

## EVALUATION AND ACCREDITATION DOCUMENTS

M.Sc. Computer Science and Engineering  
M.Sc. Software Engineering  
M.Sc. Computer Science

Obafemi Awolowo University (OAU), Ile-Ife,  
Nigeria

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**September 2019**

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## EVALUATION REPORT

M.Sc. Computer Science and Engineering  
M.Sc. Software Engineering  
M.Sc. Computer Science

Obafemi Awolowo University (OAU), Ile-Ife,  
Nigeria

**MAY 2019**

The Obafemi Awolowo University has mandated the Hcéres to perform the evaluation of its ICT-MSc programme. The evaluation is based on the "External Evaluation Standards" of foreign study programmes, adopted by the Hcéres Board on October 4th, 2016. These standards are available on the Hcéres website (hceres.fr).

**For the Hcéres<sup>1</sup> :**

Michel Cosnard, President

**On behalf of the experts committee<sup>2</sup> :**

Pierre Haldenwang, President of the committee

In accordance with the decree n°2014-1365, November 14<sup>th</sup>, 2014,

<sup>1</sup> The president of Hcéres "contresigne les rapports d'évaluation établis par les comités d'experts et signés par leur président." (Article 8, alinéa 5) — "countersigns the assessment reports made by the experts' committees and signed by their president" (article 8, alinea 5). □

<sup>2</sup> The evaluation reports "sont signés par le président du comité". (Article 11, alinéa 2) — "are signed by the president of the committee" (article 11, alinea 2).

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## I. STUDY PROGRAMME IDENTITY SHEET

University/institution: Obafemi Awolowo University (OAU), Ile-Ife, Nigeria

Component, faculty or department concerned: Faculty of Technology

Department of Computer Science and Engineering

Programme's title: Master of Science (M.Sc.) in Computer Science and Engineering

Training/speciality:

- M.Sc. Computer Engineering
- M.Sc. Software Engineering
- M.Sc. Computer Science

Year of creation and context: 2015

Site(s) where the programme is taught (Town and campus): Obafemi Awolowo University, Ile-Ife

Information Communication Technology (ICT) Driven Knowledge Park (OAK-PARK)

Programme speciality; Programme director; Grade; Main subject taught

- M.Sc. Computer Engineering; Aderounmu G.A.; Professor; Data Communications
- M.Sc. Computer Science; Dr. Olajubu E.A.; Senior Lecturer; Distributed systems
- M.Sc. Software Engineering; Adagunodo E.R.; Professor; Operating Systems

## METHODS AND RESULTS OF THE PREVIOUS ACCREDITATION(S)

- Methodology and agency

The three M.Sc. study programmes have been submitted to the Nigerian University Committee (NUC) in 2017.

- Results

The study programmes have received the full accreditation of the Nigerian University Committee (NUC) in 2017.

## HUMAN AND MATERIAL RESOURCES DEDICATED TO THE PROGRAMME

### 1. Human resources

The programme involves 28 academic staff; 3 Full Professors, 5 Associate Professors, 11 Senior Lecturers and 9 Lecturers (with Ph.D). Four Professors are also affiliated to these programmes.

### 2. Material resources

A Cyberlab has been established funded by TETFund (Government Agency in Nigeria), World Bank and Industry. In addition, there exist 5 Postgraduate Research Laboratories: Data Communication and Computer Network, Computer Engineering, Software Engineering, Information System and Intelligent System Engineering all funded by the World Bank.

