

# **MEMORANDUM OF UNDERSTANDING**

## **BETWEEN**

**UNIVERSITY OF RWANDA (UR)**

**AFRICA CENTER OF EXCELLENCE IN ENERGY FOR SUSTAINABLE  
DEVELOPMENT (ACE-ESD)**

## **AND**

**BBOXX**

This Memorandum of Understanding (MoU) made and entered into on this Friday 24<sup>th</sup> of August 2018 between University of Rwanda (UR)/Africa Center of Excellence in Energy for Sustainable Development (ACE-ESD) hereinafter referred to as "UR/ ACE-ESD\*" with its head office in Kigali, Kicukiro district, Rwanda, [www.ur.ac.rw](http://www.ur.ac.rw), P.O.BOX 4285 Kigali, represented by Professor Philip Cotton, the Vice-Chancellor, on one part and BBOXX Ltd, 9b Power Road, London, W4 5PY, represented by Christopher Baker-Brian.

### **1. OBJECTIVES OF THE MOU**

The objective of this Memorandum of Understanding is:

- a. To promote interaction between UR/ ACE-ESD and BBOXX Ltd in mutually beneficial areas.
- b. To provide a formal basis for initiating interaction between UR/ACE-ESD and BBOXX.

### **2. PROPOSED MODES OF COLLABORATION**

UR/ACE-ESD and BBOXX Ltd propose to collaborate through

- a) Sponsoring student projects / fellowships in two year Master course and five year PhD program at UR/ ACE-ESD.
- b) Sponsoring eligible employees of BBOXX Ltd for doing Masters/Ph.D. degrees in UR/ACE-ESD. The eligibility criteria for selection will be as per norms of UR/ACE-ESD.

- c) Sponsoring R&D projects, which may be carried out wholly at UR/ACE-ESD or at premises of BBOXX or partly at UR/ACE-ESD and partly at BBOXX.
- d) Training of BBOXX personnel through Continuing Education Programs conducted by UR/ACE-ESD in areas of interest to BBOXX.
- e) Any other appropriate mode of interaction agreed upon between UR/ACE-ESD and BBOXX.

Each of the above modes of interaction will be initiated by entering into a separate agreement between the two parties.

### **3. FORMS OF RESEARCH AND DEVELOPMENT PROGRAMS**

The form of any of the said Research and Development Program will be subject to a separate Research Agreement entered into by the Parties but may also include the following:

- a. **In their own existing facilities** - The performance of research individually by each Party or concurrently by both Parties in mixed groups at their own facilities with regular exchanges of results.
- b. **In a separate research and development facility** - The performance of research by the technical personnel of both Parties working together in the facilities of one Party or in mixed groups at the facilities supported/ sponsored by either Party.
- c. **Third parties** - The performance of research by the Parties together with one or more third parties.

### **4. TECHNICAL AREAS OF COLLABORATION**

- a. Energy generation.
- b. Storage devices.
- c. Devices under testing (DUT) research and capacity building to advance the objectives of Vision 2050 and the World Bank sponsored Africa Center of Excellence in Energy for Sustainable Development (ACEESD).
- d. Microgrids in islanded mode and connected to the utility grid.

- e. Control strategy of microgrids with different microsources namely (Photovoltaic arrays, battery).
- f. Design and implementation of smartgrids.
- g. Design, Implementation and sustainability Micro-hydro Power.
- h. Design and implementation of nanogrids.
- i. Energy management and loads control strategies.

