CALL FOR APPLICATION

2025 Admissions into International Master Programme in Energy and Green Hydrogen Technology (IMP-EGH)

Specialty: GREEN HYDROGEN PRODUCTION AND TECHNOLOGY

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1. Background

The West African Science Service Centre on Climate Change and Adapted Land Use (WASCAL), is West African intergovernmental 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 Programme in Energy and Green Hydrogen (IMP-EGH) is innovative for the West African region and it is designed to prepare the next generation to address the energy challenges of adaptation and resilience to climate change in West Africa. The programme adopting the interdisciplinary approach will allow a better understanding of present-day renewable energy needs in West Africa, in a changing climate and energy transition context for sustainable solutions.

2 Goal

To provide training on state-of-the-art tools used in renewable energy, green hydrogen technology and policy 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 prepare and train a new generation of interdisciplinary professionals capable of proposing adapted solutions to ongoing energy crisis. Graduates will be well skilled in order to jointly fulfill the three following points:

- Demonstrate an understanding of the science related to climate change and energy transition, assessing the impact, the vulnerability of natural systems and to 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.
- Explore, identify and popularize the methods of production and valorization of green energy (hydrogen) from geo-resources (water and wind).

4 Job opportunity

This programme in hydrogen with the specialty in **Green hydrogen production and Technology** will be immediately operational in various fields of renewable energy production. In the private sector, all agro-industries will be able to use their knowledge to produce green hydrogen. They will be the first human resources for electrolysis factories of Water Resources in clean and renewable energy (hydrogen).

5 Eligibility criteria

This Master 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 engineering, statistical economist or mechanical engineering or equivalent are required;
- with no more than 35 years old at the end of December 2025;
- Having a good English proficiency will be an asset for final selection;

6. Outline of the programme

The Interdisciplinary Master Programme in Energy and Green Hydrogen is a well-structured programme consisting of three (3) semesters of taught courses, lab 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 modules divided into semesters and specified in the following way:

Semesters	Courses	Credits
Semester 1	Physics of solids and fluids Semiconductor, electrical and electronic engineering Thermodynamics Electrochemistry Atmospheric Sciences Climate Change and sustainable development	5 6 6 6 4 3
Semester 2	Conventional energy and Energy security Renewable Energy Green Hydrogen Renewable energy (RE) Technologies and Applications Energy systems and infrastructure Energy Policy and Market	3 6 6 6 6 3
Semester 3	Hydrogen and Materials Conversion and Economy of H2 Nuclera reactions and nhydrogen Energy efficiency and Energy Policies Hydrogen and applications H2 Production and Safety Research methodology	4 6 3 3 8 3 3
Semester 4	Master Thesis	30

6.2 Research

Semester 4 and 5 are devoted to research to 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: Final writing of the Master Thesis

Phase V: Master Thesis finalization, defense and graduation in University Félix HOUPHOUËT-BOIGNY

7.**Working Language**

English

8. Application procedures

- Form duly filled, scanned, and sent to the 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 all period of master programme. Reference letters must be written in English or French and must be signed / stamped
- Passport copy or national identification card
- Certified copies of diplomas and transcripts (Baccalaureate (SSCE) and Bachelor Degree)

9. Selection procedures

- Only short-listed candidates will be notified for interviews (4 per country)
- Interviews will be done in English by a committee
- Final selection: one student per country will be selected. **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 Headquarter

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.

10. 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.

11. 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:

☞ Only applications online are allowed (*via to* **https://apply.wascal-ci.org/** *)*

☞ **greenh2@wascal-ci.org**, *and copy* **cbd.hydrogen@wascal.org***,* **w.fassinou@wascal-ci.org**)

Deadline for applications: April 30th, 2025