/Amazon, USA

Richard Zanibbi   Rochester Institute of Technology, USA

Program Chairs

Luiz S. Oliveira   Federal University Parana, Brazil

Umapada Pal   Indian Statistical Institute, India

Christian Viard-Gaudin   University of Nantes, France

Publicity Chairs

Thierry Paquet   University of Rouen, France

Utkarsh Porwal   eBay, USA

Masaki Nakagawa   Tokyo University Agriculture and Technology, Japan

Tutorial and Workshop Chairs

Elisa Barney-Smith   Boise State, USA

Alicia Fornés   Computer Vision Center, Spain

Publications Chair

Srirangaraj Setlur   University at Buffalo, USA

Competition Program Chairs

Harold Mouchère   University of Nantes, France

Nicholas R. Howe   Smith College, USA

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Hosting Organizations and Proceedings

UB
University at Buffalo
The State University of New York

$R \cdot I \cdot T$

Center for Unified Biometrics and Sensors
University at Buffalo *The State University of New York*

dprl [DOCUMENT AND PATTERN RECOGNITION LAB]

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Our Sincerest Thanks

Conference Logo

Jessica Irwin   University of Rochester, USA

Systems Administration

James Craig   Rochester Institute of Technology, USA

Finances

Tracy Miller   Rochester Institute of Technology, USA

Kim Shearer   Rochester Institute of Technology, USA

Mary Jane Gallo   CUBS, University at Buffalo, USA

Registration Management

Edward Sobczak   CUBS, University at Buffalo, USA

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Program Committee Report

ICFHR 2018 Program Chairs

Umapada Pal - India
Luiz Eduardo Oliveira - Brazil
Christian Viard-Gaudin - France

Paper Statistics

Submissions	125	%
Oral	32	26%
Poster	65	52%
Accepted	97	78%

Average of 2.6 reviews per paper

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Reviewing Process

No. Paper Reviews	No. Papers
2	20
3	93
4	9
5	3
	125

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Topic	Submitted	Accepted
Handwriting Recognition	76	64
Historical Document Processing	38	28
Handwritten Document Processing and Understanding	35	30
Writer Verification and Identification	21	15
Information Extraction & Retrieval	18	13
Handwritten Databases and Digital Libraries	17	15
Word Spotting	16	12
Performance Enhancement and System Evaluation	13	9
Forensic Studies and Security Issues	11	9
Graphics Recognition (Diagrams, Equations, etc.)	9	6
Cursive Script Recognition	8	5
Electronic Ink and Pen-Based Systems	7	6
Language Models in Handwriting Recognition	6	4
Web-Based Applications	4	3
Document Characterization	2	1
Form Processing	2	1
Bank-Check Processing	1	0

Country	Authors	Submitted (%)	Accept (%)	Accept Rate (%)
China	55	22,08	14,71	0,67
India	54	19,11	15,51	0,81
United States	44	12,2	11,2	0,92
Japan	28	10	7	0,7
Germany	26	7,98	6,15	0,77
France	23	8,32	5,98	0,72
Spain	23	9,25	9,25	1
Switzerland	11	3,85	3,85	1
Ukraine	9	3	1	0,33
Tunisia	8	2,87	2,2	0,77
Algeria	7	2,3	2,3	1
Austria	7	3,65	3,65	1
Greece	6	2	2	1
Australia	5	1,77	1,77	1
Canada	5	2,4	1,4	0,58
Israel	5	2	1	0,5
Brazil	4	2	2	1
Guadeloupe	4	0,8	0,8	1
Italy	4	1,5	0,5	0,33
Netherlands	4	0,67	0,67	1
Iran	3	0,9	0,5	0,56
Pakistan	3	1,65	0,65	0,39
Qatar	3	1,05	0,45	0,43
Sweden	3	1	0	0
Cambodia	2	0,5	0,5	1
Saudi Arabia	2	1	1	1
Belgium	1	0,25	0,25	1
Malaysia	1	0,71	0,51	0,72
Morocco	1	0,2	0,2	1

