

GREC Workshop (September 20 - 21)

GREC: The 13th IAPR International Workshop on Graphics Recognition

Organizer: Jean-Christophe BURIE

Location: 1st day: Aerial Function Centre, Thomas Room

@ University of Technology Sydney (UTS)

2nd day: CB11.04.205 @ University of Technology Sydney (UTS)

Website: <https://grec2019.univ-lr.fr>

Friday, September 20 (Room: Aerial Function Centre, Thomas Room)

8:45-9:00 **Introduction / Welcome**

9:00-10:30 **Session 1 : Graphic Element Extraction and Recognition** (*chair: Rafael Lins*)

1. **Text Recognition and Classification in Floor plan Images** - Jason Ravagli, Zahra Ziran and Simone Marinai.
2. **Arrow R-CNN for Flowchart Recognition** - Bernhard Schäfer and Heiner Stuckenschmidt.
3. **Line recognition for generating accessible line plots** - Francesco Lombardi, Cagatay Goncu and Simone Marinai.
4. **An automated technique to recognize and extract images from scanned archaeological documents** - Cindy Rouillet, David Fredrick, John Gauch and Rhodora Vennarucci.
5. **Table Localization and Field Value Extraction in Piping and Instrumentation Diagram Images** - Arka Sinha, Johannes Bayer and Syed Saqib Bukhari

10:30-11:00 **Coffee break**

11:00-13:00 **Session 2 : Comics Analysis and Understanding** (*chair: Jean-Christophe Burie*)

6. **Understanding multilingual four-scene comics with deep learning methods** - Jiali Chen, Ryo Iwasaki, Naoki Mori, Makoto Okada and Miki Ueno.
7. **Confidence criterion for speech balloon segmentation** - Christophe Rigaud, Nhu Van Nguyen and Jean-Christophe Burie.
8. **CNN based Extraction of Panels/Characters from Bengali Comic Book Page Images** - Arpita Dutta and Samit Biswas.
9. **Multi-class semantic segmentation of comics: A U-Net based approach** - Jochen Laubrock and David Dubray.
10. **What do we expect from comic panel extraction?** - Nhu Van Nguyen, Christophe Rigaud and Jean-Christophe Burie.
11. **Analysis based on Distributed Representations of Various Parts Images in Four-scene Comics Story Dataset** - Akira Terauchi, Naoki Mori and Miki Ueno.

13:00-14:00 **Lunch**

14:00-15:30 **Round-table discussion on the future of Graphic Recognition** (*chair: Alicia Fornès*)

15:30-16:00 **Coffee break**

16:00-17:30 **Session 3 : Mathematical Expressions and Music Scores**

12. **Tree-Based Structure Recognition Evaluation for Math Expressions: Techniques and Case Study** - Mahshad Mahdavi and Richard Zanibbi
13. **Learning Fine-Grained Image Representations for Mathematical Expression Recognition** - Sidney Bender, Monica Haurilet, Alina Roitberg and Rainer Stiefelhagen
14. **Graph matching over Hypothesis Graphs for the Analysis of Handwritten Arithmetic Operations** - Arnaud Lods, Eric Anquetil and Sébastien Macé
15. **Recognition, encoding, and transcription of early mensural handwritten music** - Jose M. Iñesta, David Rizo and Jorge Calvo-Zaragoza

Saturday, September 21 (Room: CB11.04.205)

9:00-10:30 **Session 4 : Detection / Classification : symbols, sketches** (*chair: Richard Zanibbi*)

16. **Graph Neural Network for Symbol Detection on Document Images** - Guillaume Renton, Benoit Gaüzère, Pierre Héroux and Sébastien Adam
17. **GSD-Net: Compact Network for Pixel-level Graphical Symbol Detection** - Swarnendu Ghosh, Prasenjit Shaw, K.C. Santosh and Nibaran Das
18. **DocFigure: A Dataset for Scientific Document Figure Classification** - Jobin K V, Ajoy Mondal and C V Jawahar
19. **Shoot less and Sketch more: An Efficient Sketch Classification Via Joining Graph Neural Networks and Few-shot Learning** - Asma Bensalah, Pau Riba, Alicia Fornès and Josep Lladós.

10:30-11:00 **Coffee break**

11:00-12:30 **Session 5 : Other Graphic Recognition Approaches** (*chair: Bertrand Couasnon*)

20. **Creating destruction animations by transferring hand-drawn styles** - Takumi Kato and Susumu Nakata.
21. **Identifying the Presence of Graphical Texts in Scene Images using CNN** - Mridul Ghosh, Himadri Mukherjee, Md Obaidullah Sk, K.C. Santosh, Nibaran Das and Kaushik Roy
22. **Dynamic Deep Multi-task Learning for Caricature-Visual Face Recognition** -

Zuheng Ming, Jean-Christophe Burie and Muhammad Muzzamil Luqman

23. **Optimal Compression of a Polyline while Aligning to Preferred Directions -**
Alexander Gribov

12:30-13:00 **Conclusions and Closing**

13:00-14:00 **Lunch**