



AI for Energy Transition

Thursday 13 January 2022, 13:50 to 16:00.

This fourth webinar will focus on illustrations of ongoing research at Hi! PARIS related to the development of AI solutions for energy transition. These solutions aim at accelerating global efforts to protect the environment and reduce energy consumption. Damien Ernst (Uliège and Telecom Paris) will discuss reinforcement learning for electrical markets and the energy transition. Then, Sam Aflaki (HEC Paris) will focus on the promotion of energy efficiency using performance-based contracts and analytics

Following their presentations, our researchers will be joined by experts in AI and machine learning to answer questions and spell out challenges related to the use of AI for Energy transition. Victor Martin (Head of numeric platform for power and sustainability R&D at TotalEnergies) will highlight TotalEnergies initiatives. Accenta will be represented also in the panel discussion.

Registration [here](#)

13.50-15.00 – ILLUSTRATIONS OF RESEARCH AT HI! PARIS

13.50-13.55 — Fresh Hi! PARIS news.

14.00-14.30 — **Illustration 1:**

Damien Ernst, Prof. ULiège, Hi! PARIS Chair Prof. Télécom Paris, IP Paris

Title: Reinforcement learning for electrical markets and the energy transition

14.30-15.00 — **Illustration 2:**

Sam Aflaki, HEC Paris, Department Chair and Associate Professor of Operations Management.

Title: Promoting energy efficiency using performance-based contracts and analytics

15:00 – 16:00 – PANEL DISCUSSION

Questions from attendees will be asked to all speakers and expert panelists:

Victor Martin

TotalEnergies, Head of numeric platform for power and sustainability R&D.

To be confirmed,

Accenta.

ABSTRACTS OF RESEARCH ILLUSTRATIONS

Title: Reinforcement learning for electrical markets and the energy transition

Presenter: Damien Ernst

In his talk, Prof. Damien will address several key issues related to decision-making problems for electrical markets and the energy transition. He will show the potential that reinforcement learning techniques have for solving such problems and highlight the new fundamental research questions in Artificial Intelligence that they raise.

Title: Promoting energy efficiency using performance-based contracts and analytics

Presenter: Sam Aflaki

Energy efficiency projects are often executed by energy service companies (ESCOs) whose core business uses performance-based contracts, whereby payment terms depend on the energy savings achieved. Design and execution of such performance-based contracts is a business challenge that has been facilitated by digitalization and the availability of big data. In this talk, I will present the opportunities of energy efficiency, the challenges to the ESCO business model, and how energy efficiency analytics can help overcome those challenges.