BIOGRAPHIES
SADC Open Science Workshop
"Democratising Knowledge through Open Science"
27 August 2024

Dr Elizabeth Bandason trained as an insect scientist at Michigan State University, USA, with specific interests in neurobiology and toxicology. She is the current Secretary General and one of the co-founders of the Academy of Science in Malawi. Dr Bandason is a 2018 OWSD Early Career Fellow and Chair of the OWSD Malawi Chapter. She is also an AWARD Fellow and Mentor, as well as a PIIVEC Research Capacity Development Fellow. An open hardware and insect neuroscience TREND-Africa alumna, she is currently a Principal Investigator for the Presidential Malaria Initiative (PMI-Evolve) in Malawi. Her research focuses on the abundance of malaria mosquitoes, biting patterns, and resistance development across the country. Dr Bandason is a senior lecturer in molecular insect sciences at Lilongwe University of Agriculture and Natural Resources (LUANAR).

Mr Mervyn Christoffels is a seasoned IT executive with over 25 years of experience in strategic roles, leading complex teams in challenging environments. He has managed large-scale projects with significant budgets and risk profiles. Currently, he leads the Centre for High-Performance Computing at the Council for Scientific and Industrial Research (CSIR) in South Africa, providing high-performance computational resources, novel technology services, AI, and Quantum Computing Services to scientific and commercial users. He also forges local and international collaboration partnerships, contributing to frontier projects in cloud computing infrastructure, AI, machine learning, and quantum computing. Mr Christoffels has a diverse background, having worked in various IT leadership positions in academia, industry, and consultancy. He holds multiple degrees, including an MBA and an MCom in Information Systems, and is pursuing a PhD in Business Administration. His expertise spans enterprise architecture, ICT strategy development, and digital transformation. Dr Christoffels has received awards for his work, including leading the team that migrated MyUnisa to the Microsoft Azure Cloud Platform, a first for Africa. His accomplishments reflect a strong focus on innovation and leadership in the IT field.

Mr Sabelo Dlamini is the Director of the South African National Research Network (SANReN), overseeing the country's high-speed research and educational network. He previously served as the Senior Manager of Research and Innovation at the State Information Technology Agency (SITA). Before joining SITA, he was the Senior Research and Consulting Manager at International Data Corporation (IDC), responsible for IoT and telecoms research in Sub-Saharan Africa, covering over 20 countries. Additionally, he was a Principal Telecoms Engineer at the Council for Scientific and Industrial Research (CSIR), where he led the creation of the research group on network function virtualisation and software-defined networking. Mr Dlamini is a senior member of both the IEEE and SAIEE and is registered as a Professional Engineer (PrEng) with the Engineering Council of South Africa (ECSA). He earned his BScEng (Computer Engineering) and MScEng (Electrical Engineering) degrees from the University of KwaZulu-Natal and the University of Cape Town, respectively. His research interests include network automation and orchestration, software-defined networking, and cybersecurity.

Prof Irvy (Igle) Gledhill is an Honorary Adjunct Professor of Flow Physics at Wits. She completed her post-doctoral work at the University of California, Los Angeles, and Stanford University. For 30 years, she specialised in transonic computational fluid dynamics at the CSIR and contributed to multidisciplinary collaborations, including rational drug design and coal mine safety. She is a past president of the South African Institute of Physics and chaired the International Union of Pure and Applied Physics (IUPAP) Working Group 5 on Women in Physics. She is a Vice-President of the Network of African Science Academies and interim Vice-President of the Academy of Science of South Africa. In 2024, she was awarded a D.Sc. (honoris causa) by Rhodes University and received a National Science and Technology Forum award for science diplomacy in Africa. Her current research interest is in the aerodynamics of bodies undergoing significant acceleration.

Mr Jan Jalloh is a 55-year-old professional from Sierra Leone with a career in documentation and information management. He holds a Master's degree in Conference Management from Northumbria University, UK, and has earned numerous certifications from esteemed global institutions. With over 29 years of experience, he has had the privilege of serving at the African Union's Pan-African Parliament and the African Commission on Human and Peoples' Rights. Currently, he is the Senior Documentation Officer at the Pan-African Parliament, where he oversees document management, translation coordination, and research services. He is fluent in both English and French, and his focus is on advancing document control, knowledge systems, and improving organisational efficiency.

Prof Gabriel Kabanda is a distinguished full professor in Computer Science, Information Systems, Cybersecurity, AI/Machine Learning, and Big Data Science. He has held various positions in academia, including Vice President of the Zimbabwe Academy of Sciences, Pro Vice-Chancellor of the Zimbabwe Open University, Adjunct Professor of Machine Learning at Woxsen University, Professor of Applied Business Informatics at the University of Zimbabwe Business School, Adjunct Professor of Cybersecurity at California State University, Professor of Big Data Science at NUST, and Head of Doctoral Programmes at the University of KwaZulu-Natal. He is a member of the African Scientific Research and Innovation Council (ASRIC) of the African Union. With more than 130 research publications, he has been recognised internationally for his outstanding contributions to education and was appointed jointly by the International Science Council, the World Federation of Engineering Organisations, and the InterAcademy Partnership to review the 2019 Global Sustainable Development Report.

