

12-month Postdoctoral research position in machine learning for neural speech decoding

Place: [GIPSA-lab](#) (CNRS/UGA/Grenoble-INP) in collaboration with BrainTech laboratory (INSERM). Both laboratories are located on the same campus in Grenoble, France.

Team: [CRISSP](#) team@GIPSA-lab (Cognitive Robotics, Interactive System and Speech processing).

Context:

This position is part of the ANR (French National Research Agency) BrainSpeak project aiming at developing a Brain-Computer Interface (BCI) for speech rehabilitation, based on large-scale neural recordings. This post-doc position aims at developing new machine learning algorithms to improve the conversion of neural signals into an intelligible acoustic speech signal.

Mission:

Investigate deep learning approaches to map intracranial recordings (ECoG) to speech features (spectral, articulatory, or linguistic features). A particular focus will be put on 1) weakly or self-supervised training in order to deal with unlabeled, limited and sparse datasets, 2) introducing prior linguistic information for regularization (e.g. thanks to a neural language model) and 3) online adaptation of the conversion model to cope with potential drift in time of the neural responses.

Requirement and Profile:

- PhD in machine learning, signal/image/speech processing
- Advanced knowledges in deep learning
- Excellent programming skills (mostly Python)
- Fluent in English

Duration: 12 months

Salary (before tax) / Month €: Depending on the experience

Starting date: Early 2020

How to apply:

Send a cover letter, a resume, and references by email to:

- Dr. Thomas Hueber, thomas.hueber@gipsa-lab.fr
- Dr. Laurent Girin, laurent.girin@grenoble-inp.fr
- Dr. Blaise Yvert, blaise.yvert@inserm.fr

Applications will be processed as they arise.