

International Conference on Computer Vision and Graphics ICCVG 2022 – Programme

Day 1 - 19.09.2022, Monday

Registration

11:00-13:00

Opening of the Conference

13:00-13:15

- prof. Marta Mendel, Vice-Rector for International Cooperation of the Warsaw University of Life Sciences – SGGW
- prof. Ryszard Kozera, Head of the Institute of Information Technology, SGGW, Chairman of the Conference
- prof. Arkadiusz Orłowski, Treasurer of the Association for Image Processing – TPO, Chairman of the Conference
- prof. Leszek Chmielewski, President of the Association for Image Processing – TPO, Chairman of the Conference

Session 1: Computers and Humans

13:20-14:20 Chair: Arkadiusz Orłowski

- **On multi-stream classification of two person interactions in video with skeleton-based features**
Włodzimierz Kasprzak, Sebastian Puchała, Paweł Piwowarski, Warsaw University of Technology, Poland
- **On formal models of interactions between detectors and trackers in crowd analysis tasks**
Andrzej Śluzek, Warsaw University of Life Sciences – SGGW, Poland. M. Sami Zitouni, Khalifa University, Abu Dhabi, United Arab Emirates
- **Digital Wah-Wah guitar effect controlled by mouth movements**
Adam Nowosielski, Przemysław Regina, West Pomeranian University of Technology, Szczecin, Poland

Lunch

14:20-15:50

Session 2: Traffic and Driving

15:50-16:30 Chair: Włodzimierz Kasprzak

- **Traffic sign detection using deep and quantum neural networks**
Sylwia Kuros, Tomasz Kryjak, AGH University of Science and Technology, Kraków, Poland
- **Real time intersection queue length estimation system**
Kamil Bolek, Polish-Japanese Academy of Information Technology, Poland

Coffee break

16:30-17:00

Session 3: Image Processing I

17:00-18:00 Chair: Dariusz Frejlichowski

- **Novel Co-SIFT descriptor for scanned images differentiation**
Paula Stancelova, Zuzana Cernekova, Andrej Ferko, Comenius University in Bratislava, Slovakia
- **PointPillars backbone type selection for fast and accurate LiDAR object detection**
Konrad Lis, Tomasz Kryjak, AGH University of Science and Technology, Kraków, Poland
- **Fuzzy approach to object-detection-based image retrieval**
Marcin Iwanowski, Aleksei Haidukievich, Maciej Leszczynski, Bartosz Wnorowski, Warsaw University of Technology, Poland

Conference Dinner

19:00-...

Day 2 - 20.09.2022, Tuesday

General Lecture

10:00-10:50 Chair: Maciej Orkisz

- [A quest for human identity recognition - problems and methods of facial re-identification](#)
Damian Pęszor, Polish-Japanese Academy of Information Technology and Silesian University of Technology, Poland

Break

10:50-11:00

Session 4: Biomedical Imaging, Hardware, Cryptography

11:00-12:00 Chair: Andrzej Śluzek

- **Carotid artery wall segmentation in ultrasound image sequences using a deep convolutional neural network**
Nolann Lainé, Hervé Liebgott, Université Claude Bernard Lyon 1, France. Guillaume Zahnd, Helmholtz Zentrum München, Neuherberg, Germany. Maciej Orkisz, Université Claude Bernard Lyon 1, France
- **Energy efficient hardware acceleration of neural networks with power-of-two quantisation**
Dominika Przewlocka-Rus, Tomasz Kryjak, AGH University of Science and Technology, Kraków, Poland
- **Error analysis and graphical evidence of randomness in two methods of color visual cryptography**
Leszek J Chmielewski, Warsaw University of Life Sciences – SGGW, Poland. Mariusz Nieniewski, University of Lodz, Poland. Arkadiusz Orłowski, Warsaw University of Life Sciences – SGGW, Poland

Coffee break

12:00-12:30

Session 5: Computer Graphics

12:30-13:30 Chair: Krzysztof Okarma

- **Fast triangle strip generation and tunnelling for different cost metrics**
Jonas Treumer, Lorenzo Neumann, Ben Lorenz, Bastian Pfleging, Technische Universität Bergakademie Freiberg, Germany
- **A deep multi-layer perceptron model for automatic colourisation of digital grayscale images**
Olawande M. Shokunbi, Joseph Damilola Akinyemi, Olufade Falade Williams Onifade, University of Ibadan, Nigeria
- **An algorithm for automatic creation of ground level maps in two-dimensional top-down digital role playing games**
Krzysztof Kaczmarzyk, Dariusz Frejlichowski, West Pomeranian University of Technology, Szczecin, Poland

Lunch

13:30-15:00

Session 6: Image Processing II

15:00-16:00 Chair: Adam Nowosielski

- **Adaptive binarization of metal nameplate images using the pixel voting approach**
Hubert Michalak, Krzysztof Okarma, West Pomeranian University of Technology, Szczecin, Poland
- **Influence of step parameterisation on the results of the reidentification pipeline**
Damian Pęszor, Silesian University of Technology, Gliwice, Poland. Konrad Wojciechowski, Polish-Japanese Academy of Information Technology, Poland. Łukasz Czarnecki, Kar-Tel Co. Ltd., Gliwice, Poland
- **On the influence of image features on performance of deep learning models in human-object interaction detection**
Marcin Grząbka, Marcin Iwanowski, Grzegorz Sarwas, Warsaw University of Technology, Poland

Break

16:00-16:15

Closing of the scientific part of the Conference

16:15-16:30

- **Announcement of the Winner in the competition for the best presentation made by a young researcher**
The Laureate will be invited to the next ICCVG in 2024 for a free participation.

Closing coffee and sandwiches

16:30-17:00

Day 3 - 21.09.2022, Wednesday

Social programme

09:15-...

- 09:15 Transfer from SGGW to Zamkowy square
- 10:00-11:15: Visit to the [Warsaw Royal Castle](#)
- around 11:30-...: Lunch at *Zapiecek – Polskie Pierogarnie* near the Royal Castle ([Krakowskie Przedmieście 55](#))
- Transfer back to SGGW (optional)