Université Paris-Saclay
Share

Email destinataire :
Vous devez renseigner un email valide
Envoyer
Une erreur est survenue. Merci de réessayer ultérieurement
Le mail de partage a bien été envoyé.
Add to Compare

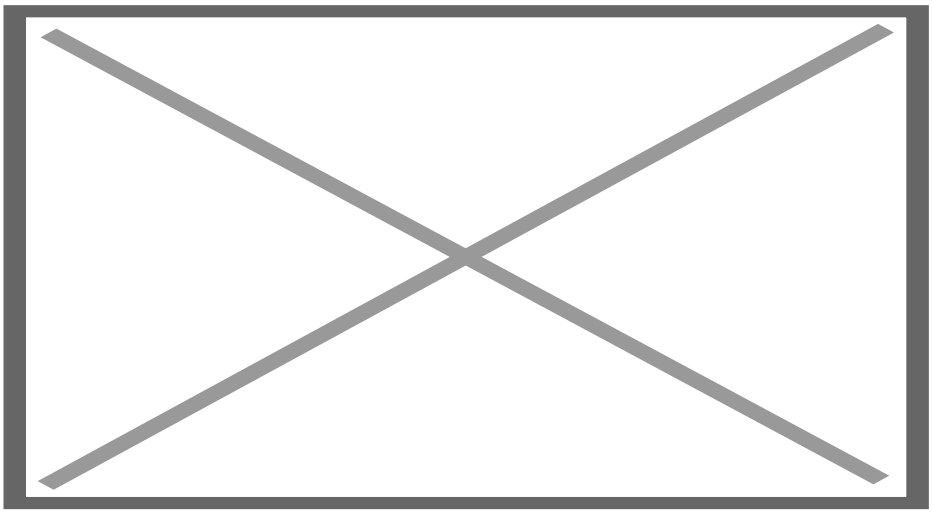
M1 Computer and Network Systems

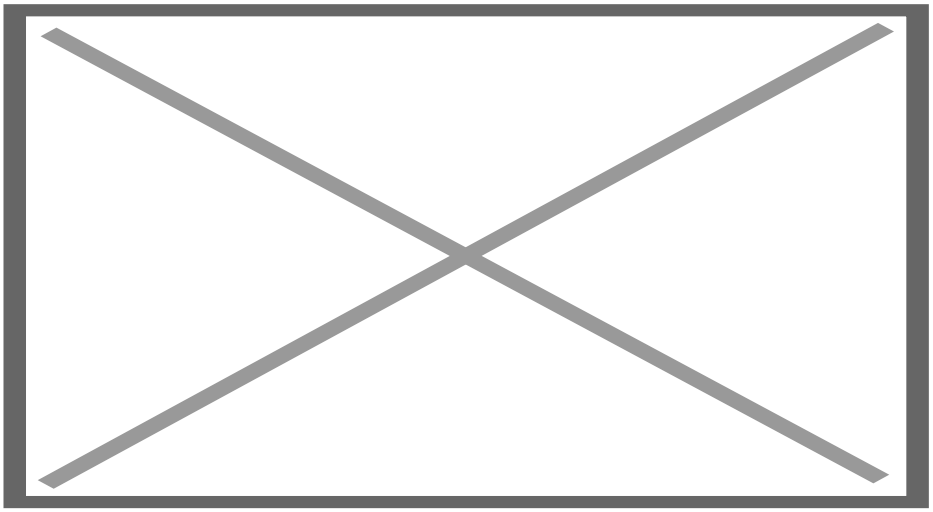
Master's degree
Specialisation Computer Science
Enrolment type
Formation initiale
Language(s) of instruction
French

