

TECH-CARE Scenario

Context

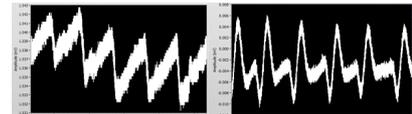


IoT: 50 billion devices are expected to be connected to the Internet by 2020. Thanks to the use of microsensors in the net, everyday objects will be connected and intelligent.

- wide availability of solutions, such as open source, to implement embedded programmable systems, often with network connectivity
- aging population —> TECH-CARE

Objective

- To design devices to be installed in elderly people's houses for specific problem solutions
- Examples: medication handling, health parameters monitoring, food shopping support



SafeCall (cardiac monitoring)

Activities

- Needs detection and analysis
- Data collection and analysis, interviews with elderly people (grandparents, elderly centres)
- Problem redefinition and co-designing of possible solutions
- Technology mapping and identification of innovative elements
- Meeting with experts
- Prototype development

Development

- Market research
- Search for innovative solutions
- Search for components
- Budget drafting
- Design
- Simulation
- Implementation

Living Lab

Tech-Care: design of domotic /IoT system to meet the needs of elderly people
Living Lab: the users' knowledge, ideas, experiences, daily needs are the starting point for the development of new products, services or applications, aimed at supplying support and/or assistance.

- Reversal of the traditional teacher-centred approach which provides the student with knowledge to be later transferred into the realization of a project

ITT E.FERMI TECH-CARE Scenario

Methodologies: *Round Table, Brainstorming, Meta-plan, Interviews, Web Inquiry, Design Thinking*

Design Thinking

The crucial element that must occur before, during and after the project implementation. It is the designing process where creativity and problem solving skills are at play: the student uses acquired knowledge and is motivated to learn more.

Design thinking is a methodology that encourages the solution of complex problems through ideation and iteration.

In design thinking the repetition of a process of testing, improving, designing is crucial. That's what is meant by iteration.

Competences

- Assuming responsibility when performing a task
 - Adapting behaviour to circumstances in problem solving
 - Self-management, within guidelines, in a context (work or study), generally predictable but subject to change
 - Team work
- Identifying the functional and structural features of an enterprise
- Developing electronic and IT applications
- Communicating technical innovation in public
- Devising information strategies for the local community
- Designing and differentiating according to marketing strategies