Université Paris-Saclay

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# M2 Mechatronics, Machine Vision and Artificial Intelligence

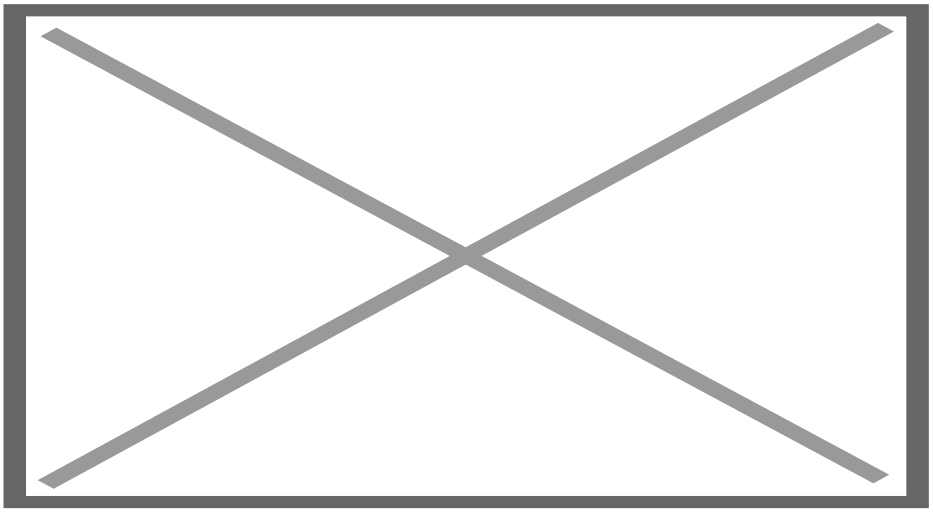
Master
Mention Electronique, Energie Electrique, Automatique
Régime(s) d'inscription
Formation initiale
Formation continue
Langue(s) d'enseignement
Anglais

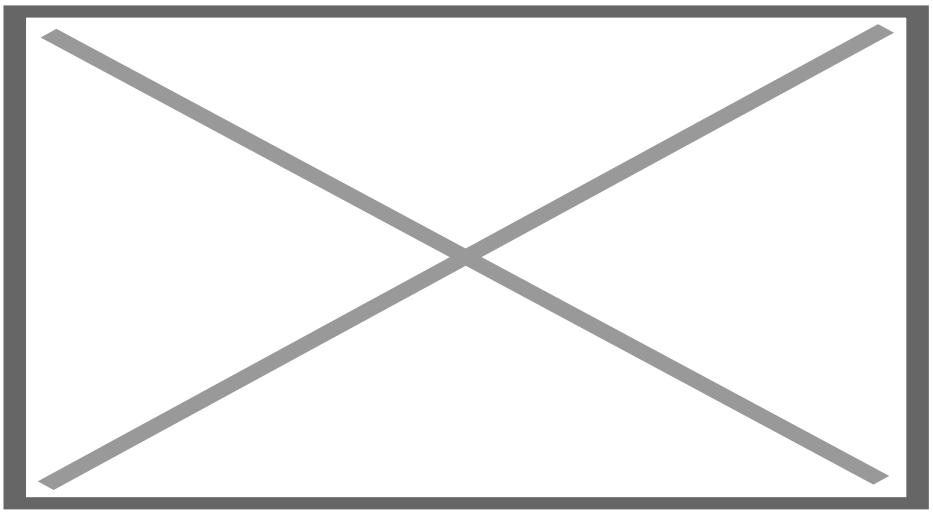
The field of mechatronics and artificial intelligence is at the forefront of technological innovation, integrating mechanical engineering, electronics, and computer science with cutting-edge AI techniques. It plays a vital role in the future of industry by enabling the development of intelligent solutions in various sectors, including industrial robotics, autonomous systems, advanced manufacturing, and high-tech medical devices.

