

Modernising Agricultural Engineering
Programmes to meet Africa's Agenda 2063
The Africa We Want

Question
<p>(i) Are the Agricultural Engineering curricula offered at various institutions meeting the needs of industry? If not, what needs to change?</p>
<p>(ii) What transformation of Agricultural Engineering curriculum is necessary to support the transformation and industrialisation of agriculture in Africa towards Agenda 2063 and beyond?</p> <p>Excellent presentations with some diverse suggestions. Already moving towards softer skills and wider “systems engineering” approach. Also</p>
<p>(iii) How can quality assurance in Agricultural Engineering programmes be improved to facilitate accreditation?</p>
<p>(iv) What good pedagogical practice should be adopted to meet the needs of current and future students?</p>

(v) What needs to be done to promote engagement and collaboration between Agricultural Engineering degree programmes offered in Africa?

The current way of working may have some legacy as collaborative working is much easier, for example single theme workshops such as this one today. This workshop is a great example of collaborative working so as such it is a good start.

Collaboration is very important but maybe we need to start with regions first. For example East Africa. Exchange of tutors/lecturers, capacity building or staff and students. Sharing of resources.

Tap into RAEng programme for partnering universities such as research partnerships, capacity building, etc.

Scope for the engagement and collaboration to go beyond Africa so that universities from around the world can contribute. Online content sharing both commercial and non-commercial from universities around the continent could be a good way forward. Newly prepared content.

The forum established by PASAE is a good way forward and the way in which our current circumstances has driven a less insular approach. Opening doors for different nations from across Africa to discuss and share the same issues.

Curriculum needs to be changed to make it more future proof and to facilitate more collaboration. The European “Erasmus” programme could be a model for students to gain experience from different places.

Recommendations

- Take advantage of what we have learnt from the “New Normal”
- Start with some regions and facilitate connections – heads of faculties perhaps. Both the Macro and the micro.
- Engage industry to help shape the curriculum and the university “offer” and open up opportunities for placements and work experience.
- Leverage connections from national bodies in countries (Professional Engineering Institutions, etc). Focus on issues of particular importance.
- Establish short, medium and long term aims and objectives in respect of this agenda.
- Task and finish groups or Action Learning Sets to focus on particular issues with a sharply focused agenda.
- Involving industry viewed as a key element to all of this. Tap into the past alumni. Use these as guest lecturers either on-line or in person. All contributes to the building of relationship.
- Ask industry for challenges and problems and involve students in arriving at suitable solutions. This helps industry to see the value of universities.

(vi) What matrices/milestones are needed to progressively measure/assess the impact of enhanced Agricultural Engineering Curricula on the journey towards the Africa we Want?

Quality of outcomes, x% of graduates placed in industry, y% in government, etc

Retention in the industry, avoiding wastage to other sectors x%

Research addressing industry requirements