## STUDENT POPULATION: EVOLUTION AND TYPOLOGY OVER THE LAST 4 YEARS

Table 1: M.Sc. Computer Engineering Students' In-take

| Session           | Entry Qualification  | Male | Female | Students with Grants/Bursaries | No of Foreign Students |
|-------------------|--|------|--------|--------------------------------|------------------------|
| 2017/2018 Session | B.Sc (Computer Science)/Computer Engr., PGD (Computer Science) | 4    | 2      | 3                              | 3                      |
| 2016/2017 Session | B.Sc (Computer Science)/Computer Engr., PGD (Computer Science) | 7    | 2      | 6                              | 6                      |
| 2015/2016 Session | B.Sc (Computer Science)/Computer Engr., PGD (Computer Science) | 6    | 0      | Nil                            | Nil                    |

Table 2: M.Sc. Software Engineering Students' In-take

| Session           | Entry Qualification  | Male | Female | Students with Grants/Bursaries | No of Foreign Students |
|-------------------|--|------|--------|--------------------------------|------------------------|
| 2017/2018 Session | B.Sc (Computer Science)/Computer Engr., PGD (Computer Science) | 2    | 1      | 1                              | 1                      |
| 2016/2017 Session | B.Sc (Computer Science)/Computer Engr., PGD (Computer Science) | 9    | 1      | 10                             | 10                     |
| 2015/2016 Session | B.Sc (Computer Science)/Computer Engr., PGD (Computer Science) | 5    | Nil    | Nil                            | Nil                    |

Table 3: M.Sc. Computer Science Students' In-Take

| SESSION           | ENTRY QUALIFICATION  | MALE | FEMALE | STUDENTS WITH GRANTS/BURSARIES | NO OF FOREIGN STUDENTS |
|-------------------|--|------|--------|--------------------------------|------------------------|
| 2017/2018 Session | B.Sc (Computer Science)/Computer Engr., PGD (Computer Science) | 4    | 2      | Nil                            | Nil                    |
| 2016/2017 Session | B.Sc (Computer Science)/Computer Engr., PGD (Computer Science) | 5    | 2      | 1                              | 1                      |
| 2015/2016 Session | B.Sc (Computer Science)/Computer Engr., PGD (Computer Science) | 18   | 5      | Nil                            | Nil                    |

## II. ON-SITE VISIT DESCRIPTION

### COMPOSITION OF THE EXPERTS PANEL

President:

- Pierre HALDENWANG, [pierre.haldenwang@univ-amu.fr](mailto:pierre.haldenwang@univ-amu.fr), Professor Emeritus at Aix-Marseille Université (Speciality: Physics, Mechanics). Expert for the department in charge of the evaluation of institutions (DEE), and for the department in charge of the evaluation of research (DER) of Hcéres.

Expert members:

- Catherine XUEREB, [catherine.xuereb@inp-toulouse.fr](mailto:catherine.xuereb@inp-toulouse.fr), CNRS Research Director, (Speciality: Chemical Engineering), Vice President of Toulouse Polytechnic National Institut. Expert for the department of the evaluation of institutions (DEE) and for the department in charge of the evaluation of clusters of Higher Education and Research institutions (DECT) of Hcéres.

- Thibaud LECOMPTE, [thibaut.lecompte@univ-ubs.fr](mailto:thibaut.lecompte@univ-ubs.fr), Assistant Professor at Université Bretagne Sud, habilité à diriger des recherches (Speciality: Mechanics des matériaux, eco materials, génie civil). Expert for the department in charge of the evaluation of programmes (DEF).
- Anass NAGIH, [anass.nagih@univ-lorraine.fr](mailto:anass.nagih@univ-lorraine.fr), Professor at Université de Lorraine (Speciality: Computer Science). Expert for the department in charge of the evaluation of programmes (DEF) and for the Europe and international department (DEI) of Hcéres.
- Valentin LE BOEUF, [valentin.le-boeuf@ens-paris-saclay.fr](mailto:valentin.le-boeuf@ens-paris-saclay.fr), Student Expert. Ecole Normale Supérieure Paris Saclay Graduate. (Speciality: Electrical Engineering). Expert for the department in charge of the evaluation of programmes (DEF) and for the Europe and international department (DEI) of Hcéres.

The Hcéres institution was represented by: Pr. Pierre COURTELLEMONT, Science Advisor

## ON-SITE VISIT DESCRIPTION

- Date of the visit: May the 22<sup>nd</sup>, 2019.

