

DRONE & UNMANNED AVIATION

CONFERENCE 2025

27 - 28 NOVEMBER 2025

Birchwood Hotel - OR Tambo Johannesburg, RSA



EARN



SAGC

SOUTH AFRICAN
GEOMATICS COUNCIL

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CONFERENCE OVERVIEW

The Fourth Industrial Revolution (4IR) is radically transforming industries through the integration of cutting-edge technologies such as AI, robotics, and the Internet of Things (IoT). This revolution is marked by unprecedented levels of connectivity and automation, significantly impacting manufacturing, agricultural, banking and pharmaceutical industries among others. A notable advancement during this era is the proliferation of Drones and Unmanned Systems, such as Remotely Piloted Aircraft Systems (RPAS), Unmanned Aerial Vehicles (UAV), Unmanned Aircraft Systems (UAS) and Unmanned Underwater Vehicles (UUV). The technological wave includes the advent of specialised drones – space drones, micro and mini drones, tailored for a multitude of applications across diverse sectors, fundamentally enhancing operational efficiency and productivity. The event will also offer a range of networking opportunities, including one on-one meetings, business-to-business (B2B), business-to-government (B2G), and business-to-consumer (B2C sessions), along with speed marketing, brand activations, exhibition and visual showcases from partners.

OBJECTIVES

The 2025 edition of the Drone and Unmanned Aviation Conference serves as the primary platform for discussing and disseminating invaluable insights on Drone technology and unmanned Aviation assets. This year's agenda delves deeper into the latest focusing on critical areas such as manufacturing

efficiency, safety protocols and the multifaceted applications of drone technology in various sectors. A significant emphasis will be placed on the integration of artificial intelligence (AI) with drone technology, exploring how AI can enhance autonomy, improve decision-making processes and facilitate advanced data analysis. The conference will cover thematic areas, including:

1. Advancements in Drone Technology and AI Integration
2. Navigating the Regulatory Landscape for Drones in Africa
3. Building a Drone Program for Your Organisation
4. Safety Protocols in Drone Technology Adoption
5. Advancing Critical Infrastructure Inspections with Drone Technology
6. AI in Action
7. Latest Innovations in Drones for Key Industries
8. Ethical Considerations and Privacy Concerns in Drone Operations
9. Drone Education and Workforce Development
10. Emergency Response and Disaster Management with Drones
11. Environmental Impact of Drone Technology

The conference aspires to bridge the existing knowledge gaps and foster interdisciplinary collaborations, thereby accelerating the development and integration of innovative drone technologies into diverse applications. This initiative ultimately aims to contribute to the creation of safer, more efficient and intelligent Unmanned systems.



Testimonials

"The conference was a game changer. Packed with insights and great networking opportunities." - **Department of Agriculture Land Reform and Rural Development**

"A must-attend event for anyone in unmanned aviation. It covered everything from tech innovations to regulations." - **Kouga Local Municipality**

"The networking opportunities alone made this conference worth attending. I'm already looking forward to next." - **Free State Department of Education**

"Great exposure for exhibition and quality leads! We've already secured new partnerships." - **ARMSCOR**

"One of the best events I've attended this year. The discussions were forward-thinking and the speakers top-notch." - **Zimbabwe Electricity Transmission and Distribution Company**

"Incredible event! The conference offered unparalleled insights into the future of unmanned aviation." - **Tanzania Ports Authority**

"A fantastic event! I walked away with new knowledge, fresh ideas, and valuable industry contacts." - **University of Johannesburg**

WHY BECOME A STRATEGIC PARTNER?

