

EVALUATION AND ACCREDITATION DOCUMENTS

Ph.D. Analytical/Environmental Chemistry

Centre for Food Technology and Research
(CEFTER)

Benue State University

Makurdi, Nigeria

February 2024

CONTENTS

Evaluation report	pages 1 to 12
Comments of the institution	page 13
Accreditation decision	following pages



International evaluation and accreditation

EVALUATION REPORT

Ph.D. Analytical/Environmental Chemistry

Centre for Food Technology and Research
(CEFTER)

Benue State University

Makurdi, Nigeria

February 2024

The Benue State University has mandated the Hcéres to perform the evaluation of its Analytical/Environmental Chemistry Ph.D. programme. The evaluation is based on the “External Evaluation Standards” of foreign study programmes, adopted by the Hcéres Board on January 31st, 2022. These standards are available on the Hcéres website (hceres.fr).

On behalf of the experts committee¹ :

Anne Varenne, President of the committee

In the name of Hcéres¹ :

Stéphane Le Boulter, Acting President

¹In accordance with articles R. 114-15 and R. 114-10 of the Research Code, evaluation reports are signed by the chairman of the experts committee and countersigned by the President of Hcéres.

CONTENTS

I. STUDY PROGRAMME IDENTITY SHEET	4
II. PRESENTATION OF THE STUDY PROGRAMME.....	5
1 – Presentation of the study programme	5
2 – Presentation of the programme's self-evaluation approach	5
III. COMPOSITION OF THE EXPERTS PANEL	5
IV. VISIT DESCRIPTION	5
V. EVALUATION REPORT	7
1 – Doctoral policy	7
2 – Training, hosting and supervision arrangements for doctoral students	8
3 – Attractiveness, performance and relevance of the doctorate	8
4 – Management and continuous improvement of the doctorate.....	9
VI. CONCLUSION.....	11
Strengths.....	11
Weaknesses	11
Recommendations	11
VII. COMMENTS OF THE INSTITUTION	13

I. STUDY PROGRAMME IDENTITY SHEET

- University: Benue State University (BSU), Makurdi, Nigeria
- Department concerned: Department of Chemistry
- Title of the programme: Ph.D. Analytical/Environmental Chemistry
- Year of creation and context: 2013, teaching and research in analytical and environmental related issues and mitigation of postharvest losses of crops
- Site where the programme is taught (town and campus): Department of Chemistry, Main Campus, Benue State University, Makurdi

PROGRAMME DIRECTOR

- Surname, first name: Adie, Peter Agorye
- Profession and grade: Associate Professor
- Main subject taught: Analytical Chemistry

METHODS AND RESULTS OF THE PREVIOUS ACCREDITATION(S)

- In 2017, the programme was evaluated by the National Universities Commission (NUC). The programme received its full accreditation by the NUC for 5 years, from March 2017 to March 2022.
- No previous international accreditation. However, three other programmes from this Centre of Excellence (M.Sc. Food Chemistry, M.Sc. Post Harvest Engineering and Technology, Ph.D. Food Chemistry) were evaluated and accredited by Hcéres in 2019 for five years.

HUMAN AND MATERIAL RESOURCES DEDICATED TO THE PROGRAMME

- **Human resources**

Academic staff	Professors (Ph.D.)	Associate Professors (Ph.D.)	Senior Lecturers (Ph.D.)	Total	
	6	3	6	15	
Technical staff	Chief Technologist	Principal Technologists	Technologists	Total	
	1	3	4	8	
Administrative staff	Higher executive officer	Senior clerical officer	Computer operator/secretary	Messenger/Cleaner	Total
	1	1	1	1	4

- **Material resources:** the material resources dedicated to the programme include one laptop per student, interactive whiteboards in all lecture rooms, a physical and virtual library. Classrooms are shared with other programmes at the CEFTER, and they include 13 lecture rooms, one lecture theatre, one seminar room, one examination room and one conference room. The programme uses the facilities of the Department of Chemistry, which includes a wide range of equipment, some of them were funded by the ACE programme, such as a spectrophotometer and two Kjeldahl digestion assemblies.

STUDENT POPULATION: EVOLUTION AND TYPOLOGY OVER THE LAST 4 YEARS

		2018/2019	2019/2020	2020/2021	2021/2022*	2022/2023
Enrolment	Male	3	5	2	-	-
	Female	3	-	1	-	5
	Nationals	6	5	3	-	5
	Foreigners	-	-	-	-	-
	Students with grants or bursaries	5	4	5	-	5
	Total	6	5	3	-	5
Graduates	Male	1	-	-	-	-
	Female	1	1	-	-	-
	Nationals	2	1	-	-	-
	Foreigners	-	-	-	-	-
	Total	2	1	-	-	-

*No admission for the 2021/2022 session, due to a spill-over effect of Covid-19.

