

Symposium on

CYBER INTELLIGENCE & WARFARE AAD EXPO

20 Sep 2018



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1918 · 2018

Keynote - Dr Moses Khanyile

The role and importance of cyber capabilities within the South African Defence Industry.

Keynote - Prof Elmarie Biermann

The role of Cyber Threat Intelligence.

Panel 1 - The Cyber Threat Landscape and Cyber Threat Intelligence

(Elmarie Biermann • Christi Mayherry • Christo Boshoff • Zane Cleophas)

- Outlook of the private and defence industry threat landscape
- Shortage of cyber security professionals and underspending on information security
- Government/Academic/Private Sector Partnerships in securing SA's Cyber Space and Cyber cooperation within Africa.
- Gathering and analysis for both offensive and defensive purposes.
- The possibilities and challenges of Big Data

Keynote: Eric Bowens, Fijustsu, UK

Providing essential security capabilities to protect valuable information assets

Panel 2 - The Nature of the New Battle Space.

(Noëlle Cowling • Johan Hefer • Abel Esterhuyse • Justin Westcott)

- Cyber weapons development – constraints/challenges/opportunities/ blowback
- Maximising cyber warfare capabilities for increased military power projection
- Hybrid warfare and emerging threats within the context
- The Internet of Things – Preparing for the wired battle field.

Date

The symposium will take place on **20 September 2018** at the Africa Aerospace and Defence Expo (AAD) at AFB Waterkloof, City of Tshwane.

Registration

Registration for the Symposium will open shortly via the AAD Expo Website <http://www.aadexpo.co.za/trade-visitors>

Cost

R1500-00 per person for a full day including lunch and refreshments

Venue

The venue is Hangar 5 at the ADD Expo.

Delegates

The symposium is aimed at **enhancing cyber awareness and capabilities** for managers, personnel and contractors from the defence and related service industries (including vested SMEs and supply chain providers), IT service providers at State and SOE level, military personnel and government officials.

SPEAKERS AND PANELISTS



Moses Khanyile

Non Exec Director ARMSCOR

Dr Khanyile is currently serving as Non-Executive Director at Armscor, the Managing Director of Masharps College and an external supervisor and examiner for Masters and Doctoral students at the Graduate School of Business Leadership (SBL), University of South Africa (UNISA).

He was a member of the panel responsible for writing the Defence Review that was adopted by Parliament in 2015. He has successfully led a high-level team of experts in the conceptualisation and final implementation of the Defence Industry Fund. He is also part of the team that is researching and writing the Defence Industry Strategy and Implementation Master Plan on behalf of the National Defence Industrial Council (NDIC). He was previously an executive at Absa Group (later Barclays Africa Group) serving as General Manager: Strategy and Business Sustainment. He had also worked at the Department of Defence as Director: Planning and Programming, within Policy and Planning Division. He served as a Senior Researcher at the Centre for Military Studies (CEMIS), which is part of the Faculty of Military Studies of the University of Stellenbosch.

He holds a PhD in International Politics (University of Pretoria), Master of Business Leadership (MBL) from UNISA and Master of Arts from Stellenbosch University. He has attended senior management development programmes at various international academic institutions such as Christien-Albrechts University, Germany; Ashridge College, England and Post-Graduate Naval School, USA. He has published extensively on strategy, defence and security policy matters. He has interest and vast experience in strategy development, value extraction, executive project management, mobile payment solutions and biometric technology.

Eric Bownes is the Head of Global Defence Strategy and Solutions at Fujitsu and is also the Client engagement lead for Europe, the Middle East, India and Africa. Eric has over twenty three years of experience in the ICT industry as a certified IT architect and managing consultant and as a subject matter expert in military logistics. Based in Basingstoke England, Eric joined Fujitsu in his in his current role in 2008 bringing with him expertise from a successful career in ICT logistics and consulting industries. Since Fujitsu's acquisition of GlobeRanger Inc in May 2014, Eric also operates on a part time basis out of Richardson Texas, where he serves on the GlobeRanger Board as Director Transition and Globalization. He brings to these role roles specialist skills and experience in IoT strategy, design and architecture. Eric is a former senior military officer with 21 years of service in the South African Air Force. He is married to Mandi and they have three sons.



