SHAKE THE FUTURE.

CENTRALE NANTES

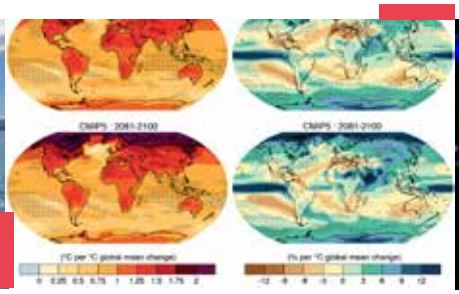
graduate programme | Ingénieur grande école

2ND AND 3RD YEAR SPECIALISATION

PROJECT
NET-ZERO EMISSIONS

It's now a matter of real urgency that we understand and have others understand that the global warming is not mere opinion, but scientific reality. In order to limit global warming to 1.5°C, the IPCC concludes that we must reduce our CO2 emissions by 45% (from 2010 levels) by 2030, reaching 'net zero' by the middle of the century.

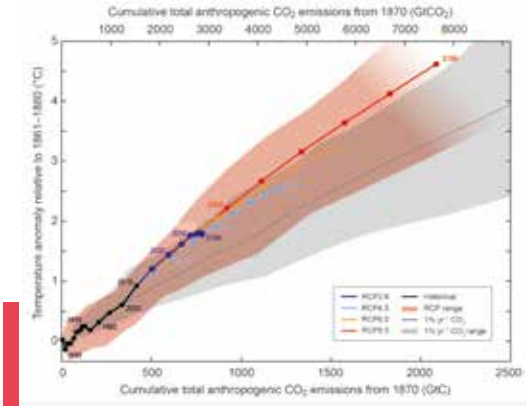
This project specialisation is designed for students to take action to support the school - and more broadly, society - in reducing its carbon footprint. Students will be fully immersed in this topic on a daily basis, affording them the knowledge and skills to take action on this issue during their professional careers.



COURSE CONTENT

Support the school in a decarbonization approach aligned with national and international commitments:

- Understand climate change and science-based targets,
- Assess the school's carbon footprint and evaluate actions to reduce the CO2 emissions,
- Produce effective management tools, directly usable by Centrale Nantes Departments and Committees to design and implement action plans,
- Develop digital tools allowing each user to calculate their carbon footprint and identify their ways to act on campus,
- Raise awareness about climate issues among students and school staff,
- Develop a platform accessible to other institutions to support them in their ecological and solidarity transition process,
- Communicate and share the work carried out in order to guide as many people as possible to reduce their carbon footprint.



Global Warming of 1.5°C

An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty

INDUSTRY SECTORS

> Environment
> Energy
> Management
> Consultancy
> IT
> Innovation
> Communication
> Social

SKILLS

> Project engineering
> Carbon impact
> IT
> Data processing and analysis
> Knowledge transfer
> Change manangement
> Complexity management
> Teamwork
> Creativity

TEACHING STAFF

HEAD OF SPECIALISATION:

Emmanuel Rozière

Benoit Hilloulin

CONTACT :
emmanuel.roziere@ec-nantes.fr
benoit.hilloulin@ec-nantes.fr

PROJECT-BASED LEARNING

Project-based learning allows students to acquire different skills through:

> A tailor-made training programme that adapts to the needs of students
> Agile and autonomous organisation
> Tailored support
> An opportunity to take concrete action on a current and global issue,
> Full immersion in ecological and climate themes

PROJECT DELIVERABLES

> Carbon footprint of Centrale Nantes and quantification of the emission reduction actions from the ADEME QuantiGES protocol,
> Tool for calculating decarbonization trajectories adapted to Centrale Nantes and aligned with international science-based targets,
> Development of standardized or automated data collection and analysis systems (sensors, counters, etc.)
> Tools to measure the school's carbon footprint and also one's individual carbon footprint to encourage others to act collectively,
> Workshops and support media to raise user awareness and disseminate knowledge,
> Regular project monitoring deliverables (minutes, progress reports and indicators, planning etc.).

Ingénieur grande école | **graduate** programme

École Centrale de Nantes. Direction de la communication,juin 2020

Centrale Nantes is a French engineering school and member of the Ecoles Centrale Group. Its graduate, master and PhD programmes are based on the latest scientific and technological developments and the best management practices. Founded in 1919, Centrale Nantes' 40-acre campus welcomes 2320 students, including 1550 graduate students, 150 Executive Education and degree apprenticeship students, 240 PhD students and 380 Master and Advanced Master students.