Becoming a strategic partner in the drone and unmanned aviation systems sector can offer numerous benefits. Here are a few compelling reasons to consider:

- **Access to Industry Insights:** As a strategic partner, you will gain valuable insights into the latest trends, challenges, and opportunities in the drone industry. This knowledge can help you stay ahead of the curve and make informed business decisions.
- **Networking Opportunities:** The conference attracts a diverse group of professionals, including manufacturers, researchers, policymakers, and investors. Partnering strategically allows you to connect with key stakeholders, potentially leading to collaborations and new business opportunities.
- **Visibility and Credibility:** Being recognized as a strategic partner can enhance your organization's visibility within the industry. It positions you as a credible player in the sector, which can build trust among clients, investors, and collaborators.
- **Contribution to Innovation:** Engaging with diverse stakeholders enables you to participate in discussions that shape the future of the industry. Your input can influence the development of new technologies and applications, positioning your organization as an innovative leader.
- **Access to Funding and Resources:** Strategic partnerships often open doors to funding opportunities, whether through venture capitalists, grants, or collaborative projects. This can be particularly beneficial for start-ups and small enterprises looking to grow.
- **Knowledge Exchange:** Collaborating with academia, industry experts, and other organizations facilitates a rich exchange of ideas and best practices. This can enhance your own team's capabilities and drive innovation within your organization.
- **Support for Sustainability:** By participating in discussions around environmental impacts and safety, you can contribute to the responsible development of drone technologies that prioritize sustainability and societal benefits.
- **Influence Policy:** As a strategic partner, you may have opportunities to engage with policymakers and contribute to shaping regulations and standards that impact the industry.



Overall, becoming a strategic partner not only enhances your organization's standing but also allows you to play an active role in advancing the drone and unmanned aviation systems sector.

EXHIBITION OPPORTUNITIES

The upcoming 2025 DUAC Conference will feature a comprehensive desktop exhibition that will showcase different types of drone technologies and unnamed unmanned aviation systems. The Exhibition fee is **R12 999 (excluding VAT)** and caters for two (2) people. Organisers will provide two 2x1 metre trestle tables and two chairs for the people manning the exhibition stand.

The exhibition aim to achieve the following:



**Brand Visibility
& Awareness**



**Lead Generation,
Generation & Trust**



**Networking
Opportunities,
Staff Engagement
& Morale**



**Marketing Research,
Feedback &
Competitive
Advantage**



**Product
Demonstration,
Launches & Sales
Opportunities**



**Media & PR
Exposure**

DAY 1 SCHEDULE
THURSDAY, 27 NOVEMBER 2025

08:00 REGISTRATION, NETWORKING AND BUSINESS CARD EXCHANGE
08:20 WELCOME REMARKS AND INTRODUCTIONS

Director of Ceremony: Justin Hawlet - Director, Drone Solutions International, South Africa

08:25 SCENE-SETTER

Advancements in Drone Technology & AI Integration

- Overview of AI-powered drones and their applications across industries.
- Emerging Trends in Drone Technologies.
- Drone-in-a-Box Systems: Streamlining operations with minimal human intervention.
- Impact of AI on Drone Efficiency and Safety.

Invited Speaker: Duran De Villiers – Founder, Steadidrone, South Africa

09:00 SCENE-SETTER

Navigating the Regulatory Landscape for Drones in Africa

Speaker: Dzionere John Luthuli Mashava - Co-founder Executive Director, Vula Aviation Technologies (PTY) Ltd, South Africa

09:10 PANEL OF DISCUSSION

Navigating the Regulatory Landscape for Drones in Africa

- Overview of existing regulatory frameworks for drones in Africa; where we are today and where we could be tomorrow.
- Regulatory Challenges and Ethical Considerations in the Drone Industry.
- Identification of gaps and challenges in current regulations.
- Vision for the future of drone legislation in Africa: potential advancements and challenges.

