# BID DOCUMENT FUSION 2020

### - SOUTH AFRICA

23rd International Conference on Information Fusion Sun City, Rustenburg, South Africa







### **TABLE OF CONTENTS**

CLICK ON THE HEADING TO PROCEED TO PAGE

APPENDIX B: VISA APPLICATIONS

APPENDIX C: YELLOW FEVER ENTRY REQUIREMENTS

APPENDIX D: SUPPORT LETTERS



### 1. INTRODUCTION

Following our white paper submission, this proposal is submitted to ISIF in response to the Call for Conference Proposals FUSION 2020, and conveys the intention of the ISIF members listed below to organize the 23rd International Conference on Information Fusion at Sun City, Rustenburg, South Africa. The target dates are 6 to 9 July 2020 or alternatively 17 to 20 August 2020. We are excited about the opportunity of bringing FUSION 2020 to South Africa, and particularly Africa - for the first time since FUSION's inception in 1998.

We have assembled a strong team that has a history of facilitating a high quality FUSION program, attending many previous FUSION events, and participating in all areas of the conference - from general chairs to fun run participants. The program committee constitutes a diversity from academia, government, and industry. Some of the key members have been actively coordinating with each other through the ISIF Evaluation of Technologies for Uncertainty Reasoning (ETUR) working group.





### 2. PROPOSED ORGANIZING TEAM

### 2.1 GENERAL CO-CHAIRS

### Pieter de Villiers (CSIR, University of Pretoria)

**Pieter de Villiers** is a principal researcher at the Council for Scientific and Industrial Research (CSIR), Pretoria, South Africa. He obtained his Bachelors and Masters degrees at the University of Pretoria, South Africa, and a PhD in 2008 at the University of Cambridge, UK in statistical signal processing (particle filtering) under the supervision of Prof Simon Godsill. Since 2010, he has been working on establishing a data fusion capability at the Radar and Electronic Warfare competency at the CSIR. His research interests include data fusion, target tracking, Bayesian inference, nonlinear filtering, pattern recognition, graphical models and machine learning. Pieter has been regularly attending Fusion conferences since 2010 and his ISIF activities include membership of the technical program committee and acting as session chairs for Fusion conferences, as well as being a member of the official ISIF Evaluation Techniques for Uncertainty Representation and Reasoning Working Group (ETURWG).



### Alta de Waal (University of Pretoria)

Alta de Waal currently holds a senior lecturer position in the Statistics Department, University of Pretoria. Previously, she was employed since 1999 at the Council for Scientific and Industrial Research (CSIR). Research interests include probabilistic graphical models and unsupervised modelling of discrete data. Of special focus is the modelling of trans-disciplinary scenarios which relies on data fusion methodologies. Alta has published 30 scientific papers in the form of conference proceedings, journals and book chapters. She received her MSc (Mathematical Statistics) from the University of the Free State (2000), and her PhD (Engineering Science) from the North West University, South Africa (2010). She is a NRF (National Research Foundation) rated researcher. Alta has been attending the Fusion Conference since 2015, and has taken part in the activities of the official ISIF Evaluation Techniques for Uncertainty Representation and Reasoning Working Group (ETURWG).



### Fredrik Gustafsson (Linköping University)

**Fredrik Gustafsson** has been professor in Sensor Informatics at the Department of Electrical Engineering, Linkoping University, since 2005. He received the M.Sc. degree in electrical engineering 1988 and the Ph.D. degree in Automatic Control, 1992, both from Linkoping University. His research interests are in stochastic signal processing, adaptive filtering and change detection, with applications to communication, vehicular, airborne, and audio systems. His work in the sensor fusion area involves design and implementation of nonlinear filtering algorithms for localization, navigation and tracking of all kind of platforms, including cars, aircraft, spacecraft, UAV's, surface and underwater vessels, cell phones and film cameras for augmented reality. He is a co-founder of the companies NIRA Dynamics (automotive safety, including tire pressure monitoring systems found in more than 25 million cars), Softube (plug-ins for music studios and software solutions found in for instance Marshall and Fender), and Senionlab (indoor navigation for smartphones deployed in more than 30 countries in all six continents).





### 2.2 TECHNICAL CHAIRS

### Paulo Costa (George Mason University)

**Paulo Costa** is Associate Professor of Systems Engineering and Operations Research at George Mason University. His current research involves applying semantic technologies and probabilistic reasoning to proactive decision support, modeling and simulation to the design of cyber resilient systems, and knowledge engineering to the integration of hard and soft data. He currently teaches courses on advanced security protocols, decision support systems, and heterogeneous data fusion. He received his Ph.D. in Information Technology and M.Sc. in Systems Engineering from George Mason University, and his B.S. in Aeronautical Engineering from the Brazilian Air Force Academy. He is a co-founder and active participant in the ISIF Working Group on Evaluation of Techniques for Uncertainty Reasoning (ETURWG), a senior member at IEEE, and previously served on the Board of Directors of the International Society of Information Fusion.



### Anne-Laure Jousselme (NATO STO CMRE)

Anne-Laure Jousselme has been with the Centre for Maritime Research and Experimentation (CMRE) in La Spezia (Italy) since June 2014. She was previously with the Defence Research and Development Canada (DRDC) in Valcartier. She received her PhD in 1997 jointly from the Institut National Polytechnique de Grenoble (France) and the Electrical Engineering and Computer Engineering Department of Laval University in Quebec City (Canada). She has been a member of the boards of directors of the International Society of Information Fusion (ISIF) and of the Belief Functions and Applications Society (BFAS) since 2012. She is a member of the steering committee of the BELIEF conference and an active member of the ISIF working group on Evaluation Techniques of Uncertainty Representation (ETUR). She has been adjunct professor at Laval University (Quebec, Canada) for 10 years where she supervised master and PhD theses in the field of information fusion. Her current research interests include high level information fusion, reasoning under uncertainty, target recognition and identification and maritime anomaly detection. She was technical and tutorial chair of Fusion 2007, an international chair of Fusion 2015, and is a



### Thia Kirubarajan (McMaster University)

**Thia Kirubarajan** (Kiruba) holds the title of Distinguished Engineering Professor and holds the Canada Research Chair in Information Fusion at McMaster University, Canada. He has published about 375 research articles, 11 book chapters, one standard textbook on target tracking and four edited volumes. He has lead multiple projects on tracking and fusion with support from the Canadian Department of National Defense, US Air Force, US Navy, NASA, NSERC, Ontario Ministry of Research and Innovation, General Dynamics Canada, Raytheon Canada, ComDev/exactEarth, Toyota, Thales Canada and Lockheed Martin Canada. In addition to conducting research, he has worked extensively with government labs and companies to process real data and to transition his research to the real world. He is a recipient of the Ontario Premier's Research Excellence Award and the IEEE AESS Barry Carlton Award. He was the co-technical chair of Fusion 2002 and awards chair of Fusion 2014, and he is a co-technical chair of Fusion 2019.





### **Simon Godsill (University of Cambridge)**

Simon Godsill is Professor of Statistical Signal Processing in the Engineering Department at Cambridge University. He is also a Professorial Fellow and tutor at Corpus Christi College Cambridge. He coordinates an active research group in Signal Inference and its Applications within the Signal Processing and Communications Laboratory at Cambridge, specializing in Bayesian computational methodology, multiple object tracking, audio and music processing, and financial time series modeling. A particular methodological theme over recent years has been the development of novel techniques for optimal Bayesian filtering and smoothing, using Sequential Monte Carlo or Particle Filtering methods. Prof. Godsill has published extensively in journals, books and international conference proceedings, and has given a number of high profile invited and plenary addresses at conferences including the Fusion Conference, Prof. Godsill has served as Associate Editor for IEEE Tr. Signal Processing and the journal Bayesian Analysis. Two of his journal papers recently received Best Paper awards from the IEEE and IET. He is a Director of CEDAR Audio Ltd. (which has received numerous accolades over the years, including a technical Oscar), a company which utilises his research work in the audio area.



#### 2.3 PROGRAM CHAIRS

#### **Erik Blasch (US Air Force Research Lab)**

**Erik Blasch** is a program officer at United States Air Force Research Laboratory (AFRL) - Air Force of Scientific Research (AFOSR). Previously, he was a principal scientist at AFRL in Rome, NY (2012-2017); exchange scientist to Defence Research and Development Canada (DRDC) at Valcartier, Quebec (2009-2012); and Information Fusion Evaluation Tech Lead at AFRL in Dayton, OH (2000-2009). Dr. Blasch has been an Adjunct Electrical Engineering Professor at Wright State University teaching signal processing, target tracking, and information fusion. Dr. Blasch served on the IEEE Aerospace and Electronics Systems Society (AESS) Board of Governors (2011-2016), was a founding member of the International Society of Information Fusion (ISIF), and the 2007 ISIF President. He has focused on information fusion, target tracking, pattern recognition, and robotics research compiling 650+ scientific papers and book chapters. He holds 14 patents, presented over 30 tutorials, and is an associate editor of three academic journals. His books include *High-Level Information Fusion Management and Systems Design (Artech House, 2012), Context-Enhanced Information Fusion (Springer, 2016), and Multispectral Image Fusion and Colorization (SPIE, 2017)*.



### Kathryn Laskey (George Mason University)

**Kathryn B. Laskey** is Professor of Systems Engineering and Operations Research and Associate Director of the C4I & Cyber Center at George Mason University. Her primary research interest is probabilistic and decision theoretic reasoning with application to a variety of problems in information fusion and decision support under uncertainty. A major thrust of her work is integration of semantic technology with probability to support higher-level information fusion. She teaches courses in systems engineering, Bayesian inference and decision support. She is Chair of the Board of Directors of the Association for Uncertainty in Artificial Intelligence and serves on the Boards of the International Society of Information Fusion and the Washington Metropolitan Area Chapter of INCOSE. She is a co-founder and active participant in the ISIF Working Group on Evaluation of Techniques for Uncertainty Reasoning (ETURWG). Dr. Laskey received a Ph.D. in Statistics and Public Policy from Carnegie Mellon University, an M.S. in Mathematics from the University of Michigan, and a B.S. in Mathematics from the University of Pittsburgh.





