Université Paris-Saclay
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M2 Multimedia Networking

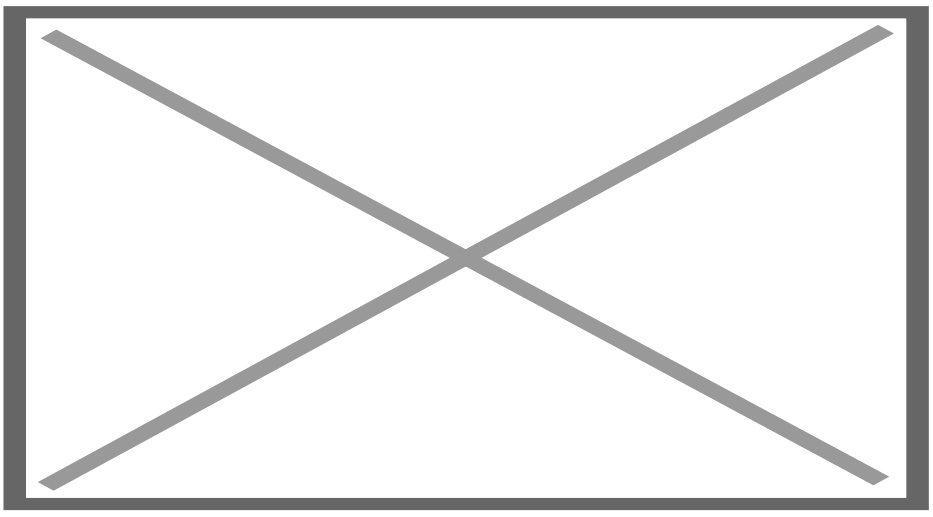
Master's degree
Specialisation Electrical Engineering
Enrolment type
Formation initiale
Language(s) of instruction
English

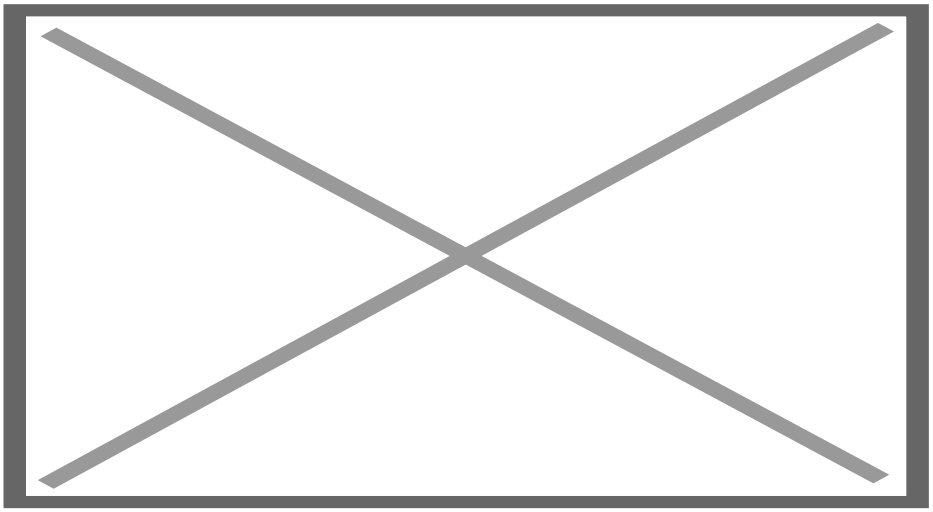
https://www.universite-paris-saclay.fr/en/education/master/electrical-engineering/m2-multimedia-networking#presentation

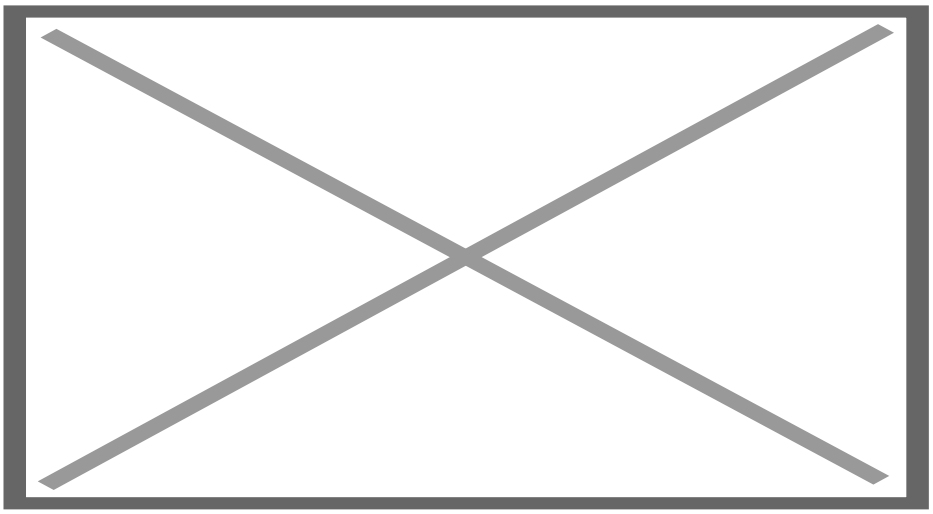
The aim of this research-oriented program is to train students to carry out research on topics related to the compression of multimedia content, the transmission of this compressed data over a network, and the development of algorithms and network architectures for fast, reliable and efficient access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