II. PRESENTATION OF THE STUDY PROGRAMME

1 – PRESENTATION OF THE STUDY PROGRAMME

The Centre for Food Technology and Research is an African Centre of Excellence hosted by Benue State University in Makurdi, Nigeria. The Centre was established for the control of post-harvest food losses, with main focus on West and Central Africa regions. It analyses post-harvest losses as the major factor contributing to food insecurity in sub-Saharan Africa. Therefore, its objectives are to curb post-harvest losses and enhance agricultural productivity. The Centre's stated mission is to develop the next generation of scientists and agricultural scientists needed for the transformation of Africa's agriculture through high-quality research, teaching, learning, and knowledge dissemination. To run its programmes, the Centre collaborates with both academic and industrial partners, in Nigeria and abroad. Several programmes are hosted in the Centre, such as Food Chemistry, Post-harvest engineering or Food processing technology.

The Ph.D. Analytical Chemistry programme was created in 2013. It has been hosted by the CEFTER since the implementation of the ACE project supported by the World Bank in 2014. It aims to train researchers in analytical and environmental-related issues and mitigation of post-harvest losses of crops. The programme benefits from the equipment and facilities of the Department of Chemistry, and the Faculty teaches in several programmes. The academic, technical and administrative staff is shared with the whole Department.

2 – PRESENTATION OF THE PROGRAMME'S SELF-EVALUATION APPROACH

Although the University has an internal quality assurance committee, no information was given about the way the self-evaluation approach was conducted. The self-evaluation report was very succinct, with essential information buried in the appendices. However, many additional documents were requested before and after the visit, and most of them have been received.

III. COMPOSITION OF THE EXPERTS PANEL

- **Anne VARENNE**, Chair of the panel, Full professor, Chimie ParisTech PSL, Paris, France
- **Olivier BOUTIN**, Full professor, Aix-Marseille University, France
- **Olivier DONARD**, Research Director, CNRS, University of Pau, France
- **Julie FINKEL**, Ph.D. Student, University of Montpellier, France

Hcéres was represented by **Zakia MESTARI**, project manager, Europe and International Department.

IV. VISIT DESCRIPTION

- **Date of the visit:** the visit took place on Wednesday 30th August 2023.
- **Summary of the proceedings:** before the visit took place, the self-evaluation report and some appendices had been received by the experts. Two preparatory meetings between the Director of the Hcéres Europe and International Department, the Hcéres project manager, and the panel of experts were held in Paris (28th July) and online (25th August). Following these two meetings, complementary documents and information had been asked. The on-site visit took place during one day, according to a schedule agreed between the ACE CEFTER and the panel. During the visit, the experts asked for many more documents to get quantitative data. Most of these documents have been received.
- **Organisation of the visit:** for safety reasons, the visit was organised in Abuja and the panel was unable to visit the Centre in Makurdi. As the visit was carried out in hybrid mode, Centre Leaders and quality assurance representatives were the only audience on-site. Interviews with an online audience were very difficult to conduct, especially with the students.
- **Cooperation of study programme and institution to be accredited:** ACE CEFTER has been cooperative throughout the process. The self-evaluation report was sent according to the agreed schedule. Most

of the questions asked were answered. The panel of experts is satisfied that the conclusion reached is based on available and relevant information. Moreover, the involvement of the National Universities Commission has been very helpful throughout the process.

- **People met:** the experts' committee was able to meet with 39 people from different panels:

	Session	Audience
8:00 – 9:30	Presentation of both programmes (M.Sc. and Ph.D.) and discussion	Centre Leaders, programmes directors and their teams
9:30 – 10:30	M.Sc. and Ph.D. teaching staff	Representative panel of teachers from both programmes
10:45 – 11:45	Quality assurance	Quality assurance representatives
11:45 – 12:45	Alumni	Representative panel of alumni
14:00 – 15:00	Socio-economic partners and employers	Representative panel of socio-economic partners and employers
15:00 – 16:30	M.Sc. and Ph.D. students	Representative panel of students from both programmes
16:30 – 17:30	Closing session	Centre Leaders, programmes directors and their teams

