

Context of ACXEME Chair:

The industrial chair ACXEME (French acronym for Ignition, Explosion, Environment and Energetic Materials) is a research program selected in June 2019 by the French National Research Agency (ANR). The chair leader is a Professor working in Bourges University Institute of Technology. This project proposes a significant contribution for the improvement of explosive and propulsive energy systems with solid fuel. Major advances will be proposed on the two following axes: optimization of materials for designed systems and prediction capacity of composition of energetic materials and system design under current and future environmental constraints. Challenges at material, energetic and system levels will be met by a consortium of industrial (MBDA France, Nexter Munitions, ASB Aerospatiale Batteries) and academic (PRISME with ICARE-CNRS Laboratories) researchers.

Job offers proposed below are part of this industrial chair.

Academic Partners:

PRISME Laboratory (EA 4229) is a scientific research laboratory of Orleans University and Centre-Val de Loire National Institute of Applied Sciences (INSA). Research area covers all fields of engineering sciences and it is organized in several Research Teams.

Combustion-Explosions (CE) Research Team aims at understanding phenomena leading a reactive system to ignite or explode. These phenomena are studied from hydrodynamical (overpressure, deflagration etc.) or thermal (pyrolysis, fires) points of view, but also with the improvement of adapted metrological tools.

Automatic (Auto) Research Team aims at developing methods or concepts to analyze and characterize system behavior. Final applications are control and maintenance.

The Institute of Combustion Aerothermal Reactivity and Environment (ICARE) is a research unit (UPR 3021) located in Orleans whose guardianship is the French National Center for Scientific Research (CNRS). This laboratory is also the leader of "Laboratoire d'Excellence" CAPRYSES whose objective is to improve the quality and safety of energy systems where the chemical conversion of energy takes place, by controlling the coupled phenomena related to chemical kinetics and fluid dynamics.