Organization of the visit: the visit was made the 22<sup>nd</sup> of May, on the NUC site, during one day. The different committee meetings were achieved as follows:

Working session with team leaders: Faculty of Technology, Department of Computer Science and Engineering, PhD and MSc programmes

- Visit of facilities by video projection: building, laboratories, classrooms, computer facilities
- Interview with the teaching staffs (by videoconference)
- Interview with two industrial partners (by videoconference)
- Interview of the PhD and MSc students (by videoconference)
- 2<sup>nd</sup> Working session with team leaders (debriefing)
- Cooperation of study programme and institution to be accredited: perfect cooperation by all stakeholders, with the support of NUC team.

Before the comitee visit, several documents were provided to the experts:

- 2 self-evaluation forms
- Course description
- List of publications
- Alumni list
- Staff list
- Student handbook

During the visit, some more documents were supplied:

- Student enrolments list
- Photo shooting from facilities
- List of current PhD students, titles and supervisors
- People met:  
Aderounmu G desola, Centre leader, Faculty Dean  
Oluwatope Ayodeji, Coordinator (Computer Engineering)  
Awoyelu lyabo Odukemi, Coordinator (Computer Science)  
Adgunodo Rotimi Emmanuel, Coordinator (Software engineering)  
Olajubu Emmanuel Ajayi, Computer Science Head of Department



Other Staff (All by Videoconferencing)

Dr. A.I. Oluwaranti,  
Dr R.N. Ikono,  
Dr. D.F. Ninan,  
Dr. B.O. Akinyemi,  
Dr, M.L. Sanni,  
Dr. B.S. Afolabi, and  
Dr. K.C. Olufokunbi`

Partners and Alumni by videoconferencing (including Mike Olajide, Executive Director, Sidmach Technologies Nigeria Limited), Abraham Abati (Senior Engineer, Mainone)

Students by videoconferencing (around 15 students, no names)

### III. PRESENTATION OF THE STUDY PROGRAMME

#### 1 – PRESENTATION OF THE STUDY PROGRAMME

The department of Computer Science and Engineering of the University of Obafemi Awolowo, Ile-Ife, proposes a postgraduate programme in Computer Science that includes three masters of science:

- M.Sc. Computer Engineering;
- M.Sc. Software Engineering;
- M.Sc. Computer Science.

The courses are structured into teaching units over 4 semesters. The program offers both practical and scientific fundamental knowledge to allow graduates to be able to meet challenges posed by the new issues in computer systems. The department of Computer Science and Engineering proposes also Master of Philosophy and PhD programmes in the same areas.

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

A quite complete self evaluation procedure was carried out by the institution (and gathered in the document called "MSc\_Accreditation\_SEngr\_CptSc\_CptEngr.docx").

### IV. EVALUATION REPORT

#### 1- AIMS OF THE STUDY PROGRAMME

The objective of the three programmes are clearly described and easily understandable by the stakeholders. The teaching staff has the capacity and the expertise of delivering the contents.

The global objectives of the Master of Science are well described. The specific objectives of the three study programmes are also given and summarized in a handbook made available to students. The expected knowledge and skills are clearly stated and elaborated. The topics covered are relevant and of interest, both for further education as well as the job market covering the new ICT challenges facing a developing society. The various courses taught are described and correspond to a good match between the contents and the advertised opportunities. The described programme offers both theoretical part and practical one.

The student must follow 2- or 3-months internship in a company with the aim of preparing students for immediate integration into industry or PhD studies. The required backgrounds and the admission criteria are clearly given, transparent and correspond to a bachelor degree in the same area. The names of the different study programmes are clear and matches the classical understandings of community and market.

The study programme is well-positioned both with respect to the skill development and also by considering the societal needs and job market. Further evidences need to be provided showing that the stakeholders (other than the students) are actually aware of the outcomes.