Prof Langa Khumalo is a Full Professor and Executive Director of the South African Centre for Digital Language Resources (SADiLaR) at North-West University. SADiLaR is a national research infrastructure that stimulates and supports research and development in the domains of human language technologies, natural language processing, and digital humanities. He is the former Director of Language Planning and Development at the University of KwaZulu-Natal. Professor Khumalo holds a PhD in Linguistics from the University of Oslo (Norway), an MPhil in Linguistics from Cambridge University (UK), and a Certificate in Corpus Linguistics from The Tuscan Word Centre in Italy. He also completed an Oxford Strategic Leadership Programme at the Saïd Business School at Oxford University (UK). He has been an invited speaker and keynote speaker at various conferences and colloquia. He has received a Recognition Award from the University of the Free State for his global contribution to multilingualism and has recently been elected a Fellow of the Zimbabwe Academy of Sciences. He is also an Adjunct Professor at the University of KwaZulu-Natal.

Dr Sagren Moodley is currently employed as a Director for Basic Sciences (i.e., the foundational scientific disciplines) at the National Government Department of Science and Innovation, South Africa.

Mr Reaboka Morakabi is the Acting Senior Programme Officer responsible for Science, Technology, and Innovation at the SADC Secretariat. He holds a Master's Degree in Economics from the National University of Lesotho, a Professional Diploma in Innovation and Resilience for Sustainable Development from Lund University, and a Professional Certificate in Science, Technology, and Innovation Policy from Manchester Business School.

With over 10 years of experience in the field of Science, Technology, and Innovation, Mr Morakabi previously worked for the Government of Lesotho under the Department of Science, Technology, and Innovation. At the SADC Secretariat, he is responsible for facilitating and coordinating Science, Technology, and Innovation policy, planning, programming, and monitoring and evaluation, with the goal of harnessing these areas to support industrialisation and regional integration.

Dr Tshiamo Motshegwa is the Director of the African Open Science Platform (AOSP), where he oversees the strategic portfolio to direct and support the AOSP. The platform aims to position African scientists at the cutting edge of data-intensive science by stimulating interactivity and creating opportunities through the development of efficiencies of scale. It focuses on building critical mass through shared capacities, amplifying impact through a commonality of purpose and voice, and engaging in Global Commons to address continental and global challenges through joint action. Dr Motshegwa holds a PhD in Computer Science from City, University of London, UK, at the School of Mathematics, Computer Science and Engineering.

Mr Carlton Mukwevho is the Secretary-General of the South African National Commission for UNESCO. He is responsible for overseeing the implementation of the Commission's activities and managing the Secretariat as a whole."

Dr Joseph Mwelwa is the Founder and Chief Executive Officer of Joint Minds Consult Institute in Botswana. The institute specialises in consultancy work on research, knowledge development and management, training, and student support for Master's and PhD students. He leads a team of local and international researchers and is also the CEO of the Bangweulu University Development Project in Zambia. He is the lead author of the widely read article "Developing Science in Africa: Barriers, Solutions and Opportunities" and has been involved in initial efforts to introduce the discourse on Open Science and Open Data in Botswana. He collaborated with the team of authors at Joint Minds Consult to produce a landmark paper, "Participating in the Global Open Science/Open Data Space: Towards a Botswana National Data Forum and Strategy." This paper provided a theoretical platform that guided discourse on Open Science in Botswana and helped to galvanise consensus among universities, government, and the private sector. Dr Mwelwa served as a Technical Advisory Board member for the precursor of the African Open Science Platform. He has collaborated with and networked research policy institutes and universities in Europe and key southern African universities and research institutes in Botswana and Zambia to implement the OSCAR 2.0 project. He advocates for multilingualism as a conduit for Open Science and Open Data. Dr Mwelwa holds a PhD in Language and Literature from the University of South Africa.

Dr Thabile Ndlovu is a chemist with a PhD in Chemistry from the University of Johannesburg and a Postgraduate Diploma in Pesticide Risk Management from the University of Cape Town. She is a Senior Lecturer at the University of Eswatini, where she has also served as Head of the Chemistry Department. Her research interests include natural products and environmental chemistry, encompassing chemicals management, waste management, and climate change. Dr Ndlovu's work on chemicals and waste has contributed to Eswatini's efforts under the Stockholm Convention, Basel Convention, Montreal Protocol, and UNFCCC. She has published 17 articles in peer-reviewed journals. She has served on several national committees, including as a board member of the Eswatini National Trust Commission, President of the Kingdom of Eswatini Academy of Sciences, and Vice-Chair of the National Laboratory Association of Eswatini.

