

## Postdoc

Ecole/Institution/Société:  
**CEA TECH, France / Grenoble**

Discipline:  
**Systems Engineering**

Type d'emploi::  
**Full-time**

Date de publication:  
**2021-03-07**

Personne à contacter:  
**If you wish to apply for this position, please specify that you saw it on AKATECH.tech**

Post Doc - Tools and methods for Industry 4.0 complex systems engineering

### Job Description

**PsD-DRT-20-0103**

### Research Field

Artificial intelligence & Data intelligence

### Abstract

- The Fourth Industrial Revolution or Industry 4.0, is the current transformation of traditional manufacturing and industrial practices with the latest smart and digital technologies. Interoperability is the basis of Industry 4.0 and guarantees open and pluralistic markets.
- It enables systems, devices and applications to communicate with one another and work together seamlessly. Open standards are essential components for interoperability, the Asset Administration Shell (AAS) is a promising standard for ensuring interoperability and implementing the digital twin in the manufacturing domain.
- The AAS is being further developed in application-oriented research projects (German and French national projects, as well as European projects), tested in ten testbeds and implemented in (at least) two pilot projects. The goal of your postdoc will be to investigate methods and develop modular, compositional and interoperable software architectures and tools based on models and integrated with available standards (AAS, AutomationML, SenML, OPC-UA, CoaAP, MQTT) and software frameworks from the Industry 4.0 community, such as Basyx.
- Artificial intelligence plays a key role in terms of enabling assets to exchange data and information directly with one another and to make decisions autonomously. You will also investigate the design and implementation of AI components to arrive at new solutions and business models in the AAS based ecosystem. Together with senior members of the lab, you will get involved in EU projects such as CanvAAS and AI-REGIO.
- The main goal is to set-up and consolidate a vibrant ecosystem,

## **Location**

Département Ingénierie Logiciels et Systèmes (LIST)

Labo.conception des systèmes embarqués et autonomes

Saclay

## **Contact Person**

DHOUIB Saadia

CEA

DRT / DILS // LSEA

CEA / Saclay

**Phone number: 01 69 08 34 43**

**Email:** [saadia.dhouib@cea.fr](mailto:saadia.dhouib@cea.fr)

Personne à contacter:

**If you wish to apply for this position, please specify that you saw it on AKATECH.tech**