The objectives of the research/doctoral degree are very clear as follows: to develop a framework for the training in the theoretical and practical aspects of computing; to inculcate relevant ICT research and development skills; to foster multi-disciplinary collaboration with academics in various areas of endeavours; to foster collaboration with industry to design and develop affordable computing products, systems and services that respond to national objectives; and, to train students to acquire appropriate skills in the development and deployment of computing products that address local problems as well as meet international standards.

## 2- POSITION OF THE STUDY PROGRAM

The programmes and their contents are rather generic and does not correspond to any particular niche of excellence. A substance giving it a special or a unique and exceptional position seems missing. The practically 1-month internship is rather insufficient.

The courses of these three programmes are complementary. In addition to these three master's degree programmes concerned by the present evaluation, the department of Computer Science and Engineering of OAU, offers two others postgraduate programmes: M.Sc. Intelligent System Engineering and M.Sc. Information systems. No information is given on the articulation with the other local universities or related programmes in Computer Sciences and Engineering. During interviews, it was confirmed that there is no other postgraduate training in Computer Science at Ile-Ife.

The investment from a Nigerian bank in equipping the Cyber Security lab, intervention of industrial professional as visiting lecturers and the placements offered to the students, number of spin-offs and start-ups and the history of recruitment show a good level of success in terms of trying to reach out to industry. However, it is rather hard to say that an intense focus has been put on developing national, regional or international environment.

Each specialty is available at the M.Sc.'s level as well as at the PhD. level, which makes clear the pursuit of study in connection with research. While the study programme very well positions itself domestically, less information is available on how it positions itself with respect to the world of research.

The study programme includes components of teaching through research "Seminar on Proposed Research" and also a 2-3 month internship which is practically limited to only 1 month. Some elements such as the contribution of guest lecturers or active researchers or any sort of linkage such as teaching through research indicate a real link between research and teaching.

A list of partner institutions is provided, including companies that regularly host trainees. A list of collaborations with foreign institutions is also given without providing analysis to explain the particular interest of these partnerships or the number of students involved. While the existence of a Cyber Security lab and the intervention of professionals from industry to offer week-end lectures appear as elements of collaboration with outside world, yet more evidences are needed to firmly ascertain the partnership (formalized or even not formalized, but just practiced) between the institution and businesses or industrial associations.

There are clearly some collaboration and exchanges with research organisations abroad (e.g. ICTP, Trieste, Italy, double degree PhDs, academic exchange with Australia, France (Nancy), US, Canada, Côte D'Ivoire, and Senegal). However, more information is required about the existence of any sort of cooperation agreements or partnerships with foreign institutions either in form of exchange programmes in research and teaching or at the administrative level.

## 3- STUDY PROGRAMME TEACHING STRUCTURE

The programme is well-structured. The path way is excellent in showing how the students can gradually specialize. The delivered content is very rich. The non-English speakers are well accompanied during 3 months. The November conference provides a good opportunity for the students. In general, the programme creates a satisfactory student experience.

The specialization is gradual: compulsory courses and electives ones from other programmes. The structuring of the training is clear and allows students to build their training course in a relevant and simple way. Actually, the programme and the associated pathway are organized in such a manner that a gradual specialization is accessible to the students.

The place and the proportion of practical works and projects in training are not specified. But during the interviews, our colleagues confirmed that there are many projects related to different courses. A large set of consistent teaching units are available within the programme allowing students to gradually become specialized over the planning horizon. However, less information is provided about the workloads and durations, as well as it is unclear whether the study programme takes into account the challenges associated with lifelong learning and distance learning. While 3-month English course is delivered to the non-English speakers and on-campus nursery being provided at the faculty, no further information has been provided if the students with special needs (disability etc.) are well accommodated in the programme.

The programme is devised to accommodate the ICT skill levels that are elaborated for a developing society such as Nigeria. ICT MSc programme also tries to engage with the industry through the November Industry conference, professional visiting lecturers, etc., whereas industries show interest by hosting students/researcher. Therefore, it can be concluded that the content meets or is consistent with the needs of socioeconomic world, even domestically.