V. EVALUATION REPORT

1 – DOCTORAL POLICY

The Ph.D. Analytical/Environmental Chemistry is in line with the CEFTER objectives that are dedicated to resolving post-harvest losses, a main food insecurity factor in Sub-Saharan Africa. The CEFTER adopted a multidisciplinary approach of trainings, nationally accredited by the National Universities Commission (Food science and technology, Food chemistry, Analytical/environmental chemistry, Organic chemistry, Post-harvest engineering and technology, Food processing technology, Fish post-harvest technology), for quality higher education and research, and manpower development, with a strong link to socio-economic issues. The students are formed to approach and solve problems in the context of food products. The programme is created, organised and assessed in collaboration with national industrial partners that allow the students to be easily informed of the industrial network. From the interviews, it appears that the visibility and quality of the programme are recognised and appreciated in the national academic environment and by the industrial partners.

The CEFTER is located at the New CEFTER Postgraduate Complex, near the University main campus. This unicity of location at the country scale is an asset for training and research activities. The coordination of the programme is well-defined, clear, and appropriate for staff and students. The Ph.D. programme is developed in consistency with the M.Sc. in Analytical Chemistry, with a continuum from M.Sc. to Ph.D. courses. The Ph.D. programme leader, the academic, administrative and technical staff are the same as for the corresponding M.Sc. programme. The Faculty is composed of 15 academics, all Ph.D. holders, mainly dedicated to the M.Sc. and Ph.D. Analytical Chemistry programmes (several Faculty members provide M.Sc. and Ph.D. courses at the interface with food and environmental chemistry) and undergo their research in the same domain and at its interfaces (analytical, organic, physical, polymer to industrial chemistry, with focuses on environmental and food chemistry, biofuel, and statistics).

The doctoral programme includes courses in the field of Analytical Chemistry and at its interfaces, as well as core courses in management and entrepreneurship, and elective training in research integrity and ethics. Nevertheless, the latter are embedded in other courses, and Ph.D. thesis submitted by any student is subjected to plagiarism test before acceptance for external examination. It offers facilities for investigation through the new Postgraduate Centre with laboratories (Food Processing Lab, but also the laboratories of the Chemistry department). A practical laboratory is equipped with various equipment, and is open to Ph.D. students. Ph.D. students are supervised by at least one professor. The programme provides students and academic staff with scientific resources, mainly on-line. Funding for research of Ph.D. students, grants for taking part in conferences or for publications come from CEFTER research grants awarded to the programme's professors or students. However, it seems that only a few grants are available for students. The students participate in research activities, among which publications. The information on publications is only provided from all the activities of the CEFTER, with 76 Scopus indexed publications in the 2015-2021 period.

The programme has five national and eight regional and international academic or private partnerships. The identified main benefits from the signed memorandum concern staff and student exchanges, joint teaching (mainly online with foreign professors), research, joint research projects and curriculum evaluation. In the context of daily insecurity in the university region and financial constraints, internationalization is still limited. No regional or international Ph.D. students were recruited between 2018 and 2023.

The Ph.D. programme considers the socio-economic needs of the country and the region concerning post-harvest losses. Partnerships with concerned institutions (Nigerian Stored Products Research Institute; Benue Agricultural and Rural Development Authority, National Root Crops Research Institute, Akperan Orshi College of Agriculture) and industries (Agudu Farms Limited Gboko, Teragro Commodity Limited) allow providing courses and lectures, students' internships and community services. The industrial partners are also integrated in the curriculum evaluation. During the interview, they clearly indicated a very fruitful collaboration with this programme.

In conclusion, the policy and strategy of the Ph.D. programme in Analytical Chemistry is totally consistent with the CEFTER objectives. The doctoral programme is well-structured, with basic and applicative courses and core courses on entrepreneurship. However, courses on integrity and ethics in research are only elective. The strong link with research laboratories as well as other equipment facilities and the efficient interaction with the supervisors allow the students to undergo their research in good conditions. The programme is recognized and appreciated by the national academic and industrial partners. Industry partners are involved throughout the process of the programme, which can benefit the further integration of students into the labour market. The internationalisation of the programme is still low (due to funding limitations and national security issues) and no international students were recruited during the evaluation period. Stronger links to innovation would benefit the programme.