Speaker: Sandile Chipunza - Manager External Affairs & Sustainability, International Air Transport Association

Speaker: Shaun Ledlie - Lead Director for Training Standards, Academic & Research, Drone Council of South Africa

Speaker: Sonet Kock - Aviation Compliance Advisor, AviComply, South Africa

Speaker: Dzionere John Luthuli Mashava - Co-founder Executive Director, Vula Aviation Technologies (PTY) Ltd, South Africa

10:00 NETWORKING, REFRESHMENT BREAK

10:30 PANEL OF DISCUSSION

Building a Drone Program for Your Organization

- Overview of various drone applications: commercial, public safety, and beyond.
- Understanding the benefits of integrating drones into your organization.
- Key considerations for choosing the appropriate drones based on operational needs.
- Introduction to Drone Program Essentials; essential components including equipment, training, regulatory compliance, and safety protocols.
- Considerations for developing policies and procedures for drone usage.

Speaker: Sonet Kock - Aviation Compliance Advisor, AviComply, South Africa

Speaker: Aaron Munetsi - CEO, Airlines Association of Southern Africa

Invited Speaker: Duran De Villiers - Founder, Steadidrone, South Africa

11:30 TED TALK

Safety in Drone Technology Adoption: Defining Value in Drone Safety Management Systems

- Understanding the significance of implementing a safety management system in unmanned aircraft systems (UAS) operations.
- Differentiating between large-scale and small-scale UAS operations and their safety needs.
- Exploring how SMS can support safe and efficient drone operations.
- Defining the roles and responsibilities of flight crews, organizations, and UAVs within the SMS framework.
- Providing a framework for the essential components required for a comprehensive SMS in unmanned aviation.

Speaker: Shaun Ledlie - Lead Director for Training Standards, Academic & Research, Drone Council of South Africa

12:30 FIRESIDE CHAT

Drones – A force multiplier with reference to Intelligence, Surveillance & Reconnaissance (ISR)

- How drones can be integrated into existing ISR platforms and networks.
- Considerations of using drones for surveillance, especially regarding privacy and potential misuse.
- Unpacking how drones can enhance ISR capabilities compared to traditional methods.
- Exploring the limitations of using drones for ISR.
- Highlighting how drones can be made more resilient to cyber attacks and electronic warfare.

Speaker: Donald Djobo – Vice President of Africa, AeroStar Dynamics, Cote D'Ivoire

Speaker: Brian Van Niekerk - Product Specialist, The Good Drone Company, South Africa

13:00 PARTNER'S VISUAL INSERTS, NETWORKING LUNCH & EXPO TOUR

14:00 PANEL OF DISCUSSION

Advancing Critical Infrastructure Inspections with Drone Technology

- The role of drones in modernizing infrastructure inspections.
- Contrasting drone-enabled data collection techniques with conventional inspection methods.
- The role of AI in processing and analyzing inspection data to detect anomalies and defects more accurately.
- How digital twins facilitate precise defect detection and quantification, enabling proactive maintenance.
- Best practices for developing effective drone inspection programs tailored to specific infrastructure needs.
- The transformative potential of drones and AI in shaping the future of critical infrastructure inspections.

Speaker: Dzionere John Luthuli Mashava - Co-founder Executive Director, Vula Aviation Technologies (PTY) Ltd, South Africa

Invited Speaker: Darryl Epstein - Managing Director, Delta Scan, South Africa

Invited Speaker: Petros Ernest Jacobs - Operations Manager, Mine Survey Technologies, South Africa

15:00 EXPERT INSIGHTFUL PRESENTATION

AI in Action: Unlocking the Potential of Drones for Forestry and Agriculture

- Overview of drone applications in forest management and nature conservation efforts.
- A look at drone application for monitoring and managing livestock.
- How advancements in drone technology are revolutionizing both forestry and agriculture.
- Exploring how cutting-edge drone technology can be leveraged to optimise crop yield, reduce resource waste and enhance overall farming efficiency.
- Latest Applications in drone-based crop monitoring, autonomous ground vehicles for targeted spraying, utilizing soil sensor technology and the software that make this all come together.
- Enhancing Productivity and Sustainability: Discussing the potential of drone technology to revolutionize agricultural operations and promote sustainable practices.