The programme includes elements familiarizing students with the world of research (through seminars, exchanges etc) and the ongoing activities through carrying out dissertations and projects. More evidences are required to show that the programme includes practical work components and elements showing that familiarity of students with the terminology in a different language. The lecturer rooms are equipped with innovative teaching equipment. An internship of 2 to 3 months is planned with selected partners and companies. It allows each student at the beginning of the programme to validate his choice of specialty and the opportunity or the real interest of the study work to be done. Some practical details concerning for example, how it is being evaluated, are missing. Moreover, it is unclear if they are being evaluated and if there is any "placement office" or any similar service helping student to find a placement. The program enjoys some regional visibility and welcomes students from other regions of the country, as well as neighbouring countries.

In November of each year, students benefit from industrial conferences organized by the department. It, however, remains unclear whether the programme does include other modules than the internship/placement which help the students to develop skills to increase their employability, or not.

Indeed, the study programme offers students teaching on information and communication technologies. Unfortunately, there is no digital teaching platform, while students generally have their own computers and have easy access to the internet, as confirmed during interviews. Further evidences are required to show that the innovative teaching is practiced within the programme.

Further information is required to show that the programme offers refresher courses, individuals are taken care at the programme and tools are being implemented to boost success rate for the students (akin to the usual math-surgeries, math-cafes etc. for undergraduates). It is also unclear whether the possibility of transfer to another programme or a change in career plan is foreseen in this programme.

As the language of institution is English, apart from providing English course for the non-English speaking student, no more foreign language is identified in the curriculum. No international mobility at the master level has been reported.

## 4 – PROGRAM MANAGEMENT

The teaching team is supported by an adequate administrative and teaching resources. Essential information is communicated with the students in form of a departmental handbook. It is rather unfortunate that the programme does not receive direct feedbacks from the graduates. The self-assessment done uniquely by the teachers and does not involve the students. There is no mechanism informing students of their progressive skill development and achievement. The decreasing number of students has not been thoroughly studied or diagnosed. Very limited is reported on the level of insertion in the job market for those who leave school by only an MSc degree.

The study programme is managed and has sufficient administrative and teaching resources (administration office, classrooms, libraries, computer rooms, etc.) to enable it to fulfil its mission. One or more consultation bodies that bring together all study programme players (teachers, students, administrators) meet on a regular basis. Students, and -more broadly- any audience concerned are aware of the list of teachers and their roles. Teachers receive training.

The role and responsibilities of members of the teaching team are clearly defined. The proportion of teaching entrusted to external teachers from the industrial, socio-economic or cultural sectors is consistent with study programme aims. Their skills and responsibility level is consistent with the study programme. The teaching team specializations are diversified and correspond to various subjects in computer science, with a sufficient qualification (PhD qualification, full professor and senior lecturer). A list of academic staff is given for each programme. The part of external teachers from the industrial is not specified, neither their status but there are industrial conferences in November each year. The communication of information to students is very satisfactory.

Each one of the three programmes is managed by a director of the master (their names are indicated). He meets students every semester. Each student is given a departmental handbook containing all required information. There are also meetings with the teaching teams at the end of each semester. But students don't participate to the board that devises the programme. The programme does not receive feedback from the graduates. A periodic evaluation of the training by the students is organized, but it is not anonymous. A quality committee analyzes the student's answers and makes recommendations to the teachers if needed.

The modalities of the self-assessment process should be improved. During the interviews, it was specified that the self-evaluation was carried out by the teaching team and not by an audit service or independent committee. The students were not directly involved in the process.

It is unclear if the programme help student to record the obtained skills and build a portfolio based on that

The student recruitment method is clearly defined and coherent. More than a half of the students entering the programmes come from the local bachelor programmes. The number of the students enrolled is globally decreasing. The reasons of that are seemingly not analyzed, at least in the self-evaluation document.