## 5. AGREEMENTS FOR RESEARCH COLLABORATION

Each research collaboration undertaken by the parties hereunder shall be initiated by the signing of a separate research agreement between the parties, which will describe in detail:

- d) The nature, scope and schedule of the research collaboration.
- e) The form of the research collaboration.
- f) The estimated cost of the research collaboration together with the amount of funding, if any, to be received from third parties.
- g) The treatment of intellectual property and data rights, including patents, industrial design registration, copyrights and all other proprietary information (including innovations not patented, designs not registered etc.) which result from the research collaboration or which belong to a party and are used in research collaboration.
- h) Testing of equipment (Battery testing, converters, solar charge controller testing).
- i) Implementation of microgrids in islanded mode and connected to the utility grid.
- j) Control strategy of microgrids with different microsources namely (Photovoltaic arrays, battery etc.).
- k) Design and implementation of smartgrids.
- l) Design, Implementation and sustainability Micro-hydro Power.
- m) Energy management and load shedding strategies.
- n) Industrial attachments and internships to students for skills transfer and sustainable development.
- o) Enabling research development and dissemination of findings on indigenous energy sources, consultancy and advisory services both public and private organizations.
- p) Access to energy infrastructure for research promotion and exposure to latest technologies.



- q) Technology and skills transfer for sustainable energy development and management.
- r) Strengthening the cooperation between industry and academia in the training local workforce in renewable energy.
- s) other provisions as may be mutually agreed upon, including provisions covering the consequences of default or termination by a participant, term, arbitration of disputes and applicable law.

## **6. CONFIDENTIALITY**

- a. During and for a period of 5 years from the date of disclosure, each party agrees to consider as confidential all information disclosed by the other party in written or tangible form or, if orally disclosed confirmed in writing within thirty days of disclosure and identified as confidential by the disclosing party.
- b. The obligations above shall not extend to any confidential information for which the receiving party can prove that this information:
  - is in the public domain at the time of disclosure or comes within the public domain without fault of the receiving party.
  - is already known or become known to the receiving party
  - is received from a third party having no obligations of confidentiality to the disclosing party,
  - is independently developed by the receiving party; or
  - is required to be disclosed by law or court order.

## **7. NON-EXCLUSIVITY**

The relationship of the parties under this MOU shall be nonexclusive and both parties, including their affiliates, subsidiaries and divisions, are free to pursue other agreements or collaborations of any kind. However, when entering into a particular research agreement, the participants may agree to limit each party's right to collaborate with others on that subject.

## **8. TERMS AND TERMINATION**

This MOU, unless extended by mutual written agreement of the parties, shall expire 5 years after the effective date specified in the opening paragraph. This MOU may be amended or terminated earlier by mutual written agreement of the parties at any time. Either party shall have the right to unilaterally terminate this MOU upon 60 days prior written notice to the other party. However, no such early termination of this MOU, whether mutual or unilateral, shall affect the obligations of the participants under any Research Agreement, Confidentiality clause as referenced in clause 6 above, or any other agreement entered into pursuant to this MOU, which obligations shall survive any such termination.

#### **9. RELATIONSHIP**

Nothing in this MOU shall be construed to make either party a partner, an agent or legal representative of the other for any purpose.

#### **10. ASSIGNMENT**

It is understood by the Parties herein this MOU is based on the professional competence and expertise of each party and hence neither Party shall transfer or assign this Agreement, or rights or obligations arising hereunder, either wholly or in part, to any third party.

#### **11. COSTS OF THE MOU**

Each Party shall bear the respective costs of carrying out the obligations under this MOU.

#### **12. SIGNED IN DUPLICATE**

This MOU is executed in duplicate with each copy being an official version of the Agreement and having equal legal validity.

BY SIGNING BELOW, the parties, acting by their duly authorized officers, have caused this Memorandum of Understanding to be executed, effective as of the day and year first above written.

On behalf of

on behalf of

UNIVERSITY OF RWANDA

BBOX Ltd

By

*Prof. Philip Cotton*

By

*Christopher Baker-Brian*

Name : Prof. Philip Cotton

Name : Christopher Baker-Brian

Title : Vice Chancellor

Title: Chief Technology  
Innovation Officer

Date : 03/09/2018.

Date : 24/08/2018

Witness:

*Etienne Ntagwirumugara*  
03/09/2018

Witness:

*Linda Manenti*

1.  
Prof. Etienne Ntagwirumugara

1. Linda Manenti