

Funded open post doc position at INSA Lyon European project AI:Liner



1-Year Postdoctoral Fellowship (with a possibility to extend to a second year)

The post-doc position is part of the EU-funded initiative AI:LINER – Reshaping sewer infrastructure for a resilient Europe (<https://ailiner.eu>), under the HORIZON-CL4-2024-TWIN-TRANSITION-01-12 programme.

AI:Liner is a European research and innovation project that addresses the issue of ageing sewer networks by utilising AI and digital technologies. The project brings together over 15 partners from across Europe, including universities, start-ups, and large utilities in Madrid, Berlin, Lyon, Lausanne, and beyond. Key innovations include using satellites to monitor ground movements, using drones to inspect sewers and using AI modelling to optimize rehabilitation planning. The project also considers critical dimensions of AI, such as acceptance by municipal operators, and the trustworthiness and accountability of AI solutions.

As part of the project team, you will be mainly contributing to a work package (WP2) that aims to train, test and experiment with AI models for asset management. It includes automatic defect recognition from camera inspections, recommendation of rehabilitation alternatives or predictive condition assessment including sustainability metrics.

Your profile

Must have

- A PhD in hydrology, environmental engineering, computer science, machine learning or related field,
- Proficiency in programming (preferably in R and/or Python) and/or software development,
- Solid methodical approach in data science, statistics, machine learning and modelling,
- Interest for water management and infrastructure planning topics.

Nice to have

- >3 years of professional experience, preferably in the field of infrastructure management or data science,
- Experience in project management and European projects is a plus.

Key Responsibilities

- Conduct research at the interface of infrastructure management and data science: e.g. it can include
 - Elaboration of standardized data models and tools for data harmonization and management,
 - Development and validation of AI-driven rehabilitation recommendations,
 - Training and test of machine learning models for condition assessment, risk evaluation, aging prediction and more
- Assist in project management: coordination of work package 2, reporting and representation
- Collaborate with team members, from the lab and with the AI:Liner partners
- Publish findings, present at conferences, and support dissemination of the project results
- Assist in mentoring of junior researchers as needed

Working at INSA Lyon

The postdoctoral fellow will be hosted at the DEEP laboratory of INSA Lyon (<https://deep.insa-lyon.fr>). The net monthly salary is approximately 2,330 euros, with social security coverage, 42 days of leave per year, 50% reimbursement of public transport costs and social, cultural and sport events and activities.

INSA Lyon is France's premier post-baccalaureate engineering school, renowned for its cutting-edge research conducted across 23 state-of-the-art laboratories. Home to over 5,000 students, including 35% international, it produces avant-garde engineers tackling societal challenges through research excellence. DEEP (Waste, Water, Environment, Pollution) at INSA Lyon pioneers environmental engineering, with a core focus on ecotechnologies for ecological transitions. The lab maintains extensive international networks through collaborations on EU projects and global partnerships in urban water management.

How to Apply

Please send it through this webpage, as any other way of applying will not be considered:

<https://form.jotform.com/261042637815052>

Any question

If you have any question, please contact Frédéric Cherqui, frederic.cherqui@insa-lyon.fr.