



CentraleSupélec



Card-index for Post-Doc position at the

CHAIR Systems Science and Energetic Challenge (SSEC)

Profile: data science, machine learning, artificial intelligence, degradation and failure modelling, Prognostics and Health Management (PHM) and Predictive Maintenance (PM).

CentraleSupélec www.centralesupelec.fr is a top French engineering school ("Grandes Ecoles"). It recruits students with excellent analytical skills through a national competition, after two years of intensive training in Fundamental Science (maths, physics...). It delivers engineering degrees at the Master of Science and PhD levels. It benefits from advanced academic research and strong connection with industry.

CentraleSupélec has established a Chair on Systems Science and Energetic Challenge (SSEC, www.ssde.fr) with the financial support of a major electrical company (Electricité De France, EDF). The Chair objective is to model, analyse and optimize complex systems of power generation, transport and distribution, taking into account all aspects, from engineering design to operation and control, from safety to environment and economics. The activities of the SSEC Chair include teaching, research with strong international impact and towards industrial application.

The SSEC Chair team consists of three full time members (a senior professor, director of the Chair, and two Assistant Professors), a number of post-docs and PhD students, and some visiting scientists. The SSEC Chair is the building block of the Research team on Safety and Risks at the Industrial Engineering Laboratory (LGI-Laboratoire Genie Industriel) of CentraleSupélec.

A Post Doc position is open for applications of talented and dynamic young scientists with a proven strong background in data science, machine learning, artificial intelligence, probability, modelling, simulation, optimization for the analysis of complex engineered systems, in particular with respect to their degradation and failure behaviour, for Prognostics and Health Management (PHM) and Predictive Maintenance (PM). Applicants for this position should hold a PhD in the field, have an outstanding curriculum of studies and a record of high quality research. Open mind and curiosity for innovative solutions to practical problems of complex system engineering are also necessary attributes. Some preliminary experience in teaching and some international cooperation would be highly appreciated.

Fluency in English is required; fluency in French is appreciated but not mandatory.

The position is for 1 ½ year, starting immediately.

Education activities

The Post Doc will be given opportunities to contribute to courses on complex systems modelling, reliability, safety and risk analyses, at the Bachelor, Master and PhD levels.

Research

The Post Doc will engage in research on degradation modelling, failure detection, diagnostics and prognostics of complex energy components and systems by physic-based and data-driven modelling. The aims are to develop and apply advanced modelling, simulation and optimization tools, with techniques from to artificial intelligence, to data mining, Monte Carlo simulation, stochastic processes,

The annual gross salary is about 35 000 €.

Applications should include a letter of motivation, the CV, and at least two letters of reference, and should be sent by the deadline of February 20, 2018 to:

corinne.ollivier@centralesupelec.fr

enrico.zio@centralesupelec.fr

PS. Only those candidates who will be judged potentially fit for the position will be contacted further for additional material and information, and possibly for an oral interview during which they will be requested to present their knowledge in the research topics of interest and their communication and teaching skills.