

INTERNSHIP ON AUTOMATED GROUPS' ANALYSIS

An internship opportunity is now available at LTCI, Telecom ParisTech, Paris, France (<https://www.telecom-paristech.fr/eng>, <https://ltpci.telecom-paristech.fr/about-the-lab/?lang=en>)

Title:

Group's analysis for automated cohesion estimation

Framework:

Groups are a fascinating interdisciplinary phenomenon. They can be defined as bounded and structured entities that emerge from the purposive, interdependent actions of individuals. One of the current open challenges on automated groups' analysis is to provide computational models of higher level concepts called emergent states, that is states emerging as results of affective, behavioral and cognitive interactions among the members of a group. Cohesion is one of these states. It is a dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuit of its instrumental objectives and/or for the satisfaction of members' affective needs. Cohesion is considered as a highly valued group property serving crucial roles for group effectiveness and performance. Scholars proposed theoretical models of cohesion having from one to five dimensions. Among these dimensions, the task and social ones were the most investigated. The task dimension concerns the extent to which group members are united to achieve the group's goals and objectives; the social dimension refers to the social relationships within the group (e.g. the extent to which group members like each other). The internship will focus on the development of a computational model of cohesion among humans, able to integrate its task and social dimensions and also accounting for their relationship and their development over time.

This work will be conducted in the framework of the ANR JCJC French national project GRACE (Groups' Analysis for automated Cohesion Estimation).

Intended tasks:

- State-of-the-art on cohesion to identify which are its most suitable and frequent multimodal behavioral descriptors. State-of-the-art will span several research fields, including sociology, psychology, and computer science
- Computation of multimodal behavioral descriptors of cohesion
- Designing, implementing, and evaluating a computational model of cohesion

Profile:

The ideal candidate should have a strong academic background in one or more of the following fields: Computer Science, AI, Machine learning, Human-Computer Interaction, Information Technology, Affective Computing, Social Signal Processing, or closely related fields. In addition to a passion for science and programming, you should be open to extend your thinking to the issues linked to Human-Computer Interaction.

Moreover, the ideal candidate should have:

- Interest in multidisciplinary research at the interface between computer science and sociology/psychology
- Excellent academic track record
- Good command of English (written and spoken)
- Strong programming skills (C++/Python)
- Very good communication skills, commitment, independent working style as well as initiative and team spirit

Offer:

Starting date: March/April 2019.

Duration: 5/6 months

Application deadline: the evaluation of the candidates starts immediately and it will continue until the position is filled.

To apply please send by email to giovanna.varni@telecom-paristech.fr a single pdf file including:

- A cover letter stating your research interests and how they could be related to the research topic the thesis focuses on.
- A detailed CV
- Transcripts of your records

You are encouraged to contact Prof. Giovanna Varni for more information. Please quote “Internship position” in the email subject for both asking information and application.