

# What good pedagogical practice should be adopted to meet the needs of current and future students?

- Jonathan Cooper, Facilitator
- Nigeria (industry) – need for “soft skills” e.g. communication skills to deal with a broad range of professionals and have your concepts understood.
  - Also, entrepreneurship – graduates need to “hit the ground running” – e.g. young engineers called to lead experienced staff.
  - More than a single semester course.
  - Universities must be clear in adding value.
- South Africa – new department in Agro Eng
  - Need more than knowledge – need applications
  - Current lecturers are not adept at applying core knowledge into applications
- Nigeria – industrial training
  - Real experience in working with others
  - Good workshops on actual hands-on technological skills with real equipment
  - E.g. National youth service corp in Nigeria

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- Uganda -- More “doing” than classrooms and lengthen practical (industrial) experience
- UK – 4 year program with 1 year industrial experience
- Nigeria – use holidays to place students in industry
  - Greater direct university-industry collaboration
- Students work experience program
  - International exchange programs with students
- South Africa: Flipped classroom – flipped “virtual” classroom in pandemic
  - “sharing” lecturers
  - “Facilitation” of learning practice instead of lecturer
  - There is interest but need to move beyond just talk
  - Technology in pandemic is making things easier

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

- South Africa: Common first year collaboration with other universities
  - Discussion group and common ground among all universities for the first two years. Shared vision and common goals.
- Promote professional associations in different countries
  - Attend each other's conferences
  - Sabbaticals in different African countries
  - Participate in governance and politics
- Nigeria: Encourage funding of collaboration activities
  - Attitude of “adding value”
- Leverage research collaboration?
  - Africa seems to be more scattered than other regions
  - Frequent (e.g. 6 months) meetings and direct engagements (e.g. this workshop)

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

- South Africa: move from conventional metrics to more relevant
  - Outcomes and impact. How do you measure the success?
- UK: Annual survey of graduate employability
  - 6 months after graduation, students receive survey – doing, earning?
- Nigeria: Self-study form has a field for comments from employers. Solicit input from employers.