### 2.4 LOCAL ARRANGEMENTS CHAIR

#### Richard Focke (CSIR)

**Richard Focke** is a senior engineer at the Council for Scientific and Industrial Research (CSIR), Pretoria, South Africa. He holds a PhD in Computer Engineering from the University of Cape Town, 2015 with a thesis titled: "Investigating the Use of Interval Algebra to Schedule Mechanically Steered Multistatic Radars". His other qualifications include a B.Eng (Hons) Computer Engineering, University of Pretoria 2005 and a B.Eng Computer Engineering, University of Pretoria 2003. He is a member of the IEEE. He has five years experience on implementing software solutions for EMV payment systems in the South African banking sector and ten years working experience at the CSIR DPSS on implementing Xilinx FPGA firmware and embedded software for radar signal processing. In addition he has five years systems engineering experience at CSIR DPSS on radar subsystems. He has a general interest in information fusion and in particular sensor scheduling, and has contributed papers to Fusion conferences.



### 2.5 FINANCIALS CHAIR

#### Anria Breytenbach (CSIR)

Anria Breytenbach is a Senior Project Manager at the Council for Scientific and Industrial Research (CSIR). She was a member of the organising committee of the 2015 IEEE Radar Conference, as the logistics chair. She obtained her Bachelors degree in Electronic Engineering from the University of Pretoria and her MSc from the University of Cape Town on Helicopter parameter extraction using joint time-frequency and tomographic techniques. Her technical work at the CSIR included research on non-cooperative target recognition as well as the development of a radar signal processor for a L-band measurement facility. Currently she manages a portfolio of projects in the radar R&D environment.





### 2.6 PUBLICATIONS CHAIRS

### **Gregor Pavlin (Thales Research and Technology)**

**Gregor Pavlin** is a Senior researcher and program manager at Thales Research and Technology. He holds a PhD, Computer Science (Graz University of Technology, Austria) and his research interests include data fusion, target tracking, machine learning, Bayesian networks, artificial intelligence and multi-agent systems. He acts as a coordinator of European projects (FP7 and EDA) and expert on the review panel for European projects. He is a member of the technical program committees/reviewer for the International Conference on Information Fusion, International Symposium on Intelligent Distributed Computing (IDC), the STIDS conference, the Information Fusion Journal, IEEE transactions on man machine and cybernetics and acted as co-chair and editor of the Fifth International Symposium on Intelligent Distributed Computing (IDC 2011). Dr Pavlin is also a member of the ISIF Evaluation of Techniques for Uncertainty Representation Working Group (ETURWG). Dr Pavlin authored or co-authored over 60 peer reviewed publications (articles and conference papers).



#### **Constantino Rago (Systems and Technology Research)**

**Constantino Rago** is a senior member of technical staff at Systems and Technology Research, Woburn, Massachusetts. His research interest includes estimation, fusion and target tracking. He holds a BS in electrical engineering from the Universidad Nacional de La Plata, Argentina, and MS and Ph.D. degrees also in electrical engineering from the University of Connecticut. He has served as associate editor for IEEE Signal Processing Letters.





### 2.7 TUTORIALS CHAIR

### **Denis Garagic (BAE Systems)**

**Denis Garagic** is a Chief Scientist in the Sensor Processing and Exploitation (SPX) group under BAE Systems Technology Solutions. He is a key innovator, guiding SPX's creation of cognitive computing solutions that provide machine intelligence and anticipatory intelligence to solve challenges across any domain for multiple United States Department of Defense customers including DARPA, the services, and the intelligence community. Denis has 20 years of experience in the areas of autonomous cooperative control for unmanned vehicles; game theory for distributed and hierarchical multilevel decision-making, agent-based modeling and simulation; artificial intelligence and machine learning for multi-sensor data fusion, complex scene understanding, motion activity pattern learning and prediction, learning communications signal behavior, speech recognition and automated text generation. Denis has been a Technical Review Authority, Principal Investigator, or Research Lead on numerous Department of Defense programs. He has written a number of journal articles and conference papers, with several patents in applied controls for autonomous robotics and generic machine learning inference with applications to streaming data processing. He received his B.S. and M.S. (Mechanical Engineering & Technical Cybernetics; Applied Mathematics) degrees from The Czech Technical University, Prague, Czech Republic, and his Ph.D. in Mechanical Engineering - System Dynamics & Controls from The Ohio State University. Denis also received an Executive Certificate in Strategy & Innovation from the MIT Sloan School of Management.



**Stefano Coraluppi** received the BS degree in Electrical Engineering and Mathematics from Carnegie Mellon University, Pittsburgh PA in 1990, and MS and PhD degrees in Electrical Engineering from the University of Maryland, College Park MD in 1992 and 1997. He has held research staff positions at ALPHATECH Inc. in Burlington MA (1997-2002), the NATO Undersea Research Centre (NURC) in La Spezia, Italy (2002-2010), and Compunetix Inc. in Monroeville PA (2010-2014). Since 2014, he is a Principal Scientist at Systems & Technology Research (STR) in Woburn MA.

Dr. Coraluppi's research interests include multi-target tracking, multi-sensor data fusion, distributed detection and estimation, and optimal and stochastic control. He is Technical Editor for Target Tracking and Multisensor Systems for the IEEE Transactions on Aerospace and Electronic Systems, Area Editor for Tracking and Associate Editor-in-Chief for the ISIF Journal of Advances in Information Fusion, Secretary and Member of the Board of the International Society of Information Fusion, and a Senior Member of IEEE. He served as General Co-chair for FUSION 2006 and Technical/Program Co-chair for FUSION 2014-2016, and will serve as Technical Co-Chair of Fusion 2018. He lectures regularly for the NATO Science and Technology Organization.







### 2.8 AWARDS CHAIR

### Nageswara Rao (ORNL)

Nageswara S. V. Rao is a Corporate Fellow at Oak Ridge National Laboratory, USA. He received PhD in computer science from Louisiana State University in 1988, ME from Indian Institute of Science in 1984, and BTech from National Institute of technology, Warangal, India in 1982. He has published more than 400 conference and journal papers in the areas of theoretical computer science, sensor networks, information fusion and high-performance networking. He is a Fellow of the IEEE, and received 2005 IEEE Technical Achievement Award for his contributions to information fusion area. He co-organized the Workshop on Information and Decision Fusion in 1996. He served as Associate Editor for Information Fusion journal, and is currently Area Editor of ISIF Journal of Advances in Information Fusion. He is Co-Chair of Technical Program Committee for Fusion 2017.



#### 2.9 SPECIAL SESSIONS CHAIR

### **Roy Streit (Metron, Inc)**

Roy Streit is currently a Senior Scientist at Metron, Inc., a scientific consulting company headquartered in Reston, Virginia. His research interests include multitarget tracking, multi-sensor data fusion, distributed autonomous systems, and signal processing, as well as statistical methods for pharmacovigilance and business analytics. Prior to joining Metron in 2005, he was a Senior Scientist in the Senior Executive Service at the Naval Undersea Warfare Center (NUWC) in Newport, Rhode Island, working primarily on the development, evaluation and application of multisensor data fusion algorithms in support of submarine sonar and combat control automation. He is Fellow of the IEEE. He is President of the Board of Directors of the International Society for Information Fusion (ISIF). He has published numerous papers in over a dozen different refereed technical journals, and has given many invited and contributed papers at national and international conferences. Additionally, he holds seven U.S. patents.



### Joel Dabrowski (University of Pretoria)

Joel Dabrowski is a senior lecturer in the Department of Electrical, Electronic, and Computer Engineering at the University of Pretoria, South Africa. He will be moving to the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia later this year (2017). He has ten years' industry experience in software and hardware development in electricity smart meters. He received his PhD in engineering at the University of Pretoria, with a thesis titled "Contextual behavioral modelling and classification of vessels in a maritime piracy situation". His interests include dynamic Bayesian networks, Bayesian inference and reasoning, and machine learning. He has published articles with a strong information fusion flavor in journals such as Information Fusion.





#### 2.10 SPONSORS CHAIR

### Mike Inggs (University of Cape Town)

**Michael Inggs** was born and educated in the Eastern Cape, South Africa (Uitenhage and Grahamstown). He has an Honours degree in Physics and Applied Mathematics from Rhodes University (1973) and a PhD, DIC from Imperial College, London (1979). He has worked in industry in the UK, USA and South Africa, and joined the Department of Electrical Engineering, University of Cape Town in 1988, where he holds the rank of Professor. He holds a Visiting Professorship at University College London. His research is in the area of radar, radar remote sensing and high performance computing. He has more than 190 journal and conference publications, four patents, and has supervised more than 90 M.Sc. and 10 Ph.D. to completion. He is a member of the Administration Committee of the IEEE Geoscience and Remote Sensing Society 2011-2013 as Director of Education, member IEEE AESS Radar Panel, and after being the convenor of the taught masters M.Eng.(Radar) program at UCT, was funded as a Research Professor by KACST for 2014. In 2015 he was on sabbatical leave at the Technical University of Delft.



### 2.11 PUBLICITY CHAIR

#### Willie Nel (CSIR)

Willie Nel is a Principal Radar Systems Engineer & Technology and Innovation Manager for Radar at the unit for Defence, Peace, Safety and Security (DPSS), Council for Scientific and Industrial Research (CSIR), South Africa. Current and past responsibilities include technology management in CSIR Radar area, looking at ways to increase innovation and improve time to market of technology demonstrators, consulting several areas in radar including Radar NCTR research program and radar signal processor development of AwareRad radar. Willie is a lead systems engineer for spaceborne radar, imaging radar, GPS reflectometry, multi-static radar and other new initiatives in Radar and Electronic Warfare (REW). He is Chair of the CSIR ICT Governance Committee, leader of the DPSS REW technology innovation leadership team and was Technical Chair of the IEEE Radar Conference held in October 2015 in South Africa. He also represents DPSS at the South African Radar Interest Group.



