

**PUBLIC SELECTION BASED ON QUALIFICATIONS AND INTERVIEW FOR THE AWARDING OF NO. 1 EARLY STAGE GRANT LASTING 12 MONTHS FOR CONDUCTING RESEARCH PURSUANT TO ART. 22 OF LAW NO. 240/2010 AT THE DEPARTMENT OF ENGINEERING AND APPLIED SCIENCES (A.R.F. 09/E3 ELECTRONICS - A.D. ING-INF/01 – ELECTRONIC ENGINEERING) TYPE B (CUP: F52I16000100006)**

announced with decree of the Rector Rep. no 343/2018 of 23.05.2018 and posted on the official registry of the University on 23.05.2018

**RESEARCH PROJECT**

***“Sensor and microelectronic technologies for the remote monitoring of patients affected by central nervous system diseases”***

**Department of Engineering and applied sciences**

**Tutor:** Prof. Valerio Re

**A.D.** ING-INF/01 – Electronic Engineering

**A.R.F.:** 09/E3 - Electronics

The research program plans to use inertial sensor platforms for the remote monitoring of patients affected by diseases of the central nervous system. The project will be carried out in collaboration with clinical research institutions, with the goal of testing the sensors on a selected group of patients, and of acquiring data relevant to their physical activity and to their gait parameters by performing standard tests and by monitoring the patients' mobility over a long period. The project plan includes the development of algorithms for the detection of sensors signals and for the extraction of parameters that can yield a quantitative estimate of the patients' conditions and their response to drugs and rehabilitation procedures.