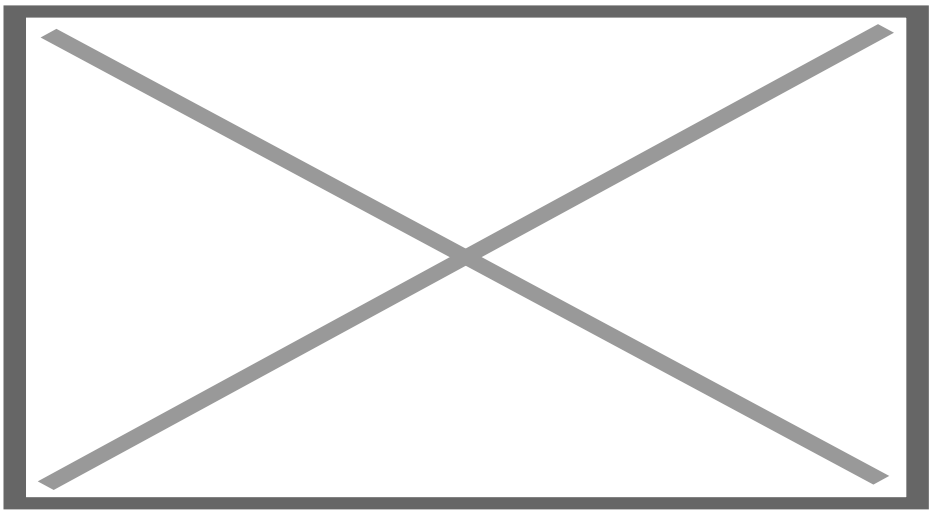
The CNS program aims to train experts in the field of Computer and Network Systems over two years. It offers several specialization paths, either in the field of autonomous systems or in networked systems, and numerous opportunities, both academic and professional.

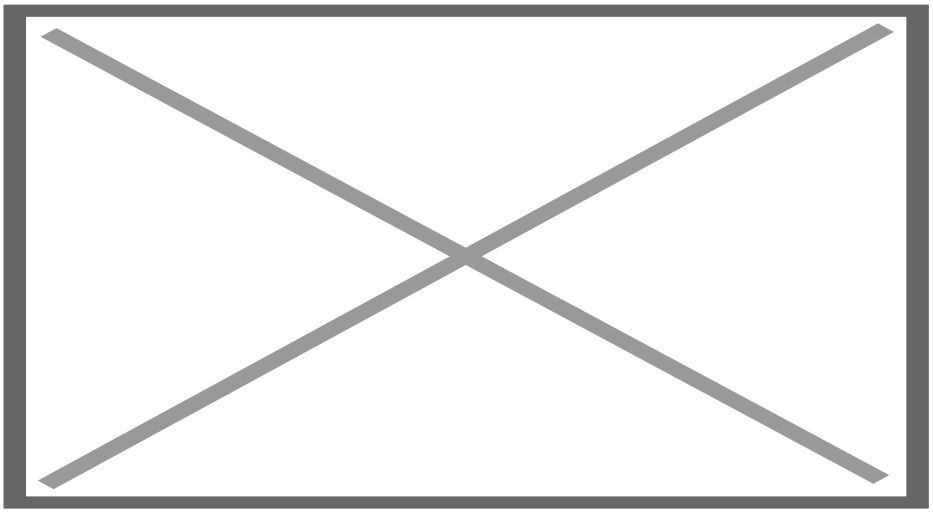
The first year of the CNS (Computer and Network Systems) program of the Master's in Computer Science is divided into two sub-programs: SA (for Autonomic Systems) and SR (for Networked Systems). The first focuses on the conceptual aspects of autonomous systems, which requires skills in AI, formal systems, algorithms, and programming. The second focuses on the architectural and control aspects of these systems, requiring skills in the design and management of networked systems. The M1 leads to three distinct programs in M2: the M2 CNS-SA, the M2 CNS-SR, and an M2 CNS International Track hosting incoming or outgoing students.