### 2.12 INTERNATIONAL LIAISONS

### **Daniel O'Hagan (University of Cape Town)**

**Daniel W. O'Hagan** is an Associate Professor in Radar at the University of Cape Town (UCT) and has occupied his current post since mid-2014. He is the Convener of the UCT Radar Masters Course, which attracts some of the world's top radar talent as guest lecturers on the UCT program. Dr. O'Hagan was the TPC co-chair of the 2015 IEEE Radar Conference. Dr. O'Hagan is the Chairman of the NATO Sensors and Electronics Technology group, "Advanced situation-specific modeling and vulnerability mitigation using passive radar technology SET-207". He chairs a multinational team of distinguished scientists from throughout NATO and Partnership for Peace (PfP) nations. From 2010 to 2013, Dr. O'Hagan served as the German representative to, and chairman of, the NATO "Advanced Modelling and Systems Applications for Passive Sensors group SET-164". He has obtained a Ph.D. in radar from University College London





### 3. TIMING

#### FIRST CHOICE:

6 to 9 July 2020 (average maximum temperature 20 °C - minimum 3 °C).

**Advantages:** The dates fall within the standard fusion conference dates.

**Disadvantages:** The dates fall within the local holiday period. This is typically the coldest time of the year, although still mild by most standards.

or

### **SECOND CHOICE:**

17 to 20 August 2020 (average maximum temperature 25 °C - minimum 9 °C)

**Advantages:** The temperatures are warmer, and the dates are outside of the local holiday season. **Disadvantages:** The dates are outside of the standard Fusion conference dates, although Fusion 2001 was 7-10 August and Fusion 2010 was 26-29 July.

The weather is mostly pleasant for both suggested dates, however, there may be a higher probability of a cold snap in July. Such cold weather is typically accompanied by sunny skies, with moderate wind.





### 4. TECHNICAL PROGRAM

#### **TECHNICAL CHAIRS**

Paulo Costa, Anne-Laure Jousselme and Thia Kirubarajan

The International Conference on Information Fusion is a premier forum for interchange of the latest research in information fusion and discussion of its impacts on our society. The conference brings together researchers and practitioners from industry and academia to report on the latest scientific and technical advances. Authors are invited to submit papers describing advances and applications in information fusion. As this conference will be hosted in South Africa, flagship applications related to the following initiatives are encouraged:

- environmental asset protection (supporting counter poaching, counter smuggling, and counter resource plundering operations),
- astronomy applications (supporting the Square Kilometer Array radio telescope),
- any Fusion applications related to social development, such as food security, rural e-health and financial stability.

### **TOPICS OF INTEREST**

Theory and Representation: Probability
theory, Bayesian inference, fuzzy sets and
fuzzy logic, Dempster-Shafer theory, belief
functions, logic-based fusion and preference
aggregation, random sets, point processes,
finite set statistics, analytic combinatorics, topic
modeling.

- 2. Algorithms: Registration, detection, localization and signal processing, automatic target recognition and classification, nonlinear filtering, tracking and data association, automated situation assessment, prediction, pattern and behavioral analysis, distributed fusion process and sensor resource management, distributed fusion, process and sensor resource management.
- 3. Solution Paradigms: Sequential inference, data mining, graph analysis, machine learning, ontology.
- 4. Data Specific Processing and Fusion: Image and video, radar, passive sensors; soft data sources.
- 5. *Modeling, simulation and evaluation:* Target and sensor modeling, benchmarks, testbeds, fusion performance modeling and evaluation.
- Applications: Aided fusion, sensor networks, persistent surveillance, defense and intelligence, security, robotics, transportation and logistics, manufacturing, economics and financial, environmental monitoring, medical care, bioinformatics, environmental asset protection, astronomy, social upliftment.

#### TECHNICAL PROGRAM COMMITTEE

Previous years' technical program committee lists will be used as a guide - notably those on the EDAS system.

### 5. ATTENDANCE

For the past 10 years the Fusion conference has been attended by between 361 (2013) and 429 (2016) delegates. We believe that Fusion 2020 South Africa will be attended by a similar number of delegates. Since South Africa is an attractive, budget friendly and exciting conference destination, we expect attendance of more than 400 delegates.

The location of the beautiful Sun City complex and conference venue, adjacent to one of South Africa's largest wildlife reserves, the Pilanesberg National Park – will also attract quite a number of delegates who have never before had the opportunity to visit a game park – and for many will most likely be a once in a lifetime experience.

The last large IEEE event hosted in South Africa was the 2015 IEEE Radar Conference held in Sandton, Johannesburg and was very well received.

The 54th Session of the International Statistical Institute (ISI) was held in Durban, South Africa in 2009. The conference was attended by more than 4000 delegates.

### Fusion 2020 will attract local stakeholders in the following domains

- South African Radar Interest Groups (SARIG)
- Square Kilometer Array Radio (SKA) Telescope (www.ska.ac.za)
- CSIR Optronic Sensor Systems (OSS)
- CSIR Command Control and Information Warfare (CCIW)
- Local Defence Industry
- CSIR Earth Observation
- Smart cities and Internet of Things (IoT)





### 6. POTENTIAL SPONSORSHIP

The following companies will be approached for possible sponsorship, and include a good mix of international and local companies. These companies have sponsored either the Fusion or Radar conferences in the past.

### POSSIBLE PLATINUM SPONSORS

### **6.1 BAE Systems**

BAE Systems is a global defence, aerospace and security company employing around 83,100 people worldwide. Their products and services cover air, land and naval forces, as well as advanced electronics, security, information technology, and support services.

#### **6.2 Airbus Defence and Space**

Airbus is at the forefront of the aviation industry, building the most innovative commercial aircraft and consistently capturing about half of all commercial airliner orders. Thanks to its deep understanding of changing market needs, customer focus and technological innovation, Airbus helps airlines grow and people connect. As the world's No. 1 helicopter manufacturer, Airbus provides the most efficient civil and military helicopter solutions to their customers, who serve, protect, save lives and safely carry passengers in highly demanding environments. The company contributes to nations' defence and security through its strong capabilities in military aircraft and cybersecurity markets. Airbus' space technologies also have a

growing impact on our daily lives: from deep-space exploration and scientific missions to today's most reliable telecommunications and Earth observation satellites

### POSSIBLE GOLD SPONSORS

#### 6.3 Metron

Metron is a scientific consulting company dedicated to solving challenging problems in national defense through the development and application of advanced mathematical methods. Problem solutions are realized in computer software with graphical interfaces that allow a user to understand and act on the results without having to comprehend the intricacies of the models themselves.

### **6.4 Random Sets**

Random Sets, LLC is an independent consultancy established in 2015 by Ronald Mahler, the founder of the random set (RS) approach to information fusion. The RS approach has had a revolutionary impact on the information fusion field, inspiring a great deal of innovative research in at least 19 nations. This includes a number of novel algorithms that significantly outperform conventional methods. RS theory has been recognized with numerous technical awards and RS algorithms have been successfully deployed in many applications. Random Sets, LLC addresses the needs of those seeking expertise in the new RS algorithms, as well as of those interested in RS and other cutting-edge solutions to new information fusion challenges.



### 6. POTENTIAL SPONSORSHIP [CONTINUED]

#### 6.5 Systems Technology and Research (STR)

STR specializes in advanced research and development for defense, intelligence and homeland security applications, primarily but not exclusively in sensor and information processing technologies. The company's expertise include Sensor Development, Sensor Signal Processing, Electronic Warfare, Computer Vision, Social Media Processing, Cyber Defense, Data Analytics, Command and Control, and Precision Navigation.

#### 6.6 MetaSensing

MetaSensing is an innovative Dutch remote sensing company which was founded in 2008 by Italian scientist and engineer Adriano Meta with the aim of commercializing the new compact, high resolution radar mapping technology. Their goal required the development of compact, high-resolution and low cost synthetic aperture radar (SAR) sensors and services. In just a few years, MetaSensing has acquired numerous successful airborne radar campaigns completed at the Ku, X, C, S, L and P frequency bands, and developed ground-based radar systems for different applications.

#### 6.7 SKA Africa

The SKA project is an international effort to build the world's largest radio telescope, with a square kilometre (one million square metres) of collecting area. The scale of the SKA represents a huge leap forward in both engineering and research & development towards building and delivering a radio telescope, and will deliver a correspondingly transformational increase in science capability when operational.

### POSSIBLE SILVER AND BRONZE SPONSORS

#### 6.8 Peralex

Peralex is a South African company which produces high performance wideband radio receivers, analogue to digital converter boards, DSP based processor boards, and signal processing and analysis software to drive this hardware. Together with products from our partners, these are combined to create wideband radio spectrum surveillance, direction finding, and signal analysis equipment. Their products are successfully deployed by governments and other institutions around the world. They also design and create sonar signal processing hardware and software for use in mining, prospecting and other applications, and audio signal processing systems.

#### 6.9 Tellumat

Tellumat is an electronics solutions company that serves the ICT, defence & security, transport and energy industries in South Africa and select global markets. They operate in the applications fields of air traffic management, defence and security (Combat identification systems - identification friend or foe (IFF), tactical communications - data and video radio links, avionics, including unmanned aerial systems (UAS), infrastructure and security monitoring (ISM), maritime domain awareness (MDA) and intelligence, and logistic support and maintenance. Other application areas include integrated solutions, electronic manufacturing services, environmental testing, equipment calibration, strategic projects, empowerment and social responsibility.



### 6. POTENTIAL SPONSORSHIP [CONTINUED]

#### **6.10 Rugged Interconnect Technologies**

Rugged Interconnect Technologies™ focus on offering next generation product solutions for Rugged Applications in the Commercial, Industrial and Military market segments. Products include Single Board Computers, Modules and Rugged Server solutions, with support for high-end processors and FPGA functionality including high speed Interconnect capabilities. The company offering includes I/O Boards, I/O Sub-systems, Backplanes, Power Supplies, Chassis, System integration and training for a total one stop experience.Products conform to VITA and PICMG COTS standards which include VME64x, VXS/VPX, CompactPCI, QTCA and AdvancedTCA Bus & Board architectures.

#### 6.11 Teledyne e2v

Teledyne e2v innovations lead developments in communications, automation, discovery, healthcare and the environment. Products include RF Power solutions for: defence electronic countermeasures. radiotherapy cancer treatment machines, radar systems, satellite communications amplifiers, industrial heating, cargo screening, ProWave® industrial processing systems, missile control safety and arming devices, and digital television transmitters. Imaging solutions include CCD and CMOS sensors and cameras, for space and earth observation imaging, science and life science imaging, machine vision, ophthalmology and dental x-ray systems. Teledyne e2v produce semiconductor solutions for aerospace and defence programs requiring: lifecycle management, hi-reliability microprocessors, high speed data converters, high reliability ICs with lifetime continuity of supply, assembly and test services and MRAMs.