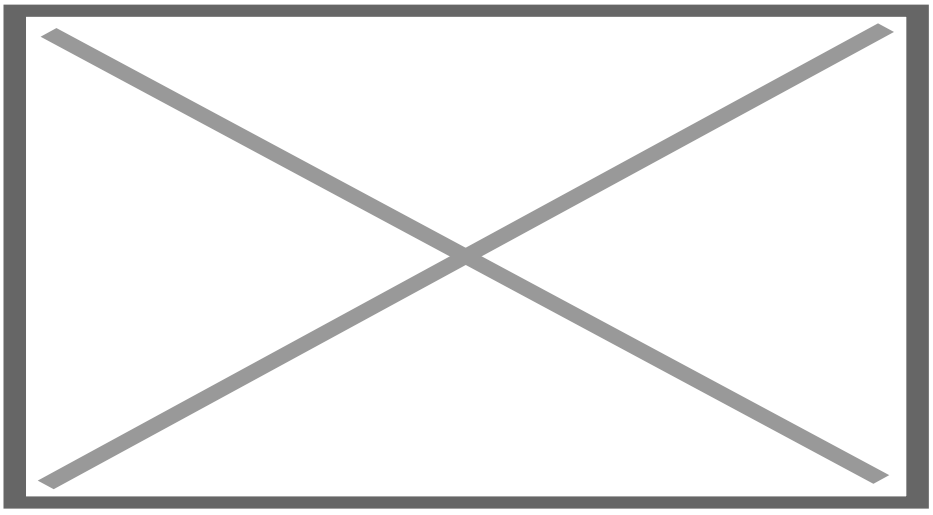
This program offers fundamental training in information theory, compression, signal processing for multimedia, networks and content security. A significant part is devoted to techniques for optimising architectures for the transmission of audio-visual content. Deep learning tools for compressing, transporting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

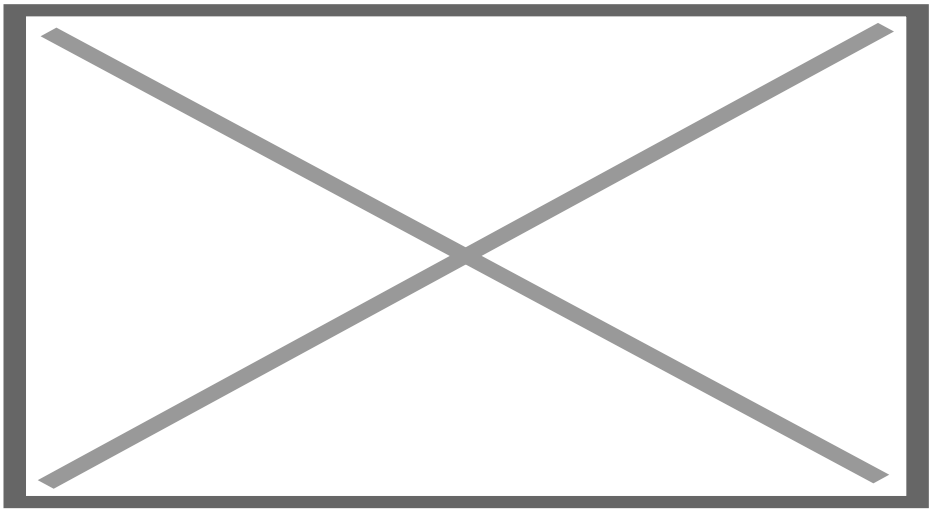
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Information

- 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 Englishuct 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

design study engineer
Research & Development Engineer
Research or Design Engineer

Further Study Opportunities

PhD thesis
Students with a 2nd year Master's degree have the possibility to pursue doctoral research.
Engineering, research and development
fields of statistical learning, artificial intelligence and advanced data analysis

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

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

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	dis le c
Refresher in probability, random processes, estimation and signal processing	1	Semestre 1	15		3				
Charger le détail									
Refresher in optimization (continuous variables and discrete optimization)	1	Semestre 1	12		3				
Charger le détail									
Refresher in networking	1	Semestre 1	10		8				
Charger le détail									

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	d l
Content Distribution Networks: performance and models	3	Semestre 1	24						
Charger le détail									
Multimedia content security: basic concepts	3	Semestre 1	24		0				
Charger le détail									
Multimedia compression	3	Semestre 1	18		6				
Charger le détail									
Mathematics of Information and Source Coding	3	Semestre 1	24						
Charger le détail									

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	d l
Joint project and Seminar	3	Semestre 2	6						
Charger le détail									
Multimedia content security: advanced methods	3	Semestre 2	24		3				
Charger le détail									
Reinforcement Learning for Multimedia Applications	3	Semestre 2	21		6				
Charger le détail									
Audio-Visual transport (principles, protocols and advanced techniques)	3	Semestre 2	21		6				
Charger le détail									
Advanced compression techniques	3	Semestre 2	21		3				
Charger le détail									
Deep Learning for Multimedia	3	Semestre 1	24		0				
Charger le détail									
UE libre	3	Semestre 2	27						
Charger le détail									

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	distan learn cour
Internship	26	Semestre 2							
Charger le détail									

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