NUCLEAR ENGINEERING

International Master of Science (MSc)

Track NEPIA
Nuclear Energy Production and Industrial Applications

This program focuses on nuclear sciences applications including energy production (power reactors) and industrial applications (particles beams technology, instrumentation,…). A particular focus is put on the safety and radioprotection, to be considered in the management of a large project in this field.

ACADEMIC DETAILS

2-year full time program
> September intake – 4 semesters

Comprehensive curriculum
> Projects, company visits, seminars
> Professional coaching
> Intercultural workshop
> French language & culture
> Master thesis/internship (last semester)

Internationally recognized degree
> MSc in Nuclear Engineering (NE) accredited by the Ministry of Higher Education and Research. No. 20170877

Associated tracks / programs
> ANWM – Advanced Nuclear Waste Management
> NMA - Nuclear Medical Applications
> SARENA - Erasmus Mundus label

M1 - YEAR 1 on Nantes campus
> Physics of ionizing radiations
> Detection of ionizing radiations
> Introduction to nuclear modeling
> Introduction to neutron physics
> Radioprotection
> Physico-chemistry of environment
> Introduction to nuclear technology
> Detection and industrial applications
> Project management & entrepreneurship
> Measurement ad data analysis
> Energy mix & energetic transition
> Environmental management
> Sustainability strategy

M2 - YEAR 2 on Nantes campus
> Basics for reactors
> Dismantlement and decommissioning
> Nuclear materials
> Operation & maintenance
> Management, safety & society

Courses are subject to change without notice

100 % taught in English

6-month internship in a company or lab

PhD opportunities

IMT Atlantique
Bretagne-Pays de la Loire
École Mines-Télécom

#NuclearTechnology
#Energy #Physics
#Reactors #NuclearSafety
#Cyclotrons
#RadiationProtection
#NuclearSecurity
#Accelerators

THE INTERVIEW OF OUR EXPERT

« The program benefits from a large network of industrial and academic partners, with many opportunities of jobs. Many of our alumni are being hired by the French nuclear industry. »

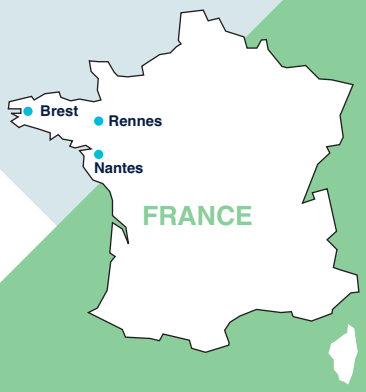
Abdesselam ABDELOUAS
Professor in Radiochemistry
Director of the MSc

CAREER OPPORTUNITIES

Project engineer related to nuclear energy, Safety engineer in nuclear power plant and industrial installations, Operation and maintenance engineer in nuclear power plant, Research scientist and development engineer for industrial installations and power plants, etc.
Possibility to continue in PhD.

RESEARCH EXPOSURE

The MSc is managed by Subatech, a joint research unit in Subatomic physics and associated technologies between the CNRS-IN2P3, IMT Atlantique and the University of Nantes. Fully integrated in major worldwide scientific collaborations, Subatech's research activities revolve around the fields of nuclear, hadronic, particle and astroparticle physics and radiochemistry.



TUITION FEES AND SCHOLARSHIPS

12,000 Euros / year
Scholarships opportunities for: Excellent profiles, Alumni from our partner universities, European citizens, etc.

> "*Bienvenue en France*" label guarantees the quality of the experience for international students.

IMT ATLANTIQUE

is one of the top 5 institutions in engineering in France.
As a leading Technological University, its education, research and innovation activities are recognized internationally :
Top 500 in the THE World University Ranking,
Top 400 in QS ranking for « Physics & Astronomy ».

> On-campus accommodation, restaurants, sports facilities
> Orientation Days & French Summer School
> A variety of student clubs

Find out more:
www.imt-atlantique.fr/ne

Contact us:
ne-apply@imt-atlantique.fr

Apply:
https://www.imt-atlantique.fr/apply

Design and production : IMT Atlantique Communication Department - July 2024 - Do not litter

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I2EN Institut international de l'énergie nucléaire
MINISTÈRE DE L'ENSEIGNEMENT SUPÉRIEUR ET DE LA RECHERCHE
Liberté Égalité Fraternité