

POSTDOCTORAL RESEARCH POSITION :

MORPHOMETRIC ANALYSIS OF HUMAN SHAPES IN MOTION

A postdoctoral position is available for one year starting from autumn 2012 at Grenoble, France. One renewable year could be proposed. Candidates highly motivated by Human Movement Analysis who received their PhD in Neuroscience, Kinesiology, Biomechanics or Engineering sciences are eligible to apply.

Objectives:

- Morphometrics analysis of 3D human shapes in motion
- Extraction of movement kinematics from conventional and volumetric 3D analysis
- Validation of the natural motion patterns recognition from morphometry-based measures
- Characterization of the morpho-kinematics signature of human motor behavior

The ideal candidate has expertise in:

- Human motion analysis with 3D motion systems (Vicon, OptoTrak or Video multiCam)
- Kinematics and kinetics analysis with anthropometrics and biomechanical modelization
- Electrophysiology and bio-behavioral measurement of human movement (EMG, force plate)
- Bio- and behavior-metrics approach in human motor control
- Computer programming for motion data acquisition and analysis (MATLAB, C++, Stat. software)
- Oral and written in English

The successful candidate will be concerned with:

- 3D human motion recording and kinematics analysis based on anatomic and geometric models (volumetric dataset from finite element models of human motion)
- 2D/3D anthropometric and morphometric database combination
- Characterization of human motion coordination from dynamic morphometry (whole-body movement)

Salary:

- 2 080 euros / month (net pay)

Project partners:

The project is to be developed in the GIPSA-lab, LJK, and INRIA laboratories that have international recognition in human motion analysis, neurosciences, biomechanics, computer sciences, and innovative technologies. It is essential that the candidate is willing to work in a multidisciplinary research team, with real communication skills.

Host laboratories:

The host laboratories are part of the CNRS, Grenoble University and INRIA Institutes, respectively located in the campus of University Joseph Fourier and in the Inovalée Area, Grenoble, France.

Applicants should e-mail until the October 15th a letter of application, a curriculum vitae (including a list of publications), a summary of current and future research plans (3 pages max.) and three recommendation letters, to olivier.martin@ujf-grenoble.fr and lionel.reveret@inria.fr. The position is expected to start as soon as possible.

Contact :

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GIPSA-lab Grenoble Images Parole Signal Automatique, Dept. Automatique (<http://www.gipsa-lab.grenoble-inp.fr/>)

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