#### **6.12 SAIEE**

Formed in 1909, the South African Institute of Electrical Engineers has grown to the extent that there are approximately 6000 members on its membership roll. Members are professionally engaged in the full range of engineering activities, including academic research, manufacturing, electronics, telecommunications, measurement and control, mining, and power infrastructural services. They make meaningful contributions to the quality of life of the community and to the steady advancement of technology. Their efforts are acknowledged in many countries across the world. The Institute contributes to the common interests and welfare of the whole engineering fraternity through close co-operation with the Engineering Council of South Africa (ECSA).

#### **6.13 EOARD**

The United States European Office of Aerospace Research and Development (EOARD) has standard grants to conferences to support various awards as well as approval sponsorship. Previous Fusion sponsorships provide validation of possible sponsorship.

### 7. PUBLICITY PLANS

- Establish a Fusion 2020 conference website and proceed to create awareness of the website to promote South Africa and Sun City as the conference host country and destination.
- The Fusion 2020 conference can also be promoted at the 2018 and 2019 Fusion events, with the provision of an exhibition stand, should an exhibition form part of those conferences. Alternatively a pull-up banner marketing the conference can be prominently displayed at these events.
- Distribute destination marketing postcards that include a QR code, linking to the Fusion 2020 website, at the 2018 and 2019 conferences.
- Distribute an electronic notification announcing that the conference has been awarded to South Africa. Compile and distribute follow up electronic newsletters to the database of attendees of previous conferences.
- Promote the event via academic networks at local, African and international educational institutions with a view to encouraging students to attend.
- Establish a Fusion 2020 conference facebook page and Twitter account.
- Promote a student paper and poster contest.

#### **INVITED SESSIONS**

Keynote speakers will be invited that will give presentations on

- a) Locally relevant topics, that include
  - i) Data fusion for the Square Kilometer Array, a big multinational collaborative project that is building the largest radio telescope in the Karoo Region of South Africa
  - ii) Wildlife poaching / environment
  - iii) Social media mining to mitigate international organised crime networks
  - iv) Social development applications of fusion (e.g., health / disease) i.e. servicing remote areas with e-health systems
  - v) Fusion applications of food security
- b) Emerging applications of fusion, that include
  - i) Fusion in the cloud
  - ii) Fusion and the internet of things (IoT)







### 8. FACTS ABOUT SOUTH AFRICA

South Africa has an excellent track record in international events that has seen it host meetings such as COP17, the 5th BRICS Summit, and the 2017 World Economic Forum on Africa. Few other destinations offer the variety of meeting and incentive options available in South Africa. This is one of a handful of countries that has played host to most of the major sports world cups including the 2010 FIFA World Cup™, and the Cricket and Rugby World Cups.



#### WHY SOUTH AFRICA?

- It will be the first time Fusion is hosted on the African continent
- It is in the same time zone as Europe during conference season
- It is only a 10 hour flight from Europe
- Direct flights from New York, Miami, Vancouver,
   London, Frankfurt, Dubai and Amsterdam
- South Africa will give you value for your money.
   (The Economist Big Mac Index, January 2017, South Africa \$1.89 VS USA \$4.51)
- Excellent cuisine and fine dining at affordable prices (A three course steak meal, including wine - \$24.00)
- Come see the Big 5 (Elephant, Buffalo, Lion, Rhino, Leopard)
- Kruger National Park is home to the greatest diversity of wildlife species on the African continent, and counts as one of the world's principal conservation areas
- South Africa has the longest wine route in the world
- Cape Town is only a 2 hours flight from Johannesburg



### 8. FACTS ABOUT SOUTH AFRICA [CONTINUED]

#### **KEY FACTS**

South Africa is situated at the southernmost tip of Africa. It covers an area of 1 219 090 square kilometres (the size of Texas or twice the size of France).

South Africa recognises 11 official languages. Most South Africans however speak English, which is fairly ubiquitous in official and commercial public life

Official name: Republic of South Africa

**Form of state:** A federal state, comprising a national government and nine provincial governments.

**Legal system:** Based on Roman-Dutch law and the 1996 Constitution.

Population (Census 2011): 51.77-million

**Measures:** metric system

**Currency:** One rand (R) = 100 cents

Time: Two hours ahead of GMT

Internet domain: .za



### A WORLD CLASS DESTINATION

Often described as 'a world in one country', South Africa offers the visitor a breath-taking variety of scenery, from desert and lush forest, to soaring mountains and vast empty plains. Culturally as diverse as the landscape, many visitors are drawn to experience for themselves the miracle of the peaceful overthrow of apartheid. Others are attracted by the endless golden beaches, big game, diving or snorkelling, or bird watching. Visitors will find South Africa positively inviting, with world-class infrastructure, transport and accommodation.

#### A COUNTRY OF CONTRASTS

Whilst boasting cosmopolitan and sophisticated cities such as Pretoria, Johannesburg and Cape Town, the country also has a striking natural beauty. South Africa has some of the world's most breathtaking scenery, and features an amazing display of bird and wildlife species, including the Big Five (lion, leopard, elephant, buffalo and rhino). The country is ranked as the third most biologically diverse in the world. There are numerous game reserves, parks and nature trails that offer a taste of Africa's natural appeal.

Due to the diversity of people and cultures in South Africa, the country offers a variety of cultural experiences. The history of the country also holds strong appeal for tourists, from the discovery of gold in Johannesburg to the Robben Island prison where icons of South Africa's political struggle against apartheid, such as Nelson Mandela, were detained. Tourism in South Africa is a thriving sector, with millions of tourists from around the world entering the country annually. The country boasts a wide selection of restaurants, hotels, guesthouses, shopping centres and other tourist facilities.



### 8. FACTS ABOUT SOUTH AFRICA [CONTINUED]

"I believe that South Africa is the most beautiful place on earth. Admittedly, I am biased, but when you combine the natural beauty of South Africa with the friendliness and cultural diversity of our people, and the fact that the region is a haven for Africa's most splendid wildlife, then I think even the most scrupulous critic would agree that we have been blessed with a truly wonderful land.

I would like to extend a personal invitation to you to come and see for yourself the splendour of South Africa. I know that my people will be delighted to welcome you and I think you will be enchanted by their warmth and hospitality. I am equally sure that you will enjoy our culture, our cuisine and the warmth of our people"

Nelson Mandela - former President of South Africa (1994-1999)







# 9. ABOUT SUN CITY CONFERENCE CENTRE

Sun City is a unique world class conference venue, with a combination of features unmatched anywhere and draws over 3 million visitors each year. The conference venue with 4 top quality hotels offers magnificent sporting and recreational facilities and the magical Lost City.

1500 Ha, 1600 Metres above the sea level and only 220 km from Johannesburg International Airport - the venue is located right next to the Pilanesberg Game Reserve, in the bushveld of the North West Province. It is a mere 2-hour (178 km) drive from Johannesburg. Flights are available to the Pilanesberg Airport from Cape Town and Johannesburg.

The summer months in the area (from September to March) bring brief but refreshing afternoon thundershowers. The area has an above average rainfall of 300 to 700 mm annually. Summer temperatures range between 22 and 34°C and winter brings with it dry, sunny days and chilly nights. The average winter (from June to August) temperature is 16°C but can range from an average of 2 to 20°C in a single day.

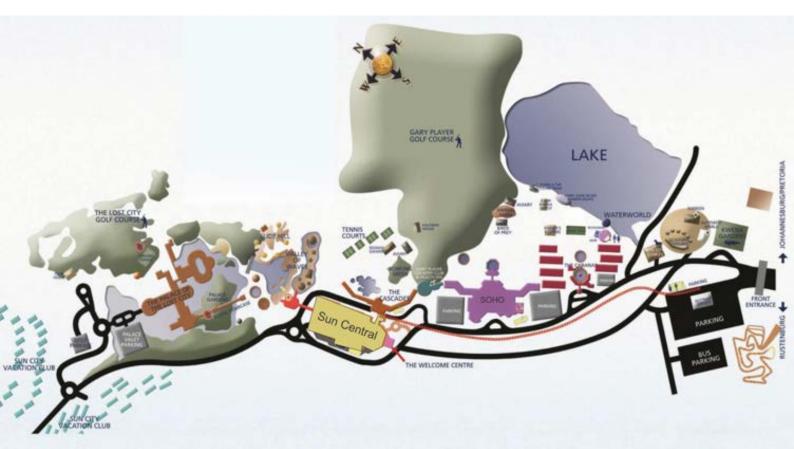
The Sun City conference centre has just undergone a large scale refurbishment. The conference centre offers an exceptional variety of state-of-the-art world-class, banqueting and conference venues – that will more than adequately accommodate the Fusion 2020 conference requirements, with accommodation and entertainment for a large number of delegates.





### 9. ABOUT SUN CITY VENUE AND CONFERENCE CENTRE [CONTINUED]

**SUN CITY MAP** 





### 9. ABOUT SUN CITY CONFERENCE CENTRE [CONTINUED]

### **CONFERENCE FACILITIES**

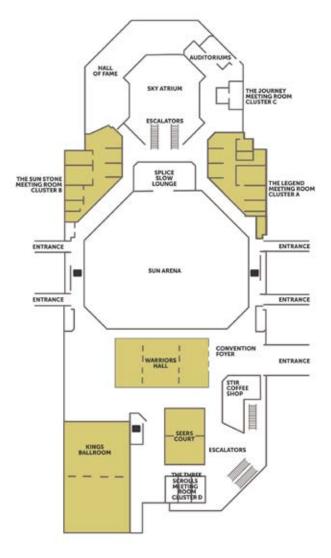
The conference will be hosted in Sun City's Sun Central Convention Centre offering more than 27 conference and meeting venues varying in size. Sun City also offers a variety of open-air banqueting venues, such as the Botsalanong Boma - seated around a blazing bonfire; delegates enjoy authentic cuisine under an African sky.

### The Sun City Day Conference Package includes the following:

- Plenary venue
- Standard AV for the plenary room (Screen, projector and PA system)
- Light working lunch
- 3 x Tea / coffee breaks on Full Day (Arrival, mid-morning and mid-afternoon tea breaks)
- Pens, pads and mints for the plenary room
- Complimentary Wi-Fi

The Sun Central Convention Centre is situated on the second floor of the Sun Central Complex.

