



**Laboratoire d'Informatique, de Modélisation et d'Optimisation des Systèmes
(CNRS UMR 6158)
Institut Henri FAYOL
Open position of Associate Assistant Professor in Artificial Intelligence and
Data Sciences**

Mines Saint-Etienne (MSE), one of the graduate schools of *Institut Mines Télécom*, the #1 group of graduate schools of engineering and management in France under the supervision of the Ministry of the Economy, Industry and Digital Technology, is assigned missions of education, research and innovation, transfer to industry and scientific, technological and industrial culture.

MSE consists of 2,200 graduate and postgraduate students, 400 staff, a consolidated budget of €46M, three sites on the Saint-Etienne campus (Auvergne Rhone-Alpes region, Lyon Saint-Etienne metropolitan area), a campus in Gardanne (SUD region, Aix Marseille metropolitan area), six research units, five teaching and research centres and one of the leading French science technology and industrial culture community centres (La Rotonde > 40,000 visitors). It has development projects in Lyon, including the digital campus of Auvergne Rhone-Alpes region. For 2021, MSE was ranked 300-400 worldwide in Engineering and Technology by the Time Higher Education World University Ranking (#6 graduate school of engineering in France and #1 institution in both of its regions) and was also ranked in Computer Science (501-600) and Physical sciences (601-800). Its work environment is characterised by high Faculty-to-Student, Staff-to-Faculty and PhD-to-Faculty ratios, as well as comprehensive state-of-the-art experimental and computational facilities for research, teaching and transfer to industry.

The Laboratory of Informatics, Modelling and Optimization of the Systems (LIMOS), which will be the host laboratory, is a Mixed Unit of Research (UMR 6158) in computing, and more generally in Sciences and Technologies of information and the Communication (STIC). The LIMOS is mainly connected with the Institute of the Sciences of the Information and their Interactions (INS2I) of the CNRS, and in a secondary way to the Institute of the Sciences of the Engineering and the Systems (INSIS). He has for academic supervision the Clermont Auvergne university and the graduate school of Mines of Saint-Etienne (EMSE), and as partner establishment the Engineer Institute SIGMA. The LIMOS is a member labex IMOBS3 and ClercVolc and federation of search in Environment FR 3467 (which groups 17 laboratories UCA and INRA of the site of Clermont-Ferrand). The scientific positioning of the LIMOS is centered around the Computing, the Modelling and the Optimization of the Organizational and alive Systems. The position is available in the Information and Communication Systems (ICS) or Models and Algorithms of the Decision-making support (Maad) axis.

The Henri Fayol Institute is a training and research center that brings together Mines Saint-Étienne's teacher-researchers in industrial engineering, applied mathematics, computer science, environment and management. The Henri Fayol Institute contributes to decision support for companies and territories through a quantitative, IT and managerial vision for sustainable development purposes. Two technological platforms have been developed to validate, promote and teach the work carried out within

the institute in near-real conditions. The first is dedicated to the territory of the future (Plateforme Territoire¹) and the second to the industry of the future (IT'M Factory platform²).

The scientific objective of the newly hired researcher is to contribute to the frontier between the artificial intelligence research carried out within the ISI department and the data science research carried out within the GMI department.

- ISI department: Multiagent system (Models, architectures, and algorithms for decentralized coordination of autonomous decision-making systems, multiagent simulation); Knowledge representation and reasoning (Knowledge graph, Web Semantic).
- GMI department: Statistical modeling (meta-modeling) of expensive data, large data, functional data; Stochastic and numerical Meta-modeling; Optimization with uncertainty.

Non-exhaustive list of potential subject:

- Reinforcement Learning
- Machine learning and distribution
- Machine learning and knowledge representation and reasoning
- Meta model and multiagent simulation
- Incertitude modeling
- Optimization and Decision Theory
- Optimization in large dimensions in data stream
- Data Analytics

Candidate profile

The candidate must hold a PhD in artificial intelligence or a PhD in data science. The candidate must be specialized in one domain covered by at least one department and at least aware of models, technologies used in the other.

The candidate should be capable of covering a relatively large spectrum within the teaching of computers sciences and more specifically: algorithmic, programming (object, web, mobile), engineering and software architecture, internet of thing, artificial intelligence, semantic web or within the teaching of mathematics taught in initial training in numerical methods, probabilities and statistics, data science.

Recruitment conditions

- 12-month research engineer position on fixed-term contract
- Position based in Saint-Etienne (Loire).
- no later than October 01, 2021

How to apply

Applications should include:

- A letter of application,
- A curriculum vitae outlining teaching activities, research work and, if applicable, relations with the economic and industrial world (10 pages maximum),
- At the discretion of the candidates, letters of recommendation,

¹ <https://territoire.emse.fr/>

² <https://www.mines-stetienne.fr/entreprise/itm-factory/>

- A copy of the doctorate (or PhD),
- A copy of an identity card

These documents should be submitted on the platform RECRUITEE by May 23, 2021 at the latest URL: <https://institutminestelecom.recruitee.com/o/maitre-de-conference-en-intelligence-artificielle-distribuee>

Deadline for application: Before May 23, 2021 by mail

For additional information

For any information on the position, please contact:

- Models and Algorithms of the Decision-making support axis responsible
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- Information and Communication Systems axis responsible:
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