

Master in Signal and image processing

Signal Image processing Methods and Applications (SIGMA)

Présentation

This master proposes the students to deepen their knowledge and develop their expertise. In the field of digital signal and image processing, computer sciences and information technologies. A particular emphasis is put on fundamental modern tools for signal and systems modeling, information extraction from experimental data as well as information representation and conditioning.

SIGMA offers a unique track, it allows students to choose courses more adapted to their project ; skills acquired thus will be based on core course to all students and are available on the following topics at the heart of science data (Data Sciences)

- Signal and systems modelisation, random process;
- Formating, extracting et analysing data in complex systems: Inverse problem, detection, statistical machine learning. Big data technics.
- Applications en imagerie multi et hyper-spectrale, applications biomédicales, neurosciences, astro, géosciences...

Objectifs

The program is dedicated to provide the students the necessary competences to become creative specialists in various areas involving numerical technologies, such as biomedical signal processing, observational sciences (geosciences, monitoring, remote sensing,), artificial intelligence (machine learning, statistical inference, computational Bayes methods) to mention a few.

The master is designed to prepare for PhD studies in the fields of electrical engineering and computer sciences, with a focus on digital methods. An important part of the lectures is dedicated to introduce present research and development topics ; this teaching is organized into a series of short lectures given by professional and researchers from companies or labs developing research or applications in the field of information technologies.

Admission

Access to master 1: The candidate should have a license degree, studied 3 years in university level or validated an equivalent of 180 ECTS in the fields of applied mathematics, computer science or electronic systems

Access to master 2: The candidate should have a master 1 level, studied 4 years in university level or validated an equivalent of 240 ECTS in the field of applied mathematics, computer science or electric systems. Also, the candidate should prove sufficient english level (CEFR (B2), TOEFL (IBT 87-109), IELTS (5.5-6.5), TOEIC (785-945) or equivalent)

See the website : <http://phelma.grenoble-inp.fr/en/studies/admission-based-on-qualification-master>

Infos pratiques :

- > **Composante** : Grenoble INP
- > **Durée** : 2 ans
- > **Type de formation** : Formation initiale / continue
- > **Lieu** : Grenoble - Domaine universitaire

> **Contacts :**

Responsable(s) pédagogique(s)

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