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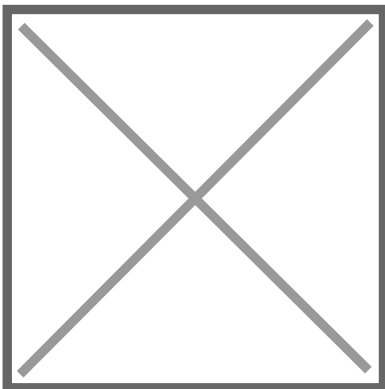
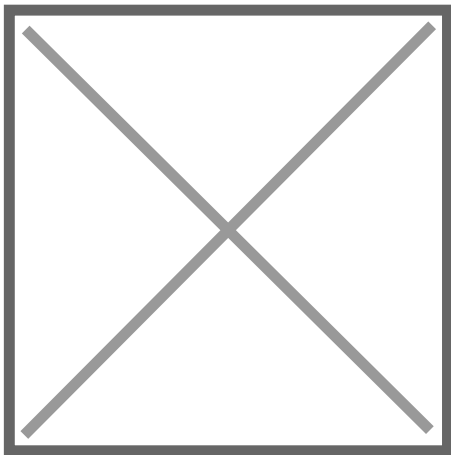
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Une erreur est survenue. Merci de réessayer ultérieurement

Le mail de partage a bien été envoyé.

Add to Compare

M2 Multimedia Networking



Master's degree

Specialisation Electrical Engineering

Enrolment type

Full-time academic programmes

Language(s) of instruction

English

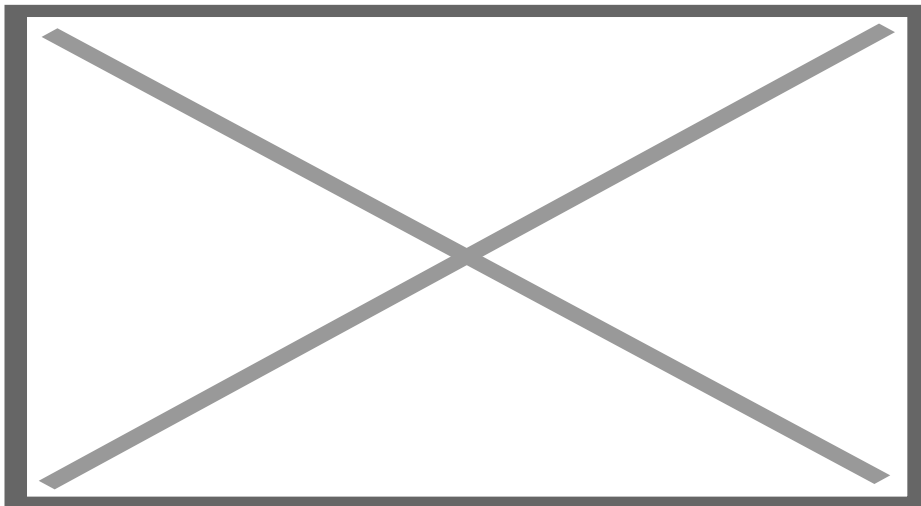
<https://www.universite-paris-saclay.fr/en/education/master/electrical-engineering/m2-multimedia-networking#presentation>

The aim of this research-oriented program is to train students to carry out research on topics related to the compression of multimedia content, the transmission of this compressed data over a network, and the development of algorithms and network architectures for fast, reliable and efficient access to this content.

This program offers fundamental training in information theory, compression, signal processing for multimedia, networks and content security. A significant part is devoted to techniques for optimising architectures for the transmission of audio-visual content. Deep learning tools for compressing, transporting and processing multimedia content are also presented.

[Télécharger la fiche détaillée](#)

[Apply Now](#)





Information

- [Overview](#)
- [Application requirements](#)
- [Schedule](#)

Présentation

Skills

Conduct a bibliographic research on a research topic.

- Formalise a research problem.
- Apply theoretical knowledge in order to offer a solution to a research problem.
- Design simulations / experiments to highlight the performance of the solution offered.
- Demonstrate critical thinking about competing solutions and the solution offered.
- Write a review article in English presenting a bibliography, describing a problem, solutions offered and experiment results, and present this work in English on a bibliographic research on a research topic.