Prof Francesco Petruccione is a distinguished physicist and professor with a rich academic history. He commenced his academic journey at the University of Freiburg i. Br., earning his PhD in 1988, followed by the "Habilitation" degree (Dr. rer. nat. habil.) in 1994. In 2004, he accepted a position as Professor of Theoretical Physics at the University of KwaZulu-Natal (UKZN) in Durban, South Africa, where he also served as Pro-Vice-Chancellor of Big Data and Informatics. By 2007, Prof Petruccione was recognised with the South African Research Chair for Quantum Information Processing and Communication.

Currently, he holds dual roles as the Director of the National Institute for Theoretical and Computational Sciences and, since May 2022, as a Professor of Quantum Computing at Stellenbosch University, while also retaining a fractional professorship at UKZN. Prof Petruccione co-leads the Africa Europe Cluster of Research Excellence in Addressing Global and African Challenges through Methods from Artificial Intelligence, Data Science, and Theoretical and Computational Thinking (CoRE-AI).

His accolades are numerous. In 2023, he was awarded the prestigious Stella d'Italia honour by the Italian government. Additionally, he is an elected member of the Academy of Sciences of South Africa and a Fellow of various esteemed institutions, including the Royal Society of South Africa, the African Academy of Sciences, and UKZN.

Prof Petruccione's scholarly contributions are profound, with over 250 papers in peer-reviewed scientific journals. Among his publications, the monograph "The Theory of Open Quantum Systems" stands out, garnering more than 10,000 citations and being translated into Russian. Moreover, his collaborative work with Maria Schuld, titled "Supervised Learning with Quantum Computers" (2018), has been translated into Japanese, with its second edition, "Machine Learning with Quantum Computers", released in 2021. He serves on the editorial board of several scientific journals, including "Open Systems and Information Dynamics", "Scientific Reports", and "Quantum Machine Intelligence."

Dr Makhamisa Senekane is an experienced researcher with extensive knowledge in Information and Communication Technology (ICT) in both industry and academia, and is a member of LAST. He earned his Bachelor of Engineering in Electronics (B.Eng Electronics) from the National University of Lesotho in 2007, his Master of Science in Electrical Engineering (MSc.Eng Electrical) from the University of Cape Town in 2011, and his Doctor of Philosophy (PhD) in Physics from the University of KwaZulu-Natal in 2017. His research interests include data science, data security, data privacy, artificial intelligence (machine learning and natural language processing), and quantum information processing (quantum cryptography, quantum computing, and quantum machine learning).

Prof Himla Soodyall is the Executive Officer of the Academy of Science of South Africa (ASSAf). A member of ASSAf since 2003, she was elected to the ASSAf Council in 2011 and appointed General Secretary in 2014. Prior to joining ASSAf on 1 November 2018, she was a Principal Medical Scientist in the Division of Human Genetics at the National Health Laboratory Service (NHLS) and the University of the Witwatersrand (Wits). Her research focuses on using molecular genetic tools to reconstruct the evolutionary history and affinities of sub-Saharan African populations. Prof Soodyall has received numerous awards and accolades, including the Order of Mapungubwe (Bronze Medal) from President Mbeki in 2005.

Dr Melusi Thwala is the Manager of Science Advisory and Strategic Partnerships at the Academy of Science of South Africa (ASSAf) and Coordinator for The World Academy of Sciences Sub-Saharan Africa Regional Partner (TWAS-SAREP). He is also a Research Associate at Nelson Mandela University and the University of the Free State. Previously, Dr Thwala was a Principal Research Scientist and Research Group Leader at the Council for Scientific and Industrial Research (CSIR), South Africa. He holds a PhD from the University of Johannesburg and specialises in environmental water quality effects assessment and monitoring. He is a UNESCO Keizo Obuchi Fellow and a SACNASP-registered natural scientist in the Aquatic Domain. Dr Thwala is an Advisory Board member of Water4All and has served on the Editorial Board of Environmental Toxicology and Chemistry. He has also been a Guest Editor for the Applied Sciences journal published by Springer Nature.

Dr Anwar Vahed is the Director of the Data Intensive Research Initiative of South Africa (DIRISA). He manages the South African national research data infrastructure, supporting data-intensive research and the development of expertise and strategies for research data management. With over 20 years of experience in research and development, Dr Vahed is a computer scientist specialising in data science, artificial intelligence, machine learning, and research data management.

Mrs Susan Veldsman is the Director of the Scholarly Publication Unit at the Academy of Science of South Africa (ASSAf). In this role, she drives the Open Science agenda, enhances the visibility, discoverability, and accessibility of South African scholarly journals, improves the quality and research integrity of South African research output, and supports the development of policy frameworks for optimal use and access to publicly funded research. She received the Electronic Publishing Trust (EPT) award for her outstanding contribution to the promotion of Open Access in developing countries. Recently, Susan co-chaired the IAP Report on "Combatting Predatory Journals and Conferences," which was launched on 16 March 2022. She also received special recognition for her role in establishing the SciELO SA platform in South Africa during the SciELO 25 years (2023) celebrations.