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**Decision No. EI-2024-36 on the accreditation of the M.Sc. Corrosion Technology, delivered by the Federal University of Technology, Owerri, 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 Board's deliberation of 29th September 2022 on the accreditation criteria for courses abroad (excluding doctoral/PhD programmes);

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 DEI_2023_CONV17 of 14th June 2023 for the evaluation/accreditation of fourteen training courses, delivered by six Centres of Excellence in Nigeria;

Considering the opinion issued by the Accreditation Commission on 18th June 2024;

**Decides:**

**Article 1**

Noting that the M.Sc. Corrosion Technology delivered by the Federal University of Technology, Owerri, in Nigeria meets the four accreditation criteria, voted by the Board of the High Council on 29th September 2022, as follows:

ACCREDITATION CRITERION 1: TRAINING POLICY AND CHARACTERISATION

The M.Sc. Corrosion Technology occupies a central position within the recently established ACE-FUELS, offering a high level and distinctive education in corrosion science within the West-African region. The curriculum integrates research-based training, non-scientific courses on innovation and entrepreneurship, as well as interdisciplinary sustainable development courses (such as Climate Change, Smart Grid Technology Overview, Renewable Energy Finance and Management, and Energy Analysis). The Master is associated with a Ph.D. programme in corrosion science and is an active participant in the of the West African Centre of Excellence network (WACEENET). While student outgoing and incoming mobility remains somewhat limited, there is potential for expanding partnerships with universities directly related to the programme to enhance mobility opportunities. The programme benefits from strong support from research activities in corrosion science at FUTO, as well as through participation in the panafrican electrochemical network and monthly webinars featuring international academic lecturers. In addition, socio-economic partnerships facilitate student advancement and enhance the programme's recognition and visibility through industry experts' lectures, internships ranging from one to six months in industry partner facilities, professional corrosion modules, and corrosion consultancy services.

ACCREDITATION CRITERION 2: THE PEDAGOGICAL ORGANISATION OF THE STUDY PROGRAMME

The programme offers a well-structured pedagogical organisation over 18 months (three semesters) consisting of three modules. The first module includes five compulsory disciplinary courses focusing on corrosion, with an emphasis on the energy sector, sustainability, and resource economics. The specialisation module provides flexibility, allowing students to choose three specialised courses out of a possible five, along with three elective courses from a pool of 18 multidisciplinary courses. The final module involves a six-month research project. Following the completion of these modules, the final semester is devoted to a one-to-six-month internship with one of the programme's industrial partners. The programme offers rigorous training through research, including mono-review and a six-month research project, with high standards for students who are expected to produce a publication by the end of the M.Sc. programme. All course materials and information are available on dedicated platforms, facilitating teaching both online and on-site, and offering greater flexibility, especially for students balancing work commitments. Finally, the programme maintains strong connections with the socio-economic world, offering specific modules certified for continuing professional training.

## ACCREDITATION CRITERION 3: ATTRACTIVENESS, PERFORMANCE AND RELEVANCE OF THE STUDY PROGRAMME

The programme raises its attractiveness through various information systems including virtual and physical ones. It is also part of the consortium for excellence in Canadian corrosion education, emphasising internationalisation, equity and interdisciplinarity. Despite efforts to attract regional students, such as offering them full scholarship, accommodation, and language support, the program struggles to enrol students from outside Nigeria, with only one non-Nigerian student enrolled since 2020. Moreover, the overall number of enrolled students remains low. Additionally, the lack of funding for living costs for Nigerian students presents a significant challenge. Student progress is evaluated through a unique assessment protocol, allowing for the adaptation of teaching plans and support measures. However, this data is not made public, unlike information about graduate students, which is available on the Centre website. The programme has adopted the graduate tracer mechanism developed by the AAU to monitor and track the progress of graduated students. Nevertheless, the requirement to publish in a peer-reviewed journal appears to slow down the graduation process, as evidenced by only two graduates since 2020.

## ACCREDITATION CRITERION 4: MANAGEMENT AND CONTINUOUS IMPROVEMENT OF THE ACADEMIC PROGRAMME

The programme benefits from outstanding leadership provided by the Centre's management team, which coordinates the four programmes of ACE-FUELS with a specific coordinator for each programme. The dedicated team oversees the administration, budget monitoring, planning, and coordinating of activities, ensuring the effective functioning of the programme. The teaching team, comprised of experts from partner departments, delivers high-quality instruction and mentorship to students. Effective communication among the various teams facilitates smooth operations and continuous improvement of the program. Student feedback is collected and evaluated twice a year, leading to actionable measures for programme improvement. The rigorous selection process ensures that students admitted to the programme are highly qualified and motivated. During courses, student performance is assessed conventionally through exercises and quizzes, and 20% of the mark for each compulsory course comes from a review of a research publication in the specific area of the course.

**Article 2**

The M.Sc. Corrosion Technology delivered by the Federal University of Technology, Owerri, in Nigeria, is accredited for a period of five years from the date of this decision.

**Article 3**

The decision is accompanied by the following recommendations and comments:

- Encourage applications to several of the Centre's programmes with an order of priority, to distribute applications more evenly across the Centre and make up for the lack of visibility of the Corrosion technology programme. To improve the attractiveness of the programme on a national and regional scale, multiply the use of communication channels and mobilise networks of academic and socio-economic partners.
- Strengthen the pan African research network, the ACE collaboration network (WACEENET) in the specific field of the programme, form new University partnerships to memorandums of understanding locally and abroad, to promote student exchanges for training and research.
- Invite student representatives to participate in decision-making processes in the programme through an elective process to the Centre's board, so they can express their perspectives on issues related to organisation, curriculum, conference content, and appeal of the programme.
- Even if the programme's high level of expectation is rather constructive, notably with a mandatory *published* article before graduation, the requirement could be limited to an article *submitted* to the outcome of the Master's programme, in order to shorten the graduation period and to ensure the quality of the journals in which these papers are published.
- Pursue the ambition to become a key player in the region for training and expertise on corrosion technology, including industrial infrastructure corrosion and their protection; continue to develop strategic industrial partnership with oil and gas companies, professional training, and development of the Consulting Company associated to the Centre to obtain funding support and visibility.

**Article 4**

This decision will be published on the Hcéres website.

Paris, 27th June 2024.

The acting President

signed

Stéphane Le Bouler