Control of room occupancy and man down condition in the DABC Department of the Polytechnic University of Milan

Powered by our patented
SophyAI Platform

SophyAI was the choice

- The Department's need was to know the occupancy status of rooms and classrooms in order to optimize the department's facility management operations. The interpretive capability of our patented **SophyAI** neural platform was chosen. An alternative solution would have required a plethora of sensors with significant cost and infrastructure interventions.

How the system works

- ▶ Using 3D simulation software, the positions and focal lengths of the cameras are chosen and placed at predefined locations in the Department's corridors

- ▶ The cameras are networked to SophyAI, which identifies, in a totally anonymous form, the people who access the floors of the Department and the offices that access the corridors.

- ▶ No images of the subjects are recorded; the neural network interprets their identification as "objects" people whose presence is exclusively detected.
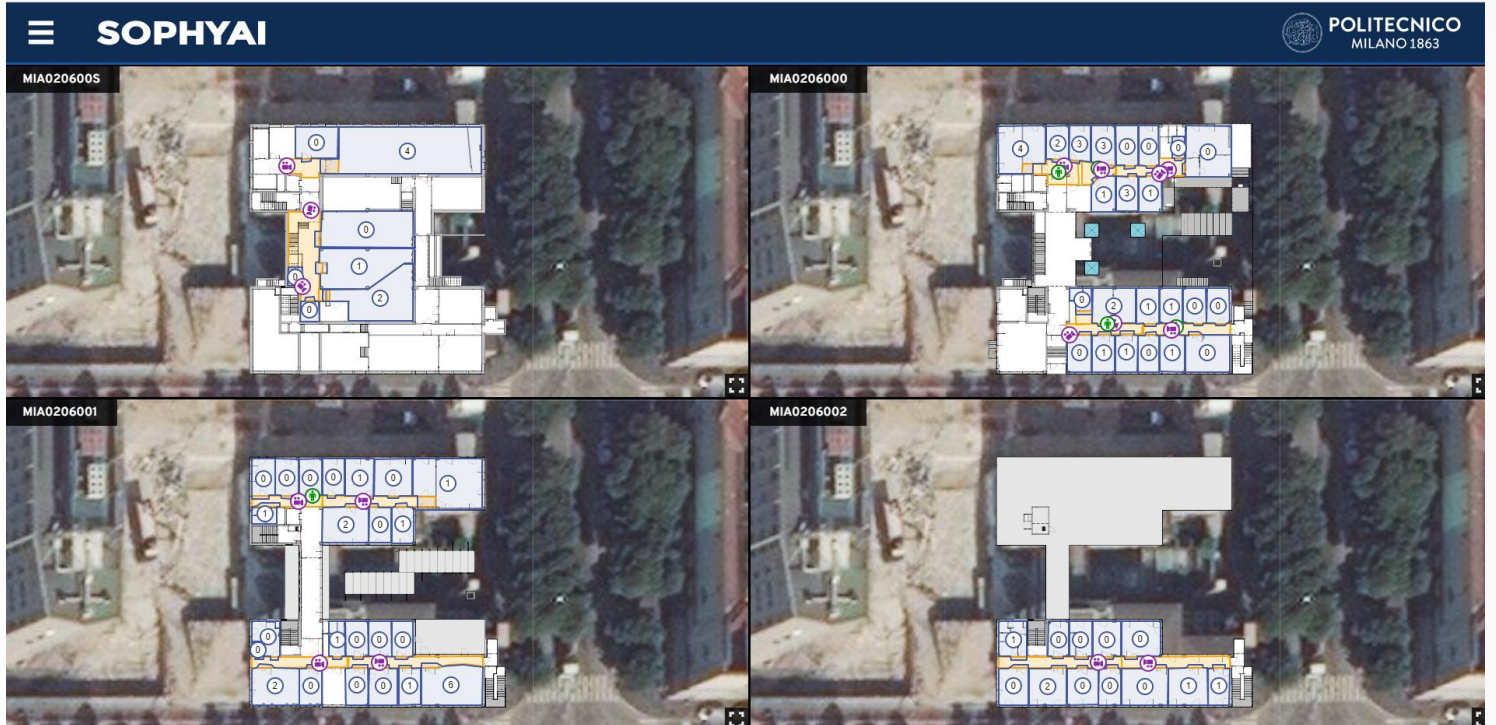
Telecamera 5

ok
Risoluzione: 1280x720
Dimensione Sensore: 1/3 ; 16:9
Lunghezza Focale: 4
Altezza Installazione: 2,5 m
Inclinazione: 21°
Angoli di Visualizzazione °: 77°; 42°
Distanza: 4,5 m
Larghezza FOV: 6,7 m
Pixel Sul Bersaglio: 158x316 px/m

How the system works

- A specific module in **SophyAI** geolocates people and represents them in **digital-twin** on the floor plans of the various floors.

- **SophyAI** workflow module counts the people who have entered the rooms and how long they are stationed there.

- The same module also takes care of checking for man-down conditions by automatically generating alerts dispatched to security managers.
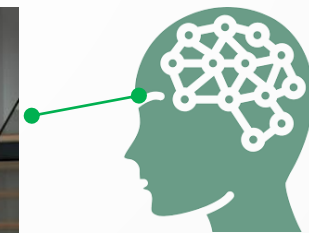
How the system works

➡ The data processed by the **SophyAI** workflow module, are represented on a front end that allows for real-time conditions and statistical analysis of room occupancy, needed by the department for its evaluations.

Last but non least….

- Department Environmental sensors will also soon be connected to **SophyAI** (SophyAI interfaces to any IoT) so that not only the status and occupancy times of rooms can be managed, but also attendance-based lighting, temperature, and air quality.

- Lastly, **SophyAI** also manages information related to the security of the Department, acting as an active supervisor even when the department is closed, controlling unauthorized access at certain times with generation and sending instant alerts to those in charge)

SophyAI