Speaker: Nico van Rooyen - Founder & CEO, DC Geomatics, South Africa

15:50 WRAP UP & REFLECTIONS

Justin Hawlet - Director, Drone Solutions International, South Africa

DAY 2 SCHEDULE
FRIDAY, 28 NOVEMBER 2025

08:20 WELCOME & INTRODUCTIONS

Speaker: Aaron Munetsi - CEO, Airlines Association of Southern Africa

08:30 FIRESIDE CHAT

Drone pilots in the spotlight: Essentials to consider for every drone operator today

- Overview of how drones are used for topographic surveys, volumetric calculations, and land assessments.
- Discuss advantages such as real-time data capture, improved site surveying, and enhanced project management
- Highlighting the benefits of rapid data collection and 3D modelling for planning and design phases.
- Explore the integration of drones into mining and construction workflows, focusing.

Speaker: Zima Mahlangu - Director, Ntshikelelo Drones, South Africa

Speaker: Justin Hawlet - Director, Drone Solutions International, South Africa

Interviewer: Taropafadzwa Mutizwa - Founder, 5G Aviation Group, South Africa

09:30 EXPERT PRESENTATION

Latest in Drones for Mining and Construction

- Overview of how drones are used for topographic surveys, volumetric calculations, and land assessments.
- Discuss advantages such as real-time data capture, improved site surveying, and enhanced project management.
- Highlighting the benefits of rapid data collection and 3D modelling for planning and design phases.
- Explore the integration of drones into mining and construction workflows, focusing on how they enhance efficiency and productivity.
- Future Trends in Drone Technology for Mining and Construction.

Speaker: Hanno Lombard - Business Development Manager, Rocket DNA, South Africa

10:30 NETWORKING, REFRESHMENT BREAK

11:00 DIGITALISATION TED TALK

From Air to Ground: Comprehensive LiDAR Mapping Solutions

- Unpacking LiDAR (Light Detection and Ranging) and how it works for terrain mapping.
- Explore the benefits of using aerial LiDAR for terrain mapping.
- Highlight the applications that can benefit from aerial LiDAR terrain mapping.
- The application of LiDAR map through dense vegetation or forests, the ability to distinguish ground features from tree canopies, enabling accurate terrain models in heavily forested areas.
- Highlighting the difference between LiDAR and photogrammetry for terrain mapping.

Speaker: Monique Heydenrych – Agricultural Specialist & Head of Sales, Drone Solutions International, South Africa

Speaker: Donald Djobo - Vice President of Africa, AeroStar Dynamics, Cote D'Ivoire

11:50 EXPERT AND INTERACTIVE CONVERSATION

Networks, Communications and Drones Applications in Security & Surveillance Drones and security operations

- Exploring the latest innovations in drone technology relevant to security, such as AI-driven analytics, automated flight paths, and enhanced sensor capabilities.
- The essential communication networks that support drone operations in security settings, including LTE, 5G, and satellite communications.
- How drones can be integrated with traditional security systems like CCTV and alarm systems to create a comprehensive surveillance network.
- Explore the latest innovations in drone technology relevant to security, such as AI driven analytics, automated flight paths, and enhanced sensor capabilities.
- Predictions on how drone technology will continue to evolve in the security sector, including potential applications in law enforcement and public safety.

Speaker: Nico van Rooyen - Founder & CEO, DC Geomatics, South Africa

Speaker: Heico Kunn - COO, UDS-UAV & Drone Solutions, South Africa

12:40 WRAP-UP AND REFLECTIONS

Aaron Munetsi - CEO, Airlines Association of Southern Africa

12:50 CLOSING REMARKS & VOTE OF THANKS

Justin Hawlet - Director, Drone Solutions International, South Africa

13:00 PARTNER'S VISUAL INSERTS, NETWORKING LUNCH & EXPO TOUR

14:00 DELEGATES DEPARTURE