

Ph.D. Position in model-based maintenance

A Ph.D. position is open at the "Computer Science and Digital Society" Research Unit (LIST3N). LIST3N is one of the 5 research units of the University of Technology in Troyes. The research project is with the "Dependability, Reliability and Maintenance" research group. This group mainly aims at developing stochastic approaches for the modeling of maintenance decision-making and operational safety problems.

The project will focus on assessing an optimal maintenance policy of a complex system consisting of several components with dependency among them. The primary interest of this project is to find a way to merge continuous degradation and Dynamic Bayesian Networks (DBN) to benefit from more simple and realistic modeling of the degradation along with the interaction between the system components.

Principal supervisors: Dr. Elham Mosayebi, Prof. Antoine Grall

The duration of this position is three years and the successful applicant will receive the salary (gross salary per month) as follows:

For 2023: 2044 euros

For 2024: 2100 euros

For 2025: 2200 euros

For 2026: 2300 euros

Key Duties and Responsibilities

- To conduct a specified program of research under the guidance and direction of the supervisors.
- To engage in appropriate training and professional development opportunities as required by the university to develop research skills and competencies.
- To engage in the dissemination of the results of the research (oral and written) in which you are engaged, as directed by, with the support of, and under the guidance of the supervisors.
- To contribute and produce high-quality peer-reviewed publications.
- To present research outcomes at project meetings and relevant conferences.
- To engage in the wider research and scholarly activities of the research group.

Criteria

- Applicants should have a professionally relevant background in probability, statistics, Markov models, etc (Master diploma or equivalent is required).
- Strong implementation and programming knowledge (R, Python, ...).
- Familiarity with Bayesian Networks and dynamic Bayesian networks will be appreciated.
- Ability to work independently on a tight schedule.
- Good ability to work effectively as part of a team to achieve results.
- Fluency in English and excellent communication skills.

To Apply:

Interested candidates should apply by email to Dr. Elham Mosayebi (elham.mosayebi@utt.fr), **quoting "Ph.D. Position 2023" in the subject line.**

Applications must include, in PDF format only:

1. Full CV including two referees;
2. A transcript of results for all university levels and courses;
3. A one-page abstract describing the MSc project (if applicable);
4. Short cover letter describing your motivation for applying for the position and how your experience and expertise match the research topic.

Applications will be accepted until the 26th of April 2023.

