ABSTRACT

The science evolution depends on the interaction between knowledges of several areas, when the junction between computer science is done and the biomedical sciences it provides a scientific highly significant advance. Being thus this work monograph has as goal demonstrate that.

The developed system will be used in the patients' functional evaluation with neurological pathologies, that present a called disturbance motor dysmetria, that is caused in specific areas of our encephalon, due some kind of pathology that pledges the motive neurological part. For better work organization and structuring was used the software engineering with goal improve productivity and quality, as well as UML's Utilization, who through diagrams facilitate the needs understanding and the system execution. The language used to elaboration of this work was Delphi who uses a graphic interface to facilitate the relation between users/ machine and also software future implementations and corrections, for points animation randomized on screen was used the library OpenGl, that supplies all necessary resources for images creation, nowadays has been enough used in games. For exam accomplishment is necessary a kind touch screen monitor, because the technology is highly intuitive and practice, essential for an evaluation needs the dysmetria.

Therefore the developed software is going to contribute not only for medical neurologists and physiotherapists, but also for psychologists and psychiatrists, because it can be used to analyze the patients attention level and time of reaction, essential functions in the traffic. As it was already told previously, this software will be able to be used in several areas, as in psychiatric tests in clinics, in psychiatrists' evaluations at once of the test psycho technical at the moment that a person is to take the driver's license, in the dyslexia test, what would make the test psycho technical could perfect of more coherent form if a person owns in fact the necessary attention to be able to take the driver's license.

Key words: Dysmetria, neurological test, software, biotechnology