Pitfalls of Artificial Intelligence

NSTF/pro*SET* Discussion Forum

Day 1

18 May 2023

Speakers Biographies

 Day 1: 09:10-09:40 *How are AI technologies beneficial for businesses?*	**Mr Ziaad Suleman** is the Chief Commercial Officer (CCO) and an Exco Member of EOH since 1 July 2021. Prior to this role, Ziaad was a Director and the Chief Operating Officer (COO) for IBM Southern Africa, a business he served and grew over his 13 - year stay. In his current role as CCO, Ziaad is responsible for the overall Go to Market proposition which includes sales, consulting, channel and OEM's, commercial constructs, investments, solutioning and marketing; as well as the Software Technology Business. Over and above EOH, Ziaad represents South Africa as the SA Chair of 4IR on BRICS, Chair of the ICT 4IR Public Private Growth Initiative (PPGI), ICT Lead on the Digital Work Accelerator (DWA) Presidential Programme, Independent Non – Executive Chairperson of Qode, Non – Executive Director of Charities Aid Foundation Southern Africa and Executive Member of D1GIT NPO. Ziaad schooled at St. Johns College, Johannesburg and earned both his undergraduate and postgraduate honours degrees in Law with distinction from University of Natal. He also obtained an MDP Business Management degree with distinction from GIBS Business School.
	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 in support of data intensive research, and coordinates the development of relevant expertise, strategies, and policies for research data management. Anwar's career spans leadership, managerial and capacity development roles in diverse academic, research, and operational ICT environments. He is a computer scientist with more than 20 years' experience in academia,

 Day 1: 09:40-10:10 *Artificial Intelligence: A curse of blessing? (Promises and Perils)*	and in research and development in the fields of artificial intelligence, machine learning, artificial neural networks, the data sciences, and research data management. He was Principal Researcher and Research Group Leader of the ICT for Earth Observation Research Group at the CSIR. Prior to joining the CSIR, he managed the data and information delivery systems of Statistics SA and chaired the Department of Computer Science at the University of the Western Cape. He has developed the national strategy for research Big Data, is review editor of data science journals and serves on several local and international committees in the data sciences, notably, the African Open Science Platform, US National Institute of Standards and Technology (NIST), the National Advisory Council on Innovation (NACI) and the National Institute for Theoretical and Computational Sciences. He serves on the Adjudication Panel of the NSTF-South32 Awards for the Data for Research category. *The CSIR is a member of NSTF under the Science Councils and Statutory Bodies sector.*
 Day 1: 10:10-10:40 *AI in programming is like having a personal assistant who can read your mind, except it's actually useful*	**Mr Pieter Steenekamp** has dedicated his career to developing and utilizing commercial software for industrial purposes. With a strong fascination for cutting-edge software technologies, Pieter has remained captivated by the potential of deep learning, a powerful subset of machine learning at the forefront of artificial intelligence (AI). His latest project involves using deep learning to identify suspicious behaviour, demonstrating just one of the many applications of this revolutionary technology. Pieter is highly skilled at simplifying complex concepts for beginners and is passionate about sharing his expertise in deep learning. He has developed a deep learning training bootcamp, which he plans to use to teach others about the potential of this game-changing technology. Before the rise of deep learning in 2014, Pieter was involved in industrial process control. His major accomplishment was contributing to the development of a model predictive control software package and successfully implementing it in the optimized control of

	hundreds of industrial processes. These processes spanned across various disciplines, including petrochemical, mineral processing, pulp and paper, and power generation.
 Day 1: 10:40-11:10 *Establishment of the AI Institute of South Africa (AIISA) and its role in building AI capacity in South Africa*	**Prof Anish Mathew Kurien** received his DTech in Electrical Engineering from the Tshwane University of Technology (TUT), Pretoria, South Africa in 2012, and his PhD in Computer Science (Joint Degree) from the University of Paris-Est, Champs-sur-Marne, France in 2012. He is currently the Node Director of the French South African Institute of Technology (F'SATI), TUT, and is responsible for Postgraduate programmes, Research & Innovation in the Department of Electrical Engineering. He was recently appointed as TETA Research Chair focusing on the development of an Agile and Open Transport Industry. His research interests include feature extraction and pattern recognition, mobile and wireless networks, and application of AI & ML approaches to various sectors of industry.
 Day 1: 11:10-11:40 *What were we thinking? An Explicable AI Train of Thought*	**Prof Duncan Anthony Coulter** has been at the University of Johannesburg (by way of its precursor institution the Rand Afrikaans University) since 2001. After a brief digression into the computerized psychometric assessment industry in the United Kingdom in 2005 he returned to the now University of Johannesburg as a permanent academic staff member in 2007. His research interests have focused on the intersection of the abstractions of biological processes and artificial intelligence in the context of multi-agent systems. In 2022 he became the Head of Department for the Academy of Computer Science and Software Engineering within the Faculty of Science but still greatly prefers both teaching and research to the burden of leadership. He is actively trying to trick some of his colleagues into getting promoted into his role. *UJ is a member of the NSTF.*