With a view to hosting Fusion 2020 the following venues have been provisionally reserved at the Sun City Sun Central Convention Centre:





### 9. ABOUT SUN CITY CONFERENCE CENTRE [CONTINUED]

### DAY 1 TUTORIALS: .

Tutorial attendance: 150 delegates

- Splice Registration Area (Day 1 only)
- Secretariat (Sunstone Cluster)
- 7 x Tutorial Venues
   (Sunstone Cluster & Legend Cluster)
   (36 to 154 pax cinema style seating 7 x tutorial venues)

### **CONFERENCE DAY 2/3/4:**

- Venues were selected based on conference attendance by approximately 400 delegates.
- Secretariat (Sunstone Cluster)
- LOC Working Room (Sunstone Cluster)
- Registration Area: Warrior Hall Foyer
- Main Plenary: Warrior Hall (1 & 2 & 3 Combined -840 pax cinema style)

### **Break-away venues:**

- Warrior Hall 1 & 2 & 3 840 pax cinema style
- 7 Smaller Venues
   (Sunstone and Legend Cluster)
   (56 to 154 pax cinema style seating)
- Seers Court 1 & 2 168 pax cinema style
- Main plenary: Warriors Hall









### 9. ABOUT SUN CITY CONFERENCE CENTRE [CONTINUED]

Breakaway: Seers Court







# 10. TRAVEL TO SOUTH AFRICA

Travelling to South Africa from any part of the world is easily achieved, as most countries offer flights to O.R. Tambo International Airport outside Johannesburg, and, increasingly, to Durban International Airport and Cape Town International Airport.



South Africa's international airports are of world-class standards and handle more than 20 million passengers a year. More than 70 international carriers service South Africa, with numerous daily and weekly flights. O.R. Tambo International Airport is considered the gateway to South Africa and receives the most direct international flights. Although Cape Town and Durban do receive a limited number of international flights, domestic flights from Johannesburg to these destinations are quickly and easily arranged. South Africa also boasts a number of smaller airports that receive charter and cross-border flights from other African countries.

Travelling to South Africa from neighbouring countries can also be done through overland safaris, on cross-border coach routes, and self-drive tours, through one of 53 border posts with Zimbabwe, Swaziland, Namibia, Mozambique, Lesotho and Botswana facilitating entry.

Most border posts observe normal working hours and some, like those with Mozambique and Botswana, are open from 06:00 to 00:00. The posts at Ficksburg Bridge and Maseru Bridge (Lesotho), Nakop and Vioolsdrift (Namibia) and Beit Bridge (Zimbabwe) are open 24 hours a day.

# 11. TRAVELLING TO SUN CITY

Sun City is located 200 km north of O.R. Tambo International Airport, which is the closest international airport to the venue. Transport options to Sun City include:

#### 1. Car rental

Sun City lies 200 km or 125 miles from Johannesburg and many guests rent a car to drive themselves after flying into OR Tambo International Airport. The journey takes approximately 2.5 hours but it is important to note that this could take longer as the roads are narrow with heavy traffic. (We recommend the shuttle service as delegates will not require a vehicle once at Sun City to attend the conference.)

#### 2. Shuttle services

Shuttle services range from R1800 for a car (typically 2-3 passengers) to R2600 for aminibus (typically 4-5 passengers) one way. Arrangements will be made with a specific operator, by sharing itinerary details of willing attendees so that passengers can share, dropping the cost accordingly.

### 3. Flights

Flights are available from Cape Town and O.R. Tambo Airports to Pilanesberg Airport. There are only two weekly flights available for this route, on a Monday and Friday (for the 2020 Fusion conference, the conference dates are planned from a Monday to a Thursday, with the Tutorials starting on Monday). A free transfer from the Pilanesberg Airport to Sun City is included in the price of the fare.



## 12. HOTEL FACILITIES

Sun City offers four individual hotels - The exclusive Palace of the Lost City is ideal for adventurous romantics or those looking for a truly luxurious 5-star getaway; the Cascades is an upmarket luxury hotel set in beautiful gardens featuring pools and waterfalls; Soho (formerly known as the Sun City Hotel) was the very first hotel established and offers a modern look and feel; and the Cabanas is the ideal affordable accommodation to suit active families and budget travellers.







### CABANAS HOTEL

The Cabanas Hotel in Sun City offers guests excellent service, focusing on the needs of families during their holiday. This is a superb family accommodation in Sun City with 380 comfortable rooms that include 24 standard lake-facing rooms, 120 standard twin rooms, 32 family lake-facing rooms, 201 standard family rooms and 3 wheelchair accessible rooms. Guests have access onto the rolling lawns above Waterworld, providing ia lush lake-side setting. This widespread lake is a watersport playground for visitors of all age.

Sun City is truly a children's paradise. The pools at the Cabanas Hotel have been designed with children in mind, with a shallow paddling pool and an adult pool, which are both heated. Kamp Kwena is a kiddies entertainment paradise and will keep children happy on their Sun City holiday.

Sun City Cabanas Hotel offers three dining options including spectacular buffets at the Palm Terrace. The famous Butchers Grill offers delicious steaks and grills, while light daytime meals are served at the Grande Pool Bar.

## FUSION 2020 - SOUTH AFRICA

### 12. HOTEL FACILITIES [CONTINUED]

#### **SOHO HOTEL**

Often referred to as the Main Hotel, Soho Hotel Sun City and casino was the first hotel to be built on the venue. This 4-star Sun City accommodation is located right at the heart of Sun City, and is central to all the activities and things to do at the venue.

The rooms and suites are near the Soho casino, keeping you close to the action. The 340 rooms are all pool and lake facing, and the hotel is on the edge of the world-famous Gary Player Golf Course. There are 6 luxury suites, 2 presidential suites, 14 ground floor luxury rooms, 20 superior luxury rooms, 36 ground floor superior luxury family rooms, 53 superior luxury family rooms, 85 luxury family rooms, 120 luxury twin rooms and 4 paraplegic suites.

There is a free shuttle every 15 minutes taking you to the Valley of Waves, Sun Central entertainment centre and other activities within the complex.

This Sun City accommodation is ideal for conference attendees.

#### **CASCADES HOTEL**

The Cascades Hotel is the grand old lady of Sun City and has an air of timeless elegance, sophistication and understated luxury - it is easy to see why visitors who are familiar with Sun City often choose The Cascades Hotel as their favourite. All rooms face landscaped gardens which offer seclusion and escape from the hustle and bustle of the rest of Sun City, as well as providing a peaceful setting to relax in and let the holiday spirit take over. The Cascades offers the best of both worlds. You can stay in a calm retreat but will always have the allure of Sun City's activities and attractions on your doorstep - golf courses, waterslides and a recreational lake are the main draw cards - but there is also the conference centre within close proximity, casino and the Valley of the Waves to look forward to as well.





### 12. HOTEL FACILITIES [CONTINUED]

### PALACE OF THE LOST CITY

'The Palace', as it is affectionately known, is known for its striking elephant guard of honour who line the drive up to the hotel where a life-sized bronze sculpture of Shawu – one of the Kruger National Park's 'Magnificent Seven' elephants known for their enormous tusks – regally stands.

Beyond Shawu rise the domes and towers of the hotel – with views over the classic Highveld landscape – while cascading waterfalls and streams trickle between them. Nearby is the incredible Valley of the Waves, where a powdery, golden sand beach and wave-action pool have been installed in the middle of the African bush.

Golfers will enjoy tackling the two 18-hole championship courses (Sun City was the first golf tournament venue to offer a \$1-million purse) while all guests will have a ball exploring the venue, which has 25 ha of 'jungle' gardens, tennis and squash courts, horse riding, mountain biking, volleyball, hot-air ballooning, water sports, children's activities (Crocodile Farm, Animal World, Teenagers' Club and a babysitting service) and a beauty salon. Rooms range from Luxury Twins all the way to four magnificent Presidential Suites that boast features like Jacuzzis, saunas, hand-carved Canadian maple and walnut furniture and sweeping views over the Grand Pool. Guests wanting a true slice of privacy should reserve the King Tower for sunset cocktails; situated in The Palace's Leopard wing, it has aweinspiring 360-degree views of Sun City.









### 12. HOTEL FACILITIES [CONTINUED]

### The Sun City complex and casino accommodation (Currently only 2017 rates available):

### **Negotiated rates:**

Hotels inside Sun City Complex - at a rate negotiated with Sun City	Rooms	2017 Rates (10% to 15%increase per annum)	
Cabanas (3*) - Estimated conference group rate (Rate per room, single or double occupancy, including breakfast, free WiFi) Rate Includes 14% VAT, Excluding 1% Tourism Levy	380	Standard Twin (Single or Double Occupancy) Standard Family (Single or Double Occupancy)	R 1 990.00 (USD 143.00) R 2 610.00 (USD 187.00)
Standard rates: Hotels inside Sun City Complex	Rooms	2017 Rates (10% to 15% increase per annum)	
Soho (4*) (Variety of accommodation options available from Luxury Twin to Superior Luxury Family Room)  Cascades (5*) (Variety of accommodation options available from Luxury Twin to Luxury Suites)  The Palace of the Lost City (5*+) (Variety of accommodation options available from Luxury Twin to Luxury Suites)	340 241 335	Luxury Twin  From R 2 986.00 (USD 223.00)  Free WiFi, Buffet breakfast included (Per room per night)  Luxury Twin  From R 3 500.00 (USD 262.00)  Free WiFi, Buffet breakfast included (Per room per night)  Luxury Twin  From R 4 577.00 (USD 342.00) Free WiFi, Buffet breakfast included (Per room per night)	
Hotels Outside Sun City Complex, 2 km from Sun City, shuttle to Sun City to be made available	Sleeps	2017 Rates (10% to 15% increase per annum)	
Kingdom Resort (3*)	194	Twin suite from R 900.00 (USD 68.00) (Per room per night, excluding breakfast) (Minimum stay, 3 nights)	





### 12. HOTEL FACILITIES [CONTINUED]

### KINGDOM ACCOMMODATION RESORT

A new accommodation complex offers an allencompassing holiday experience with a range of accommodation options. It is situated less than 5 minutes' drive from the entrance to Sun City. This accommodation complex offers air-conditioned accommodation on either a room only or self-catering basis.

