

Kenyan students look to Uber(ise) solar energy

A team of students from Strathmore University in Nairobi, Kenya walked off as the inaugural winners of the African Utility Week and PowerGen Africa conference and exhibition's first Initiate! Impact Challenge. The students received R20,000 in prize money for an innovative concept to provide equitable energy access to remote villages based on, among others, "Uber(ising)" solar energy.

By [Alicestine October](#) 20 May 2019



Strathmore University's winning team (left to right) Fredrick Amariati, Ignatius Maranga, Raymond Kiyegga and Alex Osunga.

The team was one of four university teams participating in the African Utility Week and PowerGen Africa conference and exhibition's first Initiate! Impact Challenge. Student teams from Stellenbosch University, the University of Cape Town and the University of the Witwatersrand also took part in the three-day challenge which aimed to create a platform for students and startups to drive innovation and share ideas for the energy sector.

The Strathmore University team included engineering students Ignatius Maranga, Raymond Kiyegga, Fredrick Amariati and Alex Osunga. One member of the team will also have the exclusive opportunity to join the fifth annual student fact-finding mission to Russia to visit several state-of-the-art nuclear facilities and dedicated Russian nuclear universities. Maranga said the team is happy and humbled especially because they competed against some of the top universities on the continent. He said the teams' winning idea is rooted in real life challenges that Kenyans in rural areas face. "The solutions offered so far to expand energy access are not solving these problems as many are not financially viable."

Capacity building

The team's idea is to put a solar panelled container in rural villages that will also house a clinic and a knowledge hub like a school for vocational training to teach people about the use and benefits of solar energy. It will also include a shop where villagers can buy daily essentials like milk. "The school will help with capacity building as villagers will see and learn benefits of electricity and as the business grows, they will

want to have electricity in their homes and when that point comes, we will have solar-powered tricycles,” Maranga explained. “These tricycles will carry and deliver batteries like Uber does passengers to villagers in more remote areas. The system is modular so we will add another container to charge batteries. These batteries are ferried on trikes, so villagers in more remote areas can request a number of charged batteries on their phone.”

Maranga explained that it is common cause that Africa is big, and many people live in remote rural villages. “So, it is not always possible to extend the power grid to these areas as it is very expensive. So, what do you do instead? Most people own a cell phone, and everyone needs electricity, so you take it to them. They cannot exactly carry a battery for two kilometres so why then not Uber a battery?” Maranga said their company Kijiji, (Swahili for village) will now look at commercialising their idea, optimise it and do market tests. “If accepted we want to roll it out depending on funding.”

The team’s idea appealed to the judges because it was a simple idea that is easy to replicate beyond Kenya to the rest of the continent. The ideas of the other three teams focused more on mitigating the risk of climate change and came up with ideas ranging from vertical farms to energy boxes.

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