AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Makanaka Chifamba & Tatenda Makwende

ZRP High school

Zimbabwe

Research and Innovation

Makanaka(14) and Tatenda(14) came up with an effective, efficient, economic and sustainable water purification machine using nano technology.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Makanaka Faith Gute

St George's College

Zimbabwe

Research and Innovation

Makanaka(17) aims to educate people about the consequences , and methods of combat of electronic waste.

AFRICA Science Buskers Festival

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Makanaka Moyesher Pepukayi

Beira

Mozambique

Research and Innovation

Makanaka(11) developed a model to help solve the problem of drought or low rainfall using a pump which gets water from an underground store in a trunk and use it for irrigation.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Makanakashe Mukarati, Kudzai Nyamudahondo &

Arundel School

Zimbabwe

Research and Innovation

Makanakashe(18), Kudzai(17) and Vimbai(17) designed a climate-neutral garbage collection system to eliminate the emission of methane (CH4) and carbon dioxide (CO2), in landfill gas into the atmosphere using the excess non-toxic macroalgal species spirogyra from algal bloom in freshwater bodies that would otherwise reduce the ability of fish and other aquatic life to find food and can cause entire populations to leave an area or even die.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Makomborero Chari

Irene Christian College

Zimbabwe

Research and Innovation

Makomborero(15) worked on a defibrillator which uses harnessed electric charge from eels allows the defibrillator to have a full voltage in its battery always. It has a rechargeable battery allowing recharging when voltage is low improving reliability, and uses renewable energy to power its battery compared to the acid battery.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Martin Zumani & Chisala Musema

Ndola Trust School

Zimbabwe

Research and Innovation

Alcohol detector

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Marvelous Dzimba

Summerhill Prep School

South Africa

Science Communication

Marvelous(12) used a bucket and an old sieve to make this litter catcher for beach goers. This is a fun and cleaning tool. As people play or work by water bodies they can scoop out litter using this modified bucket.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Matipa Mashango

Dominican Convent High School

Zimbabwe

Research and Innovation

Matipa(13) looked at creating electricity from the sound of honking vehicles and of passing cars to create electricity using an oscillator and piezoelectric material.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Melissa Mutepfa

Forward In Faith Christian College

Zimbabwe

Research and Innovation

Melissa(18) looked at the antifungal properties of aqueous extracts of the Muchenja plant as a source of phytochemicals that have antifungal activity.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Mellisa Midzi

ZRP High school

Zimbabwe

Research and Innovation

Mellisa(14) makes a robot that can assist kitchen staff in preparing meals at boarding schools.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Melrose Musonza

ZRP High School

Zimbabwe

Research and Innovation

Melrose(14) developed a model of a magnetic train that works under chemicals.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Memory Bvungo

Dominican Convent High School

Zimbabwe

Research and Innovation

Memory(18) studied the complex structure of the reeds, segmenting the different parts of the reeds in a bid to identify and determine which parts contained the highest concentration of sucrose concentration. A sampling technique was designed for the collection of the reed to maintain a fair test.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Mercy Thomo

Morgan High School

Zimbabwe

Research and Innovation

Mercy(18) presents a non-intrusive intelligent detecting device which measures any movement created by the muscle in our neck, such as drinking, eating or talking.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Methembe Moyo

St George's College

Zimbabwe

Research and Innovation

Methembe(13) presents a project called the DuDiAl, a highly efficient bio digester that uses the dropping of chickens in chicken coops to create biogas and fertiliser to help those in lesser fortunate areas so that they don't have to burn wood and can use the fertiliser to grow plants.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Miandi Pretorius

Summerhill Prep School

South Africa

Science Communication

Miandi(11) developed a water heating system which can use simple pipes.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Michael Paradzai

Westridge High School

Zimbabwe

Science Communication

Michael(14) developed a COVID-19 Awareness Animated Ad that conscientises the school community and the general public about the simple measures to prevent the spread of this deadly 21st-century pandemic.

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Michell Mamombe & Rosemary Moyo

USAP Community School

Zimbabwe

Research and Innovation

Michell(21) and Rosemary(18) use immobilised enzymes from certain bacteria to help reduce the amount of non biodegradable plastic that exists at recycling sites. Moreover, they intend to use biotechnology in production of biodegradable plastics through the use of genetics and embedding of the modified enzymes.