Objectives

Audiovisual information plays an increasingly important role in our environment. Smartphones, tablets and augmented reality glasses equipped with increasingly powerful cameras and displays enable us to send and receive information via wireless networks, share content on community sites and receive geographically-related information.

Débouchés

Career prospects

ingénieur étude conception

Ingénieur de recherche ou d'études

Ingénieur.e recherche & développement

Further Study Opportunities

**domaines de l'apprentissage statistique, de l'intelligence artificielle
ou de l'analyse de données avancée**

Ingénierie études, recherche et développement

**Les étudiants titulaires d'un M2 ont la possibilité de poursuivre
dans la recherche en doctorat**

Thèse de doctorat

Fees and scholarships

The amounts may vary depending on the programme and your personal circumstances.

- [More information on tuition fees](#)
- [More information on scholarships](#)

Calendar

Start of programme (indicative date)

14/09/2026

End of programme (indicative date)

30/09/2027

Admission

Capacity

Available Places

25

Target Audience and Entry Requirements

Master's degree (Bac+4) at the time of application with prerequisites in signal processing and networks.

Période(s) de candidature

Inception Platform

From 01/02/2026 to 30/06/2026

Supporting documents

Compulsory supporting documents

Copy of identity document.

Motivation letter.

All transcripts of the years / semesters validated since the high school diploma at the date of application.

Curriculum Vitae.

Certificate of English level (compulsory for non-English speakers) or GMAT / GRE test results.

Recommendation letters.

Additional supporting documents

VAP file (obligatory for all persons requesting a valuation of the assets to enter the diploma).

Document indicating the list of local M2 choices available here : <https://urlz.fr/i3Lo>.

Supporting documents :

- Residence permit stating the country of residence of the first country
- Or receipt of request stating the country of first asylum
- Or document from the UNHCR granting refugee status
- Or receipt of refugee status request delivered in France
- Or residence permit stating the refugee status delivered in France
- Or document stating subsidiary protection in France or abroad
- Or document stating temporary protection in France or abroad.

Programme

Refreshers

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	discovery
Refresher in source coding	1	Semestre 1	9		4				

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	discovery/practical class
■									

Refresher in source coding

ECTS : 1
Semester: Semestre 1
Detail
Lecture: 9
Practical study : 4
Language(s) of instruction
Anglais
Remote teaching
non
Prerequisites

Basic knowledge in probability and information theory

Type of assessment
Evaluation Continue non Intégrale
[Refresher in probability, random processes, estimation and signal processing](#)

1	Semestre 1	15	3
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Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	discrete optimization
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Refresher in probability, random processes, estimation and signal processing

ECTS : 1

Semester: Semestre 1

Detail

Lecture: 15

Practical study : 3

Language(s) of instruction

Anglais

Remote teaching

non

Prerequisites

Basic knowledge in probability and signal processing

Type of assessment

Evaluation Continue non Intégrale

[Refresher in](#)

[optimization](#)

[\(continuous](#)

[variables and](#)

[discrete](#)

[optimization\)](#)

1

Semestre

1

12

3

Refresher in optimization (continuous variables and discrete optimization)

ECTS : 1

Semester: Semestre 1

Detail

Lecture: 12

Practical study : 3

Language(s) of instruction

Anglais

Remote teaching

non

Prerequisites

Good knowledge of common linear algebra and function calculation.

Type of assessment

Evaluation Continue non Intégrale

Refresher in networking	1	Semestre 1	10	8
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Refresher in networking

ECTS : 1

Semester: Semestre 1

Detail

Lecture: 10

Practical study : 8

Language(s) of instruction

Anglais

Remote teaching

non

Prerequisites

Basic knowledge in networking.

Type of assessment

Evaluation Continue non Intégrale

Modules théoriques et méthodologiques

[Content](#)

[Distribution](#)

[Networks:
performance
and models](#)

3 Semestre 24
1

Content Distribution Networks: performance and models

ECTS : 3

Semester: Semestre 1

Detail

Lecture: 24

Language(s) of instruction

Anglais

Remote teaching

non

Prerequisites

Architecture of TCP/IP networks

Type of assessment

Evaluation Continue non Intégrale

[Multimedia](#)

[content](#)

[security: basic](#)

[concepts](#)

3 Semestre 24
1 0

Multimedia content security: basic concepts

ECTS : 3

Semester: Semestre 1

Detail

Lecture: 24

Practical study : 0

Language(s) of instruction

Anglais

Remote teaching

non

Prerequisites

Probability theory and information theory

Type of assessment

Evaluation Continue non Intégrale

[Multimedia](#)

[compression](#)

3 Semestre 18
1 6



Multimedia compression

ECTS : 3

Semester: Semestre 1

Detail

Lecture: 18

Practical study : 6

Language(s) of instruction

Anglais

Remote teaching

non

Prerequisites

Knowledge in probability and linear algebra.

