



INDRA IS DEVELOPING A SYSTEM FOR LOCATING PEOPLE THAT MONITORS VITAL SIGNS

- The solution will improve the safety of Security Forces and professionals who carry out risky activities
- A wrist carries the high-precision locator--for indoor and outdoor use-and the sensors that detect the person's condition and stress level
- This R&D project will offer the most advanced solution of this type on the market, and at the most competitive price

Indra is working on the development of a high-precision system for locating people that monitors an individual's vital signs in real time. The system is conceived to address the needs of Security Forces. It also makes it possible to increase safety levels in a wide array of activities that range from the oil industry to healthcare.

The multinational technological and consulting firm is working on this project, known as Sherloc (Hybrid Remote Stress and Location System), together with the Universidad de Valladolid, the company Luce, the Universidad Politécnica de Madrid (UPM) and the AITEX Technological Institute.

The first prototype has already been tested successfully and the company expects to finish its development sometime this year. This R&D initiative is part of the Ministry of Science and Innovation's 2011 INNPACTO programme.

The system allows monitoring the position, stress level and vital signs of police agents, fire fighters and civil protection services during the operations they carry out. It also increases the safety of professionals who perform critical tasks, such as individuals working on oil rigs, ships, the heavy industry, airports and hospitals.

The system consists of a bracelet or an anklet that contains the locator and the sensors that analyse the person's biometric parameters (heart rate and skin conductivity). The bracelet also has a button that workers may use to activate an alarm requesting assistance if they find themselves in a dangerous situation.

The signal is received at the control centre and then displayed on a map application. This centre is capable of processing thousands of signals and centralising the management of several buildings and spaces.

The system can be configured to generate notifications in the event of falls or accidents, or if symptoms of fatigue are detected, that could hinder a worker from performing a specific activity.

All the information received makes it possible to prevent accidents and react quickly to unforeseen circumstances since the person's exact position is known.

The Sherloc system includes the latest *Indoor* Positioning Systems (IPS) and global positioning systems (GPS, GLONASS), guaranteeing an uninterrupted maximum precision signal.

In light of the systems available on the market that offer limited precision and require costly equipment as well as tedious installation processes, Sherloc will be commercialised at a very competitive price and it will not require to be calibrated in order to locate people inside buildings.

Research in León

The development of this system has been led by Indra's Security Centre of Excellence (CES in Spanish) in León. Among the technologies in which this centre is specialised, the development of digital signal generation and location systems stands out. Its facilities have created, among other items, the man overboard radio beacon as well as frequency jammers for protecting critical infrastructures. The CES has a close partnership with nearby technological colleges and universities, helping to transform years of research into specific developments.

Since 2005, Indra continues to consolidate its presence in Castilla y León as well as its commitment to technological development in this autonomous community. The creation of the Salamanca Software Lab, the inauguration of the Development Centre in Valladolid's Boecillo Technological Park, and the launch of the Security Centre of Excellence and the Information Technology Incident Response Centre in León are some of the most important initiatives that the IT company has carried out in the region.

Indra

Indra is one of the world's largest consultancy and technology multinationals, a leader in Europe and Latin America and is expanding in other emerging economies. Innovation is the cornerstone of its business, which is highly focussed on the customer and on sustainability. The multinational is one of the leaders in its sector in Europe in terms of investment in R&D and innovation, having invested more than €550M in the last three years. With sales approaching €3,000 million, it employs 42,000 professional and has customers in 128 countries.