AFRICA
SCIENCE BUSKERS FESTIVAL

BROADCOM
CODING WITH
COMMITMENT

BROADCOM
FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Michelle Chitofu

Queen Elizabeth High School

Zimbabwe

Research and Innovation

Michelle(15) designed own miniature electric battery with very cheap materials. The materials used were copper wire, two potatoes, a small cardboard box, two nails, two coins, a small light bulb, a turbine made with the heads of plastic spoons, a thin smooth wooden stick, play dough and two magnets.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Michelle Magorokosho

Christ Ministries High School

Zimbabwe

Science Communication

Michelle(17) aimed to develop and utilise a novel biomarker identification method to reveal biomarker panels exceeding the performance of current markers in lung adenocarcinoma, glioblastoma, and clear cell renal carcinoma.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Michelle Matches

Dominican Convent Primary

Zimbabwe

Research and Innovation

Michelle(11) aimed to solve the problem of crooked and bumpy roads in Zimbabwe by coming up with an asphalt based solution to cover up potholes.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Moses Mufudzi Tekere

Forward in Faith Christian College

Zimbabwe

Research and Innovation

Moses(14) made a cheap and easily affordable hologram.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Mudiwa Bhatasara, Nokuthaba Dhliwayo, Anatswa

Arundel School

Zimbabwe

Research and Innovation

The team made a sugar free chocolate. The team compared the glucose levels and proved that the artificial sugar free chocolate is much healthier.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Mukudzei Seremani

USAP Community School

Zimbabwe

Research and Innovation

Mukudzei(18) investigated the causes of cervical cancer and the viable solutions that are accessible to the general population. A subsidiary investigation was also carried out on the effectiveness of the medication that is currently available and in use in Zimbabwe.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Muniru Mrisho

Dar es Salaam Institute of

Tanzania

Research and Innovation

Muniru(19) developed the project, "Typing Master" and an interactive application that will help students at school pursuing Computer studies to increase their typing speed.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Munyaradzi Allen Chikandiwa

St John's Emerald Hill

Zimbabwe

Science Communication

Munyaradzi(17) presents and demonstrates on carbon dioxide emissions.

AFRICA Science Buskers Festival

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Nadia Tauzen & Natalie Tauzen

Dominican Convent High School

Zimbabwe

Research and Innovation

Nadia(13) and Natalie(15) use waste water to make something beneficial to everyone.

AFRICA Science Buskers Festival

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Nenyasha Mabhanga & Moreblessing Gomo

Maranatha Junior School Kadoma

Zimbabwe

Research and Innovation

Nenyasha(11) and Moreblessing(11) addressed challenges caused by air pollution in industries by trapping the smoke.

AFRICA Science Buskers Festival

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Nenyasha Matanhire & Sibonokule Siwela

Maranatha Junior School Kadoma

Zimbabwe

Research and Innovation

Nenyasha(11) and Sibonokuhle(11) addressed clean water shortages in rural areas by purifying water and dispensing it by an improvised home dispenser.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Nicole Sangano

Queen Elizabeth High School

Zimbabwe

Science Communication

Nicole(15) presents converging evidence that when our eyes are adapted to colour we see things that are not really there.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Nika Sadat Sahiholnasab

Kherad

Iran

Research and Innovation

Nika(15) aimed to define hypnosis and its history while examining the relationship between hypnosis and pain relief and the effect of hypnosis on the brain, brain waves, and pain relief.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Nkosiyami Mapara

RG Mugabe Primary School

Zimbabwe

Coding With Commitment Category

Nkosiyami(10) designed a gaming application which encourage proper ways of disposing waste. The gaming interface is designed in a way that it teaches and informs children to proper ways to dispose litter.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Nokutenda Munjeri

ZRP High School

Zimbabwe

Research and Innovation

Nokutenda(16) produced a wound medicine that would help in reducing infections using the Bobbin weed (Leucas martinicensi). Bobbin weed is widely spread in tropical and subtropical Africa to Indian subcontinent, Myanmar and Malaysia.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Nokutenda Saurombe

Queen Elizabeth High School

Zimbabwe

Science Communication

Nokutenda(17) looks at the science of spherification (JUICE BALLS). Did you know that you can turn just about any drink or pureed food into small spheres?

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Nokutenda Tanyanyiwa

ZRP high school

Zimbabwe

Research and Innovation

Nokutenda(15) came up with a solution for large women to have more comfort during menstrual period by developing a sanitary pant which prevents leakages, and bundling of the pad.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Nokutenda Thelma Matongo

Dominican Convent Primary School

Zimbabwe

Science Communication

Nokutenda(11) produced electricity in a cheaper and easier way that does not really affect the ecosystem as it uses resources that can be easily found.Thelma used rubbish instead of oils to produce electricity when burnt.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Nyaradzo Nicole Mutiti

St George's College

Zimbabwe

Science Communication

Nyaradzo(18) explored what lies beyond the edge of the observable universe.

