

## **REPORT OF THE LADY ENGINEERS BREAKFAST MEETING HELD ON 15<sup>TH</sup> JUNE 2016 AT THE GOLF COURSE HOTEL, KAMPALA**

### **INTRODUCTION**

The Engineers Registration Board at its 279<sup>th</sup> meeting held on 6<sup>th</sup> January 2016, noted with concern the paucity of female registered Engineers in the profession especially in the mechanical and electrical fields yet Universities continue to churn out a credible number of female graduate engineers in all fields. The Board committed to identifying and addressing any retarding factors affecting lady Engineers so that the gender imbalance between men and women in the profession is corrected accordingly.

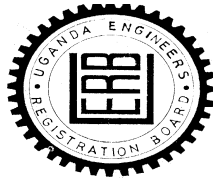
As a first step, the Board resolved to have a breakfast meeting with lady Engineers of all ranks and categories to brainstorm on these issues. The meeting was held on Wednesday 15<sup>th</sup> June 2016 at the Golf Course Hotel, Kampala from 9.00am – 11.30am. The meeting was attended by a total of 128 Lady Engineers working in different engineering capacities in Government, Private Sector and Academia (Attached in Annex 2).

### **Board Members - Attendance:**

- |                               |                 |
|-------------------------------|-----------------|
| 1. Eng. Dr. Michael M. Odongo | - Chairman      |
| 2. Eng. Kisembo Bernard       | - Vice-Chairman |
| 3. Eng. Okinyal Henry Francis | - Member        |
| 4. Eng. George Bwanga         | - Member        |
| 5. Eng. Joseph O. Eyatu       | - Member        |
| 6. Eng. Andrew M. Kitaka      | - Member        |
| 7. Eng. Ronald Namugera       | - Registrar     |

### **OPENING REMARKS AND INTRODUCTION**

The Master of Ceremony (MC), Eng. Joseph Eyatu welcomed the lady engineers to the meeting and thanked all those present for honoring the invitation. He noted that the meeting would be the start of an engagement between the Board and Lady Engineers to support and guide them to professional registration.



The MC – Ms. Rose Kiggundu requested members to introduce themselves including details of their name, year of graduation and workplace. This enabled the Board to carry out a roll call of all engineering disciplines in attendance. The details indicated that lady engineers who attended were across the disciplines of computer, software, biophysics, petroleum, mechanical, electrical and civil engineering.

### **CHAIRMAN'S REMARKS**

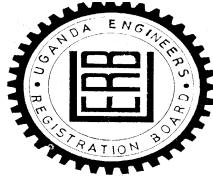
The ERB Board Chairman was the guest speaker at the breakfast meeting. He noted that the meeting was an open discussion between the Board and the Lady Engineers, to iron out the retarding factors deterring them from Professional registration. He emphasized that the Board through this engagement was eager to listen to them with a view of finding tangible solutions.

#### **a) Justification for meeting**

He stated reasons to further justify why this meeting was timely;

1. The engineering profession has been male dominated for a long time and there is need to increase the participation of women;
2. The ERB register is crowded with majority civil engineers yet there are other engineering disciplines majority of which attract lady engineers;
3. There has been an emergency of new engineering disciplines like petroleum, biophysical, software, telecom etc but all of which remain unrecognized;
4. The current graduates from universities are lacking basic foundation / principles of engineering, communication skills and hence not prepared for professional registration.
5. There is negative public image of the profession due to mistakes, corruption and incompetence.

In spite of the above, he noted that engineers had a lot to play to move the country from low to middle income because the transition greatly depends on development of high quality infrastructure which cannot be divorced from engineering.



#### **b) Few numbers of Lady Engineers**

The Chairman noted that there were only 800 registered Engineers of whom, less than 3% (about 24) are female engineers. In line with the Government policy on gender mainstreaming, women should constitute at least 1/3 in any organization. He noted that the Board was grappling with attracting registered lady engineers as there are few.

He noted that it was well known that women have desirable qualities which make them good engineers. He pointed out the following;

1. Keen on attention to details on issues
2. Less biased by egos
3. Strong morals and incorruptible
4. Better conflict managers

#### **c) Benefits of Professional Registration**

The chairman highlighted the benefits accruing from professional registration namely;

1. Professional advancement
2. Confers authority
3. Confers confidence
4. Professional prestige

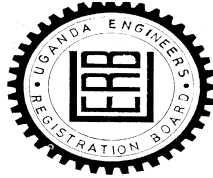
#### **d) Requirements for Registration**

The chairman briefly discussed the requirements for registration. These included;

- 1) Bachelor's degree (engineering) from a recognized University;
- 2) Four years post graduate experience; Pupilage (2years), 2 years post pupilage under a registered engineer;
- 3) Preparation and submission of a technical and career report. Technical report should showcase at least design and construction supervision experience;
- 4) Joint UIPE/ERB committee carries out assessment and invites applicant for an interactive interview.

