

# ISE Lab

## Research Lab on Image Sequence Evaluation



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## Welcome

Research topics at ISE Lab are based on the work developed by Prof. **Hans-Hellmut Nagel** and cover different cognitive skills for the semantic understanding of human behaviors in image sequences. These behaviors captured from camera sensors are explained by means of natural-language texts and virtual environments.

The ISE Lab is headed by Dr. Jordi González and is located at the Computer Vision Center (CVC) in Barcelona, Spain.

### Video-Hermeneutics



**Fawity Towers: MANUELI**



> Manuel is talking by telephone behind the reception desk.

## Highlights



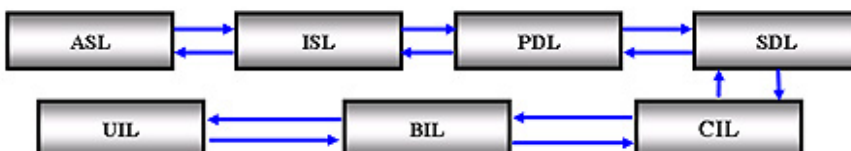
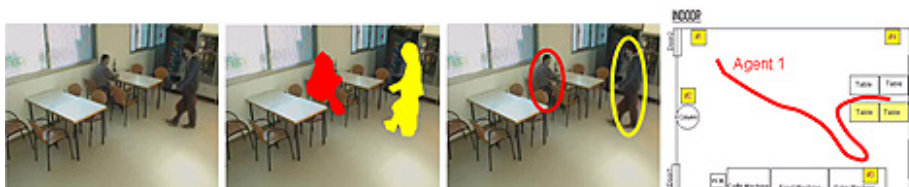
ChaLearn Multimodal Gesture Recognition Challenge @ ACM ICMI 2013.



ACM mm '13 conference

4th Workshop on Analysis and Retrieval of Tracked Events and Motion in Imagery Streams (ARTEMIS2013) @ ACM MM 2013.

The analysis of image sequences involving human agents allows multiple applications, and implies lots of difficulties. This challenging domain is referred as Video-Hermeneutics (VH). A generic VH system transforms image data into conceptual descriptions, and vice versa. This abstraction process is addressed by describing the VH framework as a modular scheme, each module concerned to a specific task.



> Where is Agent\_1?  
> What is doing Agent\_1? How?  
> Why Agent\_1 is there?  
> ?

**Take-a-Coffee:**  
A man comes into the coffee-room, reaches the coffee-machine, sits down, remains seat, stands, and leaves the coffee-room.

```

!! is_performing(Agent_1, walk).
!! has_speed(Agent_1, normal).
!! in_room(Agent_1, coffee_room).
!! is_approximating(Agent_1, coffee_machine).
  
```



Special Issue on  
Background Modeling  
for Foreground  
Detection

This analysis of video sequences incorporates high-level processes to determine the meaning of human motion. As a result, the goal is set motion naming, i.e. the automatic generation of semantic descriptions about when (ASL), where (ISL), what (PDL), who (SDL), how (CIL) and why (BIL) is motion being detected in complex scenes.

As a result, high-level interpretations provide a challenging domain of research on Cognitive Science, which encompasses topics on Computer Vision, Artificial Intelligence, Computational Linguistics and Computer Animation.

## News & Events

- June 5th, 2013:  
IbPRIA 2013 - 6th  
Iberian  
Conference on  
Pattern  
Recognition and  
Image Analysis,  
Madeira, Portugal
- June 16th, 2013:  
ICML 2013 -  
International  
Conference on  
Machine Learning,  
Atlanta, GA.

[More...](#)

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