## Makerere don makes phone that locks car

## Education

Written by Simon Musasizi Tuesday, 15 June 2010 17:24

Show him anything automated and he will show you how it works. To him, everything around us can be automated. That is why he has invested heavily in research, with a home laboratory worth Shs 30 million. Eng. John Wambogo Wekesa, a Makerere University lecturer at the Faculty of Computing and Informatics Technology (FCIT), has added a new function to a cellular phone.

You can now use your phone to control your car accessories and functions – with provisions to lock your car in case it is stolen. The technology, which today sounds simple, has taken the youthful engineer seven years to pull off.

"The idea started in 2003 when one of my friends called to tell me that he had lost his car to thugs. He was very frustrated; he wanted help, which I couldn't offer. I wished I had the ability to stop the vehicle before they drove far," Wekesa recounts.

Armed with a Diploma in Mechanical Engineering from Kyambogo Polytechnic, he began to research on how to stop car thefts.

## **REGISTERS COMPANY**

A year later, he was able to switch off a car engine using a mobile phone. This spurred him to register a company called Uganda Motor Vehicle Safety and Remote Engineering Services – with the objective of providing motor vehicle safety.

But with time, he realised that just switching off the car engine wasn't enough. He needed to have the knowledge of how to reignite the engine.

"I needed knowledge in software development to help me add more functionality to my technology," he says.

In 2006, Wekesa enrolled at Makerere University for a degree in Computer Science with the intention of expanding his knowledge.

"By second year, I had acquired enough knowledge and had developed software that would add on any number of functionalities I wanted," Wekesa says.

In 2009, when the university introduced a course on Computer Systems Engineering, Wekesa was lucky to be one of the pioneer lecturers. He benefited from the vigorous training conducted by the university with the assistance of visiting lecturers.

"This course, among other things, helped me to learn the skill of how to embed the software I

had developed onto the microprocessor that would actualise the technology. I had developed the technology, I had the software, but how would I get the software into the vehicle? The course helped me acquire skills on how to transfer the software into the microprocessor," he notes.

"The days of car thieves are over! You can now use your mobile phone to locate your car. The advantage with it is that it has unlimited coverage because it uses the telecommunication infrastructure. At any distance, as long as there is network, you can control your car," he explains.

He adds: "It is also cost effective. You can start and warm your car from wherever you are. Whether you are in UK and the car is in Uganda, you don't always need to move to your car to warm it."

According to Wekesa, installation of this technology costs only Shs 700,000, with an annual subscription of Shs 100,000.

This is far cheaper compared to car tracking services where you are required to pay monthly fees.

## WHO IS WEKESA?

Wekesa started as a secondary school teacher at Mbale Progressive Academy where he taught Physics and Mathematics at A-level, before joining Ministry of Works and Transport as an Engineering Assistant for Mbale District.

He holds a Diploma in Mechanical Engineering from the former Uganda Polytechnic Kyambogo, and a degree in Computer Science from Makerere University.

A nephew to the late Deputy Premier and Minister of Foreign Affairs, James Wambogo Wapakhabulo, Wekesa was the NRM flag bearer during the Mbale Municipality seat byelections won by FDC's Jack Wamanga Wamai recently.

"I believe in technological advancement. I believe whatever is made by developed countries can be made by us. Every minute, what I see around me, I always think of how I can automate it and have the community in this world served better," he says.

The 41-year-old engineer says he funds all his research projects.

"I have been funding my own research. At home, I have a laboratory with equipment worth Shs 30 million for doing personal research," he says, before adding: "If I was Osama bin Laden, I would be setting up bombs."

To roll off the cellular phone project, he has contracted a company in Hong Kong to start producing the IC (Integrated Circuit), which was developed out of his technology.

This is all you will need to be fitted into your car and the system begins working.

"There have been rampant vehicle thefts in this country; that is why I thought it important to

develop a system that stops car thieves. You no longer need to run after your stolen car," he says cheerfully.

Wekesa has previously developed software for big organisations such as the World Bank. He automated a system for the Ministry of Agriculture, Animal Industry and Fisheries that reports adverse drug reactions. The system allows field veterinary doctors to easily access information online without having to drive to district or national level to consult specialists. "We are now looking at installing cameras on cars so that we link the cameras to the mobile phone so that you monitor your vehicle by looking at your phone screen," he says. "After we have installed the cameras, we will go into space science. We will be able to fly a helicopter without a pilot. We will install cameras on the space crafts," he adds. This technology, according to Wekesa, will help government and organisations to monitor their cars.

"In Africa, we have a tendency of misusing government and organisation cars. They are driven beyond official hours. We want to use this system to help transport departments to track organisation and government cars and be able to stop their illegal movement," he says. smusasizi@observer.ug

