

$$\frac{\sqrt{\sum_{t=2}^{N} (N_t - t)}}{\sum_{t=1}^{N} Q_{x_t} \cdot \nabla y_t} = \frac{\sum_{t=1}^{N} y_t}{\sum_{t=1}^{N} (1) y_t} \times \frac{\sum_{t=2}^{N} y_t}{\sum_{t=2}^{N} (1) y_t} \times \frac{\sum_{t=2}^$$

Teaching and research chairs are also open within IFPEN or IFP School.

Chairs feed initial and ongoing reflection processes, thereby making it possible to train professionals capable of addressing the energy challenges of the future. They provide a forum for debate concerning innovation, whereby all players, private and public, can meet and discuss the relevant issues.

CHAIRS INVOLVING IFPEN

IFPEN is directly involved in two chairs and one consortium.

In 2018, a chair was launched bringing together IFPEN and the chemistry laboratory at ENS Lyon Lyon and IDEX de Lyon: **the ROAD4CAT (RatiOnAl Design for CATalysis) chair** in the field of molecular modeling for catalysis led by an IFPEN researcher (Pascal Raybaud).

OQUAIDO, an applied mathematics chair led by the Ecole des Mines engineering school in Saint-Étienne since 2016, ended in 2020. IFPEN worked alongside 11 partners to **resolve problems concerning uncertainty quantification, sensitivity analysis, optimization, inversion and calibration**. CIROQUO – Consortium Industrie & Recherche pour l'Optimisation et la QUantification d'incertitude pour les données Onéreuses (industrial research consortium dedicated to the optimization and quantification of uncertainties for expensive data) – follows on from research conducted within the framework of OQUAIDO as well as the DICE and ReDICE projects. CIROQUO is managed by the École Centrale de Lyon and jointly led by IFPEN and brings together 6 academic partners alongside 7 technological research partners to address issues surrounding **the exploitation of expensive simulations resulting from complex calculation codes**.

Since July 1, 2019, Fadi Henri Nader, a researcher from IFPEN, has been appointed Professor of "**Multiscale fluid-rock interactions**", a new chair, at the Utrecht University, for five years. The chair will lead to teaching and research collaboration actions, taking advantage of the skills of IFPEN's

Geosciences Division on the topic of multiscale fluid-rock interactions, in particular for supervising internships and thesis work.

>> Find out more about this chair.

CHAIRS WITH IFP SCHOOL

Since 2008, **nine education and research chairs have been launched** at IFP School with the support of the Tuck Foundation, industrial partners and the *Association pour la Formation Industrie*. These chairs contribute to the development of new teaching programs as well as to the training of PhD students and post-doctoral researchers.

Five chairs dedicated to the topics of "Reservoir Sedimentology and Modeling", "Hybrid Vehicles and Energy Control", "Thermodynamics for Fuels Produced from Biomass", "Biofuels" and "Economic Modeling Applied to the Environment and Energies" are now closed.

The "Electricity and Digital Transition (ETD)" and "Electric, Connected and Autonomous Vehicles for Smart Mobility (ECAV)" chairs were launched in 2018 and 2019 respectively. The "Carbon Management and Negative CO₂ Emissions Technologies Towards a Low Carbon Future (CarMa)" chair was launched in mid-2019 thanks to the support of Total. The most recent chair entitled "EleTher" was launched in 2020. It is dedicated to the Electrolyte Thermodynamics.

Holders of these chairs are IFPEN/IFP School personnel who have access to IFP School's and IFPEN's facilities.

TO FIND OUT MORE

IFP School chairs
Tuck Foundation website
Chairs

Link to the web page: