

BOOK YOUR SEAT NOW:

# Artificial Intelligence in Agriculture Conference

 Indaba Hotel, Fourways

 26-27 September 2024

## CONFERENCE OBJECTIVES

- To investigate how AI is used to analyse satellite imagery and drone data
- To discuss how AI is used to monitor crop health, detect diseases
- To find out how AI is used to optimize irrigation and fertilizer application

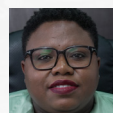
## WHY YOU NEED ATTEND:

- Learn about the latest AI technologies in agriculture
- Gain practical solutions in implementing AI technologies in agric
- Grow your network in the agricultural sector

## SOME OF THE EXPERT SPEAKERS OF THE CONFERENCE:



**Ahmore Burger-Smidt**  
Head: Regulatory, Werksmans Attorneys



**Phumla Mabizela**  
Managing Director, Afrika Wireless Tech



**Dr Tebogo Sethibe**  
Group Executive: Information Systems,  
Agricultural Research Council



**Dr Nicky Tjano**  
Director: Office of Vice Principal Teaching,  
University of South Africa



**Tendai Chitapi**  
CEO, Kuronga



**Kopano Tholo**  
Kopano Tholo, Drone Expert Underwriter:  
Special Risks, iTOO



**Francois Rossouw**  
CEO, The Southern African Agri Initiative

**Andre Strauss**  
CEO of CohesionX

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Indaba Hotel, Fourways,  
Johannesburg





## CONFERENCE BACKGROUND

The intersection of agriculture and AI in Africa.

Perhaps the largest cause for concern in Africa right now is its agricultural sector, where climate change is having a devastating effect.

A study by McKinsey & Company found that more than 60% of sub-Saharan Africa's population comprise smallholder farmers, and about 23% of its GDP comes from agriculture. But increases in temperature, changes in precipitation patterns, and the rise of extreme weather events are disrupting entire industries, reducing food availability and impacting food quality. This is particularly concerning considering that Africa houses the world's fastest growing population.

How, amid such overwhelming circumstances, do we see the continent reach its potential, not only in addressing food security but also in becoming an important player in the global food market? The answer, says UJ Vice-Chancellor Professor Tshilidzi Marwala, lies in the technologies of 4IR.

### THE RISE OF ARTIFICIAL INTELLIGENCE

Artificial intelligence (AI) offers massive opportunities for the agricultural sector. "Farmers can tap into AI to combat diseases and pests, which have been worsened by climate change and pesticide use," Professor Marwala explains. "And drones and other robots equipped with computer vision can collect data points from farms' existing crops."

South African AI software Airlitix is currently being used in drones to automate greenhouse management processes. "This could be taken further," he says. "Airlitix could also be used to collect temperature, humidity and carbon dioxide data, as well as analyse soil and crop health."

Similar technology has been adopted elsewhere. The ThirdEye project in Kenya uses near-infrared cameras mounted on drones to survey and diagnose pests and diseases, water stress and nutrient deficiencies. This requires a combination of historical data and the use of AI.

"As we look forward – to a sustainable earth and a green economy – 4IR doesn't only provide tools for efficiency, but also presents a unique opportunity to interrogate how we can transform the industry amid a troubled natural environment," says Professor Marwala.

One of the first applications of AI in Agriculture in South Africa can be witnessed with the addition of the the world's first artificial intelligence platform for family

### Source:

<https://universityofjohannesburg.us/4ir/beyond-imagining-issue-3/the-intersection-of-agriculture-and-ai-in-africa/>

## CONFERENCE PROGRAMME

### DAY 1

26 THURSDAY

**08:00** Registrations and morning refreshments

**08:55** Welcome remarks

**09:00** AI Agricultural Extension as a service

**Francois Rossouw, CEO, The Southern African Agri Initiative, Andre Strauss, CEO of CohesionX**

**10:00** Midmorning refreshments and networking

**11:00** Legal implications of using AI in agriculture

- Defining data ownership in AI farming systems
- Farmers should assess the terms and conditions of data sharing agreements
- Ensuring data security
- Aggregating data can safeguard the privacy of individual farmers

**Ahmore Burger-Smidt, Head: Regulatory, Werksmans Attorneys**

**12:00** Sustainable Agriculture and farm efficiency: Leveraging AI for the promotion of environmentally friendly practices

- AI algorithms for optimizing nutrient management and reducing greenhouse gas emissions
- Predictive analytics for water usage efficiency and precision irrigation
- AI-powered decision support for adopting sustainable farming techniques and circular economy principles

**Dr Nicky Tjano, Director: Office of Vice Principal Teaching, University of South Africa**

**13:00** Lunch & networking

**14:00** Using AI to validate fresh produce quality

- Coordinated planting
- AI powered Onfarm grading
- Standardised supply

**Tendai Chitapi, CEO, Kuronga**

**15:00** Wrap up with participants

## CONFERENCE PROGRAMME

### DAY 2

27 FRIDAY

**08:30** Morning refreshments and networking

**09:00** Leveraging Technology for Sustainable Agricultural Development: The Role of Innovative Apps have for agriculture”

- Discuss the impact of modern technology on agriculture
- YoAgro app, cattle watch, hello tractor transforming farming practices,
- Highlighting the importance of collaboration between developers, government departments, and farmer

**Phumla Mabizela, Managing Director, Afrika Wireless Tech**

**10:00** Midmorning refreshments & networking

**11:00** Drones in Agriculture

- Evolution of agricultural Drones
- UAV Underwriting
- Claims experience and trends

**Kopano Tholo, Kopano Tholo, Drone Expert Underwriter: Special Risks, iTOO**

**12:00** TBC

**13:00** Lunch & networking

**14:00** Discussing blockchain technology – food supply

- Highlighting constraints in agriculture
  - o Inefficiencies in state administration
  - o Infrastructure challenges
  - o Security matters

**Dr Tebogo Sethibe, Group Executive: Information Systems, Agricultural Research Council**

**15:00** Wrap up with participants



## WHO YOU WILL MEET:

- Government departments involved in agriculture
- Farmers involved livestock and Crops
- Agribusiness organisations
- Research organisations involved in agriculture
- Fertilizer & Seed Companies

## SOME OF OUR PREVIOUS CONFERENCES RELATED TO THE AGRICULTURAL SECTOR

- Drones, Robotics & AI in Agriculture conference
- Pests and Agrichemicals forum
- Food security conference
- Food waste conference



# Standard registration per person: R7 890.00 VAT Excl.

Sponsorship and exhibition opportunities are available and contact Levi: [levim@mogorosicomms](mailto:levim@mogorosicomms)

Registration fee includes Conference attendance for two days, refreshments, lunch and does not cover transport and accommodation.



Participant: .....

Position: ..... Email: .....

Organisation: ..... Tel: .....

Accounts: .....

Person dealing with accounts: .....

Email: ..... Address: .....

Tel: ..... VAT: .....

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