AFRICA Science Buskers Festival

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Nyaradzo Nicole Mutiti, Stanley Madziyire and Omar

St George's College

Zimbabwe

Research and Innovation

Nyaradzo(18), Stanley(18) and Omar(18) tested out a novel method of remediation of heavy metal ions from water that can highly promise relief to locations plagued with heavy metal pollution.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Nyasha Gonzo

Queen Elizabeth School

Zimbabwe

Research and Innovation

Nyasha(18) investigated the removal of microplastics using ferrofluids.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Pengwe Eliot

Yengwe Combined School

Zambia

Science Communication

Organic fertiliser

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Praneet Harshadkumar Joshi

Irvington High School

United States of America

Research and Innovation

Praneet(17) developed a smart cane and glove that is outfitted with many, distinct sensors to aid the elderly when facing harmful stimuli. It optimises two Arduino and two ESP-32 microcontrollers, and various sensors such as a Pulse sensor, Ultrasonic sensor, UV Radiation sensor, and a Carbon Monoxide sensor.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Prominance Kunyadini & Tinashe Tangai

Dewure High School

Zimbabwe

Research and Innovation

Prominence(18) and Tinashe(18) came up with a transport system that uses an electromagnet to power itself and it makes use of magnetic roads to travel around the city going past buildings in a height that doesn't put people in risks of getting hit.

AFRICA Science Buskers Festival

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Rachel Ruvimbo Makonye

First Choice Private School

Zimbabwe

Research and Innovation

ATP is a fundamental unit of living organisms that captures chemical energy in food and releases it to fuel other cellular processes. It is mainly produced in mitochondria and chloroplasts in leaves of plants. Rachel(17) makes use of this mechanism by trapping ATP through the use of bio-inspired artificial cells which contain Bacteriorhodopsin.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Rebecca Sambu

Yengwe Combined School

Zambia

Science Communication

How to stop global warming

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Rufaro Mhuka

ZRP High School

Zimbabwe

Coding With Commitment Category

Rufaro(14) aimed to stop airplane crushes by using magnetic levitation to prevent airplane crushes. Magnetic levitation (maglev) or magnetic suspension is a method by which an object is suspended with no support other than magnetic fields.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Rukariro Chitambo

Dominican Convent Primary School

Zimbabwe

Science Communication

Rukariro presents on climate change.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Rumeysa Çiçek

Buca Science and Art Center

Turkey

Research and Innovation

Rumeysa(16) developed a paper-based biosensor for the detection of model organism E. coli bacteria, which is visible, low cost, easy to use, can be integrated with a smartphone, is based on rapid color change in the exposed environments, drinking and pool water, wastewater, beverage products.

AFRICA Science Buskers Festival

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Rutendo Rushizha, Edith Muyambiri, Muriel Ndikudze

Christ Ministries High School

Zimbabwe

Research and Innovation

Rutendo(18), Edith(18), Muriel(18) and Lee-Ann(18) use magnets as a source of energy in order to move a model train.

AFRICA SCIENCE BUSKERS FESTIVAL

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Ruvarashe Moyo

Queen Elizabeth High School

Zimbabwe

Research and Innovation

Ruvarashe(16) assessed the potential use of bricks for the degradation of biological contaminants in water mainly targeting coliform bacteria which is abundantly expressed in contaminated water. Clay bricks were used to make the photocatalysts because they contain natural semiconductors, are environmentally friendly and economical for people who lack access to clean water.

AFRICA Science Buskers Festival

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Ruvimbo Chitombo & Mupotsa Nicole

ZRP high school

Zimbabwe

Research and Innovation

Airplanes continue to be affected by bad weather resulting in some of them involved in fatal accidents. Ruvimbo(14) and Nicole(14) came up with an airplane prototype that can travel in bad weather for example in a storm.

AFRICA Science Buskers Festival

BROADCOM CODING WITH COMMITMENT

BROADCOM FOUNDATION

2022 AFRICA SCIENCE BUSKERS FESTIVAL FINALIST

Sakhile Mbiba and Zvikomborero Sipeku

Queen Elizabeth High School

Zimbabwe

Research and Innovation

Sakhile(16) and Zvikomborero(16) used green algae to generate electricity.