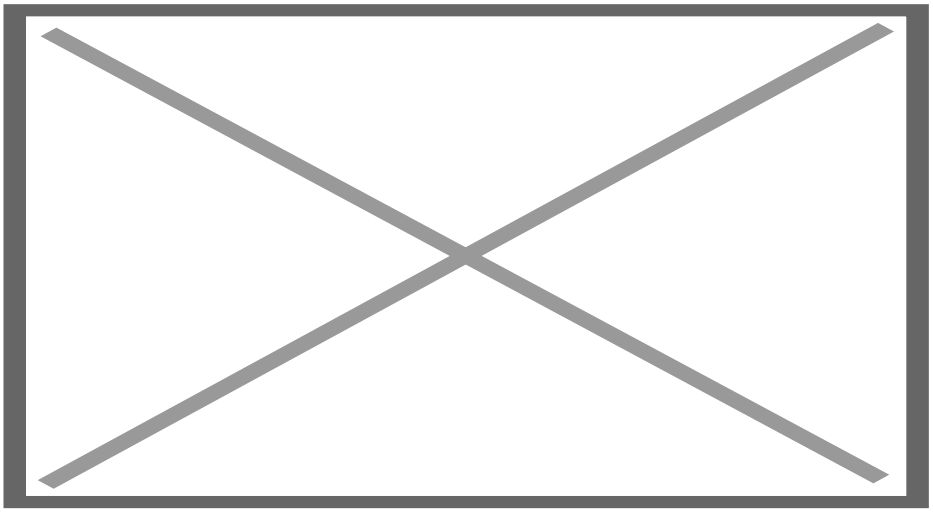
Télécharger la fiche détaillée
Apply Now











Information

- Overview
- Application requirements
- Schedule

Présentation

Skills

Formalize a problem with a view to its computer resolution. Relate a category of problems to the appropriate resolution algorithms and assess their relevance: limits of use and efficiency. Identify a problem that can be parallelized or distributed, choose and implement the appropriate calculation model to solve it. Master the major issues of computer system security and data protection. Know and implement the principles of structured and unstructured database management. Implement secure and safe solutions. Analyze the results of a proposed solution in relation to a field of application and from the point of view studied (performance, scalability, security, energy consumption, etc.). Analyze, interpret and synthesize the results from complex computer systems. Validate the operation of a complex computer system through tests and analysis of the results produced. Ensure the evolution over time of implemented systems.

Objectives

At the Master 1 level, the objective is, on the one hand, to deepen the general training of students in Computer Science through a certain number of classic teaching units (software engineering, advanced algorithms), and on the other hand, to allow them to acquire knowledge specific to the field of the CNS and the M2 courses. This includes the study of complex system models (Petri nets, multi-agent systems), optimization methods (operational research, high-performance computing), formal methods, artificial intelligence (data analysis, machine learning), systems and network administration techniques, as well as associated issues (cryptography and security, protocols, advanced networks).

Débouchés

Career prospects

Data Manager
R&D Engineer
Project Manager
Research and Innovation Manager
Digital transformation consultant
Lecturer (after a PhD)
Network architect
Network administrator
IT administrators
Head of development

Further Study Opportunities

2nd year Master’s

Calendar

Start of programme (indicative date)
06/09/2026
End of programme (indicative date)
09/07/2027
Admission

Admission Route

Computer Science

Capacity

Available Places

50

Target Audience and Entry Requirements

The Master 1 is naturally accessible to students holding a Bachelor in Computer Science, or the first year of a Master in Computer Science (e.g., in the case of foreign students wishing to continue their studies in France). The access to the Master 1 is not natural for students who already have a Master in Computer Science: We encourage their applications in Master 2 directly. All the applications are studied by the admissions jury anyway.

Période(s) de candidature

Inception Platform

From 15/01/2026 to 16/03/2026

MonMaster Platform

From February 17th to March 16th, 2026

To find out which platform you should apply through, please see the Masters' applications and enrolment page.

Supporting documents

Compulsory supporting documents

Rank of previous year and size of the promotion.

Motivation letter.

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

Curriculum Vitae.

Additional supporting documents

Certificate of English level.

Certificate of French (compulsory for non-French speakers).

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

Recommendation letters.

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
Anglais	3	Semestre 1		18				
Charger le détail								
Développement soutenable	3	Semestre 1						
Charger le détail								

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	di le
Analyse de données	4	Semestre 1	18	18					
Charger le détail									
Recherche opérationnelle	4	Semestre 1	18	18					
Charger le détail									
Systèmes et algorithmique répartis	4	Semestre 1	18	18					
Charger le détail									

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Information et communication	4	Semestre 1	18	18				
Charger le détail								
Conception orientée objet des logiciels	4	Semestre 1	18	18				

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	
Charger le détail									
Modélisation des systèmes à événements discrets	4	Semestre 1	18	18					
Charger le détail									