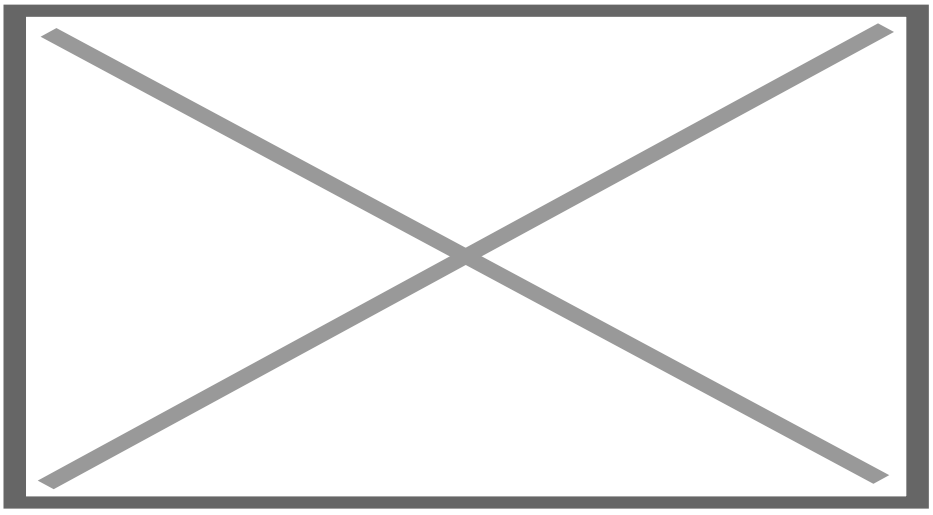
The Master's program is structured across two semesters. The first semester focuses on theoretical coursework and extends until February. Students begin with a shared core curriculum that builds essential knowledge in both mechatronics and artificial intelligence, providing a strong interdisciplinary foundation. They then progress to specialized modules, allowing them to deepen their expertise in their chosen track—either mechatronics or artificial intelligence.

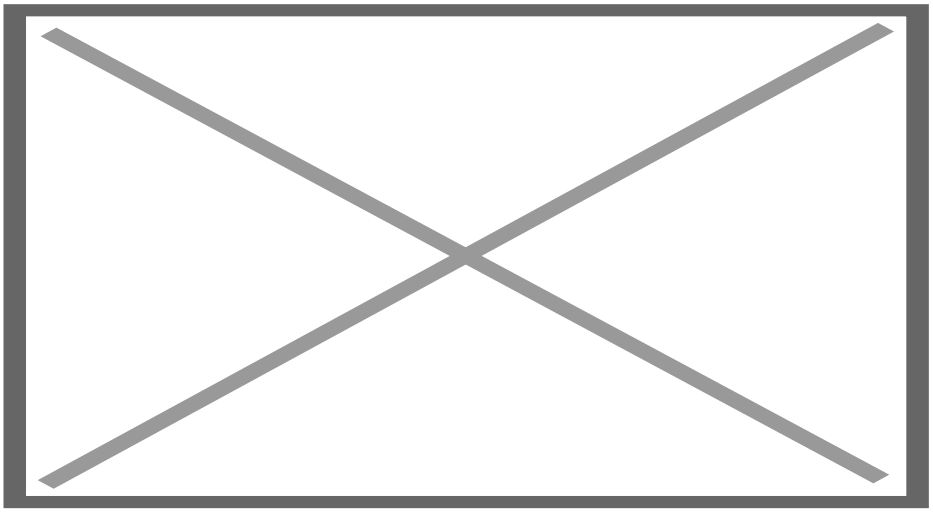
The second semester is dedicated entirely to a six-month internship, starting in February. This internship may take place in a research laboratory or within an industrial company, offering students the opportunity to apply their skills, gain practical experience, and prepare for future professional or academic careers.

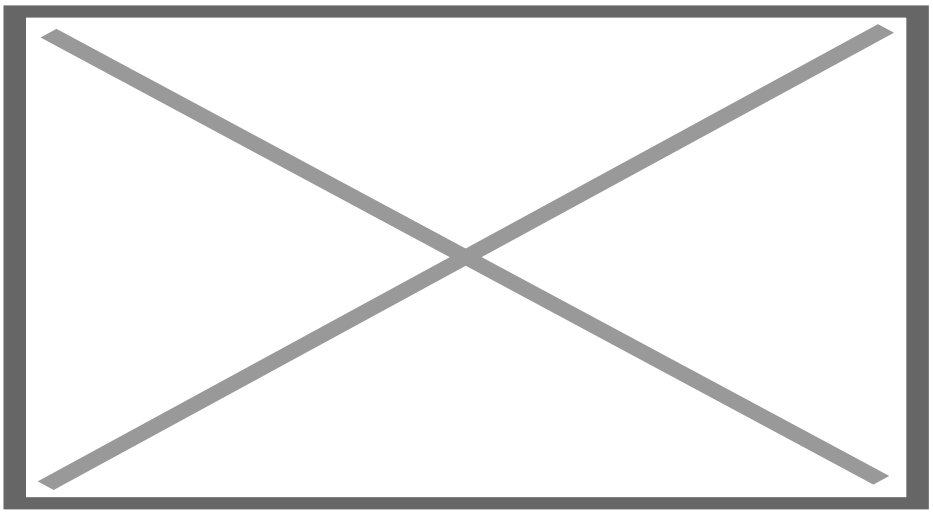
Télécharger la fiche détaillée
Je candidate











## Informations

- Présentation
- Admission
- Programme

Présentation

## Compétences

Graduates of the MMVAAI are well-prepared for a wide range of professional careers. They can work as engineers or research officers in fields such as robotics and mechatronic systems, computer vision and applied AI, embedded systems and electronics, virtual and augmented reality, human–machine interaction, telecommunications, networks, and the Internet of Things (IoT). They are also highly sought after for R&D positions in cutting-edge sectors, including Industry 4.0, smart mobility, healthcare, defense, aeronautics, and energy.

