



IMT Atlantique
Bretagne-Pays de la Loire
École Mines-Télécom

IMT ATLANTIQUE

campuses in Brest, Nantes and Rennes, France

call for applications for a tenured Full Professor position in Data and Decision Science

<http://www.imt-atlantique.fr>

The date on which the position is taken up: 01/09/2020

IMT Atlantique is a leading French engineering school (Grande Ecole, a sort of Ivy League School). It is ranked among the top 400 universities in the world in THE World University Ranking 2019, present in four themes of the Shanghai ranking, and is in top 25 in U-Multirank on the number of joint publications with industrial partners. The School is a part of the National Institute of Science and Technology "Institut Mines-Télécom" (IMT).

IMT Atlantique aims to combine digital technology, energy and the environment to transform society and industry through training, research and innovation. The engineering courses are based on cutting-edge research carried out in 6 joint research units with CNRS, INRIA, INSERM, other universities and engineering schools. The School awards engineering diplomas, master's degrees, and doctorates.

With 2200 under graduate and post-graduate students, 290 Faculty Members, including 110 Dr Habil., 800 publications and 18 M€ of industrial contracts per year, IMT Atlantique is one of the leading French institutions of higher education and research in this field.

Keywords: decision support, artificial intelligence, data science, discrete optimization, mathematical programming, constraint programming

Professional environment

The Department of Automation, Production and Computer Sciences (DAPI: Département Automatique, Productique et Informatique) is located on the Nantes Campus of IMT Atlantique. The department employs around one hundred people, forty of which are Faculty members (Full or Associate/Assistant Professors). The research topics of DAPI include Control, Robotics, Operations Research, Industrial Engineering, Artificial intelligence, and Software Engineering. The Faculty members and PhD student of DAPI are members of the LS2N CNRS research laboratory (<http://ls2n.fr/>).

The candidate will be integrated into the Optimization and Decision Aiding group of DAPI. This group is composed of 2 teams: Logistics and Production System (SLP) and Theory, Algorithms and Systems of Constraints (TASC). The research in SLP focuses on applications of Operations Research techniques to logistics and production systems. The TASC team is specialized in Constraint Programming and addresses the challenges of decision support with discrete models. The team combines data, learning and optimization aspects. More specifically, the activities focus on the acquisition of models from data that can be directly used by solvers, on explanation aspects in solvers, on the effective treatment of constraints both by relying on algorithms over combinatorial structures, and on the systematic search for invariants.

IMT Atlantique Bretagne-Pays de la Loire - www.imt-atlantique.fr

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Missions

The candidate will participate in education, academic and collaborative research objectives. He/she will be actively involved in local, national and international partnerships of DAPI and LS2N. He/she will be asked to take administrative responsibilities in teaching programs, research projects or institutional endeavors.

Teaching activities:

The candidate will be involved in the IMT Atlantique educational programs, particularly those of the DAPI engineering curriculum and MSc in computer science, industrial engineering and decision support. Teaching experience in some of the following subjects is required: Decision Support Systems, Artificial Intelligence, Data Science, Discrete Optimization.

IMT Atlantique is particularly interested in qualitative and innovative teaching methods, for example flipped classroom, MOOC, etc. A strong investment in pedagogical activities related to his/her courses is expected.

IMTA trains engineers for a quickly evolving industry. The capacity of the candidate to teach in this context and propose and supervise student projects in collaboration with industry is required.

Research and collaborative projects:

The candidate will conduct research in the TASC team and bring new skills and insights into tangible applications in industry and services.

Collaborations and common projects, especially with the SLP team, but also with other teams of LS2N and IMT Atlantique, will be appreciated.

The applicant will demonstrate an interest and ability to combine data, learning and optimization aspects to meet the needs of industry and services. He will search in the current themes of the TASC team and/or create one (or more) complementary themes compatible with the current themes, thus strengthening the team.

The recruited candidate will be expected to publish his/her work in high-level international journals and conferences. He/she will also be expected to supervise master and PhD students' research. His/her research will be conducted through local, national, European, and international projects. The candidate will be expected to propose collaborative research projects with industry and contribute to enhancing the overall reputation of IMT Atlantique. He/she will develop optimization and decision-aiding tools in the framework of projects related to Factories of the Future (FoF).

Finally, he/she must in the future be able to take responsibility for the TASC team and extend its activities, in complementarity with the other ITM Atlantic teams, to other aspects of artificial intelligence, data analysis and optimization as well as to more important applications of these approaches in industry and services.

Qualifications and skills:

He/she will have strong competences in artificial intelligence, data science and/or discrete optimization, as well as:

- Large experience in application of decision support methods in industry and services; big motivation for research with industrial partners and real life applications;
- An experience of management of large industrial projects;
- An experience in management of research teams or a strong motivation for such a job;
- An excellent visibility and leadership in the international scientific community; ability to propose, obtain funding, and participate in research and applied research projects;
- Skill and motivation for teaching, in particular in connection with industry; interest and openness to the world of business and innovation in education;
- Experience of management of teaching activities.

Moreover, good knowledge of Discrete and Combinatorial Optimization methods, Data Analytics and Machine Learning algorithms, software platforms concerning Data, Machine Learning and Solvers for discrete optimization will be appreciated.

APPLICATION CONDITIONS

In accordance with the status of Full Professor at IMT Atlantique, the candidate must be a national of a Member State of the European Community or another State party to the Agreement on the European Economic Area.

He/she must hold either a French doctorate in Computer Science, Applied Mathematics or other related disciplines or a qualification obtained in a Member State of the European Community or the European Economic Area, and recognized as being of at least equivalent level to that of the required French diplomas. If the required diploma has been awarded in a country outside the EU and the European Economic Area, it will be subject to an equivalence commission.

RECRUTEMENT POLICY OF IMT ATLANTIQUE

In case of same qualifications, women or disabled person will be preferred.

Contact persons:

Alexandre Dolgui, Professor, Head of the Automation, Production and Computer Sciences department (DAPI) – alexandre.dolgui@imt-atlantique.fr – tél : 02 51 85 82 18

The deadline for applications is on September 30, 2019.

Please contact the Human Resources service for the standard application form:
Florence MOULET– florence.moulet@imt-atlantique.fr - tél : 02 51 85 83 63 or
Jean-Philippe ROULLAND – jean-philippe.roulland@imt-atlantique.fr – tél : 02 51 85 83 54

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