Some information has been provided under the title "GRADUATES' EMPLOYMENT INFORMATION", which includes employment information of about 3 MScs and 16 PhDs. While it is a very promising and a valuable source of information that the programme delivers a world-level quality for beyond the Nigerian borders, a comprehensive and satisfactory set of Information on graduate employment and type of the jobs is still missing. Therefore, it is difficult to assess the adequacy with the stated objectives.

Based on the evidences provided by the ICT team, the study programme is running on a quality assurance (ISO) and ethic policy, which are publicly available.

## V. CONCLUSION

### STRENGTHS

- The structure in compulsory courses and elective courses is relevant (the compulsory course of one programme can be considered as optional for others)
- The number of foreign students confirm the attractiveness beyond the border
- The teaching team is well supplied
- The link with Ph.D. programme is good

### WEAKNESSES

- Lack of information about the job market integration of graduates
- Self-assessment process doesn't involve students;
- Evaluation of the programmes by graduates is not done;
- No information was provided about the articulation with the other two MSc/PhD programmes in information Systems and Intelligent System Engineering
- Decreasing number of the students is not analyzed;
- Duration of the internship is not sufficient;

### RECOMMENDATIONS

1. The students need to be more consulted and engaged in both self-assessment and feedback collection.

2. The programme needs to be more involved in collecting statistics and analytics of their in-takes numbers, those who leave at any stage, those who graduate, those who are immediately recruited, those who are recruited in the first 6 month after graduation etc.
3. The internship needs to be longer. The least that can be done is to ensure that the 2-3-month internship is not discounted to only one month due to various issues.
4. An audit committee composed of external members is suggested instead of doing all internally. Although the solid contents and delivery do develop competencies for the students, yet there is no evidence that a core of excellence or a unique niche of expertise is being developed. In particular, the software engineering programme seems to be too generic. This could be a reason why this programme has a so feeble in-take after 3 years of its existence. An external point of view should help to solve this weakness.

## VI. COMMENTS OF THE INSTITUTION



**AFRICA CENTRE OF EXCELLENCE  
OAU-ICT-DRIVEN KNOWLEDGE PARK  
(OAK-PARK)  
OBAFEMI AWOLOWO UNIVERSITY  
ILE-IFE, NIGERIA**



26<sup>th</sup> August 2019

Prof. François PERNOT  
Directeur/Director  
Département Europe et International  
Europe and International Department  
[francois.pernot@hceres.fr](mailto:francois.pernot@hceres.fr)

Dear Sir,

### **COMMENTS ON THE REPORT AND ON THE RECOMMENDATIONS MADE BY THE EXPERTS**

#### **(M.Sc. PROGRAMMES)**

Thank you for the detailed Report forwarded to my team on August 11<sup>th</sup>, 2019 on the above subject matter

Please find below our comments with respect to the Report.

Obafemi Awolowo University(OAU) is the only institution in the Southwest Nigeria running Computer Engineering and Software Engineering at postgraduate level. OAU now serves as the training hub in these two subjects at postgraduate, hence, collaboration now exist between OAU and the following Universities- Ladoke Akintola University, Ogbomoso, Nigeria, University of Ibadan, Federal University of Technology Akure, Federal University of Agriculture , Abeokuta, Covenant University, Ota, Benue State University, Makurdi, University of Maiduguri, University of Ilorin and University of Lagos to mention few, with a view to training relevant staff in these two areas at postgraduate level.

The investment from a Nigerian Bank, TETFund (sectoral partner), and World Bank, Sidmach Technologies (industry partner) in equipping the Cyber Security Lab, intervention of industrial professional as visiting lecturers and the placements offered to the students, number of spin-offs and start-ups and the history of recruitment demonstrate our efforts in reaching out to the industry for sustainable collaborations. Through our existing regional collaborations, we have trained (short-term) over 50 postgraduate students from Dakar, Senegal and Abidjan, Cote d'Ivoire in Cybersecurity and cloud computing. (Appendix 1- short term training list) A list of partner institutions is provided, including companies that regularly host trainees. A list of collaborations with foreign institutions is also given with focus on joint short term training, conferences/workshops, joint research publications. There are clearly some collaborations and exchanges with research organisations abroad (e.g. International Center for Theoretical

Physics,ICTP, Trieste, Italy, double degree PhDs, academic exchange with Australia, France (Nancy), US, Canada, Côte D'Ivoire, and Senegal). The MoU that established these collaborations is as attached (Appendix 2).

