

Organisation name: CEA LIST – AI & Data Science lab

Contact name: Nizar TOULEIMAT

Email: nizar.touleimat@cea.fr

Telephone number: +33 (0) 169 087 166

Research focused on AI methods with operational constraints:

- *Integration of knowledge and business expertise in models*
- *Modeling and reasoning on complex and heterogeneous structured data*
- *Constraints integration (memory, online processing) into ML algos*

SU-BES02-2019-2020: Sub-4: [2019] Detecting threats in the stream of commerce without disrupting business

SU-BES03-2019-2020: Sub-2: [2019] New concepts for decision support and information systems

SU-DRS02-2019-2020: Sub-open, Technologies for first responders

SU-DRS03-2019-2020: Sub-2: [2019] Pre-standardisation in crisis management

SU-DRS04-2019-2020: Chemical, biological, radiological and nuclear (CBRN) cluster

SU-INFRA02-2019: Security for smart and safe cities, including for public spaces

SU-FCT03-2019-2020: Information and data stream management to fight against (cyber)crime and terrorism

SU-GM01-2019-2020: Pan-EU networks of practitioners and other actors in the field of security

SU-DS03-2019-2020: Sub-1: Protecting citizens' security, privacy and personal data protection

SU-DS03-2019-2020: Sub-2: SMEs&MEs: defenders

SU-DS05-2019: Sub-a (2019): Digital security and privacy in multimodal transport

SU-DS05-2019: Sub-b (2019): Digital security and privacy in healthcare ecosystem

SU-INFRA01-2019-2020: Combined physical and cyber threats

SU-BES01-2019-2020: Sub-2: [2019] Modelling, predicting, and dealing with migration flows to avoid tensions and violence

- *Organisation competencies :*



Critical infrastructures monitoring and predictive maintenance

Expert system for crisis management



Cybersecurity

- *CEAtech-List skills:*

Distributed intelligence: development of operational solutions based on independent Multi-Agent System for complex decentralized optimization issues

Explainable AI: expert knowledge modeling and automated reasoning on data

Stream data: processing and analysis of monitoring signals at various time scales

BigData: feature selection, predictive models and complex data management & integration