For those wishing to continue their studies, the program also provides a strong pathway toward PhD research in engineering sciences, covering areas such as robotics, AI, computer vision, and advanced electronics. Graduates are eligible to join doctoral schools in computer science, electronics, control systems, and signal

processing, opening the door to careers in academia and advanced research.

## Objectifs pédagogiques de la formation

The MMVAI Master’s program offers students a well-rounded education that combines rigorous theoretical foundations with extensive hands-on learning. It is tailored for individuals seeking to build careers in leading research institutions or pioneering technology companies, with a focus on the rapidly advancing fields of mechatronics, machine vision, and artificial intelligence.

Through this program, graduates will gain multidisciplinary expertise, equipping them to address complex challenges that lie at the intersection of mechatronics and AI. They will develop the skills to design and deploy next-generation mechatronic systems that are not only more intelligent but also more responsive to user needs. This is achieved by integrating artificial intelligence seamlessly across all layers and components of mechatronic systems—from perception and control to decision-making and user interaction.

By uniting knowledge from mechanical engineering, electronics, computer vision, and artificial intelligence, the MMVAI program empowers students to become innovators and leaders capable of shaping the future of intelligent machines and autonomous systems.

# Débouchés

## Poursuite d’études

### Doctorat

## Agenda

Début de la formation (date indicative)
07/09/2026
Fin de la formation (date indicative)
31/08/2027
Admission

## Capacité d’accueil

**Places**

28

## Public visé et prérequis

A minimum of four year university degree in either Computer Science, Electrical, or Mechanical/Mechatronics Engineering. Recognized international qualification would be considered as well.

# Période(s) de candidature

Plateforme Inception

Du 01/01/2026 au 31/08/2026

# Pièces justificatives

## Obligatoires

Choix de parcours.

2nde lettre de recommandation (obligatoire pour les candidats ayant déjà été inscrits dans l'enseignement supérieur français auparavant).

Copie diplômes.

Justificatifs (TOEFL, TOIC, attestation d'un enseignant…) d'un niveau d'une langue étrangère.

Lettre de motivation.

Tous les relevés de notes des années/semestres validés depuis le BAC à la date de la candidature.

Curriculum Vitae.

Deux lettres de recommandation.

## Facultatives

Attestation de niveau d'anglais (obligatoire pour les non anglophones).

Dossier VAPP (obligatoire pour toutes les personnes demandant une validation des acquis pour accéder à la formation) https://www.universite-paris-saclay.fr/formation/formation-continue/validation-des-acquis-de-lexperience.

Document justificatif des candidats exilés ayant un statut de réfugié, protection subsidiaire ou protection temporaire en France ou à l'étranger (facultatif mais recommandé, un seul document à fournir) :
- Carte de séjour mention réfugié du pays du premier asile
- OU récépissé mention réfugié du pays du premier asile
- OU document du Haut Commissariat des Nations unies pour les réfugiés reconnaissant le statut de réfugié
- OU récépissé mention réfugié délivré en France
- OU carte de séjour avec mention réfugié délivré en France
- OU document faisant état du statut de bénéficiaire de la protection subsidiaire en France ou à l'étranger.

Programme

| Matières | ECTS | Semestre | Cours | TD | TP | Cours-TD | Cours-TP | TD-TP | A distance | Projet | Tutorat |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Reinforcement learning and AI | 3 | Semestre 1 | 12 | 6 | 8 | | | | | | |
| Charger le détail | | | | | | | | | | | |
| Virtual and mixed reality | 3 | Semestre 1 | 12 | 6 | 8 | | | | | | |
| Charger le détail | | | | | | | | | | | |
| 3D data analysis | 3 | Semestre 1 | 12 | 6 | 8 | | | | | | |
| Charger le détail | | | | | | | | | | | |
| Computer vision for non conventional cameras | 3 | Semestre 1 | 12 | 6 | 8 | | | | | | |
| Charger le détail | | | | | | | | | | | |

| Matières | ECTS | Semestre | Cours | TD | TP | Cours-TD | Cours-TP | TD-TP | A distance | Projet | Tutorat |
|---|---|---|---|---|---|---|---|---|---|---|---|
| International keynote speaker | 1 | Semestre 1 | 0 | 12 | | | | | | | |
| Charger le détail | | | | | | | | | | | |
| FLE | 2 | Semestre 1 | 0 | 14 | | | | | | | |
| Charger le détail | | | | | | | | | | | |
| Research project | 1 | Semestre 1 | 0 | | 10 | | | | | 20 | |
| Charger le détail | | | | | | | | | | | |
| Machine learning | 3 | Semestre 1 | 12 | 12 | 12 | | | | | | |
| Charger le détail | | | | | | | | | | | |
| Advances in Machine Vision | 3 | Semestre 1 | 12 | 12 | 12 | | | | | | |
| Charger le détail | | | | | | | | | | | |

