

Analyzing Walking Gate through Kinect

PROJECT DESCRIPTION

"A variety of functional-mobility measures for seniors involve simple sitting, standing and walking activities that assess the subject's (in)stability, balance, fall risk, functional ambulation, and endurance.

Some of the more well-known tests are (a) the "Times from Sit to Stand" test, (b) the "2 (or 6) Minute Walk Test", (c) the "10 Meter Walk Test", and (d) the "Timed Up and Go" tasks - see <http://www.rehabmeasures.org/default.aspx>. These tests are well understood and broadly adopted internationally.

In our project, we plan to develop technology-enhanced protocols for the above tests, incorporating computer-vision techniques. More specifically, we intend to capture on video the subject's movement during these tests and to analyze the recorded signal in order to computationally extract more precise indicators that can enhance the diagnostic value of these tests."

FACULTY-DEPARTMENT

Science - Computing Science

DESIRED FIELD OF (STUDENT) STUDY

Computing science; image and video analysis algorithms; software development; kinect

INTERNSHIP LOCATION

University of Alberta Main Campus - Edmonton

NUMBER OF INTERNSHIP POSITIONS

2

INTERNSHIP START DATE

Flexible

INTERNSHIP END DATE

Flexible

Contact: Brendan Cavanagh, Internship Coordinator (Inbound)
University of Alberta International
intern@ualberta.ca

ARE THE DATES FLEXIBLE?

Yes, I am flexible regarding the internship dates. Selected students can contact me to request a date change.