

*Addressing the skills gap  
through International  
collaboration*



*"This project is providing an  
audit of capacity and needs  
associated with biomedical  
engineering in Uganda and,  
more widely, in East Africa."*

Dr Mike Raxworthy, University of Leeds



**Between 2016 and 2018, Makerere University was funded by the Royal Academy of Engineering as a hub university under the Higher Education Partnerships in sub-Saharan Africa (HEP SSA) programme. The hub focused on improving the standard of engineering education by strengthening engagement between local academia and industry in East Africa through workshops, lectures and bilateral secondments.**

According to the Uganda National Council for Science and Technology, the role and contribution of engineers in Uganda has not been well catalogued... Training is still under-subsidised and the fields of engineering training are still narrow. This has led to foreign expertise being brought in to undertake important engineering projects in Uganda.

Through the HEP SSA programme, Makerere University has collaborated with the University of Leeds, a leader in teaching excellence, to tackle this lack of representation and the disconnect between industry and academia that has added to the skills and knowledge gap.

The collaboration resulted in a change to Makerere University engineering department's teaching approach, adopting a problem-based learning approach. It also focused on increasing the number of female students at the university, currently at 22%. It held a workshop aimed at developing skilled engineers to tackle real-world problems, and collaborative lesson sharing between the UK and Uganda. Makerere University created a new curriculum to meet the needs of local industry, including two-way

secondments with industry and research projects with the University of Leeds.

Following the end of the HEP SSA project in 2018, the collaboration between Makerere University, the University of Leeds and Moi University in Kenya has continued, as they work to improve and strengthen biomedical engineering in East Africa. The aim of the project is to strengthen research partnerships and technical capabilities in biomedical engineering.

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**The Royal Academy of Engineering's HEP SSA programme aims to strengthen collaborations with local industry and UK partners in sub-Saharan African higher education. This project will continue this aim, strengthening current training, skills, innovation and collaboration with local industries within biomedical engineering in East Africa.**

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For more information, visit the website:  
[www.raeng.org.uk/hepsa](http://www.raeng.org.uk/hepsa)