The duration of the M.Sc. programme is 4 semester (24 months), the first 2 semesters (6 months) are dedicated to course work and practicals in the laboratories, while the remaining 2 semesters dedicated to full research/practicals in the laboratory and with our industry partners, thesis viva, corrections and approval process by the University Senate . There are many projects related to different courses. A large set of consistent teaching units are available within the programme allowing students to gradually become specialized over the planning horizon. However, the study programme takes into account the challenges associated with lifelong learning and distance learning for now. While 3-month English course is delivered to the non-English speakers and on-campus nursery being provided at the faculty, there is also provision for students with special needs.

The three programmes include practical work components (appendix 3: sample practical report attached). The lecturer rooms are equipped with innovative teaching equipment. An internship of 2 to 3 months is planned with selected partners and companies. It allows students at the beginning of the programme to validate his choice of specialty and the opportunity or the real interest of the study work to be done. Through Consultants engaged by the World Bank, students participation in the internship programme is always evaluated. Please find attached World Bank template for evaluation (Appendix 4). The Department is in the process of designing a log book for the evaluation of students on internship. This should be in place after the expiration of the World Bank project in March 2020. There exists an academic staff who is in charge of both undergraduate and postgraduate students' internships placement. The program enjoys some regional visibility and welcomes students from other regions of the country, as well as neighbouring countries.

In November of each year, students benefit from ICT Conferences organized by the Department. In addition students also benefit from attending professional ICT conference organized by Nigeria Computer Society, the umbrella body of all IT professionals, stakeholders and interest group in Nigeria in addition to attending short term trainings as its relate to the research interest of each student. This is with a view to developing skills to increase the employability of the students.

Indeed, the study programme offers students teaching on information and communication technologies. Each student is provided with computer in the laboratory and necessary research tools in addition to free access to the internet. Effort is ongoing to improve internet access in the Postgraduate Hall of residence.

There is also a policy in the Department that allows a student to transfer from one programme to another before the end of course work.

As the language of instruction is English, apart from providing English course for the non-English speaking student. The Department is participating in the DST World Bank Cooperation on Strengthening of Africa center of Excellences under the coordination Indian Institute of Technology Roorkee. Four of our M.Sc. will going to IIT Madras and IIT Hyderabad in India by early November, 2019 to conduct part of their research work.

The number of the students enrolled is globally decreasing. The major reason is that most admitted students cannot afford to pay the tuition fees. Effort is ongoing for the National students to benefit from the scholarship scheme within the Centre of Excellence.

On the issue that some Courses are generic, it is to avoid quick obsolescence of those courses if they are attached to some specific software products when those products are no longer in the market. But the course lecturers or instructors teach the principles using current products and packages as case studies.



## ACCREDITATION DECISION

### **M.Sc. Computer Science and Engineering**

Obafemi Awolowo University (OAU), Ile-Ife,  
Nigeria

**September 2019**

## SCOPE OF THE ACCREDITATION GRANTED BY HCÉRES

Hcéres has built its evaluation process based on a set of objectives that higher education institution study programmes must pursue to ensure recognised quality within France and Europe. These objectives are divided up into four fields among which are the accreditation criteria.

As for the "External Evaluation Standards", the accreditation criteria have been specifically designed for foreign programmes. The accreditation criteria were adopted by the Board on June 2016 and are available on the Hcéres website ([hceres.fr](http://hceres.fr)).

The accreditation committee, meeting his accreditation decision, has wholly taken into account the final evaluation report of the study programme. This accreditation decision is the result of a collegial and reasoned process.