2 – TRAINING, HOSTING AND SUPERVISION ARRANGEMENTS FOR DOCTORAL STUDENTS

The doctoral training programme is clearly defined in terms of objectives, contents, methods, and assessments. The handbook of CEFTER, available to the students, clearly presents the philosophy, rationale, objectives, and courses outline. The interview of the students confirmed that all this information is clear to them. The graduation is in full compliance with the National Universities Commission recommendations. The rules are clear and require: (1) a minimum of 24 credit units of course work (for a total of 285 hours minimum, and with a grade superior to a 3.0 Cumulative Grade Point Average) that are taught in the first Ph.D. year, and (2) the submitted Ph.D. research work must have been examined by a board of examiners that shall include an external examiner. The Ph.D. students are efficiently supervised by one to three mentors (with a primary mentor), for a research project linked to relevant topics promoted by their supervisor(s). They have core course modules on management and entrepreneurship, a module for seminars and an elective course on ethics and integrity in research. The programme organizes a Ph.D. student's bimonthly progress monitoring for an efficient follow-up of the research. The competency-based approach is not organized yet, a policy should be clearly formalized.

The recruitment policy is defined at the institutional level, well organised and open to national and international students. The information and application processes are presented in the CEFTER handbook and on the CEFTER website. The recruitment rate is 70-80% for the entire CEFTER, without specification for the Ph.D. in Analytical Chemistry programme. The scholarship funding policy is defined at the CEFTER level, and the applications are performed on-line. The scholarships are of two levels: full funding (tuition, bench fee and accommodation) and partial funding tuition (tuition fees for local students, or accommodation for regional and national students from other states). Regional students, for instance, are awarded full scholarships covering the period of their study. Most research funding for Ph.D. students comes from the grants obtained from their supervisors. The university enables safe housing (student hostels) on the campus. Concerning the research work, some students can benefit from their supervisor's grants. The facilities for research at CEFTER (with a brand-new Postgraduate complex) provide a wide variety of high-quality equipment and laboratories, and are strongly appreciated by the students. The students benefit from a digital environment, with 24-hour internet connectivity.

The students really appreciate the interaction with their supervisors and the support provided. The supervisor's role and duties are clear, defined for staff and students. Due to the unicity of location at CEFTER, the interaction between them is very fluid, and they are scientifically well-supported during their research work. Scientific production is encouraged. Due to the University Policy on Student Publication, a Ph.D. student must have two journal articles published in a reputable journal before submission for external examination. However, no clear information on the students' publication rate is provided. The follow-up of their progress is performed bimonthly, with a clear procedure through a formal reporting of the progress of the student's research and an opportunity to report any perceived problems or training needs; these bimonthly reports are completed by both student and supervisor. It appears that an annual review is also performed. However, a need for more funding for research was expressed during the interviews. The CEFTER provides grants for national and international workshops, conferences, and publication fees. The applications are well-defined; however, no information is provided concerning the Ph.D. laureates. There is no incoming mobility, identified by the staff, due to the country's insecurity. Outgoing mobility seems to lack both financing and administrative difficulties to get a visa.

The strong partnership of CEFTER with industry allows the students to gain in competencies related to the ones of these partners and identify the actual challenges, to orientate their research.

In conclusion, the Ph.D. programme in Analytical Chemistry offers high-quality education and supervision for doctoral students. The students benefit from all the facilities on the new campus of CEFTER (rooms, research equipment, computers, free Wi-Fi) and one to three supervisors for their research work. The rules and criteria for application, course assessment and thesis defence are well-defined and communicated to the students. Thanks to grants from the supervisors, several students can benefit from funding for research. However, the programme could benefit from having more financial support for Ph.D. students as well as an increased mobility for students, which is highly limited by the regional safety situation and economic reasons.

3 – ATTRACTIVENESS, PERFORMANCE AND RELEVANCE OF THE DOCTORATE

There is no information on how the programme measures its attractiveness. It appears that most of the Ph.Ds. originate from the M.Sc. in Analytical Chemistry of CEFTER. The visibility of the programme is mainly provided

through the website, which is very well organized and informative (recruitment procedures, applications for grants, assessments).

The Ph.D. student's training pathway is conducted by at least one supervisor, with an institutional follow-up every two months. The Ph.D. students feel efficiently supervised, with fluidity and availability of the supervisors for scientific discussions. They are also encouraged to valorise their work by promoting their food projects during an open day. Concerning the courses they follow, the students are asked for an assessment of the courses, common for all the CEFTER. For instance, the Lecturer & Course Evaluation Questionnaire allows the students to rate the relevance of the programme with questions concerning the Lecturer himself or the content of the course and its relevance to a further career.

