

VideoProtector

Intelligent video-based incident detection system with machine learning

Realization

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Keywords

- Incident detection
- Video analysis
- Image processing
- Machine Learning

Our skills

Development of machine learning algorithms on live video

Valorization

Bring «smart» side of machine learning to video analysis

Partnership

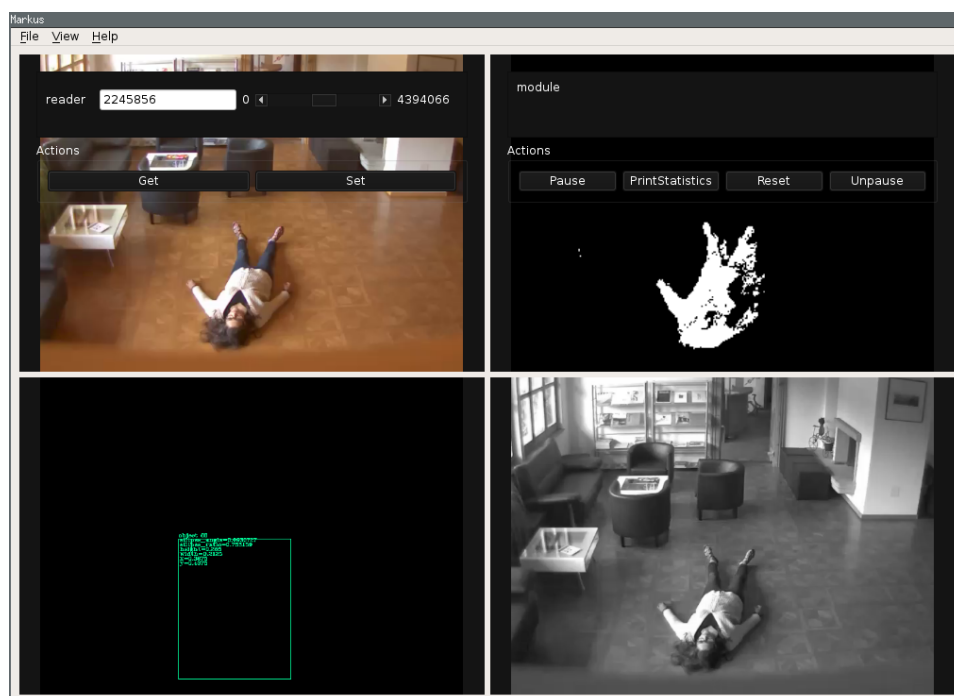
- Morphean SA
- HES-SO//Fribourg
- IDIAP
- Softcom Technologies SA

Funding

FSI
 CTI
 HESSO

Schedule

02/2013 – 12/2015



Video surveillance has become an important way to enhance the security in our daily lives. The classical usage of video surveillance is to record video streams and to visualize sequences in the past whenever an incident has been declared. Emerging technologies are now enabling to go from this rather “passive” mode to a more “active” usage thanks to automatic detection of **incidents**: fall, intrusion, car collision, camera tempering, and all kind of abnormal behaviors.

Morphean SA has developed a product called **VideoProtector**, which is an innovative solution to manage cameras streams in a central place. This centralization offers also the possibility to run incident detection algorithms in a Software-as-a-Service (SaaS) mode.

In this Ra&D project, we are exploring the use of new types of algorithms that can take advantage of **machine learning** approaches. In this direction, we use the data from a large number of cameras to automatically train **models** of the event that needs to be detected. Once trained, the models are able to detect, in a live situation, new abnormal events.



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