

Professor (M/F) in Industrial Engineering, Industrial Engineering Center

07/02/2024

Location	IMT Mines Albi – École Nationale Supérieure des Mines d'Albi-Carmaux (81000 Albi)
Service	Centre Génie Industriel
Minimal requirements	« Habilitation à Diriger des Recherches » in Industrial Engineering or equivalence

Environment

A school of the French Ministry of Industry, IMT Mines Albi is part of the Institut Mines-Télécom, France's leading group of engineering and management schools. At the forefront of industrial and academic issues on the international scene, it acts as a scientific and economic engine for the region, combining its 4 missions in a virtuous circle of innovation:

- A generalist, innovative, humanist and international engineering school that integrates the dynamics of sustainable development into its management;
- Research teams, spread across its 3 centers, working on the emergence and improvement of industrial processes, in particular on its 4 technological platforms;
- A business partner that supports economic development and fosters entrepreneurship;
- A school that promotes a culture of science, technology, innovation and enterprise in its local area.

IMT Mines Albi, through the Industrial Engineering Center (CGI), develops research at the frontier between Artificial Intelligence and Industrial Engineering, in collaboration with national and international public and industrial partners. IMT Mines Albi is part of the MINES Carnot Institute. IMT Mines Albi has been a school of Institut Mines Telecom (IMT) since January 1, 2017.

Context

This position, open at IMT Mines Albi, is attached to the Industrial Engineering Center (CGI), which currently employs around 70 people. The center focuses on the kinetics of organizations and the development of decision support solutions in heterogeneous, collaborative and uncertain contexts. This is put into practice by representing, modeling and analyzing data from these organizations in order to formalize knowledge leading to decision-making in heterogeneous, collaborative, uncertain and/or disrupted contexts. It is structured along four applied research axes, drawing on four scientific disciplines.

The four axes are:

- GOL: Supply chain management and organization;
- SGC: Security and crisis management;

- IOS: Organizational engineering for healthcare;
- PSP: Design and development of products, services and processes.

The four scientific disciplines at the heart of these applied research areas are:

- OR: Operational Research;
- IC: Knowledge Engineering;
- IM: Model Engineering;
- SD: Data Science.

The CGI is currently seeking to strengthen its skills and capabilities in setting up and managing research and training projects in connection with the GOL applied research area. In particular, the CGI is looking to build up its skills in relation to the France 2030 dynamic and Industry 5.0, especially in terms of supporting companies in decarbonizing, relocating, resilient and automating their production systems and supply chains.

Missions

Generally speaking, the person recruited will be involved in the school's pedagogical project, training missions, research and technology transfer activities, setting up and monitoring contractual activities and national and international collaborations. He/she will be a driving force behind their development, and will also be called upon to contribute to IMT Mines Albi's cross-functional activities.

The incumbent will therefore be expected to integrate:

- The CGI training program. In addition to the core courses in Industrial Engineering (production management, project management, simulation, optimization, etc.) and the "Industrial Engineering" option in the student engineering program, the candidate will contribute to the teaching of the future "Industrial Engineering" option starting in 2025 as part of the apprenticeship engineering program. He/she will also be responsible for part of the Supply Chain Engineering curriculum, as part of the immersive International Master's degree project with Georgia Tech (USA), scheduled to start in 2025. Last but not least, the candidate will also be called upon to take part in the school's various projects, internships and other cross-functional exercises. The candidate's integration project should therefore emphasize, but not exclusively, a strong appetite and skills in teaching and pedagogical engineering, particularly in an international context.
- In the CGI research program. The candidate will be involved in the GOL applied research axis, in connection with the emerging themes of Industry 5.0. and/or the decarbonization, relocalization and resilience of Supply Chains. In terms of scientific skills, the candidate will be positioned in at least one of the CGI's four disciplinary areas (RO, IC, IM, SD). Particular attention will be paid to the candidate's ability to combine methods from Industrial Engineering and Artificial Intelligence. Significant needs have been identified in terms of automated learning, simulation, optimization and immersive reality. The integration project should therefore highlight how the candidate intends to become a driving force behind Industry 5.0 and/or the decarbonization, relocation and resilience of supply chains.

In the CGI's economic development program. To this end, the candidate will need to demonstrate a clear interest in technology transfer, and an ability to support existing projects or develop new ones that are thematically consistent with the center.

It is obvious that the activities listed above can be carried out in an English-speaking environment. A relevant level of English is therefore essential. French is clearly a plus.

Expected profile

The candidate must hold a Habilitation à Diriger des Recherches degree. His/her field of expertise is mainly Industrial Engineering (CNU 61). A proven ability to develop projects at the interface of Industrial Engineering and Artificial Intelligence is a plus. The candidate will be expected to demonstrate, on a non-exclusive basis:

- Sound technical and scientific expertise in industrial engineering, particularly in the field of Supply Chain Engineering and/or Industry 5.0, especially as regards the challenges of decarbonization, relocation, resilience or automation of production and logistics systems;
- Sound technical expertise in the development of decision-support models under uncertainty, preferably in conjunction with the tools mobilized within the CGI's scientific disciplines;
- Solid experience in managing and participating in direct contractual projects (CIFRE, Joint Laboratories, Chairs, etc.) or in collaborative projects subsidized by ANR, Europe, ADEME, the French regional authorities, etc;
- Scientific production in line with industry standards, as well as significant experience in doctoral supervision and training;
- Proven teaching and training experience, ideally in an international context.

Informations and schedule

Status: Professeur de l'Institut Mines-Télécom, Fonction publique de l'État régie par le décret n° 2007-468 du 28 mars 2007 modifié

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For further information about the position, please contact: Mr Matthieu LAURAS, Hiead of CGI (matthieu.lauras@mines-albi.fr)

Administrative information: Ms Céline ALBERT, Head of Human Resources (<u>celine.albert@mines-albi.fr</u> or 05 63 49 33 07)

Send an e-mail to the following address: candidature@mines-albi.fr

- Application letter including motivation and integration project
- Detailed scientific CV

Publication in the Journal Officiel: 16/02/2024

Opening of competition: 29/02/2024

Closing date for applications: 19/04/2024

Start date: Between 01/06/2024 and 01/09/2024 at the earliest