Engineer / Post-doc position in Control Engineering / Motion Simulation
EuroMov, Montpellier University, France

The EuroMov centre for Research and Innovation (Montpellier University, France) invites applications for a post-doctoral or engineer position from highly motivated scholars with engineer and/or research interests in control engineering, perception-action, motion simulation, dynamic pilot-vehicle systems.

PROJECT:
The successful candidate will integrate the EuroMov centre (Montpellier University) and its *iMose* platform (*Interactive Motion Simulator at EuroMov*). Research topics deal with multisensory perception and action in the context of human-in-the-loop dynamic vehicle control. Running projects address two complementary scientific challenges related to the perception and control of instrumented piloting, i.e., (i) modelling and (ii) experimentation. For (i) the multi-sensory landscape corresponding to ecological and potentially risky flying situations are modelled, using theories and methods from multisensory psychophysics, computational neurosciences, and non-linear dynamics. For (ii), model(s) are implemented and tested in simulated then real piloting situations, through controlled behavioural experiments and evaluation studies. The outcomes of the projects will be used by a dedicated team of experts to design technological solutions for boosting piloting performance in the identified situations. All running projects will benefit from the availability of *iMose*, a unique large-scale 6-degrees-of-freedom motion-based platform, as well as from the partners' expertise (e.g., Airbus, Onera) and facilities. More information about EuroMov and its *iMose* platform can be found at www.euromov.eu.

REQUIREMENTS:
The candidate must have
   - A PhD or engineer degree obtained in one relevant field,
   - A demonstrable scientific expertise in the field,
   - High skills in dynamical systems and control engineering,
   - Experience in design, acquisition and analysis of experiments,
   - Extensive programming languages and data processing skills (e.g., Matlab, C++, NI LabView or equivalent).

The iMose Motion Simulator

   - General knowledge in electrical engineering, industrial networks and environment (Linux, CAN bus, UDP/TCP communication), virtual reality, experience with computer graphics (e.g. OpenGL, Unity)

   - For non-English natives, English proficiency should be levelled B2 (European rating).
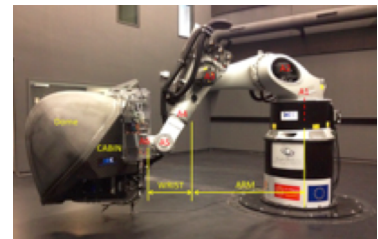
CONDITIONS:
The successful applicant will join EuroMov, which includes (i) several technological platforms with motion capture, neurophysiology and virtual reality equipment, (ii) its *iMose* motion simulator, (iii) a large (N=70), research unit devoted to the study of normal and pathological movements (iv) an incubation / R&D innovation site. EuroMov is located in the north of Montpellier (Languedoc-Roussillon region), in a dense nexus of research centres, hospitals and academic institutions (www.euromov.eu).

The position is full time, for 12 months (possible 12 month renewal), with a net salary between 1600 and 2100 EUR per month (depending on training, degree & experience) including social benefits and french health insurance. The position shall begin on September 1st, 2017, but the starting date is negotiable.

INQUIRIES & APPLICATIONS:
To apply, please send an email to Benoît Bardy (benoit.bardy/at/umontpellier.fr) and to Denis Mottet (denis.mottet/at/umontpellier.fr), coordinators of the iMose projects at EuroMov, with the subject line "Control Engineering Post doc 2017", including a full CV with publication list, the name of two recommenders, a short cover letter describing your research interests. Informal inquiries can be addressed to Benoît Bardy or Denis Mottet.