

V2X: Emergency medical service 2.0

Authored by

Lúcia Sousa, Manuel Couto, Rafael Dias, Raquel
Pinto, Rodrigo Martins -> group 11

Under the guidance of

Susana Sargento, Pedro Rito, Miguel Luís



BOSCH
Tecnologia para a vida



universidade
de aveiro



25
YEARS

instituto de
telecomunicações

Context / Application Areas

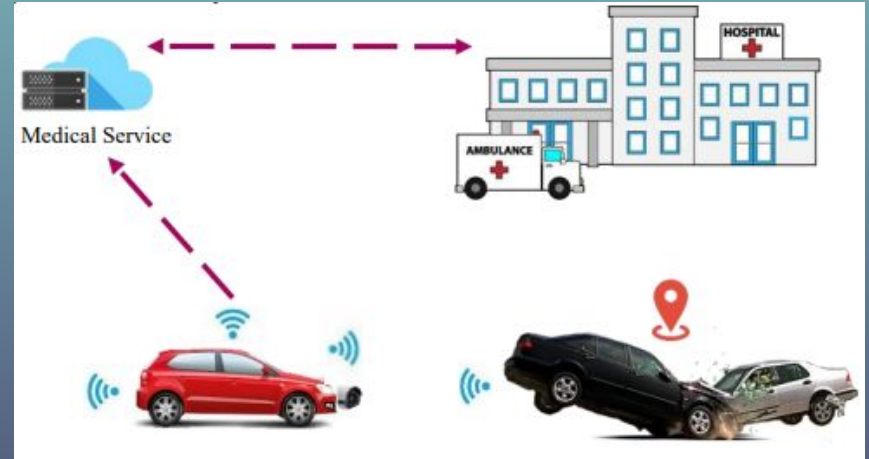
- Internet of things;
- Road Safety;
- Vision through computer;
- Vehicular communications;
- DSRC (Dedicated Short-Range Communications);
- C-V2X (Cellular Vehicle-to-Anything);
- LTE (Long Term Evolution);
- 5G.



Autonomous Rescue Communications

Problem

- Delay between the accident happening and emergency services being notified.
- Depending on human intervention to notify the emergency services.



GOALS



Be able to display relevant information about emergency services on web app.



Video and data, containing only relevant images and information.

Implement more relevant features to the web app.



Tasks

- Add livestream to the gateway car;
- Add live location of emergency services;
- Improve the gateway detection algorithm;
- Use DENMS(Decentralized Environmental Notification Messages) instead of CAMS;
- Improve the security in the API and Database;
- Add the possibility to check if the car is burning;
- Optimize and implement more features to the web app;
- Add statistics;
- Advice about dangerous days(taking in count statistics);
- Make an API communication about congested areas;
- In severity calculations get in count meteorology and car messages(oil pressure, airbags, engine temperature).

Expected Results

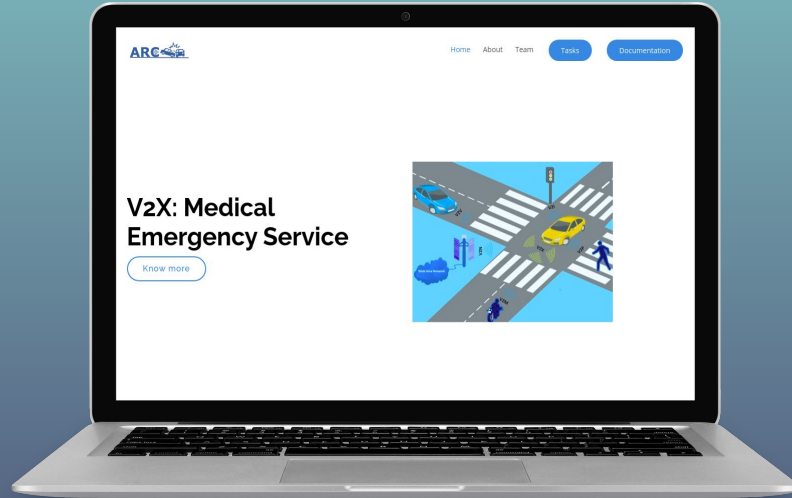
- Improve and increase functionality to the previous project.
- Try to make the accident message as quick as possible to be received.
- Be able to contact the emergency services for each accident.
- Acquire new skills in different types of software and hardware.
- Validate all new increments of the project in a real context.

Related work

- 5Gcar.
- When Backscatter Communication Meets Vehicular Networks: Boosting Crosswalk Awareness.
- eCall.



Microsite



<https://rodrigo740.github.io/index.html#>