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| **Identity card of the specialty:Academic master:** **Computer Systems and Networks** |

**Level:**Master

**Domain:**Mathematics and Computer Science**Sector:**Computer science**Speciality:**Computer Systems and Networks

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| **1- Location of the training:** |

**Faculty (or Institute)**: Faculty of Exact Sciences

**Department**: Department of Mathematics and Computer Science

References of the authorization decree of the diploma to be prepared**: Order No. 182 of 01/07/2009**

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| **2- External partners:** |

**Companies and other socio-economic partners**:

**International partners**:

**Other partner establishments**:

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| **3- General organization of the training: position of the project** |

Mathematics and Computer Science

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| **4- Context of the training:** |

Hold an academic license in computer science (Information systems, Software engineering, Artificial intelligence, computer networks, etc.) The number of students accepted is conditional on two main factors, namely the means of supervision available and the results obtained during the academic license in computer science.

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| **5- Objectives of the training:** |

The ultra-rapid development of modern means of communication, in particular that of corporate telecomputing networks, represents a major challenge for industry, both at the level of users and at the level of suppliers and service companies. This IT sector is currently undergoing very strong development and its impact on lifestyles and work will undoubtedly be considerable in the coming years. In addition, the evolution of the technologies used requires, in order to be able to master the field over a long period, an in-depth knowledge of the theoretical and methodological elements used. This master's degree (Computer Systems and Networks) aims to provide students with the essential knowledge in this field. This master is open to students wishing to specialize in the field of networks, their definition, their architecture and their operation. It allows them to begin training in the field relating to the operation of networks as well as the manipulation and configuration of the latter according to the standards and technologies currently developed. The main outlets are found both within industrial user companies and in companies in the supply sector (service companies, software publishers, sale of equipment, etc.). The functions carried out by the students range from the responsibility for the development of distributed applications to the functions of architects and network managers or administrators. of their architecture and their use. It allows them to begin training in the field relating to the operation of networks as well as the manipulation and configuration of the latter according to the standards and technologies currently developed. The main outlets are found both within industrial user companies and in companies in the supply sector (service companies, software publishers, sale of equipment, etc.). The functions carried out by the students range from the responsibility for the development of distributed applications to the functions of architects and network managers or administrators. of their architecture and their use. It allows them to begin training in the field relating to the operation of networks as well as the manipulation and configuration of the latter according to the standards and technologies currently developed. The main outlets are found both within industrial user companies and in companies in the supply sector (service companies, software publishers, sale of equipment, etc.). The functions carried out by the students range from the responsibility for the development of distributed applications to the functions of architects and network managers or administrators. It allows them to begin training in the field relating to the operation of networks as well as the manipulation and configuration of the latter according to the standards and technologies currently developed. The main outlets are found both within industrial user companies and in companies in the supply sector (service companies, software publishers, sale of equipment, etc.). The functions carried out by the students range from the responsibility for the development of distributed applications to the functions of architects and network managers or administrators. It allows them to begin training in the field relating to the operation of networks as well as the manipulation and configuration of the latter according to the standards and technologies currently developed. The main outlets are found both within industrial user companies and in companies in the supply sector (service companies, software publishers, sale of equipment, etc.). The functions carried out by the students range from the responsibility for the development of distributed applications to the functions of architects and network managers or administrators. sale of equipment, etc.). The functions carried out by the students range from the responsibility for the development of distributed applications to the functions of architects and network managers or administrators. sale of equipment, etc.). The functions carried out by the students range from the responsibility for the development of distributed applications to the functions of architects and network managers or administrators.

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| **6- Profiles and skills targeted:** |

* Train IT professionals in new information technologies, and more particularly in techniques related to communication networks.
* Acquire skills in business networks, wireless networks, operator networks and wide-area networks, security, system and network administration, Internet applications and WEB technologies, etc.
* Access the functions of system and network administrator engineer, network architect, designer of distributed applications (integration of Internet technologies into applications) with eventual evolution towards the functions of project manager, information or infrastructure systems or consultant.

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| **7- Local, regional and national employability potential:** |

Whether at the local, regional, national or even abroad level, the students of the "academic master's computer systems and networks" training will have all the skills to work in various sectors (public or private) such as Mobilis, Djaweb , EEPAD, Algeria Telecom ... etc. In addition, a student of this training can develop his own company specialized in the maintenance of computer systems, network applications ... etc. It should be noted that the best elements represent for the university a potential supply by future teachers and researchers.