Due to the few numbers of students, the job-market analysis is scarce, and the provided documents indicate the professional career of only two Ph.D. holders in academic structures. The interview with the Alumni highlighted their good integration thanks to this programme. Industrial partners seem motivated to host Ph.D. students from the Analytical Chemistry programme, and those students are very effective in this professional domain. As for the academic world, the Ph.D. in Analytical Chemistry seems to be in line with the job market.

In conclusion, in the evaluated period, all the enrolled students are nationals. More precisely, they come from Makurdi, as the majority of students graduated from the Master's programme in Analytical Chemistry of the CEFTER. The Centre's website is informative and helps to raise the profile of both the programme and the Centre. The supervision of the Ph.D. students is of very good quality, with access to all needed facilities. However, the attractiveness and follow-up of students' careers is not really measured or analysed and should be formally developed.

4 – MANAGEMENT AND CONTINUOUS IMPROVEMENT OF THE DOCTORATE

The doctoral supervision policy of the programme, integrated within the CEFTER, is clear. The Head of Department coordinates the activities and is supported by academic and technical staff. The University Management and Centre Management contribute to the management of the programme, with regular interactions with the academic staff and students. The programme organisation is clearly defined and communicated to staff and students.

The administrative and pedagogical resources are relevant to the programme. The academic staff is composed of 15 identified experienced senior academics, all of them holding a Ph.D. from Nigerian or foreign universities (University of Benin, Nigeria; University of Aberdeen, United Kingdom; Loughborough University, United Kingdom). Their teaching and research main topics go from analytical, organic, physical, polymer to industrial chemistry, with focuses on environmental and food chemistry, biofuel, and statistics. The programme integrates eight technical staff and four administrative staff, and the library of CEFTER is available for staff and students. It also provides access to e-library for students and staff.

The Ph.D. programme is housed in a new Postgraduate Complex with offices, lecture rooms, seminar rooms, laboratories, housing for both female and male students, all supported by a 24-hour internet access. The academic staff is proposed e-contents for continuous improvement (courses for training on teaching methods, for example) which are beneficial for the programme and allow a very fluid interaction between students and supervisors. A software for anti-plagiarism is available for the programme. According to the interviews, outgoing mobility for both academic staff and students is still very poorly developed, due to financial concern and the difficulty of obtaining visas.

Financial resources arise from the World Bank, the TETFund, Benue State Government and Benue State University, as well as DAAD scholarships. A scholarship policy is communicated to the students, but the data provided by the programme does not allow estimating the proportion of grants, scholarships, or funds for research provided to the students and staff.

The programme is based on a quality and ethic-based approach, guided by the University Quality assurance and Ethics Policy, and monitored by the Directorate of Academic Programme and Quality assurance Directorate. It includes a policy on sexual misconduct. The assessment of the programme is performed by established procedures through an electronic survey, under the supervision of the directorate of academic program and quality assurance. Performed at the end of the course, the responses (with a rate of 85%) are analysed by this Department. The entire assessment is not provided to the programme. It provides feedback to the programme leader and staff only in the event of difficulties identified by the students in the survey. Due to the fluid contact between students and staff, regular meetings and a WhatsApp platform allow exchanges and possible evolutions or corrective actions during the whole programme. The programme is renovated every 5 years, according to the National Universities Commission assessment, the daily interaction with the concerned industries and the integration of partners for the renovation process.

In conclusion, the doctoral programme is supported by the institution's human resources policy and shares the same objectives and values in terms of pedagogy and student supervision. All students follow courses on management and entrepreneurship; elective courses on ethics and integrity in research are provided. They benefit from all the facilities of the CEFER campus (equipment, labs, rooms, scientific resources). The programme assessment is well conducted by the Directorate of academic program and quality assurance. However, the only feedback sent to the programme is when a difficulty is identified. The feedback of the entire assessment would benefit the Programme Director. Financial resources should be increased to provide more grants and funding for both students and staff.

VI. CONCLUSION

The main documents required for the evaluation were provided, including the documents about policies (quality assurance, sexual misconduct, scholarships.) and the processes for assessments and applications. The visit allowed to confirm these factual elements. The interviews evidenced a good cohesion and understanding between the coordinating head, the staff, the academics, and the students.

Two important elements that were highlighted and explained during the visit are related to the actual context of Nigeria. Firstly, the country's economic situation is difficult, and this has a direct impact on the funding of the programme. Secondly, the security situation is also complicated, making international mobility and exchanges difficult. It is important to take these two factors into account, and to weigh the evaluations directly affected by these points.