#### **e) Reasons why some applicants were not successful**

- 1) Poorly packaged reports
- 2) Poorly prepared graduate engineers
- 3) Plagiarism
- 4) Submission of academic/research reports as technical reports



- 5) Failure to follow up on comments from assessors
- 6) Mismatch between the technical reports submitted to ERB and the qualification / discipline attained by the applicant.

**f) Some reasons retarding Lady Engineers professional registration**

The chairman implored participants through a brainstorming session to highlight reasons retarding ladies from professional registration. Among others, the following were noted:

1. Family and child bearing;
2. Unsupportive spouses;
3. Ladies are often posted to jobs which may not have any relation to engineering like taking minutes at meetings.
4. Ladies tend to be laid back and not assertive.
5. The engineering professional practice in the field is less supportive to ladies;
6. The assessment and UIPE and ERB board might be segregating;
7. The registration fees are high.

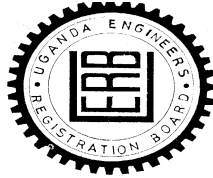
### **DISCUSSION SESSION**

1. According to the African culture, women are expected to be graceful and submissive yet in the work place you need to be aggressive. How can a woman be able to be assertive at the work place without coming off as rude?

*It was agreed that there is a clear line between being rude and assertive. Therefore women were advised to be positively aggressive. This means being eager to contribute at the workplace especially in the different teams, should be eager to learn, take initiative and to take on assignments. (The book 'Lean in' by Sheryl Sandberg was recommended for good insights into this).*

2. There seem to be few engineers who have specialized in materials engineering. How can one get access to engineers who can mentor in this area of specialization?

*ERB stated that there were many materials engineers including the Registrar of the Board. It was advised that the Registrar can be contacted to propose an engineer from the list of registered engineers and advise on who can be contacted or assigned to be mentor.*



3. According to the guidelines, an engineer needs 4 years of post-graduation experience before registration, this is a long duration.

*The purpose of the 4 years is to build confidence and gain experience in order to gain time to practice engineering after graduation from University. The 4 years include 2 years of pupillage and 2 years post pupillage. During post pupillage, the graduate engineer takes a position of responsibility and works under a registered engineer.*

4. How is the registration process by diploma holders who have been working for more than four years and later upgrade to degrees possible?

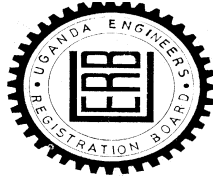
*Under the ERB Law, the experience required for registration should be four years after attaining a bachelors engineering degree. It was also noted that the diploma holders could join UIPE since they have different classes which cater for them under Technician/Technologist Member. They were also advised to attend the CPDs to interact with the different engineers. ERB also stated that the board recognises diploma holders and technicians and the ERA Act is currently being reviewed to cater for diploma holders who shall be registered under the applicable registration class.*

5. How can one register when their supervisors at the workplace are not registered? Is it allowed to register using recommenders who are registered foreign engineers?

*It was stated that for those whose supervisors are not registered, they can get in touch with the board so that they can be attached to and mentored by registered engineers. These registered engineers can then be used to facilitate the registration process. However for those supervised by registered foreign engineers, the board allows these as recommenders as long as they are registered with ERB or are registered in any of the EAC countries. ERB has also carried out outreach programs with different companies to encourage them to enable their employees get registered.*

6. Regarding the issue of few engineers, the statistics may be skewed. Is it possible to find out how many female ladies did a degree in engineering?

*It was agreed that this may be partly the case to the low numbers of registered lady engineers however, still at every graduating engineering class, there are still a good number of lady engineer graduates. However, there is need to popularize engineering to the girl children in secondary and primary schools. This could be done by attending career guidance at the different schools to encourage the girls.*



7. How can research based / academia in engineering be incorporated and tailored for registration?

*Research in engineering is applicable and can be used for registration. However the research should be publishable material and not the same piece work that was used to attain academic qualifications say at Masters or PhD degrees. The board and UIPE are currently developing guidelines to include applied research in academia and other engineering specialization to guide them to professional registration.*

8. There are several lectures and others who do not see the need for registration and thus discourage students from getting registered? What is the motivation for registration? Shouldn't there at least be a minimum wage for registered engineers?

*It was emphasized that registration is a personal decision and graduate engineers were discouraged from benchmarking from those who had failed to register. Once one graduate they were advised to join graduate membership of UIPE, they are allocated mentors and these can better advise on the path to registration and its relevance.*

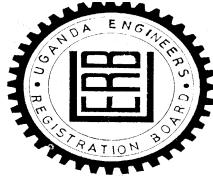
*The Board came up with a minimum wage for a registered engineer under different categories. This can be accessed from the ERB website [www.erb.go.ug](http://www.erb.go.ug). The challenge however is that these scale of fees for engineers has not been enforced.*

9. Working with contractor means that an engineer is only doing construction supervision and not design. How can the technical report be written based on this?

