

TECHNOLOGICAL SOLUTION FOR FALL RISK SCREENING AND FALLS PREVENTION

FALLSENSING





A TECHNOLOGICAL SOLUTION TO ENABLE SCREENING AND MONITORING OF THE RISK OF FALLING AND THE IMPLEMENTATION OF FALLS PREVENTION PROGRAMMES IN THE ELDERLY.

INTERVENTION TOOLS



Falls are one of the most common health related problems in the elderly.
Falls have a multifactorial origin, however most of the fall risk factors are amendable.

FallSensing project proposes a system that integrates fall risk screening with falls prevention programmes.

FallSensing System

SCREENING

A tool for standard fall risk assessment tests. Fall risk metrics are extracted from the signals of inertial sensors and a pressure platform during the execution of specific exercises. An estimate of the risk of falling is given to the health provider in order to adapt intervention strategies.

INTERVENTION TOOLS

CLINIC

Exercise application designed for physiotherapists to help them in the

implementation of fall prevention exercise plans, while providing feedback during the execution of the exercises.

Exercises are monitored with inertial sensors and a pressure platform.

All data (from fall risk screening and fall prevention exercises) are compiled in a electronic health record.

HOME

Exercise application to be used at home whereby the personalized exercise plans are automatically recommended by the system, promoting a continuous adaptation of the intervention plans to the evolution of the user.

Exercises are monitored with inertial sensors and displayed in a tablet device.

SENIOR CARE INSTITUTIONS

Exercises for falls prevention implemented in the form of serious games, encouraging social interaction, adherence to exercise and empowerment of functional abilities. Movements are analyzed in real-time from inertial sensors signals.



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