

### UmoyAir Communications (Stand IG 15)

Khayaletu Cokoto | khaya@umoyair.co.za

Our product teaches real industry-based tech skills and avoids the restricted closed source approach of conventional robotic kits. Our kits introduce the practical applications coherent with theory associated with Mathematics, Physical Science and Information Technology.

### SmartBlade (Stand IG 16)

Nick Nevin | nick@smartblade.co.za

Low Cost Video Laryngoscope.

### Maths Whartels (Stand IG 17)

Petro Erasmus | petro.erasmus@nwu.ac.za

A Neuropsychological approach to Maths Education. Creating a system that will help children to do maths and science.

### Smart eBin (Stand IG 18)

Abide Ncube | abide@skyvantage.co.za

The Smart e-Bin is an Internet of Things based waste management bin system with real time monitoring systems which integrate, sensors and wireless communication technologies allowing clients to temporarily safely store hazardous electrical, electronic waste.

### So Yhum (Stand IG 19)

Keneiloe Kganane | keneiloe@soyhum.co.za

Healthy Sma2rt Snacks from Climate-Smart Crops.

### EcoWarrior System (Stand IG 20)

Joash Kisten | randhir.rawatlal@nanoblu.net

The Ecowarrior system uses cloud computing to provide real time feedback to drivers and inspire driver performance through a game like engagement framework where drivers will be ranked according to their performance.

### INVENTORS GARAGE JUDGES:



Vuyisa Qabaka  
HYBR



Baratang Miya  
Girlhype



Pieter de Beer  
IDC



Nontombi Marule  
DTI

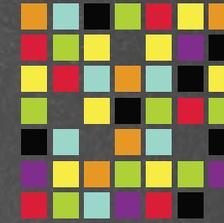


Senisha Moonsamy  
TIA

FOR MORE INFORMATION, PLEASE CONTACT SA INNOVATION SUMMIT ON:

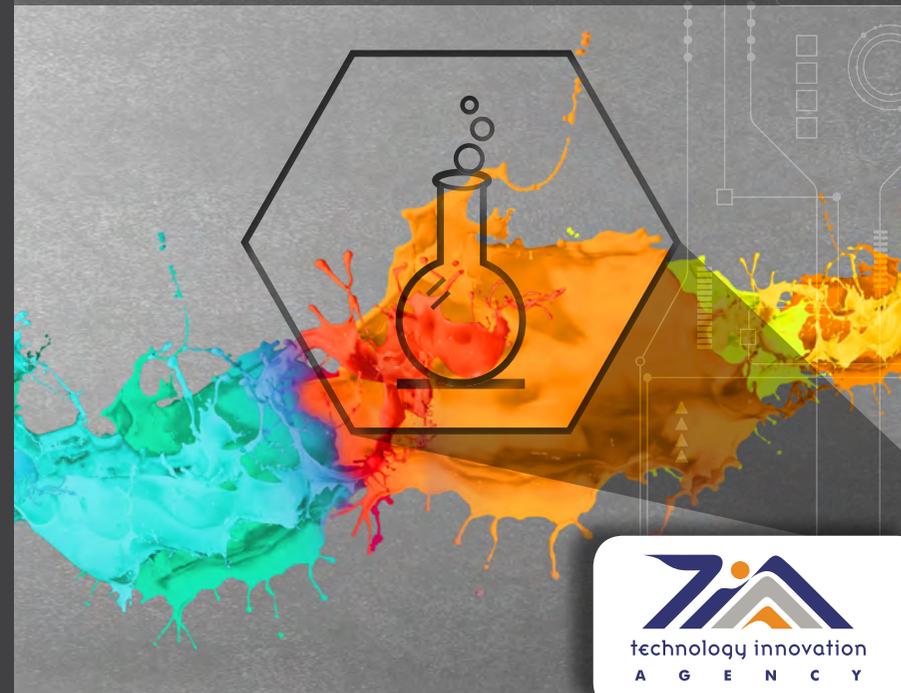
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## SA INNOVATION SUMMIT

The Inventors Garage Competition is a platform for startup inventors to showcase their ideas, products, and prototypes. The competition is designed to provide maximum exposure to the inventors, offer them the opportunity to build their networks, and to connect with the right people to create future business opportunities and seek early stage funding.



FROM AFRICA TO THE WORLD  
**INDUSTRY 4.0**  
WHERE GREAT IDEAS MAKE IT!

