Scheda di Offerta Tesi

**Titolo (provvisorio):** Development of rehabilitative exercises with Kinect and Leap Motion and testing on healthy subjects in order to evaluate the usability

**Relatore/i:** Dellepiane Silvana

**E-mail:** Silvana.Dellepiane@unige.it

**Indirizzo:**

**Tel.:** (+39) 010353 - 2754

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**Motivazione e campo di applicazione**

The main objective of the project is to transform the patient’s home in a place where physical and cognitive rehabilitation processes can be performed in a safe and comfortable way. The patient will not only be in contact with experts in the rehabilitation centre providing guidance and feedback, but will also enjoy the participation to the rehabilitation program, to increase inclusion and motivation.

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**Obiettivi generali e principali attività**

Study and development of rehabilitative exercises executable with Microsoft Kinect and Leap Motion.

In particular, a deep study of exercises that will be reproduce remotely at home without the direct therapist support.

The second step will be consisting of the transformation of the physical exercise in a “rehabilitative exercise” guided by Kinect or Leap Motion.

The last phase will be the analysis of the usability of the exercises developed with a protocol test on healthy subjects.

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**Obiettivi di apprendimento (strumenti tecnici e analitici, metodologie sperimentali)**

- Study of rehabilitative exercises with expert therapist
- Development of innovative exercises and evaluation of usability
- Conducting experiments with healthy subjects

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**Informazioni aggiuntive**

**Abilità e capacità richieste:** Good level of programming

**Numero massimo di studenti:** 2