

DOWSER - Detect trapped people by measuring Wi-fi Signal during Emergency Response

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Winner of:

- *More than 20 EC-funded security projects*
- *First EDA PADR (STF-01-2017)*
- *Role: Proposal coordinator*
- *Proposal activity: SU-DRS02-2018-2019-2020: Technologies for first responders*
Sub-topic 1: [2018] Victim-detection technologies



Proposal idea/content

- Nowadays, victims trapped in collapsed buildings often have a smartphone available. In such situations, victims are ready to react, rationally or not. Nonetheless, there is no guarantee that:
 - in such an environment, the network coverage will be good enough for making a phone call and/or accessing Internet services
 - the victim can effectively provide directions to the rescuers
- The DOWSER project aims at investigating the feasibility of using WIFI signal for locating people trapped under collapsed buildings.
- For that purpose, the consortium will create:
 - **An app for smartphones, to be installed on citizens' smartphones.**
When activated, the app automatically creates a WiFi network, with a unique ESSID which is broadcasted as widely as possible;
 - **A portable hardware platform, equipped with highly sensitive radio scanning equipment and coupled with dedicated software, to be used by rescuers.**
The device continuously scans the environment. When it finds a network created by a victim's smartphone, it connects to it, receives information needed for identifying the owner, establishes a voice communication channel and analyses the signal in order to accurately drive the rescuers towards the victim.

Project participants

- Proposed coordinator: Zanasi & Partners (?) (Italy)
- Partners / Other participants:
 - Crisis management
 - Zanasi & Partners (Italy) (iSAR+, SOTERIA, SECRET projects)
 - IT and TLC
 - Engineering (Italy)
 - SIVECO (Romania)
 - First responders*:
 - AAHD (Turkey)
 - *Italian LEA*
- Looking for partners with the following expertise/ technology/ application fields:
 - Project coordination?
 - Third first responder organisation
 - Wireless networking

** This topic requires the active involvement of at least 3 agencies or first responders' organisations from at least 3 different EU or Associated countries.*