The LITIS laboratory is seeking two post-doctoral researchers as part of the IMMOTEP project, titled "Optimal Work Environment Contribution Measurement Index for High-Performance Companies."

Laboratoire/Entreprise : LITIS (UR 4108) / INSA Rouen Normandie (Rouen) / Société 102-103 (Caen)

Durée : 2 x 12 mois

Contact : cecilia.zanni-merk@insa-rouen.fr

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### **Context:**

Formerly referred to as "General Services," the concept of the work environment encompasses the integrated system of support mechanisms designed to enhance workplace life. It contributes significantly to value creation across three dimensions: employees (well-being at work), organizations (productivity and cost control), and the broader environment (e.g., carbon footprint reduction). In France alone, this sector generates over 100 billion euros annually (excluding rents) and sustains more than 1 million jobs, the majority of which are non-relocatable (https://www.idet.fr/etudes/etude-2020-lenvironnement-de-travail-en-france/).

The Covid-19 pandemic marked a pivotal shift in work practices, elevating the role of workplace management teams from a commodity-based service to a strategic function integral to organizational performance. This transformation has highlighted several critical challenges reshaping the relationship between companies and their employees:

### 1. Challenges for Companies:

- Rising levels of employee disengagement, compounded by post-Covid effects, declining productivity, and increased absenteeism and turnover.
- The imperative to reduce the carbon footprint of workplace environments, presenting a significant challenge.
- The absence of standardized methods for mapping and measuring employee- and building-related services, which hinders efforts to enhance productivity and cost efficiency.

### 2. Challenges for Employees:

- A growing demand for meaningful work and alignment with organizational values.
- The pursuit of work-life balance and overall well-being.
- Increased recognition and consideration of second-line workers.

Despite its growing importance, limited formal research exists on the interplay between the efficiency of a company's work environment and its economic, environmental, and societal performance. Consequently, organizational leaders often undervalue the role of the work environment in driving overall performance. Enhanced assessment methods are essential to improve the work environment's efficiency and optimize its contributions to the economic, environmental, and societal value generated by companies.

## **Topic:**

The IMMOTEP project aims to achieve the following objectives:

## 1. Measure the Contribution of the Work Environment:

- Enhance the ability to attract and retain employees.
- Foster employee commitment, health, and productivity.
- Optimize economic control and efficiency of the working environment.
- $\circ$  Improve environmental sustainability and reduce the carbon footprint.

# 2. Develop a Comparative Index:

- Create a multi-dimensional index enabling comparisons across similar organizations.
- Integrate dimensions of economic, social, and environmental performance into a single framework.

## 3. Provide Future-Oriented Recommendations:

• Offer actionable insights to improve the value of the work environment across diverse sectors.

To meet these objectives, the project will focus on the following strategies:

- **Comprehensive Cost and Impact Assessment**: Evaluate the cost implications of the work environment, its carbon footprint, and its influence on employee engagement.
- **Development of Industry-Recognized Indicators**: Design a standardized data collection framework and define operational indicators tailored to the unique requirements of various sectors.
- **Data-Driven Insights for Value Creation**: Collect and analyze extensive data to identify areas where value can be generated within the work environment at the organizational or building level. This analysis will provide a foundation for implementing targeted, impactful actions.

# Candidate profile:

We are seeking two highly motivated post-doctoral researchers with expertise in one or more of the following areas: machine learning, deep learning, data mining, knowledge-graph mining, or ontology development. Successful candidates will join the LITIS laboratory at INSA Rouen Normandie, collaborating with a diverse and interdisciplinary team of students and postdoctoral researchers in a vibrant and dynamic environment.

### Training and skills required:

This interdisciplinary research requires proficiency in at least one of the following domains:

### 1. Technical Expertise:

- Machine learning or deep learning techniques.
- Development and exploitation of ontologies or knowledge graphs.
- Experience in designing hybrid AI approaches (inductive and deductive reasoning) for decision-making is considered an advantage.
- 2. Soft Skills:

- Strong communication abilities.
- Proficiency in English is essential; fluency in French would be a valuable asset.

### **Position Details**

- **Duration**: 12 months, with the possibility of renewal depending on project needs and funding.
- Start Date: Immediate.

Interested candidates are encouraged to send:

- 1. A comprehensive CV.
- 2. A brief email summarizing your motivation and context for applying to this position.

Applications will be reviewed on a rolling basis, so early submissions are strongly encouraged.