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HADRIA

HUB D'APPLICATION, DE DÉVELOPPEMENT ET DE RECHERCHE EN INTELLIGENCE ARTIFICIELLE DE LA SÉCURITÉ CIVILE

HADRIA

Civil Security AI Innovation Hub: Applications, Development, and Research.

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VALABRE

Why a AI lab for civil protection?

- **Generative AI: Beyond an Instrumental Vision**
- Generative Artificial Intelligence *is not just a tool*. It is the medium of a **profound transformation** in how we relate to the world, to knowledge, and to others.
- **A Socio-Technical Revolution**
- This revolution calls for a **collective approach** within our Civil protection public policy.
- **HADRIA's Mission**
- To give a **responsible and effective integration of AI tools in Civil protection,** while preserving professional cultures and techniques impacted by these technologies.

4 strategic goals

I. To train

To train all Civil protection end users to a responsible and ethical use of AI

II. To build cohesion

Unite a collaborative ecosystem for AI application research and development

III. To drive

Lead experimental projects and scale up AI solutions relevant to Civil Protection at the national level, within consortia involving partner Fire and Rescue Services (SIS)

IV. To certify

Establish certification for AI applications meeting SIS operational requirements.

3 projects currently being developped

Athen[IA] : LLM for Civil Protection

[AI]rgos : Develop an AI assistant to analyze and draft prevention reports for public buildings (*ERP*)

Vulc[AI]n : Solutions that strengthen human effectiveness in prevention, forecasting, and combating wildfires in natural spaces.

Athen[IA]

- **Goal of the project:** Create and deploy a **sovereign AI language model**, tailored and trained on the full Civil protection knowledge base.

- **Project architecture:**
  - Train an **open-source model** on the legislative, regulatory, and doctrinal base of Civil protection.
  - Link this specialized model to various document libraries, enabling queries across **all or part of the Civil protection documentation base** (ENSOSP, IHEMI, DGSCGC, RETEX).
  - Allow each Fire and Rescue Service (SIS) to integrate **its own documentation base** to enrich and customize the model for each user organization.

Member of the consortium: HADRIA – SDIS 77 et 25 – ANSC – IHEMI & Sté. NEXTRA

[AI]rgos

- **Goal of the project:** Develop a multimodal AI system that analyzes the various documents in an public buildings file (plans, reports, forms), detects non-compliance with regulations, and suggests corrective actions with supporting references.

- **Main challenges :** Ingest and normalize high-volume, multimodal data (varied plan formats/scales, safety notices, imagery) and perform robust compliance checks against a comprehensive regulatory corpus.

[AI]rgos

- **Architecture of the project:**
  - Deploy VLM + LLM for document and plan analysis, LLM + RAG for regulatory alignment, and embed advanced research on bidirectional plan-text technologies for operational efficiency.

- **Expected Outcomes:**
  - Two complementary tools: one for prevention officers to streamline and optimize dossier processing, and one for operators to support project design, improving safety and dossier quality for public buildings compliance.

Vulc[AI]n

- **Goal of the project:** Build the capability to map the AI landscape, accredit high-value applications, and develop new solutions to advance prevention, prediction, and wildfire control.
- **4 axes :**
  - ✓ Inventory & Labeling of Early Wildfire Detection Solutions Identify all automated early-detection solutions for wildfires in natural areas and conduct their evaluation and labeling
  - ✓ National Wildfire Data Lake Build and maintain a data lake covering wildfires across France cartographic analysis of legal brush-clearing obligations, fire perimeters, weather data, tactical situations, damage to buildings, etc

Vulc[AI]n

- Fire & Smoke Propagation Engines + Sensitive Point Recognition : Develop fire and smoke propagation engines and automated recognition of sensitive or vulnerable points.

- Real-Time Decision-Support via Hypervision : Develop real-time decision-support tools powered by hypervision technologies.

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Merci pour votre attention

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