The structure of the programme of Ph.D. in Analytical Chemistry and its integration within the CEFTER as well as Benue State University benefit from ten years' significant operating experience. As a result, the entire process of obtaining a Ph.D. is very well explained and accessible to students, from the recruitment process and operation during the thesis to the defence and graduation criteria. During the doctoral studies, it is also noted that Ph.D. students' supervision is of high quality by the various supervisors. Moreover, students have access to the various resources they need for their work: research equipment, analytical materials and bibliographic resources. All of these factors show that this program is operating very satisfactorily, with doctorates of a high standard. Therefore, the program is very well established in the university and Nigerian landscape.

However, the university's external outreach is not entirely satisfactory. As explained above, these elements need to be weighed against the economic and security contexts. The Analytical Chemistry programme (including Master's and Ph.D. programmes) of the CEFTER is highly oriented to industrial partners, due to the current crucial challenges on control of post-harvest food losses, a major factor contributing to food insecurity in Sub-Saharan Africa. These partners contribute to the orientations, courses, internships, seminars, events, assessments, and evolutions of the programme, with a much appreciated collaboration from both sides. However, from the provided self-evaluation report, on a very few numbers of students (2), the alumni are integrated after graduation in academic structures, which was not analysed. The international dimension is limited. Some agreements exist with foreign universities, but the impact on real incoming and outgoing mobility is fragile, near non-existent. The participation of the students to international scientific congress could be improved and more systematic. In addition, it is important to point out that some of the department's professors have obtained grants from various organisations, thereby increasing the programme's financial resources. However, this results in a low number of students receiving grants, which is a negative point. Finally, the follow-up of Ph.Ds. after graduation is fairly basic, as is the alumni network. It would be interesting to develop this follow-up more systematically, to increase links with the socio-economic world.

STRENGTHS

- Very well-structured programme with a strong collaboration with the national industrial network
- Well integrated in Benue State University and in the CEFTER
- Very efficient students' supervision
- Scientific equipment, library access, 24-hour internet access, housing for both male and female students and a new postgraduate complex
- High qualified professors and supervisors receive research grants that benefit to Ph.D. students

WEAKNESSES

- Local attractiveness of the programme, instead of even national
- Insufficient research grants and scholarships for the students
- Insufficient interaction with the alumni network
- No analysis of the follow-up of the graduated
- Integrity and ethics in research not sufficiently developed

RECOMMENDATIONS

- Develop an effective international cooperation to promote mobility for Ph.D. students
- As most students come from Benue State University, develop the attractiveness of the programme at the national level by using the strong collaboration with the national industrial network and partnership agreements

- Implement tools to increase access to research grants and scholarships for students
- Develop an efficient alumni network to enhance the attractiveness of the programme and improve formal discussions between students and alumni during workshops and seminars
- Implement a formalised follow-up of the doctors
- Systematize courses on integrity and ethics in research

VII. COMMENTS OF THE INSTITUTION

BENUE STATE UNIVERSITY MAKURDI, NIGERIA

OFFICE OF THE VICE-CHANCELLOR

VICE-CHANCELLOR:

PROF. TOR JOE IORAPUU
BA, MA, Ph.D (Jos) fsona, KSM



P.M.B. 102119
Makurdi, Nigeria
www.bsum.edu.ng
vicechancellor@bsum.edu.ng
iorapuuba@gmail.com

Our Ref:.....BSU/VC/ACA/119.....

Your Ref:.....

Date: 8th February, 2024.....

Dear Maria Bonnafous-Boucher
Director of the Europe & international Department
HCERES-France

Cc: Zakia Mestari

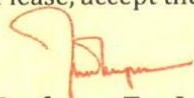
Madam,

Comment on International Accreditation Draft Report (Ph D. Analytical Chemistry)

Benue State University receives, with much thanks, your detailed draft report of International Accreditation of our Ph. D. Analytical/Environmental Chemistry programme. Having carefully studied the report, we wish to state that the University accepts the factuality of the contents, with few corrections/observations, as pointed put in our email.

The Management of the University, under my leadership, is desirous of internationalization of all programmes of the Institution, hence the request for the accreditation, in first place. We are not unmindful of the impact of positive result of accreditation from a reputable International Organization like yours. Hence, the University wishes to give your Agency the assurance that it shall work, assiduously, to address the gray areas pointed out in the report, as quickly as possible.

Please, accept the esteemed assurances of my highest regards.



