

# Parcours Electrical Engineering and Control Systems / WICS 2<sup>e</sup> année

Master Electronique, énergie électrique, automatique



Composante  
UFR PhITEM  
(physique,  
ingénierie, terre,  
environnement,  
mécanique),  
Grenoble  
INP - Phelma  
(Physique,  
électronique  
et matériaux),  
UGA



Langue(s)  
d'enseignement  
Anglais

## Présentation

**The WICS (Wireless integrated circuits and systems) master** is a master degree focusing in integrated circuit and system design for Analog/Mixed/RF & millimeterwave applications. It gives students the opportunity to learn advanced skill sets with projects led by high-level research units; the techniques and methodologies they will need to promote their research on an international level will be studied.

With a **curriculum focusing on theoretical knowledge supported by practical applications**, the WICS master prepares students for a career in both the **international research community and the professional applications**. As they finish their training, graduate students are fully ready to pursue a career in thriving fields such as the Internet of Things, future wireless communication systems, sensor networks, or medical applications.

**Formation internationale** : Doubles diplômes, diplômes conjoints, Erasmus Mundus, Formation tournée vers l'international

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## Dimension internationale

The WICS master is taught in English by French and foreign teachers and/or researchers from universities and companies. It will allow preparing students for a career in both the international research community and the professional applications.

A double degree with Politecnico di Torino has been created. It concerns:

- Master WICS in France (at the UGA and Grenoble INP)
- Laurea magistrale in Ingegneria elettronica in Italy (at Politecnico di Torino)

The first year of this program is taught at PoliTo, the second year at UGA/Grenoble INP

# Admission

## Conditions d'admission

- **2nd year of master WICS degree** : The prospective student should have completed at least **four full years of University** studies (a first year of master's degree, bachelor or equivalent degree with 240 ECTS), have followed basic classes in Electronics and Radio Frequency and prove an English proficiency with CEFR (B2), TOEFL (IBT 87-109), IELTS (5.5-6.5), TOEIC (785-945) or equivalent. Students coming from English-speaking countries or/and who had a University curriculum in English are considered proficient enough. If you don't have the opportunity to take the test in your home University, an English test is organized during the first week of the classes, to check the level of everyone
- **Double degree program** : The prospective student should have completed at least three full years of University studies (180 ECTS) in the fields of Electronics or Applied physics and prove an English proficiency with CEFR (B1), IELTS (5.0), or equivalent as a minimum. Both certificates from an accredited institution and/or statements from the home institution are accepted.

Public continuing education : You are in charge of continuing education :

- if you resume your studies after 2 years of interruption of studies
- or if you followed training under the continuous training regime one of the previous 2 years
- or if you are an employee, job seeker, self-employed

If you do not have the diploma required to integrate the training, you can undertake a [🔗](#) validation of personal and professional achievements (VAPP)

## Candidature

You want to apply and register?

Simply follow this [🔗](#) link to get started

## Droits de scolarité

[🔗](#) Consulter le montant des frais d'inscription

## Et après

## Métiers visés

Assistant Professor, researcher, doctor-engineer, R & D

## Infos pratiques

## Contacts

### Responsable pédagogique

Lauga-Larroze Estelle

✉ [estelle.lauga-larroze@univ-grenoble-alpes.fr](mailto:estelle.lauga-larroze@univ-grenoble-alpes.fr)

### Secrétariat de scolarité

Gestionnaire

✉ [phitem-master-eea@univ-grenoble-alpes.fr](mailto:phitem-master-eea@univ-grenoble-alpes.fr)

### Responsable formation continue

Laura DI RUZZA

✉ [fc-phitem@univ-grenoble-alpes.fr](mailto:fc-phitem@univ-grenoble-alpes.fr)

## Établissement(s) partenaire(s)

This program can be followed as part of a double degree in partnership with Politecnico di Torino (Italy). Professor in charge of the Double Degree: Mr. Jean-Marc DUCHAMP

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## Laboratoire(s) partenaire(s)

IMEP-LAHC

<http://www.imep-lahc.grenoble-inp.fr>

TIMA

<http://tima.univ-grenoble-alpes.fr/tima/fr/index.html>

LCIS

<http://www.lcis.grenoble-inp.fr/>

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## Lieu(x) ville

 Grenoble

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## Campus

 Grenoble - Polygone scientifique

# Programme

## Master 2e année

### Semestre 9

	Nature	CM	TD	TP	Crédits
UE Radiofrequency Communication Systems	UE	14h	4h		6 crédits
UE Radiofrequency Integrated Circuits	UE	14h	14h	24h	6 crédits
UE Microwave Circuits	UE			38h	6 crédits
UE Antennas and Electromagnetic Compatibility	UE	16h	10h		3 crédits
UE Integrated technologies & process of fabrication	UE			8h	3 crédits
UE Specialty courses	UE				3 crédits
UE Research lab work	UE			48h	3 crédits

### Semestre 10

	Nature	CM	TD	TP	Crédits
UE Research internship	UE				24 crédits
UE Research lab work	UE				3 crédits
UE FLE	UE				3 crédits
UE Anglais - Master 2 - Semestre 10	UE				3 crédits