INVENTORS GARAGE

## 3D Printed Prosthetic Hand (Stand IG 01)

Abdul-Khaaliq Mohamed | [Abdul-Khaaliq.Mohamed@wits.ac.za](mailto:Abdul-Khaaliq.Mohamed@wits.ac.za)

The unaffordable, uncomfortable and limited grasping functionality of current commercial prosthetic hands are serious pains for amputees. The addresses these pains by providing below-elbow amputees with a functional and low-cost robotic prosthetic hand.

## Bespoke SmartMouthGuard (Stand IG 02)

Ralph Lancelot Mentjies | [dental\\_ids@yahoo.com](mailto:dental_ids@yahoo.com)

This is a medical device which offers a revolutionary breakthrough in concussion management. This device is silicone based moving away from conventional EVA offering superior shock absorption, protection, accuracy & tailor made comfort.

## Tracking hand hygiene monitoring system (Stand IG 03)

Nombulelo Ngcamu | [zummerngcamu@yahoo.com](mailto:zummerngcamu@yahoo.com)

The system is able to record accurately who it's been used by through identification of individuals using programmable RFID (radio frequency identification) smartcards or smart labels.

## Pool Sense (Stand IG 04)

Kevin Herbert | [kevin@proautomation.co](mailto:kevin@proautomation.co)

With a simple yet smart IoT floater all the hassle of pool care is a thing of the past. Just drop it in your pool, install the app and you are ready to go.

## The BBF - Best Bag Forever... (Stand IG 05)

Nick Smit | [nick@smergos.com](mailto:nick@smergos.com)

Specifically designed to fit onto a wheelchair, unlike other bags which are created to fit onto a human's back. It supports most of the bag's weight, which prolongs the lifespan of the wheelchair back rest.

## Soil Analysis Agritech (Stand IG 06)

Zwelibanzi Msimango | [zwelibanzi@oktotpustech.co.za](mailto:zwelibanzi@oktotpustech.co.za)

Optimising crop yield by providing real-time actionable insights, corrective and predictive analytics on soil conditions. To serve this purpose, wireless probes / "tentacles" are placed into the soil.

## Reusable Sanitary Pad (Stand IG 07)

Pia Findlay | [piafindlay@gmail.com](mailto:piafindlay@gmail.com)

Specifically designed to fit onto a wheelchair, unlike other bags which are created to fit onto a human's back. It supports most of the bag's weight, which prolongs the lifespan of the wheelchair back rest.

## Simplex Micro Charger (Stand IG 08)

Brian Mashigo | [sigudlalungelo@gmail.com](mailto:sigudlalungelo@gmail.com)

A wireless charging solution for low-medium voltage electronic devices and appliances. We have fully developed and prototyped an energy efficient radio frequency Energy harvesting integrated circuit (IC).

## Voice Amplifier for Respirators (Stand IG 09)

Reggie Naicken | [kmnaicken@gmail.com](mailto:kmnaicken@gmail.com)

The mass work force will remove their respirator mask to communicate on 2-way radio. It will allow the employee to keep the mask on and communicate safely protecting him/her from the toxic environment at work.

## Robot Learn (Stand IG 10)

Ntombi Banda | [ntombikayise@gmail.com](mailto:ntombikayise@gmail.com)

Aimed at preparing the young generation for the 4th IR. The product has two elements, the first being a robotic kit designed to teach school-going learners programming and engineering skills.

## SPINETECTOR SUIT (Stand IG 11)

Sello Malinga | [sellomalinga21@gmail.com](mailto:sellomalinga21@gmail.com)

A protective costume which lessens the impact of injury sustained by underground mine workers when they are hit by rocks either due to disturbances caused by earthquakes or vibrations on the Earth's crust.

## SHURI (Stand IG 12)

Tshidiso Radinne | [tshidiso@raphta.com](mailto:tshidiso@raphta.com)

Water leakage detection and monitoring using satellite imagery and deep learning technology.

## Green Coal (Stand IG 13)

Pitso Manyike | [pitsomnk@gmail.com](mailto:pitsomnk@gmail.com)

We produce charcoal and other derivative products from Alien Invasive Plants and Biomass waste.

## Mechit Robotics (Stand IG 14)

Lusanda Sineke | [lusanda@smartptech.co.za](mailto:lusanda@smartptech.co.za)

Educational robotic kits for the youth that use open sources thus giving the youth a chance to create and commercialise their own solutions as we will be using various open source programmes.