Professor Tor Joe Iorapuu
Vice-Chancellor & Head of Institution

The evaluation reports of Hceres
are available online: www.hceres.com

Evaluation of higher education and research institutions

Evaluation of research

Evaluation of academic programmes

Evaluation of research bodies

International evaluation and accreditation



2 rue Albert Einstein
75013 Paris, France
T. 33 (0)1 55 55 60 10

hceres.fr

[@Hceres_](https://twitter.com/Hceres_)

[Hcéres](https://www.youtube.com/Hceres)

ACCREDITATION DECISION

Ph.D. Analytical/Environmental Chemistry

Centre for Food Technology and Research
(ACE CEFTER)

Benue State University

Makurdi, Nigeria

March 2024

SCOPE OF THE ACCREDITATION GRANTED BY HCÉRES

HCÉRES has based its evaluation process on a set of objectives that study programmes must pursue to ensure recognised quality within France and Europe. These objectives are divided up into four accreditation criteria.

The Accreditation Commission issues an opinion about the accreditation of the study programme after examining the file. The Hcéres President takes the decision based on the Commission's opinion and the final evaluation report of the programme. This accreditation decision, taken in plenary session, is the result of a collegial and reasoned process.

The decision issued by Hcéres regarding the accreditation of the study programme corresponds to the awarding of a label to the evaluated entity.

This decision is independent of the accreditations carried out by the French State and therefore does not entail recognition in France of the institution or the diplomas delivered by it.

Decision No. EI-2024-11 on the accreditation of the Ph.D. Analytical/Environmental Chemistry, Benue State University, Makurdi, Nigeria

The President of the High Council for the Evaluation of Research and Higher Education,

Considering the Research Code, in particular Articles L. 114-3-1 to L. 114-3-6;

Considering the Decree No. 2021-1536 of 29th November 2021 on the organisation and operation of the High Council for the Evaluation of Research and Higher Education;

Considering the Board's deliberation of 29th September 2022 on the accreditation criteria for international study programmes (except doctorates/PhDs);

Considering the Decision No. 2023-9 of 16th March 2023 on the international accreditation procedure of the High Council for the Evaluation of Research and Higher Education;

Considering the agreement No. DEI_2023_CONV17 – NUC, signed on 14th June 2023 for the evaluation/accreditation of study programmes delivered by Africa Centres of Excellence;

Considering the opinion issued by the Accreditation Commission on 29th February 2024;

Decides:

Article 1

Noting that the Ph.D. Analytical/Environmental Chemistry meets the four accreditation criteria, voted by the Board of the High Council on 29th September 2022, as follows:

ACCREDITATION CRITERION 1 – DOCTORAL POLICY

The policy and strategy of the Ph.D. programme in Analytical Chemistry is totally consistent with the CEFTER objectives. The doctoral programme is well-structured, with basic and applicative courses and core courses on entrepreneurship. However, courses on integrity and ethics in research are only elective. The strong link with research laboratories as well as other equipment facilities and the efficient interaction with the supervisors allow the students to undergo their research in good conditions.

The programme is recognised and appreciated by the national academic and industrial partners. Industry partners are involved throughout the process of the programme, which can benefit the further integration of students into the labour market. The internationalisation of the programme is still low (due to funding limitations and national security issues) and no international students were recruited during the evaluation period. Stronger links to innovation would benefit the programme.

ACCREDITATION CRITERION 2 – TRAINING, HOSTING AND SUPERVISION ARRANGEMENTS FOR DOCTORAL STUDENTS

The Ph.D. programme in Analytical Chemistry offers high-quality education and supervision for doctoral students. The students benefit from all the facilities on the new campus of CEFTER (rooms, research equipment, computers, free Wi-Fi) and one to three supervisors for their research work. The rules and criteria for application, course assessment and thesis defence are well-defined and communicated to the students. Thanks to grants from the supervisors, several students can benefit from funding for research. However, the programme could benefit from having more financial support for Ph.D. students as well as an increased mobility for students, which is highly limited by the regional safety situation and economic reasons.

ACCREDITATION CRITERION 3 – ATTRACTIVENESS, PERFORMANCE AND RELEVANCE OF THE DOCTORAL PROGRAMME

In the evaluated period, all the enrolled students are nationals. More precisely, they come from Makurdi, as the majority of students graduated from the Master's programme in Analytical Chemistry of the CEFTER. The Centre's website is informative and helps to raise the profile of both the programme and the Centre. The supervision of the Ph.D. students is of very good quality, with access to all needed facilities. However,

the attractiveness and follow-up of students' careers is not really measured or analysed and should be formally developed.

