

R&D PROJECT



Title of the project

Industrial inSPEction and mainTenance of complex OR unattended facilities

Acronym INSPECTOR

Content of the project

The digitisation of existing non-residential buildings is nowadays costly in terms of time, money and inconvenience for the people who move around in them, so most of these buildings continue to have centralised management systems or no electronics (except for the critical one).

The arrival of massive electronics and the connectivity between elements allows us to visualise a change of paradigm in the management and maintenance models of these buildings (especially those already constructed).

However, the massive arrival of IOT at all levels opens up new options for the extension of monitoring technologies in buildings, with critical buildings such as hospitals being of great importance.

General objectives

The aim of the INSPECTOR project is to research into various technologies, techniques, tools, methodologies and knowledge aimed at automating and optimising inspection and maintenance management within the framework of the connected industry. The project will facilitate the adoption of Inspection and Maintenance solutions with a high degree of automation, efficiency and competitiveness; all this by means of the use of emerging technologies applied to critical industrial environments, of high complexity and difficult access. These solutions will give a strong national impulse to the Industry 4.0, through the generation of new technologies, new business models and new alliances; reinforcing the international competitiveness of the partners, and contributing to the generation of employment and wealth.

Results and conclusions

Within the framework of the INSPECTOR project, COMSA, in collaboration with LEITAT, has designed, developed and implemented three IoT (Internet of Things) sensors at the Sant Joan de Déu Hospital (Barcelona) with the aim of improving the monitoring capabilities of unique buildings such as hospitals through new IoT sensors with data analysis and filtering capabilities, as well as sending them for management and analysis in high software layers in order to help in the prediction of faults.

COMSA has focused its efforts on the design and development of unique sensors for electricity, air and water installations, specifically a sensor of electricity consumption, bacteria detection and water obstructions respectively (the latter has not been installed in the pilot).

In conclusion, the three sensors initially planned in the project have been developed and the problems detected in each of them have been solved in order to achieve TRL 7 devices, so that the electricity and bacteria sensors were installed in a real pilot.

CONSORTIUM



BUSSINESS AREAS

**Infrastructure area
COMSA, S.A.**

DURATION

October 2017 - September 2021

BUDGET

Consortium budget:

7.098.810€

COMSA Budget:

499.960€

KEYWORDS

Monitoring, maintenance, automation, industry, UAVs

COORDINATOR

Juan Luís Carús (TSK)

CALL/TOPIC

CDTI: IDI-20170954

EXTERNAL FUNDING

