

## Opened positions in Model based Computer Assisted Surgical Planning in Deep Brain Stimulation

The Unité/Projet VisAGeS, INSERM/INRIA/CNRS/Université de Rennes 1 is looking for candidates for the following positions: **one assistant researcher/postdoc**, **one PhD**, and **one software engineer**, in the context of a newly funded national project in “Model based Computer Assisted Surgical Planning in Deep Brain Stimulation”.

The main objective of this project is to develop an innovative strategy based on models for helping decision-making process during surgical planning in Deep Brain Stimulation (DBS). Two types of models will be made available to the surgeon: patient specific models and generic models. The project will develop methods for 1) building these models mainly from multimodal medical images and clinical scores and 2) automatically computing and visualizing optimal electrodes trajectories from these models.

### Environment

During her/his work, the selected candidates will be considered as full members of the U746/VISAGES team. U746 team is part of the “Institut national de la santé et de la recherche médicale” (INSERM), which is the leading research institute in medicine in France. It is composed of 9 full-time researchers, 4 engineers and 9 PhD students. Its research activities include medical image processing and computer assisted interventions. The team is also located at the Medical School and has direct collaborations with neurosurgeons, radiologists, and neurologists from the University Hospital. We refer the candidates to the VISAGES website for more information: <http://www.iris.fr/visages/>

### Competence and Profile

For the assistant researcher/ post doctoral position, the candidate should have a PhD in image or information processing and/or multi dimensional analysis or related subjects. For the PhD position, the candidate should have a Master Degree in image or information processing and analysis or related subjects. For the software engineer position, the candidate should have a Degree in an engineering school and a strong background and experience in computer programming. Experience and publications related to atlases, statistical analysis, or deep brain stimulation are a must. Programming skills are required (Matlab, C++). The positions are funded for two years with possibility for renewal.

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