This accommodation complex is not part of the Sun City complex. It is highly rated on Trip Advisor and offers more affordable accommodation to visitors to Sun City. This would provide quality accommodation for Fusion Conference Attendees on a budget, or for students.

The resort is laid out as a collection of small villages aesthetically designed to blend in with the landscape. Each village consists of a number of chalets and villas that look out onto the Bushveld terrain and are grouped together to resemble a horseshoe shaped kraal.

### The following accommodation options are available:

**Chalets** - The use of natural materials and earthy tones ensures that the chalets blend in with the serene setting. Choose from 2 and 3 bedroom, self-catering, luxury chalets all fully furnished and boasting an amazing kitchen and entertainment area.

**Villas** - The luxurious villas feature skillfully designed interiors furnished with solid wood tables, granite top kitchen areas, comfortable and stylish designed bedrooms, air-conditioning and DStv. Choose from 2, 3 and 4 suite, self-catering, up-market villas with top class finishes and own private splash pool and fire pit.

**King Suites** - Perfect for corporates. Single and Double Suite options with DStv, air-conditioning, tea and coffee making facilities with private patio. Each suite has smartcard key access.

13. Social Activities





# 13. SOCIAL ACTIVITIES

13.1 COMBINED ICEBREAKER AND WELCOME EVENT
(GAME DRIVE IN THE PILANESBERG NATIONAL PARK AND LIGHT DINNER)

With the Pilanesberg National Park adjacent to the Sun City complex we decided that we would include a game drive in one of our social functions.

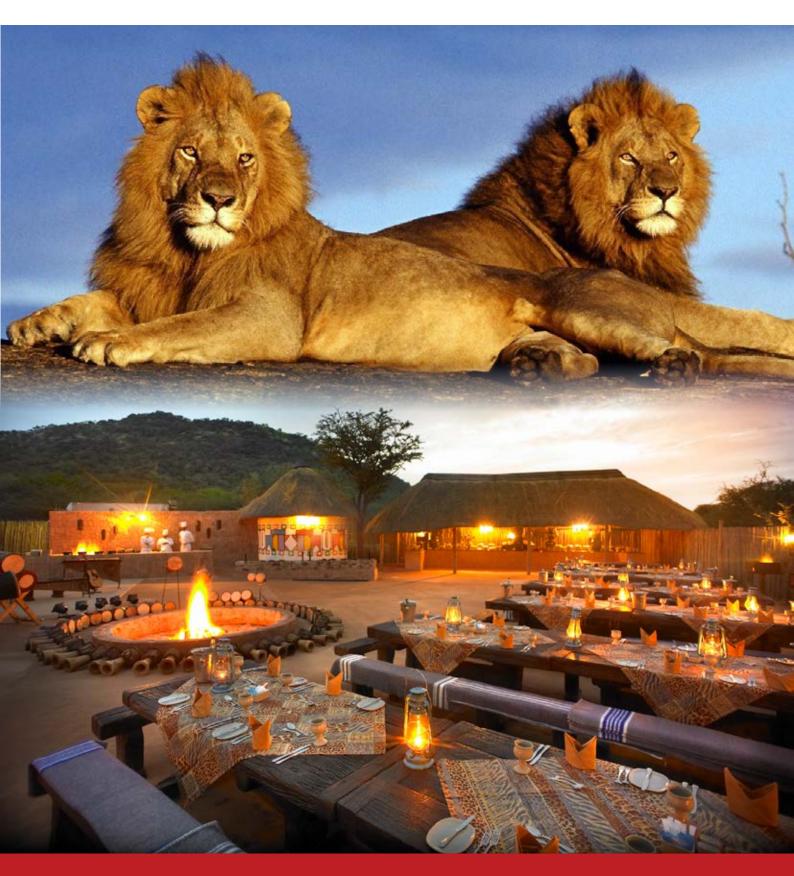
To include the three hour game drive in our program we will depart early in the afternoon, following the last tutorial on day one of the Fusion 2020 conference. Conference delegates can enjoy excellent Big Five Game viewing from open game drive vehicles in the malaria-free Pilanesberg National Park.

We will make a halfway stop to serve sundowner drinks and snacks while listening to sounds of the African bush. We will then proceed to the Botsalanong Boma, a unique open-air African banqueting venue, which with a huge bonfire and African dancers will make it an unforgettable experience under the stars for all!

The Pilanesberg National Park covers 55,000 hectares. It is the fourth largest National Park in southern Africa. This malaria-free park is perched on the eroded vestiges of an alkaline volcanic crater one of only three such craters in the world.



### 13. SOCIAL ACTIVITIES [CONTINUED]



### 13. SOCIAL ACTIVITIES [CONTINUED]

#### 13.2 SUN CITY KING'S BALLROOM BANQUET

The Sun City King's Ballroom has been provisionally reserved as the venue for the Fusion 2020 Banquet.

South Africa is known for its ethnic diversity and with 11 official languages; the country is a melting pot of colourful and interesting cultures.

Referred to as the 'Rainbow Nation', South Africa is home to a fascinating mix of citizens. There are the Nguni, the San people, the Sotho, the Tsonga and the Venda. Then there are the people of European descent, and Asian descent.

But most importantly, as South Africans we have an overarching South African culture which ensures that, no matter what a person's cultural heritage - they are, at heart, proudly South African. Indeed, as South Africa's democracy evolves, it is becoming a more diverse but integrated country and cultural diversity continues to be one of its strongest assets. South Africa is a country where creative expression flourishes and its endless cultural diversity is embodied through traditional and modern interpretations of songs, dance, theatre, design, fashion and food.

We envisage sharing some of this beautiful diversity with you by hosting a banquet that will showcase some of our food, dance, music and wine.



# 14. TOUR ALTERNATIVES

Delegates at Sun City have access to a huge selection of leisure activities. This all-encompassing destination provides two Gary Player designed championship golf courses, jet-skiing, parasailing, horse riding, quad-biking, clay-target shooting, a Spa, a wide variety of eateries and shopping outlets or a visit to the Motseng Cultural Village.

Closer to Johannesburg, delegates can visit Maropeng, the official visitor centre for the Cradle of Humankind and Sterkfontein Caves, a World Heritage Site.

Just an hour's drive from Sun City - delegates can also visit the Lesedi Cultural Village, an Elephant Sanctuary, a Cheetah rehabilitation Centre or take the Hartbeespoort Aerial Cableway up the beautiful Magaliesberg mountain for a view of Hartbeespoort Dam and surrounding areas.

### Sightseeing and activities at Sun City within close proximity

- Pilanesberg National Park Game Drive
- Pilanesberg National Park Hot Air Balloon Safari
- Kwena Crocodile Farm
- Sun City Quad Biking Nature Trail
- Visit the Maze of the Lost City
- 2 Gary Player designed championship golf courses
- Segway trail, jet-skiing, parasailing, horse riding, quad-biking, clay-target shooting and ziplining
- Visit the Motseng Cultural Village

#### **Pre and Post Tours**

- Pretoria Capital City
- Johannesburg City Tour
- Soweto Township
- Apartheid Museum
- Gold Reef City
- Cullinan Diamond Mine
- Cradle of Humankind
- Cable Way at Hartebeestpoort Dam
- Visit Cape Town
- Visit the Kruger National Park





### 14. TOUR ALTERNATIVES [CONTINUED]



### 14. TOUR ALTERNATIVES [CONTINUED]



### 14. TOUR ALTERNATIVES [CONTINUED]





#### 15. BUDGET

**Assumptions:** 1 USD = 14.40 ZAR with a 5% buffer to allow for currency fluctuations

(ref: https://longforecast.com/dollar-to-rand-forecast-2017-2018-2019-2020-2021-usd-to-zar)

- Ratio of attendees that will pay early bird vs regular rates 70%:30%
- Budgeting for 150 tutorial slots, not attendees (thus a conservative estimate)

#### 15.1 TUTORIAL REVENUES

#### **Assumptions:**

• Ratio of attendees that will attend 1 vs 2 tutorials - 70%:30%

TUTORIALS BUDGET - 15	50 slots			
EXPENSES				
ITEM	DESCRIPTION	ZAR	USD	USD+5% buffer
Venue	Included in total venue fee	Ok	Ok	Ok
Tutorial material	Notes, books, slides (variable cost)	45k	3k	3k
Admin & General	Management	150k	10k	11k
TOTALS		195k	14k	14k
INCOME				
TUTORIAL INCOME				38k
PROFIT/LOSS at 50% of (income minus expenses)				12k
Tutorial Fee (USD) - price per tutorial			1 Tut	2 Tuts
Early Bird			250	200
Regular			300	250
On Site			350	300



### 15. BUDGET [CONTINUED]

#### 15.2 LOW ATTENDANCE: 350 DELEGATES

**Assumptions:** Ratio of normal vs student registrations: 66%:33%

Ratio of early bird vs regular registrations: 80%:20%

EXPENSES (SMALL -	350 Delegates)			
ITEM	DESCRIPTION	ZAR	USD	USD+5% buffer
Venue	All meeting rooms, meals, safari game drive, cocktail event and gala dinner	2150k	149k	157k
Pre conference activities	Planning, execution fees, document development, marketing, conference website	326k	23k	24k
Conference Material	program, memory stick (with proceedings), notepad, pen, conference bag, nametags, decor, branding, printing, photography	264k	18k	19k
Conference Management	Secretariat, session chair gifts, logistics and setup, registration (online & on-site), invoicing, payment, facilitation, public liability insurance, gala dinner entertainment, close out report, management fee, disbursements	596k	41k	43k
Publication Fee	Paper submission, review, compilation of proceedings, IEEEXplore publication	156k	12k	13k
Keynote speakers TOTALS	Flights, accommodation, stipend	260k 3752k	20k 264k	21k 277k
INCOME				
Sponsorship				50k
Registration fees				260k
Tutorial proceeds				12k
TOTAL INCOME				322k
PROFIT/LOSS				45k
Conference Fee (USD	))			
Student				450
Early Bird				850
Regular				1050