ACCREDITATION CRITERION 4 – MANAGEMENT AND CONTINUOUS IMPROVEMENT OF THE ACADEMIC PROGRAMME

The doctoral programme is supported by the institution's human resources policy and shares the same objectives and values in terms of pedagogy and student supervision. All students follow courses on management and entrepreneurship; elective courses on ethics and integrity in research are provided. They benefit from all the facilities of the CEFTER campus (equipment, labs, rooms, scientific resources). The programme assessment is well conducted by the Directorate of academic program and quality assurance. However, the only feedback sent to the programme is when a difficulty is identified. The feedback of the entire assessment would benefit the Programme Director. Financial resources should be increased to provide more grants and funding for both students and staff.

Article 2

The Ph.D. Analytical/Environmental Chemistry, Benue State University, Makurdi, Nigeria, is accredited for a period of 3 years, which may be extended for two years, subject to a follow-up that may include an on-site visit.

Article 3

The decision is accompanied by the following recommendations and comments:

make efforts to systematise and formalise internal quality assurance indicators, which would enable informed management and ensure that the quality of the programme is maintained over the long term;

although other courses include elements of integrity and ethics in research, it would be advantageous to introduce a core course specifically addressing these issues;

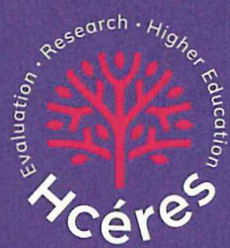
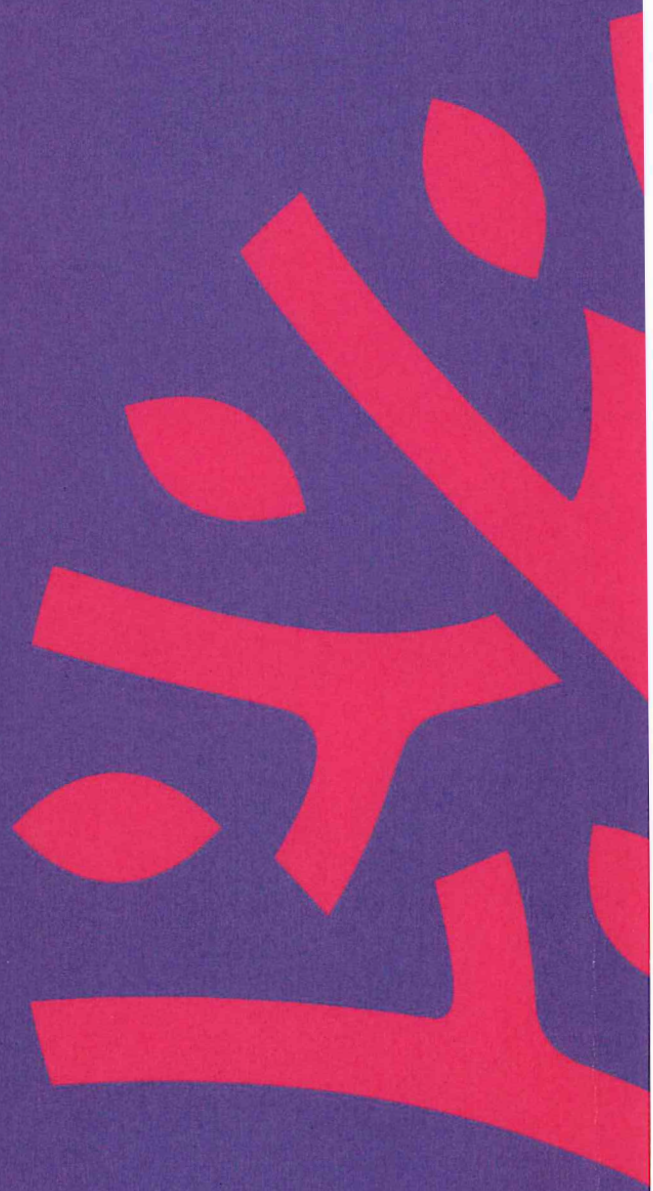
implement tools to enhance students' access to research grants by leveraging the strong collaboration with the national industrial network and existing partnership agreements.

Article 4

This decision will be published on the Hcéres website.

Paris, 15th March 2024.

The acting President
signed
Stéphane Le Bouler



2 rue Albert Einstein
75013 Paris, France
T. 33 (0)1 55 55 60 10

hceres.fr

[@Hceres_](https://twitter.com/Hceres_)

[Hcéres](https://www.youtube.com/Hceres)