



FOI International Days: „Research. Innovation. Networking - Growing through sharing ideas”

May 20, 2021

Laboratory for Computer Vision, Virtual and Augmented Reality

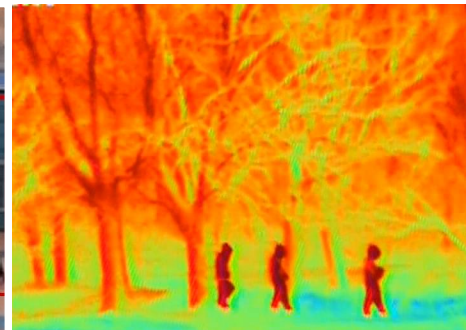
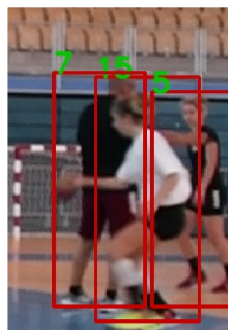


Assoc. Prof. Marina Ivasic-Kos

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Reality at Centre for Artificial Intelligence, University of Rijeka

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- **Research focus:** basic and applied research in the field of computer vision related to image and video analysis that enable interpretation and understanding of the visual world
- **Goal:**
 - develop methods and algorithmic solutions for computer vision tasks
 - image classification, object/person detection and tracking, action and activity recognition, scene understanding and image interpretation
 - combine vision-based technology with virtual and augmented reality in a variety of applications
- **Current application domains: sports analysis, surveillance, medicine**



Active projects



AIRI

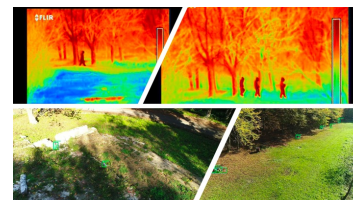
Center for Artificial Intelligence
and Cybersecurity

Automatic recognition of actions and activities
in multimedia content from sports domain
(RAASS)

Project for Career Development of Young
Researchers – Training of New Ph.D.s,
mentor: Marina Ivasic-Kos

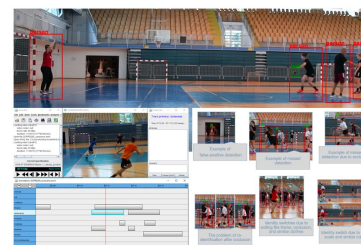


Knowledge-based Approach to Crowd Analysis
in Video Surveillance



Automatic recognition of sports techniques in young
and recreational athletes for style improvement

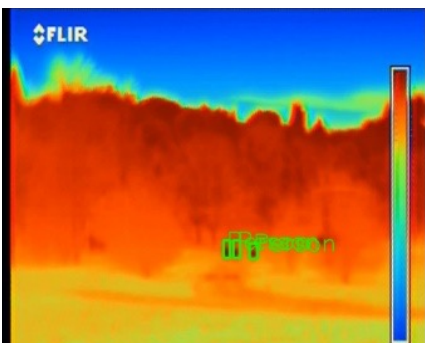
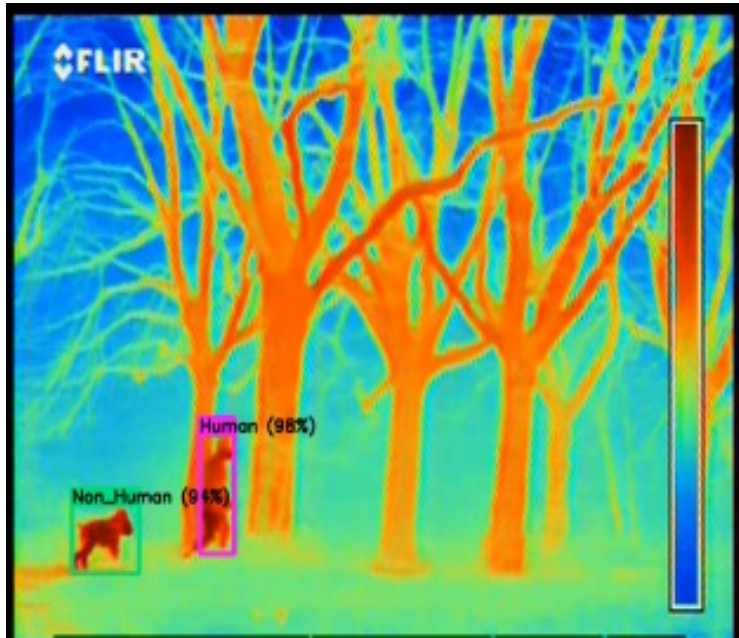
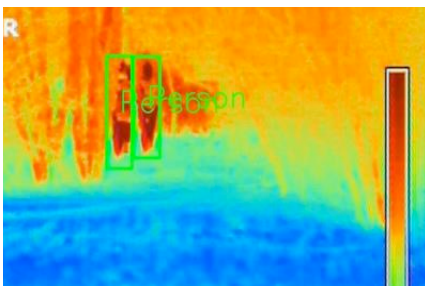
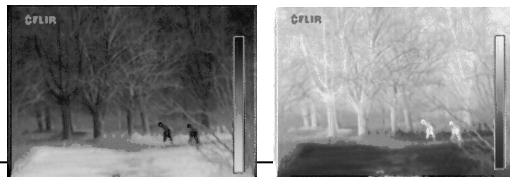
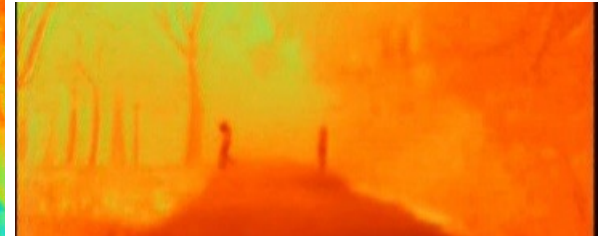
Automation to build a database for recognition
of sports actions in video



Automatic recognition of actions and activities in multimedia content from the sports domain



Person detection and recognition of activities in thermal images



Detection of persons in drone images and assessment of their geolocation



Project collaborators

- Associate Prof. Marina Ivašić-Kos, PhD
- Assistant Prof. Miran Pobar, PhD



- Kristina Host, PhD student
- Martina Badurina, PhD student
- Ivan Šimac, PhD student



- Romeo Šajina, PhD student
- Ingrid Hrga, PhD student



- Matija Burić, PhD student
- Goran Paulin, PhD student
- Saša Sambolek, PhD student



- Prof. Jordi Gonzalez Sabaté, PhD
- Prof. Slobodan Ribarić, PhD



Future work

- Develop methods for small objects detection
- Improve methods of tracking people
- Improve the performance of the action recognition model (knowledge, rules)
- Develop methods for automatic summarization of videos
- Use augmented reality (AR) to generate scenes faster by placing computer-generated models in the real world





Thank you for attention!

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