An Emergency Call System for Elderly People in Nursing Homes

AT A GLANCE

- 2D/3D building maps
- Indoor navigation within the building
- Location overview of all emergencies
- In case of an emergency: Automatic position transfer to a nurse in the immediate vicinity
PROBLEM DEFINITION
In deciding in favour of a nursing home, not only comfort but also, above all, safety plays an important role for those affected. Particularly in everyday situations, emergencies can quickly arise, whether it is a fall in the bathroom or physical discomfort in bed. But how can senior citizens make themselves felt in an emergency, so that help is available as quickly as possible? It is particularly important for nursing staff to have an overview of the location of the hazards in order to arrive at the patient in good time in an emergency.

SOLUTION
To protect the elderly, they are equipped with a Bluetooth Beacon in the form of a wristband, with which an alarm can be triggered in danger or emergency situations by a simple push of a button or an alarm can be triggered by immobility. In the first case, the occupant is still able to act and can press the SOS button himself in an emergency. In the second case, on the other hand, the occupant is incapable of moving or acting, so that an emergency call with a location is automatically sent to the nursing staff. After a predetermined period of motionlessness, the position data of the unconscious person is sent to the smartphone of the nearest nurse.

The location of the person concerned is immediately forwarded to the nearest nurse. This option can also be useful for patients who are currently moving around freely in the building to make a mobile call for help. Using the rapid visualization of the alarm location in the map, the nearest nurse can quickly reach the motionless occupant and help.

TECHNICAL IMPLEMENTATION
infsoft Locator Nodes are installed on the walls of the nursing home and the residents wear a BLE Beacon wristband on their wrists, which is equipped with either an alarm button or a motion sensor. The Locator Nodes mounted on the walls recognize the signals of the Beacons and transmit the data to the infsoft LocAware platform®, where they are processed in real time and the position is displayed on a map. The nursing staff can see the unconscious home resident’s location in a smartphone or browser application and is then led to the person concerned by means of a guide in the app.