Open Positions in Human Robotics

There are currently several open positions for research engineers and graduate students related to the following projects. Information about these projects is available on the corresponding webpages. Other positions may be available (in particular for projects in fMRI compatible robot technology, automatic and optimal placement of neuroprobes, Virtual Reality training for microsurgery), and propositions related to our research are always welcome. If interested please contact me at e.burdet@ieee.org

- **Virtual Reality rehabilitation of arm and hand function after stroke**
  Two exceptional PhD students/research engineers are needed for this exceptional project in collaboration with UBC. Haptic interfaces can deliver forces fast and smoothly enough to influence and study the neuromuscular response, and can also be used to perform rehabilitation after stroke and assess recovery. This project will develop robotic assisted rehabilitation of critical tasks involving arm and hand movements in collaboration with top research labs in Vancouver. The two people involved in this project will spend half of their project in Canada. They will receive excellent education in bioengineering and neuroengineering and become able to work across the Pacific

- **Micro-assembly of three dimensional scaffold for tissue engineering**
  Students are needed to develop MEMS techniques for biocompatible and bioresorbable microparts, and to perform biological investigations in collaboration with NUH and Dietmar Hutmacher from the Division of Bioengineering. (http://guppy.mpe.nus.edu.sg/~hzhang/

- **Collaborative wheelchair assistant**
  The collaborative wheelchair may help disabled to regain autonomy, by providing guidance along paths defined in software, while allowing them to vary the level of autonomy to suit their ability. We have an open position for a research engineer, to work on the hardware/software and testing at a rehabilitation center in Singapore. (http://guppy.mpe.nus.edu.sg/~engp1647/)

- **Human motion control and neural learning**
  (http://www.bioeng.nus.edu.sg/research/HumanROBOTICS/human-main.htm)
  Excellent students with background in nonlinear control are needed to work on the novel adaptive controller derived from our Neuroscience findings and its implementation on robots. This project may involve leaves in ATR/Japan and/or the Swiss Institute of Technology (EPFL).