### 15. BUDGET [CONTINUED]

#### 15.3 MEDIUM ATTENDANCE: 400 DELEGATES

**Assumptions:** Ratio of normal vs student registrations: 66%:33%

Ratio of early bird vs regular registrations: 80%:20%

EXPENSES (MEDIUM	- 400 Delegates)			
ITEM	DESCRIPTION	ZAR	USD	USD+5% buffer
Venue	All meeting rooms, meals, safari game drive, cocktail event and gala dinner	2350k	163k	171k
Pre conference activities	Planning, execution fees, document development, marketing, conference website	326k	23k	24k
Conference Material	Program, memory stick (with proceedings), notepad, pen, conference bag, nametags, decor, branding, printing, photography	290k	20k	21k
Conference Management	Secretariat, session chair gifts, logistics and setup, registration (online & on-site), invoicing, payment, facilitation, public liability insurance, gala dinner entertainment, close out report, management fee, disbursements	596k	41k	43k
Publication Fee	Paper submission, review, compilation of proceedings, IEEEXplore publication	156k	12k	13k
Keynote speakers	Flights, accommodation, stipend	260k	20k	21k
TOTALS		3978k	279k	293k
INCOME				
Sponsorship				50k
Registration fees				297k
Tutorial proceeds				12k
TOTAL INCOME				359k
PROFIT/LOSS				66k
Conference Fee (USD	)			
Student				450
Early Bird				850
Regular				1050



### 15. BUDGET [CONTINUED]

#### 15.4 HIGH ATTENDANCE: 450 DELEGATES

**Assumptions:** Ratio of normal vs student registrations: 66%:33%

Ratio of early bird vs regular registrations: 80%:20%

EXPENSES (HIGH - 450 Delegates)				
ITEM	DESCRIPTION	ZAR	USD	USD+5% buffer
Venue	All meeting rooms, meals, safari game drive, cocktail event and gala dinner	2750k	191k	201k
Pre conference activities	Planning, execution fees, document development, marketing, conference website	326k	23k	24k
Conference Material	Program, memory stick (with proceedings), notepad, pen, conference bag, nametags, decor, branding, printing, photography	314k	22k	23k
Conference Management	Secretariat, session chair gifts, logistics and setup, registration (online & on-site), invoicing, payment, facilitation, public liability insurance, gala dinner entertainment, close out report, management fee, disbursements, audio visual	596k	41k	43k
Publication Fee	Paper submission, review, compilation of proceedings, IEEEXplore publication	156k	12k	13k
Keynote speakers	Flights, accommodation, stipend	260k	20k	21k
TOTALS		4402k	308k	324k
INCOME				
Sponsorship				50k
Registration fees				334k
Tutorial proceeds				12k
TOTAL INCOME				396k
PROFIT/LOSS				72k
Conference Fee (USD	)			
Student				450
Early Bird				850
Regular				1050

# 16. MONGOOSE COMMUNICATIONS & DESIGN (PTY) LTD

Mongoose C&D conference and conference organisers was established in 2003. As full service professional conference organisers we have the skills, knowledge and resources to organise all aspects of your conference from start to finish. We bring a wealth of knowledge and experience to your event. Our services include: Conference and conference management, Exhibition Management and Public Relations.

Every event is unique - we offer a modular services to tailor your conference to your exact requirements. You may choose to entrust us with the entire project in a comprehensive management role, or simply supplement your own resources with specialized assistance.

Mongoose C&D has an established track record managing successful conferences and meetings throughout South Africa. Mongoose C&D have been in business for over 15 years. Since 2002 we have worked on dozens of conferences including Public and Private Sector Events and Conferences, Association Conferences, International conferences, Educational Meetings and Launches.

#### Some of our recent events include:

- The 2016 NACA Annual Conference,
- 11th Air Quality Governance Lekgotla
- 2015 IEEE RADAR Conference
- 10h Air Quality Governance Lekgotla, Bloemfontein
- 2015 NACA Annual Conference
- 10th International Conference of the African Association of Remote Sensing and the Environment
- The 16th IUAPPA World Clean Air conference Cape Town





#### 17. BUSINESS PLAN

In all cases where professional services will be used, their activities will be overseen by the organising committee, which will meet regularly between 2017 and 2020. The following institutions/companies will be used in the following roles:

- University of Pretoria local support, student volunteers
- University of Cape Town local support, student volunteers
- Council for Scientific and Industrial Research local support
- Mongoose Communications and Design
   (Pty) Ltd local support, venue booking and arrangements, and registration management
- Conference Catalysts management of EDAS paper management, technical review management, proceedings compilation, IEEEXplore publication, conference app



### 17.1 PRE CONFERENCE ACTIVITIES

Organisers will use a professional service - Notably Mongoose Communications and Design (Pty) Ltd. Their services will include the following line items.

- Planning, site visits, venue liaison
- Regular organizing committee meetings via web conferencing
- Keynote speaker liaison, letters of invitation, arrange flights, accommodation, transfers
- Design of manuals and documentation (sponsorship)
- Sponsorship liaison
- Compilation of media list and publicity distribution list
- Media statements, media distribution
- Advertisement design and placement in technical publications
- Design of bag drop postcards x 4 (Fusion 2018 & 2019), printing of "wish you were here" postcards
- Setup social media accounts/pages (Twitter and Facebook)
- Setup conference bank account
- Conference website design, development, maintenance
- Online registration, payment, generation of invoices (see Section 18.4)



### 17. BUSINESS PLAN [CONTINUED]

- Call for papers, tutorials, special sessions released on correct dates
- Conference material
  - Compilation of program text: Welcome and introduction by OC chair, advertisements, exhibitors details, venue map, list of reviewers, list of OC members, program, general delegate safety tips and gala dinner arrangement details. Briefing designer, reviewing design and check for any errors, forwarding to OC for comments and changes. Changes to designer. Check that changes have been made. Send to printer. Travel to printer and sign off proof.
  - Design & layout of a conference journal including program, directories, info, sponsors pages, note pages, exhibitors etc.
  - Printing of wiro bound program estimated at 24 pages (Full colour cover, B&W text)
  - 4GB USB Memory sticks design, setup, branding, loading of proceedings, courier of sticks
  - Order and delivery of eco-branded pens, markers and notebooks for conference delegates
  - Conference delegate bags design, branding and courier of bags locally manufactured by disadvantaged communities
  - Design, printing of name tags using sponsored lanyards and plastic pouches
- Branding and decor
  - Flowers for registration entrance, foyer, keynote speaker stage
- Venue branding and signage
  - Design, layout and manufacture of directional signage
  - Design, layout and manufacture of pull-up banners
  - Main plenary drop-down banner
- Additional printing
  - Session chair names in perspex placeholders
- Arrange conference photographer

#### 17.2 TUTORIALS

- Tutorial chairs are Denis Garagic and Stefano Coraluppi
- Issue call for tutorials
- To solicit one or more tutorials on an interesting emerging or locally relevant topic, such as
  - Fusion in the cloud
  - Mining social media
  - Fusion of Internet of Things
  - E-health fusion
  - Fusion methods for environmental applications

#### 17.3 PAPER SUBMISSION, REVIEW, NOTIFICATIONS

The technical chairs are Paulo Costa, Anne-Laure Jousselme and Thia Kirubaraian.

Organisers will use a professional service - notably Conference Catalysts and the EDAS paper submission service. Their services will include the following line items.

- Provide EDAS (www.edas.info) paper submission and review portal to facilitate all activities regarding abstract submission and evaluation, and final manuscript submission.
- Configure online web system software for paper submission and review. Make the online server available until the last day of the conference or the final submission deadline, whichever is later.
- Provide link from the FUSION conference web site to the submission/review web site.
- Customize web forms for the submission and review process.
- Customize author informational web pages, provide templates and author help pages.
- Setup and maintain database and back-end programs for the entire web-based process.
- Administer web-based submission and review process including distribution, access privileges, security, and automated reporting.



### 17. BUSINESS PLAN [CONTINUED]

- Paper reviewers will be provided with a userinterface to view abstracts and full-papers as well as submit review comments. The interface will allow reviewers to register, choose expertise areas and choose the number of papers to
- Reviewers will use a criteria-based document review web interface to complete their paper reviews. The system will be able to support different review templates for different paper categories.
- Program chairs will be provided access to certain website features that will not be accessible to general authors.
- Program Chairs will be provided access to the abstract and paper submissions, the reviewers database, the review comments, and copies of electronic mail correspondence that has been sent to authors or reviewers.
- Program Chairs will be provided with an automated system to assign reviewers from the reviewer database to specific papers up for review on the basis of areas of competence and reviewer preferences.
- Mass email services will be provided to support communication from authorized agents of the FUSION conference to paper authors.
- Assist in implementing a timely review process.
- Send out manual email prompts as necessary to Track Chairs, TPC members or Technical Program Chairs to ensure that deadlines are met and workflow process does not stall.
- Provide manual process for those authors having difficulty submitting via web interface.
- During initial submission phase: proof all submitted PDF files for file integrity and alert authors of bad file submissions and have them resubmit readable files. Check for and correct duplicate submissions.
- Notify authors of acceptance or rejection via email.
- Setup PDF eXpress site to check for IEEE Xplore compatibility

#### 17.4 CONFERENCE MANAGEMENT

Student volunteers and the local organising committee will perform services such as:

- Arrangement of exhibitor poster boards
- On-site registration assistance
- Technical support
- General running of errands and solving of problems should they arise

Organisers will use a professional service - notably Mongoose Communications and Design (Pty) Ltd. Their services will include the following line items.

- Session chair gifts and courier of gifts
- Registration and invoicing
  - Administration, importing data, backup server, UPS, networking, insurance, software data, management & reporting, registration planning & implementation, post-data clean up, visitor analysis reports, database of attendees and no-shows
  - Online registration page
  - Payment portal Paygate integration and scripting
  - Laptop hire with double screen
  - Printer including toner
- Arrange volunteer student staff
- Concierge
  - On-site registration assistance,
  - Technical support (wifi access, sound, audiovisual)
  - Delegate invoice and account reconciliation
- Facilitation
  - Facilitation of the 4-day conference, gala dinner, cocktail and exhibitions
  - Plenary session support (runners) & ushers
  - Public liability insurance 400 delegates
  - Entertainment
- Close-out report and updated attendance list



### 17. BUSINESS PLAN [CONTINUED]

#### 18.5 PUBLICATION ACTIVITIES

Organisers will use a professional service - notably Conference Catalysts to prepare the conference proceedings file for distribution to conference attendees and for submission to the IEEE for publication in IEEEXplore.