*Contractors are also expected to carry out designs and design reviews during construction, therefore it is up to the engineer to take the initiative to be involved in these activities (positively aggressive). Doing this will greatly offer the graduate engineer with skills of both design and construction supervision which will in turn enrich the technical report of the applicant.*

10. Eng. Naluyinda from Ministry of Works and Transport who is a registered mechanical Engineer noted that many of her colleagues have not registered. She advised the lady engineers to:

- (a) Set a own roadmap to registration
- (b) Choose a role model / mentor
- (c) Follow the road map day by day



The participants raised many other pertinent questions but could not be attended to during the meeting due to the time constraint, but were noted by the Registrar and are responded to hereunder (Annex 1).

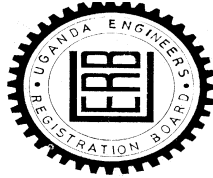
### **MEETING RESOLUTIONS**

Following the above discussion, the following was agreed as a start to having more female engineers registered;

1. Lady engineers should make a careful balance between work and family life.
2. Should stay close to UIPE and ERB especially by attending the CPDs,
3. Every lady engineer should propose a mentor for own professional advancement or contact ERB/UIPE for guidance;
4. Be positively aggressive at the work place;
5. Get into a culture of reading books/journals especially on engineering matters;
6. Lady engineers breakfast meeting should be held annually;
7. Stay in touch and progress the discussion by forming an open forum (a What's App group be created to include all those interested); The administrator for the what's App group is Ms. Allen Tebugulwa, [allentebu@gmail.com](mailto:allentebu@gmail.com), 0774101814.
8. Registered female engineers should play a more aggressive role in the engineering profession to increase their visibility;
9. Lady engineers (registered or not) should be role models in society;
10. Registered lady engineers should encourage others to register.

During the closing session, the participants were informed of the upcoming Engineers' Forum organized by the Board and scheduled to take place at Hotel Africana on 30<sup>th</sup> September, 2016.

**ENG. RONALD NAMUGERA**  
**REGISTRAR, ENGINEERS REGISTRATION BOARD**



## ANNEX 1

### WRITTEN QUESTIONS FROM THE AUDIENCE AND RESPONSES

**QN.1** - I am here but not certain of the clear difference between UIPE and ERB? How are their roles different? Is registration required for both?

*UIPE is the Professional and voluntary organization for all Engineers and technologists technicians. UIPE prepares the Engineers for professional registration with the Board, one needs to get Corporate Membership of UIPE before admission for registration to the ERB. However UIPE and ERB have a joint assessment committee that vets applicants and hence it is now a one stage process.*

**QN. 2** - Unlike others, for mechanical engineers who mainly work for most Indian companies who segregate ladies for most technical tasks giving reasons that cannot perform and most of them are not even registered. Most cases, our advices are neglected and this make us performing tasks of secretaries or you just risk losing the job.

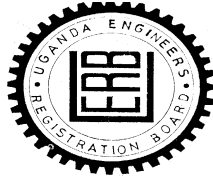
My Question is: What can you do in order to regulate this problem?

*The Board notes the concerns of those working under unregistered foreign nationals who also subject them to less technical work. Engineers are urged to remain assertive at places of work and demand to carryout works for which they were recruited. The Board shall also enforce the requirement for foreigners to get registered before taking on jobs in Uganda.*

**QN. 3** - Thank you; Am an Electrical engineer

My question goes; if you have worked before in planning and designing of projects and now you are currently into monitoring, evaluation and regulating of designed projects. Is it possible to use one of projects that I designed as worked in planning and designing of projects to write my technical report? If not how will I be able to get a project from start or scratch if am now working in regulatory framework that monitors projects from scratch to impact?





*Writing a technical report is about showcasing your professional attributes, therefore you need not work on one project from start to finish. Skills gained on different projects are permissible. Therefore one can write a technical report showing skills gained on more than one project.*

**QN.4** - There are so many Engineers from other countries practicing in Uganda. Does the ERB have any record of them? What criteria does the country have to allow foreign engineer work in Uganda?

*The ERA Act requires all foreign engineers to register with the Board within 4 months to be eligible to practice engineering in Uganda. The criteria followed include submission of career report and proof of registration from mother country. For details please visit [www.erb.go.ug](http://www.erb.go.ug) The Board also has a list of the temporary registered engineers working in Uganda.*

**QN5.** - Issues to note: Women are laid back due to lack of Job satisfaction. We feel sometimes we are underutilized. We lack of reliable female role models. Inflexible work schedules. There is work place discrimination especially from our employers and male counterparts.