Eric Bownes

Fujitsu



Elmarie Biermann

Cyber Security Institute

Prof. Elmarie Bierman is the Director of the Cyber Security Institute which provides services and training within the Cyber Security domain. Obtaining a PhD in Computer Security at the University of South Africa enabled her to gain specialist security experience in both the private and academic sectors. She currently holds an Adjunct Professorship at the French South African Institute of Technology in Cape Town to assist in growing Security as a research field in the Nano-satellite environment, as well as an Extraordinary Associate Professorship in the Department of Strategic Studies, Faculty of Military Science, Stellenbosch University.

Noëlle Cowling

Stellenbosch University

Noëlle Cowling has served in the South African Department of Defence since 1992, starting out as a researcher at the Military Archives before moving to SANDF Corporate Communications and later the Military Academy. She has worked within Higher Education at Stellenbosch University for over 20 years. She is the co-ordinator of the Cyber Project at the Security Institute for Governance and Leadership in Africa (SIGLA). She has served as assistant editor of the journal *Scientia Militaria* and as a reviewer for other journals. Noëlle has published in various national and international scientific publications and been a participant in international military education and technology projects. Her primary research interests are cyber warfare and cyber strategy. She teaches fifth dimension warfare and low intensity conflict in the Department of Strategic Studies, Stellenbosch University. She is an Associate Research Fellow at the Centre for Conflict, Rule of Law and Society, Bournemouth University, England.





Christi Maherry

LAWTRUST

Christi Maherry is the co-founder and CEO of LAWtrust Information Security Solutions. LAWtrust's mission is to provide trusted identity, secure transactions, encryption and digital signatures while creating business efficiencies and excellent user experiences.

In the past decade Christi has grown LAWtrust exponentially from a two-person operation in a borrowed shareholder office to a business that touches the lives of all of South

African citizens and continues to grow globally. Outside of SA, LAWtrust's footprint can be found in Australia, Zambia, Tanzania, Kenya, Nigeria, the EU, Iceland. Before committing her energy to the private sector Christi worked in state security and intelligence for nearly a decade. The experience gained there has been very applicable in the digital era of cyber threats, crime and warfare.

Christi is passionate about female empowerment and youth education and is a board member of Junior Achievement Africa. Christi has been the winner of the EY World Entrepreneur Awards for Southern Africa in the emerging category.



Christo Boshoff

Cybreye

Christo Boshoff is a cyber warfare specialist who specializes in cyber threat identification, exploitation and mitigation. He is the co-founder of CYBREYE® USA Inc. who provides cyber security services to the intelligence and defense agencies of 34 countries. CYBREYE® USA Inc. is the developer of the world's most advanced cyber risk assessment engine with 155,000 threat vectors. Christo co-founded Guardian Inc. (www.guardiancoin.io) in 2018. Guardian Inc. is a secure and anonymized third generation Blockchain technology.



Abel Esterhuyse

Stellenbosch University

Abel Esterhuyse is an associate professor of strategy in the Faculty of Military Science of Stellenbosch University at the South African Military Academy. He is also a research associate of the Centre for Conflict, Rule of Law and Society (CRoLS) at the Bournemouth University in the UK. Holding a PhD from the University of Stellenbosch, he is also a graduate of: The Senior Leadership Programme of the African Center for Strategic Studies in Washington DC. The Summer Programme in Military History at the US Military Academy, West Point, The Programme on the Analysis of Military Operations and Strategy (SWAMOS) of Columbia University's Saltzman Institute of War and Peace Studies in New York.

As an academic he has participated in more than 40 subject-related conferences in more than 15 countries; published 32 peer-reviewed accredited academic articles; published 9 book chapters and edited 3 book publications. Prof Esterhuyse is a rated scientist of the South African National Research Foundation. His most recent publication, titled The practice of strategy: South African defence in stasis, was published in the British journal Defence & Security Analysis.

Between 2010 and 2015, he served as the editor of Scientia Militaria: The South African Journal of Military Studies (<http://scientiamilitaria.journals.ac.za/pub/index>)

Colonel Johan Hefer joined the South African Defence Force in 1979 at the Army Gymnasium in Heidelberg. He held various appointments as commander during his service. After successfully completing the Senior Command and Staff course in 1998 he was appointed as the Senior Staff Officer in the Department of Defence, responsible for Information System Security. He has gained experience in the ICT environment over the past 19 years and was involved in the successful implementation of various ICT projects in this time.

