



## Postdoctoral researcher at CEREMA ENDSUM

**Field:** Hydrology/Hydrogeology, Hydroclimatology

**Duration:** 18 months

**Expected start date:** September 2026

**Salary:** Approximately €2,400/month (net)

**Application deadline:** August 14, 2026

**Location:** Rouen (Normandy, France)

**Laboratory:** CEREMA ENDSUM

**Relationships:** Collaboration with the UMR M2C CNRS laboratory

### Your missions in a few words

Within the Non-Destructive Evaluation of Structures and Materials (ENDSUM) research team in Rouen , **the post-doc will implement innovative hydrological measures to study wetlands (peat bogs, marshes).**

The candidate will develop high-resolution data acquisition protocols using real-time piezometry, subsurface geophysical methods, and multispectral drone sensors (VIS/NIR/TIR...), and will process Earth observation satellite data (Sentinel, LiDAR , etc. ) and *in-situ data* to analyze groundwater-surface dynamics. The assigned missions will contribute to:

- Collect and harmonize hydrometeorological data for modeling;
- Instrumenting pilot sites
- Monitoring advances in wetland hydrology;
- Develop indicators of water resilience;
- Implement innovative tools from research for processing measurements;
- Maintaining active monitoring of new geophysical and non-destructive testing instrumentation, particularly as applied to drones

The postdoctoral researcher will report directly to the ENDSUM Rouen research fellow. The work will be carried out in close collaboration with ENDSUM researchers, engineers, and technicians. As part of their work, they will be expected to participate in the supervision of interns and doctoral students, and to publish their findings in national and international peer-reviewed scientific journals and conferences.

### Desired Profile

#### Doctor of Hydrology or Hydrogeology

Knowledge

Experience from experimental research.

Knowledge in the analysis and processing of environmental signals.

Knowledge of programming, preferably in Python.

#### Required Skills and Expertise

To know how to articulate a potentially valuable scientific or technical result.

Knowing how to mobilize and coordinate resources and skills to successfully complete a project.

Being able to communicate simply on complex technical subjects.

### **Interpersonal skills**

Autonomy, curiosity and scientific rigor, creativity, sense of innovation  
Enjoys teamwork, sense of organization

### **Who are we ?**

Cerema is the leading institution in the fields of expertise and public engineering , supporting local authorities in their efforts to adapt to climate change. It assists the State, local governments, and businesses in developing sustainable planning strategies and mobility solutions tailored to environmental challenges. As a key resource center, it informs the choices of public decision-makers and supports them in implementing their development projects.

The ENDSUM research team at Cerema (Non-Destructive Evaluation of Structures and Materials, <http://www.cerema.fr/ENDSUM> ) uses geosciences, remote sensing and Artificial Intelligence to establish diagnoses on the condition of civil engineering structures, linked to transport infrastructure, in particular, and to make predictions about their remaining lifespan, as well as to study the risks associated with natural elements, such as cliffs, karsts, aquifers or wetlands.

The position is part of the scientific project of the ENDSUM research team, in line with the strategic project of Cerema (2025-2028) which defines as a priority for action the use of the development of sensors for surface and subsurface imaging, carried in particular by drone, as well as the processing of associated signals, and particularly by artificial intelligence.

### **Additional information**

#### **Documents required:**

CV, cover letter and any other relevant material to illustrate your profile and career path.

#### **Contacts:**

Sivarama Krishna Reddy [CHIDEPUDI](mailto:CHIDEPUDI), Research Fellow, ENDSUM-Rouen team, Cerema ,  
[sivarama.chidepudi@cerema.fr](mailto:sivarama.chidepudi@cerema.fr)

Raphaël ANTOINE, Research Director, ENDSUM-Rouen team, Cerema [raphael.antoine@cerema.fr](mailto:raphael.antoine@cerema.fr)

Cyrille FAUCHARD, Research Director, ENDSUM-Rouen team, Cerema [cyrille.fauchard@cerema.fr](mailto:cyrille.fauchard@cerema.fr)