Registration for a mechanical engineer is not as important as that of as civil engineer. I only find it necessary to only help me get a better job so please give us more advantages that come with registration.

*Advantages for professional registration were ably discussed during the meeting. Refer to report. Also there is need to explore the same with own mentor.*

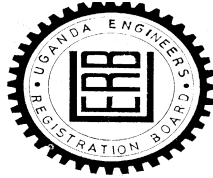
**QN6.** - I perused my registration and I admit it has opened doors for me and I am still aiming higher. My problem is with ERB. As a body you seem not to firmly register your footprint in Uganda when it comes to enforcing engineering field of Uganda for example when we have problems like collapsing buildings ERB seems silent. ERB needs to come out strong so that people can see your relevance worthy and consequently motivation for registration.

*The Board notes the sentiments and shall take up the issue as a positive criticism and address it.*

**QN7.** - Is it compulsory to be registered with UIPE for you to register with ERB? If so how do we register?

*Yes it is compulsory, please refer to the report. Also visit UIPE and ERB websites for more information.*

**QN8.** - Nature of work in other engineering professions like telecommunications the work is engineering related but it's mainly routine work not project like civil engineering. This makes it



hard for telecom engineering reports thus failure to register. I have worked in engineering fields for 5 years now but I haven't really been involved in a project. The work is routine.

*Please approach UIPE or ERB to allocate you a mentor.*

**QN9.** in other fields, ladies are believed in, there's faith that a lady will perform as a secretary, manager and other tasks however, most of the time even just within a class room setting we are not believed in. we need you the men to trust that we can perform as engineers. We need employers male or female to believe that we can. I would also request that reach out is done to universities besides organizations so that the need is imparted at an early stage.

*Proposal noted – The board shall consider it*

**QN10.** I noted that the board has different engineering representatives but these new courses like computer engineering are not represented. How does the board examine such professionals? How can our members be affected without registered computer engineers?

*The Board has a pool of professionals through its interaction with other EAC members, ICE of UK and other Commonwealth countries where any specialized expertise is sought in assessment of technical reports.*

**QN11.** if one has spent six years in the industry ie they graduated say 2010, why is it not possible for them to register with a project they had hands on say in 2014 3years after graduation?

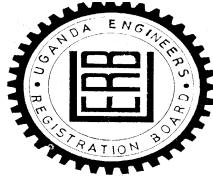
*The ERA Act prescribes pupillage training of 2 years and post pupillage training of 2 years. During this time, it is deemed that the applicant shall have adequate time to be trained a t pupillage and adequate time thereafter to exercise engineering judgment over next two years.*

**QN12.** - Do we register engineers who have registered in project management?

*Project management is not an engineering discipline. Please refer to the requirements for one to register as a professional engineer.*

**QN13** - Does IEEE and the IET qualify one not to submit a technical expert?

*Registration with other commonwealth competent authorities like ERB is permissible. The applicant only submits a career report if he / she is already professionally registered with any commonwealth engineering registration body.*



**QN14.** While I was attending UIPE training, someone said that you write reports and present them to UIPE, you pass but when it comes to ERB, you fail to register as an engineer. What could be the problem?

*Majority, over 99% of applicants who pass at UIPE also pass at the Board. However registration is a 2 gate process, you are assessed at UIPE and then at ERB Board, only those with major issues that might have slipped through the UIPE assessment might fail at the ERB Board.*

**QN15.** This is specific to bio systems engineers we don't have mentors. I am one of the pioneers we were trained by team of various engineers and we even do not know what to do exactly. Another issue is that bio systems engineering are not known by various companies and employers hence so hard to get opportunity at the work place.

*Please contact the Board directly for a thorough discussion on the issue. Through our networks, we can team you up with other colleagues in the same / or similar field.*

**QN16.** When I graduated, telecom engineering was a part of the electrical engineering; however most of my work experience is with telecommunications. Can I present a technical and career report in telecommunication?

*Yes, you can present a report in telecom engineering as there is a thin line between telecom and electrical. Most graduates of Electrical engineers are practicing as Telecom Engineering professionals.*

**QN17.** If I have been in the field for about 6years, then joined UIPE after that would I still want 4years to be able to submit my report for registration? Also please take us through the proper process of registration.

*One is eligible to register after four years after graduation from University. For details of registration process please refer to [www.uipe.co.ug](http://www.uipe.co.ug) and [www.erb.go.ug](http://www.erb.go.ug)*

**QN18.** Looking at the issues the chairman ERB pointed out, the mechanical industry in Uganda isn't developed and there's not much motivation in registering. Opportunities for registered mechanical engineers are very few and at work you get to do just ordinary things that any other person can probably do. So what's the point?

*The Chairman noted that Lady mechanical engineers only get exposed to minor assignments with little engineering content. He urged lady engineers to be more assertive and show hunger and undertake tasks of engineering nature at their workplaces.*