Type of assessment

Evaluation Continue non Intégrale

[Mathematics](#)

[of Information](#) 3 Semestre 24
and Source 1

[Coding](#)



Mathematics of Information and Source Coding

ECTS : 3

Semester: Semestre 1

Detail

Lecture: 24

Language(s) of instruction

Anglais

Remote teaching

non

Prerequisites

Good knowledge in probability.

Type of assessment

Evaluation Continue non Intégrale

[Joint project](#) 3 Semestre 6
and Seminar 2



Joint project and Seminar

ECTS : 3

Semester: Semestre 2

Detail

Lecture: 6

Project : 19

Language(s) of instruction

Anglais

Remote teaching

non

Type of assessment

Evaluation Continue non Intégrale

[Multimedia](#)

[content](#)

[security:](#)

3

Semestre

24

3

[advanced](#)

[methods](#)



Multimedia content security: advanced methods

ECTS : 3

Semester: Semestre 2

Detail

Lecture: 24

Practical study : 3

Language(s) of instruction

Anglais

Remote teaching

non

Prerequisites

Multimedia content security: basic knowledge

Type of assessment

Evaluation Continue non Intégrale

[Reinforcement](#)

[Learning for](#)

3

Semestre

21

6

[Multimedia](#)

[Applications](#)



Reinforcement Learning for Multimedia Applications

ECTS : 3

Semester: Semestre 2

Detail

Lecture: 21

Practical study : 6

Language(s) of instruction

Anglais

Remote teaching

non

Prerequisites

Basic course in probability

Source coding course

Type of assessment

Evaluation Continue non Intégrale

[Audio-Visual](#)

[transport](#)

[\(principles,](#)

[protocols and](#)

[advanced](#)

[techniques\)](#)

3

Semestre

2

21

6



Audio-Visual transport (principles, protocols and advanced techniques)

ECTS : 3

Semester: Semestre 2

Detail

Lecture: 21

Practical study : 6

Language(s) of instruction

Anglais

Remote teaching

non

Prerequisites

Networking: protocols (IP, TCP, UDP, HTTP,

HTTPS), Internet architecture (DNS,

unicast/multicast, CDN, P2P)

Coding: video compression, audio compression

Type of assessment

Evaluation Continue non Intégrale

Advanced compression techniques	3	Semestre 2	21	3
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Advanced compression techniques

ECTS : 3

Semester: Semestre 2

Detail

Lecture: 21

Practical study : 3

Language(s) of instruction

Anglais

Remote teaching

non

Prerequisites

First course in compression techniques

Type of assessment

Evaluation Continue non Intégrale

Deep Learning for Multimedia	3	Semestre 1	24	0
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Deep Learning for Multimedia

ECTS : 3

Semester: Semestre 1

Detail

Lecture: 24

Practical study : 0

Language(s) of instruction

Anglais

Remote teaching

non

Prerequisites

Course in probability

Type of assessment

Evaluation Continue non Intégrale

UE libre	3	Semestre 2	27
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UE libre

ECTS : 3

Semester: Semestre 2

Detail

Lecture: 27

Language(s) of instruction

Anglais

Remote teaching

non

Type of assessment

Evaluation Terminale

Stage

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	distance learning
Internship	26	Semestre 2							



Internship

ECTS : 26

Semester: Semestre 2

Detail

Tutored project 98

Language(s) of instruction

Anglais

Remote teaching

non

Type of assessment

Evaluation Continue non Intégrale

Teaching Location(s)

ORSAY

PALAISEAU

Academic Partner(s)

IP Paris

Contact



Mihai Mitrea

-

Sahar Hoteit

<http://www.universite-paris-saclay.fr/formation/master/electronique-energie-electrique-automatique/m2-multimedia-networking>