| Matières | ECTS | Semestre | Cours | TD | TP | Cours-TD | Cours-TP | TD-TP | A distance | Projet | Tutorat |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Advances in mecatronic systems | 3 | Semestre 1 | 12 | 12 | 12 | | | | | | |
| Charger le détail | | | | | | | | | | | |
| UE libre Catalogue S1 | 2.5 | Semestre 1 | | | | | | | | | |
| Charger le détail | | | | | | | | | | | |
| Kinematics and Dynamics Modeling of Mechatronics Systems | 3 | Annualisé | 12 | 12 | 12 | | | | | | |
| Charger le détail | | | | | | | | | | | |

| Matières | ECTS | Semestre | Cours | TD | TP | Cours-TD | Cours-TP | TD-TP | A distance | Projet | Tutorat |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Electronic Instrumentation | 3 | Semestre 1 | 12 | 6 | 8 | | | | | | |
| Charger le détail | | | | | | | | | | | |
| Robotic Systems Architectures and Programming | 3 | Semestre 1 | 12 | 6 | 8 | | | | | | |
| Charger le détail | | | | | | | | | | | |
| Advanced Control of Smart Systems | 3 | Semestre 1 | 12 | 6 | 8 | | | | | | |
| Charger le détail | | | | | | | | | | | |
| Modeling of parallel manipulators | 3 | Semestre 1 | 12 | 6 | 8 | | | | | | |
| Charger le détail | | | | | | | | | | | |

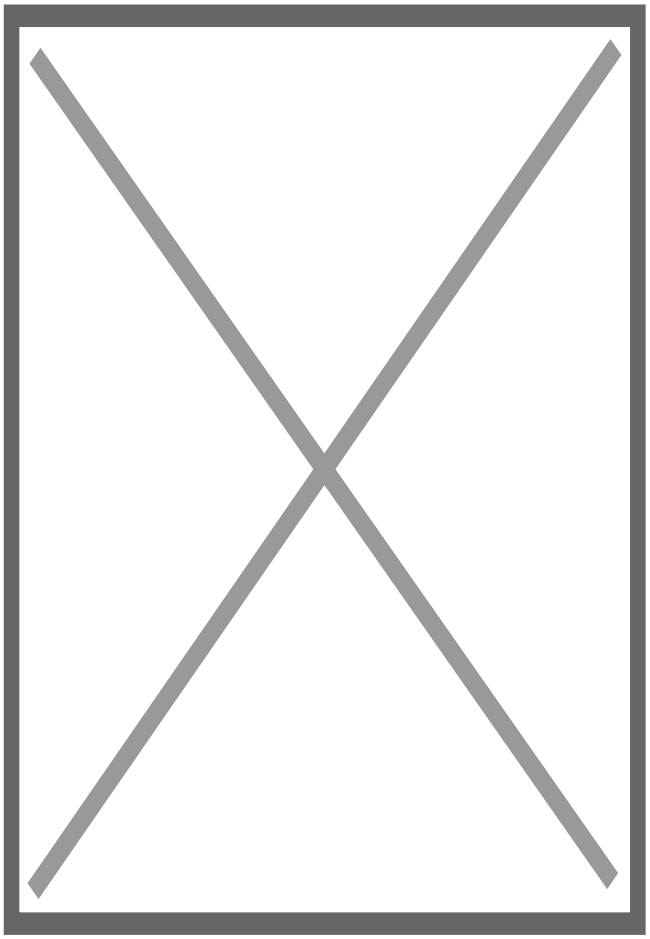
| Matières | ECTS | Semestre | Cours | TD | TP | Cours-TD | Cours-TP | TD-TP | A distance | Projet | Tutorat |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Internship | 30 | Semestre 2 | | | | | | | | | |
| Charger le détail | | | | | | | | | | | |

# Lieu(x) d'enseignement

EVRY

# Campus de la formation

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### Evry

Evry
Bus 9105, 4504
RER D Evry Courcouronnes
Voir
Restaurant CROUS
Bibliothèque
Résidence étudiante
Equipements sportifs

## Contact(s)

- **Mélodie KAMALANDUA**

  Gestionnaire de scolarité pédagogique

## Liens

Blog Destination études supérieures : devenir ingénieur en intelligence artific…
http://www.universite-paris-saclay.fr/formation/master/electronique-energie-electrique-automatique/m2-mechatronics-machine-vision-and-artificial-intelligence