#### Their services will include the following line items.

- Collect all final papers via EDAS.
- Ensure that all final papers adhere to IEEE standard formatting guidelines and are free from page numbers, headers and footers.
   Contact Authors to resolve any formatting issues with final papers.
- Employ data scrubbing to ensure properly cased titles, author & affiliation name uniformity and casing, remove duplicate author name references, confirm submitted file data matches web form entry data.
- During final submission phase: ensure that all final, accepted PDF files clear
- CrossCheck and meet IEEE Xplore compliance and/or use all necessary means to bring bad PDF files into compliance.
- Collect all relevant material from the Conference Chairs for development of the
- Proceedings Front Matter (Welcome Message, Final TPC list, following year CFP,etc.).
- Design Proceedings Main Menu Page
- Create comprehensive navigation tools including Table of Contents links to Technical Papers, Author Index with links to individual papers, and bookmark links to all Table of Contents items, individual session information, and technical papers.
- Create Help file
- Create Search function for ease of access
- A soft copy of the proceedings will be forwarded to local organisers for copying onto USB sticks
- Prepare the Xplore Proceedings disks for

- distribution to IEEE
- Prepare the individual Xplore compatible files, which include Main Menu page, Copyright page, Table of Contents, Welcome Message, Committee Listing, Sponsors, all Technical Papers, Author Index, and other items as requested and necessary.
- Collect final list of no-show presentations for indication on Xplore Packing List
- Prepare packing list with correct ordering of front matter, technical papers, and author index as it appears in the proceedings file that is distributed to attendees at the FUSION 2020 conference
- Ensure that all files included on the packing list are tagged as the appropriate content type.
- Manage IEEE copyright release form process and submit all copyright forms to IEEE headquarters. Ensure copyright forms are submitted for all final papers.
- Send final Xplore submission to IEEE within 30 days of the end of the conference in accordance with all requirements listed on the Letter of Acquisition.

#### 17.6 ACCOUNTING

Organisers will use a professional service - notably Mongoose Communications and Design (Pty) Ltd.

#### Their services will include the following line items.

- Budget preparation
- Ongoing budget updates and monitoring
- Credit control
- Insurance
- · Account reconciliation and reporting

#### **APPENDICES**

#### APPENDIX A: SAFETY PRECAUTIONS - TRAVELLING TO SOUTH AFRICA

South African safety precautions are not unlike those recommended when travelling to other countries and major cities.

Serious crime is concentrated in certain, typically poorer areas, and these areas seldom overlap with the areas frequented by visitors and tourists. More common sense than hard and fast measures, safety precautions in South Africa mostly require vigilance on behalf of the traveller and sound travel preparation.

Important South African safety advice includes avoiding deserted areas at night; securing valuables such as photographic equipment and wallets on your person; and leaving expensive, flashy jewellery in your hotel safe while out and about.



#### Other safety precautions we will make delegates aware of include:

- Locking valuables and luggage away in the car boot while travelling (never leave handbags or cameras on car seats)
- Being vigilant of your luggage and other belongings (never leave them unattended).
- Storing valuables in your hotel safe.
- Limit the amount of money you carry on your person. Also, don't accept offers of assistance at ATMs and keep your pin numbers secure.
- When using a credit card in restaurants, ask the waiter to bring a portable credit card machine to your table. Report stolen or lost cards immediately.
- Carry a current road map with you. If you're in any doubt about a place you wish to visit or how to get there, have a word with your hotel concierge first or contact the National Tourism Information and Safety Line on 083 123 2345 for assistance.
- Only use reputable tour operators and travel and transport services. If you're not sure, ask your hotel to recommend a service provider for you.
- In rural areas, watch out for wild or farm animals
   road signage will warn you when you need to take care.
- If you intend travelling to malaria areas, take the necessary prophylaxis before you leave home.



### APPENDICES [CONTINUED]

#### APPENDIX B: VISA APPLICATIONS

Delegates wishing to visit South Africa will have to ascertain whether they need a visa to visit South Africa. The website of the South African Department of Home Affairs provides detailed information on South Africa's visa requirements (http://www.home-affairs.gov.za/index.php/applying-for-sa-visa).

The website gives particulars about which nationals require visas and which are exempt. Enquiries regarding South Africa visa information can also be obtained from South African missions in a delegate's home country, or the one nearest to you.

For nationals of countries requiring visas, application of the visa must be made ahead of their departure as visas are not issued on arrival. The visas must be affixed in the traveller's passport and be shown to immigration officials on landing. Applications must be made through South African diplomatic or consular representatives.

To apply for a visa delegates will be required to furnish particular documentation to meet South Africa's visa requirements. These include:

- A passport valid for no less than 30 days after the expiry of the intended visit, and at least 1 unused page for entry/departure endorsements (sometimes referred to as the visa page).
- Payment of the prescribed fee, if applicable.
- A vaccination certificate, if required (travel through the yellow fever belts of Africa and South America requires inoculation)

- Statement and/or documentation confirming the purpose and duration of your visit.
- Two identity photographs (guidelines on website).
- Proof of financial means in the form of bank statements; salary advices; undertakings by your hosts in South Africa; bursaries; medical cover; or cash available, including credit cards or travellers' cheques.
- If travelling by air, a return or onward ticket; or proof of sufficient funds; or a cash deposit of equivalent value to an air ticket must be lodged.
- Take care to request the correct duration of stay and type of visa. Also check on processing time so that there is no last-minute panic.

Countries for which a visa is **not** required

The citizen who is a holder of a national passport (diplomatic, official or ordinary) of the following countries / territories / international organisations **is not required to hold a visa** in respect of purposes for which a port of entry visa may be issued or by virtue of being a person contemplated in section 31(3)(b) [accredited in SA] **for an intended stay of 90 days** or less and when in transit:

African Union Laissez Passer, Andorra, Argentina, Australia, Austria, Belgium, Botswana, Brazil, Canada, Chile (only ordinary passport holders), Czech Republic, Denmark, Ecuador, Finland, France, Germany (except in diplomatic staff due to assume duty at the Embassy and Consulates of Germany in SA), Greece, Iceland, Ireland, Israel, Italy, Jamaica, Japan, Liechtenstein, Luxemburg, Malta, Monaco, Namibia (only ordinary passport holders 90 days per annum), Netherlands, Norway, Panama, Paraguay, Portugal, Russian Federation, San Marino, Singapore, Spain, St Vincent & the Grenadines,

## FUSION 2020 - SOUTH AFRICA

### APPENDICES [CONTINUED]

Sweden, Switzerland, Tanzania (90 days per annum), Trinidad & Tobago (only ordinary passport holders), United Kingdom of Great Britain and Northern Ireland (only ordinary passport holders), British Islands Bailiwick of Guernsey and Jersey, Isle of Man. British Oversees Territories namely: Anguilla, Bermuda, British Antarctic Territory, British Indian Ocean Territory, British Virgin Islands, Cayman Islands, Falkland Islands, Gibraltar, Montserrat, St Helena and Dependencies (Ascension Island, Gough Island and Tristan da Cunha), Pitcairn, Henderson, Ducie and Oeno Islands, the Sovereign Base Areas of Cyprus South Georgia and South Sandwich Islands and the Turks and Caicos Island. **United States of America** (except in diplomatic staff due to assume duty at the Embassy and Consulates of the USA in SA), Uruguay, Venezuela, Zambia (90 days per annum), Zimbabwe

The citizen who is a holder of a national passport (diplomatic, official and ordinary) of the following countries / territories / international organisations is

**not required to hold a visa** in respect of purposes for which a port of entry visa may be issued or by virtue of being a person contemplated in section 31(3)(b) [accredited in SA] **for an intended stay of 30 days** or less and when in transit:

Antigua and Barbuda, Bahamas (only ordinary passport holders), Barbados, Belize, Benin, Bolivia, Cape Verde, Costa Rica, Cyprus, Gabon, Guyana, Hong Kong[only with regard to holders of Hong Kong British National Overseas passports and Hong Kong Special Administrative Region passports], Hungary, Jordan, Lesotho, Macau[only with regard to holders of Macau Special Administrative Region passports (MSAR)], Malaysia, Malawi, Maldives, Mauritius, Mozambique, Peru, Poland, Seychelles, South Korea, Swaziland, Thailand, Turkey

The conference secretariat will assist delegates with the necessary letters of invitation to the Fusion 2020 Conference.



# FUSION 2020 - SOUTH AFRICA

### APPENDICES [CONTINUED]

#### APPENDIX C: YELLOW FEVER ENTRY REQUIREMENTS

(Only applicable to Yellow Fever Risk Countries)

South Africa's yellow fever vaccination requirements policy has been reviewed. As of 1 October 2011, South Africa requires all travellers journeying from yellow fever risk countries to show proof of yellow fever vaccination by means of a valid yellow fever certificate.

This also applies to those who have transited through a yellow fever risk country.

The certificates, which are valid for 10 years, must be approved by the World Health Organisation, and should be administered at a yellow fever approved vaccination centre at least 10 days before departure to South Africa, as the vaccine only offers protection 10 days after administration.

Failure to produce a valid yellow fever vaccination certificate at a South African port of entry could lead to refusal of entry, or quarantine until the traveller's certificate becomes valid. Quarantine will not be longer than 6 six days.

Those who have an exemption certificate due to medical reasons will be allowed entry, but will be required to report any fever or other symptoms to the health authorities, and will be placed under surveillance.

Countries for which a yellow fever vaccination certificate is required for entry into South Africa are Angola, Argentina, Benin, Bolivia, Brazil, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Colombia, Guinea-Bissau, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Ecuador, Equatorial Guinea, Ethiopia, French Guyana, Gabon, Gambia, Ghana, Guinea, Guyana, Kenya, Liberia, Mali, Mauritania, Niger, Nigeria, Panama, Paraguay, Peru, Rwanda, Senegal, Sierra Leone, Sudan, Suriname, Togo, Trinidad and Tobago, Uganda, and Venezuela.



# FUSION 2020 - SOUTH AFRICA

### APPENDICES [CONTINUED]

APPENDIX D: SUPPORT LETTERS