ICFHR 2018 - Program at a Glance

	August 5th, 2018	August 6th, 2018	August 7th, 2018	August 8th, 2018
8:00	Registration	Registration/Breakfast	Registration/Breakfast	Registration/Breakfast
9:00	Morning Tutorial 9:00 - 12:00 NVIDIA Deep Learning Fundamentals	Welcome 9:00 - 9:20	Oral Session 4 *CNNs for Handwriting Recognition* 9:00 - 10:20	Oral Session 6 *Transfer Learning* 8:30 - 9:50
		Keynote 1 Kevin Knight 9:20 - 10:20		
10:00		Coffee Break 10:20 - 10:50	Coffee Break 10:20 - 10:50	Coffee Break 9:50 - 10:10
11:00		Oral Session 1 *Document Segmentation and Understanding* 10:50 - 12:30	Keynote 2 Gregory R. Crane 10:50 - 11:50	Oral Session 7 *Signature/Writer Verification* 10:10 - 12:10
12:00	Lunch Break 12:00 - 13:30		Lunch Break 11:50 - 13:20	
13:00		Lunch Break 12:30 - 14:00		Lunch Break 12:10 - 13:40
14:00	Afternoon Tutorials (in parallel) 13:30 - 16:30 *Forensic Document Examination* *Deep Learning for Word Spotting*	Oral Session 2 *Word/Object Spotting* 14:00 - 15:20	Oral Session 5 *Recurrent Neural Networks for Character Recognition* 13:20 - 15:00	Panel Discussion *Handwriting Recognition in Industry and Academia* 13:40 - 14:40
15:00				Competition Teasers and Awards 14:40 - 15:20
		Poster Session 1 15:20 - 16:50	Poster Session 2 15:00 - 16:30	Poster Session 3 15:20 - 16:50
16:00		Coffee Break 16:00 - 16:30	Coffee Break 15:50 - 16:20	Coffee Break 15:50 - 16:20 TC11: Future Events (in parallel) 16:20 - 16:50
17:00		Oral Session 3 *Data Augmentation* 16:50 - 18:10	Buses leave at 16:30 Conference Banquet @ Fort Niagara 17:00 - 21:00	TC11: ICFHR 2022 Bids 16:50 - 17:20
				Award Presentation & Closing 17:20-17:50
18:00	Welcome Reception Top of the Falls Restaurant 18:00 - 20:00			
19:00				

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'Birds of a Feather' Discussion Groups

ICFHR 2018 Tutorial Chairs

Elisa Barney-Smith - USA
Alicia Fornés - Spain

Birds of a Feather Discussion Groups

- Monday, Tuesday and Wednesday at lunch
- Attendance optional
  - No need for a group consensus about what are the important directions.
  - No reporting out to the community either orally or written.
  - No agenda, sub groups talking in parallel is fine.
  - Get to know a few more people
- Focus on
  - getting to know who is there working on the problems
  - which parts of which problems are being worked on
  - eating !
- Start with a round of everyone introduce yourself:
  - name
  - university/company
  - position: researcher/professor/student
  - in 10 words or less what are you working on that applies to this BoF and ICFHR?

Birds of a Feather Discussion Groups

MONDAY:

- Language models in Handwriting Recognition.
  - Leaders: Kevin Knight (Univ Southern Calif, USA) and Alicia Fornés (Univ Autonoma Barcelona, Spain)
- Handwriting Recognition applications in industry
  - Leaders: Zsolt Wimmer (myscript.com) and Daniel Martín(wiris.com)

TUESDAY:

- Digital Humanities and Historical Document Image Analysis
  - Leader: Andreas Fischer (University Fribourg, Switzerland)
- Data augmentation and synthetic (Handwritten) data generation
  - Leader: Marcus Liwicki (LTU, Sweden)

WEDNESDAY

- Transfer learning and Writer Adaptation
  - Leader: Cheng-Lin Liu (National Laboratory of Pattern Recognition (NLPR), China)
- Handwritten Graphics Recognition
  - Leader: Jean-Christophe Burie (Univ LaRochelle, France)

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Notes from the Organizing Chairs

ICFHR 2018 Organizing Chairs

Srirangaraj Setlur - USA
Ifeoma Nwogu - USA

Some Things to Note…

- **Meals**

  - Breakfast and lunch are provided each day

- **Banquet**

  - Notes on scheduling and Buses

- **Visiting (*and not getting stuck in*) Canada**

- **Oral Presentation Sessions**

  - Please see the Chair in the break before the session

  - Upload your slides if possible to the laptop provided

  - **Talks are 20 minutes with questions - we will warn speakers when they have 5, 2 and 1 minute remaining using paper signs. You will be asked to stop if you go overtime.**

- **Poster Sessions**

  - Posters should be hung in the morning in room next door

  - Use only push pins - please do *not* use tape to mount your poster

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Thank you.

Enjoy the conference!