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Administration des SGBD	4	Semestre 1	18	18				
Charger le détail								
Administration des systèmes et réseaux 1	4	Semestre 1	18	18				
Charger le détail								
Projet d'administration 1	4	Semestre 1		36				
Charger le détail								

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	dis lea c
Machine Learning	4.5	Semestre 2	18	18					
Charger le détail									
Spécification et vérification formelles	4.5	Semestre 2	18	18					
Charger le détail									
Modèles et méthodes pour les systèmes multi-agents	4.5	Semestre 2	18	18					
Charger le détail									

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	dis lea c
Travail d'étude et de recherche (TER)	4.5	Semestre 2							

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Réseaux avancés	4.5	Semestre 2	18	18				

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Protocoles de l'Internet	4.5	Semestre 2	18	18				

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Administration des systèmes et réseaux 2	4.5	Semestre 2	18	18				

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Projet d'administration 2	4.5	Semestre 2						

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	d l
Algorithmique avancée	4	Semestre 2	18	18					

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Bases de données avancées	4	Semestre 2	18	18				

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Cryptographie et sécurité	4	Semestre 2	18	18				

Charger le détail

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class
Introduction à l'informatique haute performance	4	Semestre 2	18	18				

Subjects	ECTS	Semester	Lecture	directed study	practical class	Lecture/directed study	Lecture/practical class	directed study/practical class	d l
Charger le détail									
Technologies logicielles	4	Semestre 2	18	18					
Charger le détail									

Teaching Location(s)

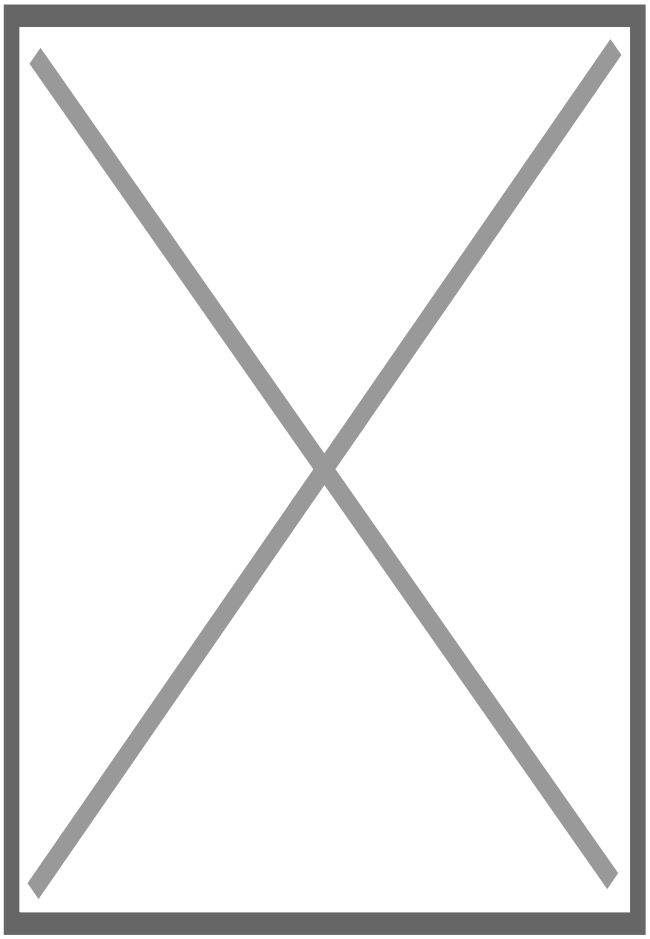
EVRY

Academic Partner(s)

École Nationale Supérieure d'Informatique pour l'Industrie et l'Entreprise (ENSIIE), Université d'État Ivane-Javakhishvili de Tbilissi (TSU, Georgia), Westfalian University (WHS, Germany).

Training campus

Javascript est requis pour visualiser cette carte.



Evry

Evry
Bus 9105, 4504
RER D Evry Courcouronnes
Voir
Student restaurant (CROUS)
Library
Student residence
Sports facilities

Contact

- **Jean-Christophe Janodet**

  PR
- **Vincent Chau**

  MCF

http://www.universite-paris-saclay.fr/formation/master/informatique/m1-computer-and-network-systems