



CALL FOR APPLICATIONS

2025 Admissions Into International Master's Programme In Energy And Green Hydrogen Technology (IMP-EGH) :

Specialty: **ECONOMICS/POLICIES/INFRASTRUCTURES AND GREEN HYDROGEN TECHNOLOGY**

1. Background

The West African Science Service Centre on Climate Change and Adapted Land Use (WASCAL) is West African inter-governmental organisation funded by the German Federal Ministry of Education and Research (BMBF), multilateral and bilateral partners and its West African member countries. With focus on capacity building, academic and transdisciplinary research, climate and environmental service provision, it cooperates with many agencies and universities in the region and globally to provide, a knowledge platform of excellence for its partners.

WASCAL, under the sponsorship of the Division 722 of BMBF, is pleased to announce application for its Interdisciplinary Master Programme in Energy and Green Hydrogen (IMP-EGH) in all fifteen (15) ECOWAS countries namely: Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo.

The international Master's Programme in Energy and Green Hydrogen (IMP-EGH), option **Economics/Policies/Infrastructures and Green Hydrogen Technology** led by Université Cheikh Anta Diop (UCAD) of Dakar in Senegal and implemented in collaboration with Jülich and Aachen and other renowned African, German, and other international universities and institutions, aims at offering top-ranking students an integrated learning environment to develop skills to be qualified as Renewable Energy and Green Hydrogen specialists. UCAD is launching the third call for application of the International Master's Programme in Energy and Green Hydrogen (IMP-EGH), option **Economics/Policies/Infrastructures and Green Hydrogen Technology** for the academic year 2025-2026. The programme of the IMP-EGH provides full scholarship to successful candidates from ECOWAS member countries: Prospective candidates from these countries are invited to submit their applications for selection.

2. Goal

To provide training on state-of-the-art tools used in renewable energy, green hydrogen technology and policy (politics and economics) with the view of training adequate

human resources to boost the sector of energy technology and guide policy formulation across the region.

3. Objectives

To train a new generation of interdisciplinary professionals capable and well prepared to propose adapted solutions to ongoing energy crisis. , Graduates will be well skilled in order to jointly fulfill the two following points:

- demonstrate an understanding of the science related to climate change and energy transition, assessing the impact, the vulnerability of natural systems and the built environment, and methods for adaptation;
- develop a comprehension of energy production, delivery, and consumption for both traditional systems and sustainable energy alternatives with special emphasis on energy efficiency, energy management and local available renewable energy;
- train students on all questions related to the energy transition by mobilizing multidisciplinary analyses but with a prism of the economy;
- strengthen capacities for an understanding of the issues, constraints and problems faced by the energy sectors in their development and / or evolution;
- Prepare skilled workers for the emerging global hydrogen economy.

4. Job opportunities

This programme will offer students the following jobs:

- Renewable energy project developer
- Strategic advisor within an energy company
- Business engineer in a company offering integrated energy services
- Engineer / economist in a company in the energy sector, a government agency or an international organization
- Expert in energy-related environmental issues with national or international institutions

5. Eligibility criteria

This International Master's Programme in Energy and Green Hydrogen (IMP-EGH) is open to students:

- from partner countries in West Africa (Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, The Gambia and Togo.);

- with a minimum background of a Bachelor of Science degree or equivalent in scientific discipline or in engineering. Candidates with technical strengths in physics, chemistry, electrical, mechanical engineering or equivalent are required. In addition, having a background in economic and statistic will be an asset;
- having a good English proficiency.

6. Outline of the programme

The International Master's Programme in Energy and Green Hydrogen is a well-structured programme consisting of three (3) semesters of taught courses, laboratory activities, field visits and interaction with stakeholders and one (1) year practical laboratory/field work, thesis write up and defense.

6.1 Training

The training includes courses divided into semesters as follows:

Semesters	Courses
Semester 1 in Niger	Physics of solids and fluids
	Semi-conductor, electrical and electronic engineering
	Thermodynamics
	Electrochemistry
	Atmospheric sciences
	Climate Change and sustainable development
Semester 2 in Niger	Conventional energy and energy security
	Renewable Energy
	Green Hydrogen
	Photovoltaics
	Energy systems and infrastructures
	Energy policy and market

Semester 3 in Senegal	Cost Management of Value Chains
	Research Methods (I) for Master Thesis
	Energy system economics
	Public Economics
	Sustainable Energy Technologies for Development
	Sustainability Assessment Methods and Tools for energy and emerging technologies
	Planning for 100% Renewable Energy Systems
	Participatory Modeling for Capacity Building and Agency
	Energy policy
	Cost-benefit analysis of green energy projects
	Research Methods (II) for Master Thesis
	Semester 4

6.2 Research

Semester 4 and 5 are devoted to research for energy and green hydrogen Policy in Germany

Phase 1: Writing and validation of the research project

Phase II: Field study

Phase III: Practical Laboratory/field work and thesis writing in Germany

Phase IV: Master Thesis finalisation, defense and graduation at University Cheikh Anta Diop

7. Working Language

English

- **Application procedures**

- Form duly filled, scanned, and sent to required address
- Curriculum Vitae signed with information about relevant experience and professional training
- Cover letter
- Two (2) reference letters, one of whom should preferably be from the undergraduate lecturer in the equivalent science discipline or in engineering; preferably one letter from an academic and one from a former employer precise availability of the candidate for the period of master's programme. Reference letters must be written in English or French and must be signed / stamped
- Photocopy of passport or national identification card
- Fee paying proof (award, scholarship, etc.)
- Certified copies of diplomas and transcripts (Baccalaureate (SSCE) and Bachelor Degree)
- **Selection procedures**
 - Only short-listed candidates will be notified for interviews
 - Interviews will be done in English by a committee
 - **The selected candidate will be required to provide the name and contact details of a guarantor who will also sign the contract.**
 - A scholarship letter will be sent to the selected candidate from WASCAL Headquarters.

10. Self-funding

Those who are not selected but wish to take the courses will be able to do so as fee paying candidates after being selected. The cost of the training will be specified later.

11. Duration

Duration of the IMP-EGH is up to 30 months including 4 months' language training in English proficiency for Francophones and French proficiency for Anglophones. During the course work phase, students will be required to develop a detailed research

programme (proposal) (including budget). The proposal plan should be completed and validated by the student's principal advisor and the Director in charge of the programme.

12. Scholarship and research support

- Scholarship: 400 Euros per month
- Accommodation provided up to 100 Euros
- Research Budget
- Travel ticket for language courses in Cape Coast or Lomé
- Travel ticket to the country of specialisation
- Round trip ticket to Germany
- Tuition
- Return ticket to home country

Applications must be submitted to master.energie.wascal@ucad.edu.sn and copy cbd.hydrogen@wascal.org

Deadline for applications: April 30th, 2025