In his current position as Senior Staff Officer he has the responsibility to compile, implement and monitor the Information System Security policy for the South African National Defence Force.

Johan
Hefer

SANDF



Zane Cleophas



Zane Cleophas, Managing Executive, Security and Defence Technology Consulting.

Zane is a consultant in domestic and cross border defence and security technologies, border security, OEM technical evaluations and project management. His previous experience includes consulting on information and communications security, country risk assessments, aviation security and ICT systems security. He also serve as member of both military intelligence and civilian intelligence structures. He is former Acting Deputy Director General ICT, and Chief Director of National Broder Priorities for the Department of Home Affairs also Chairman of the Border Control and Operational Coordinating Committee (BCOCC). He also held various positions in international forums including the African Union (AU) Border Program and International Telecommunications Union (ITU) HLEG on Cybercrime, as well as numerous positions in safety and security structures, amongst others, the JCPS cluster, NatJOINTS and the Presidential National Commission (PNC) on Cybercrime. He currently serve on various defence forums including the National Defence Industry Council (NDIC) Zane holds a Certificate in Military Studies for Pilots from the University of Stellenbosch, and a postgraduate International Migration Policy and Management Programme from Wits University as well as various qualifications in Security Technology and holds a advance Post Graduate qualification and fraud and forensics. He is currently busy with a Masters program in Technology with the focus on analytics. He has completed numerous military programmes and courses and spoken at various local and international conferences as a subject-matter expert.

Justin Westcott

Cyber Security Institute

Justin Westcott holds an Honours in Technology (Cum Laude). He spent 10 years in the South African National Defence Force as a military pilot before transitioning to the private sector. He has experience in security consulting, training, and research, whilst his passion for the Cyber Security domain lies in Penetration Testing, Forensics and drone technologies. He has published a number of research papers, the most recent one presented at the 12th International Conference on Cyber Warfare and Security in Washington D.C., USA. Involvement in private organizations includes assisting them with Cyber Security postures, internal investigations, creating security aware cultures and training of security specialists.



AFRICA AEROSPACE AND DEFENCE EXPO

Held biennially in the City of Tshwane – South Africa's administrative capital, the AAD Expo is one of South Africa's largest contributors to the country's GDP in show years, and is regarded as a national asset. AAD brings together the largest gathering of industry players in aerospace and defence (manufacturers and innovators) and buyers (high-level international delegations, Defence Chiefs of Arms and senior procurement officers). Rated amongst the top six exhibitions in the world, it boasts more than 450 participating companies in the defence and aerospace industries, from over 30 countries. The AAD Expo provides a conducive environment for business-to-business linkages, as well as an ideal platform for engaging in dialogue and discourse on international defence, aerospace and other related best practices.

CYBER SYMPOSIUM PARTNERS

AEROSPACE MARITIME AND DEFENCE INDUSTRIES ASSOCIATION (AMD)

Now in its 25th year of service to the South African defence industry (SADI) and the SA government, AMD has, as its primary objectives, the representation of the industry in matters of mutual interest as well as the promotion of a profitable, sustainable and responsible industry. One of the mechanisms for promoting the course of the SADI is through various engagement platforms like conferences. The primary aim of the Cyber Security conference is to create a credible, robust and dynamic platform for the thought leadership driven debates of cyber security issues that affect the SA and Southern African defence and security community.

CYBER SECURITY INSTITUTE

The Cyber Security Institute provides training and services to assist enterprises to effectively manage risks. We continue to grow cyber security skills and knowledge by aligning in-house developed training courses with competencies and skills levels as required by the field. Linked with services in the forensics, investigations, and governance spaces, ensure our information, threat and intelligence repositories are dynamic and valid in the South African and African market.

SIGLA AT STELLENBOSCH UNIVERSITY

SIGLA envisages positioning itself as a leading African leadership institution which strives to build leadership capacity and generate knowledge resources in the areas of security for sustainable development. "SIGLA recognises that without governance and leadership neither security nor development may be sustained. SIGLA's research activities relating to leadership and governance on the African continent focus upon landward and maritime governance matters." The Cyber@SIGLA project is a new initiative aimed at addressing cyber challenges within the land, maritime and aviation domains.