

## **The complete curriculum**

### **Program Overview:**

This training is intended for doctoral students in computer science and aims to advance their skills in the use of artificial intelligence. The selected program has been accredited by several higher education and research institutions, as part of the LMD system. In fact, it complements educational training related to artificial intelligence, advanced optimization methods, image processing, and learning. All sectors of the economy and society, without exception. Artificial intelligence is currently of significant interest to all. Personal data protection in the field of digital transformation, robotics, monitoring and protection. And makes progress. There is no doubt that this training will provide our social and economic partners (hospitals, agricultural sectors, energy sectors, etc.) with practical and operational smart solutions based on artificial intelligence, the Internet of Things, and other optimization models to meet the various imposed constraints, and provide them with a theoretical and practical framework. An experiment designed to effectively exploit the results obtained.

### **Most prominent curricula:**

This training will provide basic knowledge related to artificial intelligence and inferential modeling. The proposed theses aim to cover all areas related to the integration of artificial intelligence into various critical sectors, addressing the most fundamental aspects of information technology, as well as those related to the rapid processing of large amounts of data. We will attempt to touch on even the most complex systems. The main common points among the proposed topics are as follows: The working thesis will focus on:

- Implement advanced optimization methods based on Updated operational research models.
- Implementing machine learning methods and image, video, audio and text processing techniques.
- Develop new approaches based on the Internet of Things, artificial intelligence, and machine learning to solve optimization problems imposed by the social and economic sector. Developing new systems such as embedded systems, real-time systems, detection, assessment and prediction systems, especially integrating the Internet of Things into the agricultural sector.

### **Admission Information:**

Obtained: Master's degree, master's degree, or state engineer's degree

### **Basic courses:**

advanced artificial intelligence Specialization strengthening course: related to cybersecurity and PhD Training: Image Processing and Advanced Optimization Methods Research Methodology Course Introductory course for education and training Information and Communication Technology Courses English Language Skills Enhancement

### **Course Advanced**

advanced artificial intelligence Specialization strengthening course: related to cybersecurity and PhD Training: Image Processing and Advanced Optimization Methods Research Methodology Course Introductory course for education and training Information and Communication Technology Courses English Language Skills Enhancement

**Topics Language of instruction** English.