The accreditation decision issued by Hcéres shall not grant any rights whatsoever, whether in France or abroad. The decision on training programme accreditation confers an accreditation label and does not infer recognition of the accredited qualifications. The Hcéres accreditation process therefore has no impact on the qualifications recognition process in France.

# FULFILLMENT OF ACCREDITATION CRITERIA

## FIELD 1: AIMS OF THE STUDY PROGRAMME

### Accreditation criterion

The objectives of the study programme with regard to knowledge and skills to be acquired are clearly defined and communicated. Students and other stakeholders are aware of outcomes in terms of job opportunities and further studies.

### Criterion assessment

The objective of the three programmes are clearly described and easily understandable by the stakeholders. The teaching staff has the capacity and the expertise of delivering the contents.

## FIELD 2: POSITION OF THE STUDY PROGRAMME

### Accreditation criterion

The study programme has set a comprehensive positioning suited to its objectives and including a clear link with research, scholarly partnerships and/or with the economic and social world, national and/or international partnerships.

### Criterion assessment

The programmes and their contents are rather generic and do not correspond to any particular niche of excellence. A substance giving it a special or a unique and exceptional position seems missing. The practically 1-month internship is rather insufficient.

## FIELD 3: STUDY PROGRAMME TEACHING STRUCTURE

### Accreditation criterion

The study programme includes a set of teaching units that are coherent, gradual and adapted to all kind of students. The study programme allows students to acquire additional skills that are useful for employment or further study.

Internships and projects are included in the study programme curriculum. So are Information and Communication Technologies in Education (ICTE) and education innovations. The study programme prepares students for the international environment.

### Criterion assessment

The programme is well-structured. The path way is excellent in showing how the students can gradually specialize. The delivered content is very rich. The non-English speakers are well accompanied during 3 months. The November conference provides a good opportunity for the students. In general, the programme creates a satisfactory student experience.

## FIELD 4: STUDY PROGRAMME MANAGEMENT

### Accreditation criterion

The study programme is implemented by a formally identified and operational teaching team including stakeholder and student participation. It is carried out by an educational team which benefits from clear and up-to-date data. Methods for checking knowledge are explicitly stated and communicated to students. Teaching and practical professional units are expressed in terms of skills. Anti-fraud measures have been implemented.

### Criterion assessment

The teaching team is supported by an adequate administrative and teaching resources. Essential information is communicated with the students in form of a departmental handbook. It is rather unfortunate that the programme does not receive direct feedbacks from the graduates. The self-assessment is done uniquely by

the teachers and does not involve the students. There is no mechanism informing students of their progressive skill development and achievement. The decreasing number of students has not been thoroughly studied or diagnosed. Very limited is reported on the level of insertion in the job market for those who leave school with only an MSc degree.

## ACCREDITATION DECISION

Considering the accreditation criteria analysis detailed above, the accreditation commission takes the following decision:

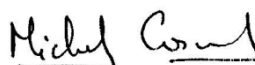
### **“Five-year unreserved accreditation decision”**

and draws attention to the various recommendations made by the committee of experts in its evaluation report:

1. The internship needs to be longer. The least that can be done is to ensure that the 2-3-month internship is not discounted to only one month due to various issues.
2. The students need to be more consulted and engaged in both self-assessment and feedback collection.
3. The programme needs to be more involved in collecting statistics and analytics of their in-takes numbers, those who leave at any stage, those who graduate, those who are immediately recruited, those who are recruited in the first 6 month after graduation etc.
4. An audit committee composed of external members is suggested instead of doing all internally. Although the solid contents and delivery does develop competencies for the students, yet there is no evidence that a core of excellence or a unique niche of expertise is being developed. In particular, the software engineering programme seems to be too generic. This could be a reason why this programme has a so feeble in-take after 3 years of its existence. An external point of view should help to solve this weakness.

### **SIGNATURE**

For HCERES and on behalf of



Michel COSNARD,

President

Date: Paris, September 4<sup>th</sup>, 2019

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