

CAID 2020 - Conference on Artificial Intelligence for Defence

The second conference on Artificial Intelligence for Defence will be held in Rennes from November 18-19, 2020, along with the 26th C&ESAR conference. Both are organised by the the French Ministry of the Armed Forces and will take place during the 5th European Cyber Week (organised by the “Pôle d’excellence cyber” and its partners from 17- 19 November).

Artificial Intelligence spans greatly different approaches, from neural networks to probabilistic methods (Bayesian networks...), to more traditional statistical techniques (SVM, decision trees ...) and data science.

Late progress in Artificial Intelligence, particularly in Deep Learning, led to significant breakthroughs in numerous civilian applications, that are transposable to the field of defence. This concerns for instance:

- Algorithms processing unstructured data such as DRI (Detection Recognition Identification) techniques or audio processing algorithms, largely used in the civilian world, and that are also usable on defence-oriented data (SAR, infrared or hyperspectral images, radar or sonar signals...)
- Anomaly detection techniques, which are able to process data even when labels are not available.

Nevertheless, applying these technologies in the area of defence leads to new challenges. Indeed, the safety requirements in this field highlight issues regarding the conformity of these systems:

- Attacks against AI systems, especially neural networks, which can trigger safety issues in some AI-based applications.
- Technologies to certify AI systems, that is, to prove and guarantee them, either with empirical tests, or with formal evidence; methods and metrics to certify a training or test dataset.
- Training data privacy, with the risk to uncover potentially classified training data features.
- All constraints associated with low energy embedded systems (quantification, approximation), such as performance, robustness or conformity assessment.

This year, the conference organise a session on the use of AI and/or data science for crisis management. In this context, submissions related to the fight against COVID-19 would be quite relevant.

CAID aims to be educational and to present AI questions to a wide audience, including novices in the field.

To that end, we invite people with different backgrounds (defence, industrial, academic research...) to submit papers related to Artificial Intelligence for Defence.

Submission modalities

Papers must be submitted via the following link as pdf files no later than **August 31, 2020** **September 6, 2020**: <https://easychair.org/conferences/?conf=caid2020>

Each submission shall include the title of the paper, the authors' names and affiliations, the email address of the main author, an abstract (10 lines max.), and a set of keywords. It shall be no more than 8 A4-sized pages long, and follow the Springer Lecture Notes in Computer Science template:

- LaTeX template: <ftp://ftp.springernature.com/cs-proceeding/llncs/llncs2e.zip> ;
- Word template: <ftp://ftp.springernature.com/cs-proceeding/llncs/word/splnproc1703.zip>).

The pedagogical aspect of the article will be an important selection criterion. CAID 2020 program committee will prefer papers with a clear presentation of the context and issues at stake, rather than papers aiming at an expert audience.

Acceptation status will be notified to authors on **October 15, 2020**.

The camera-ready version taking into account reviewers' comments shall be handed in no later than **October 30, 2020**.

Program committee

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