

NSTF/ Science Forum South Africa Thematic session: Pitfalls of Artificial Intelligence

7 December 2023

11:00-12:30

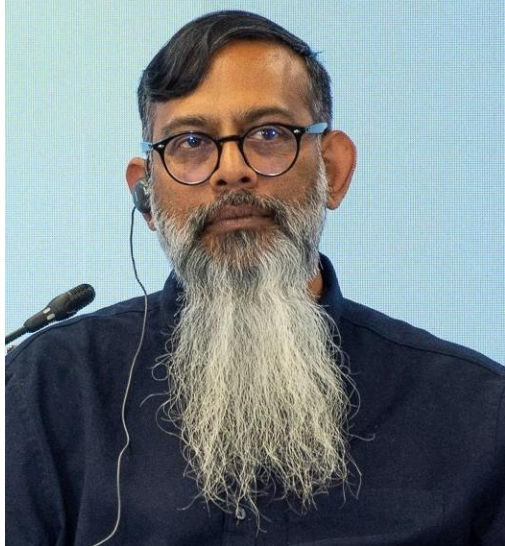
Speakers' biographies:



11:05-11:25

From Pitfalls to winter: Getting ready for the next Artificial Intelligence winter ahead

Prof Fulufhelo Nelwamondo is the CEO of the National Research Foundation (NRF) of South Africa. He holds a PhD in Electrical Engineering, with specialisation in Computational Intelligence from the University of the Witwatersrand (Wits). He was a Postdoctoral Fellow at the Graduate School of Arts and Sciences at Harvard University and was the youngest South African to receive the prestigious Harvard-South Africa Fellowship. Fulufhelo is a registered Professional Engineer, a Senior Member of the Institute of Electronic and Electrical Engineers (IEEE), a senior member of the Association of Computing Machinery (ACM), amongst others. Prior to his current role, he held executive positions at the Council for Scientific and Industrial Research (CSIR), and has served in several Boards, Councils, Ministerial Task Teams and Advisory committees. Fulufhelo is passionate about the Fourth Industrial Revolution (4IR), particularly in the potential impact its research and technologies can bring in the advancement of humankind, thereby addressing the social ills of poverty, unemployment and inequality. He has been a recipient of many awards, for his contribution to science, engineering and technology. In 2017, he was awarded the Order of Mapungubwe in Silver, the highest civilian honour bestowed by the President of the Republic of South Africa. Fulufhelo has worked in areas of advanced modelling, information security, data science, and artificial intelligence, and is a Visiting Professor at the University of Johannesburg's Institute of Intelligent Systems.



11:25-11:35

Contemporary Capitalism and the Challenges of Artificial Intelligence

Dr Rasigan Maharajh is an activist scholar who works as Chief Director of the Institute for Economic Research on Innovation at Tshwane University of Technology (TUT). His research critiques the contemporary political economy whilst focusing on the global knowledge commons, and the dynamics of science, technology, and innovation. Rasigan holds a Doctor of Philosophy degree from Lund University, Sweden; is an alumnus of the University of KwaZulu-Natal (UKZN) of South Africa, and the Harvard Business School of the United States of America whilst also an Associate Research Fellow of the Tellus Institute and an elected Member of the Academy of Science of South Africa (ASSAf). Since 2004, Rasigan contributed to more than 65 publications and presented his research in 42 countries.



11:35-11:45

AI – The risks and opportunities to the Manufacturing sector.

Mr Vinesh Maharaj is the Director within the Operations Transformation Department of PwC South Africa and has been working with clients in the Energy, Utilities, Resources and Industrial Manufacturing industries since 1995. He is the South African leader of the Smart Manufacturing practice. His experience covers a wide range of areas, with specific expertise being obtained in Industrial Automation and Control, Manufacturing Execution Systems, and IT/OT Integration. He is a registered professional engineer with the Engineering Council of South Africa (ECSA) and a Certified Director with the Institute of Directors. He serves on the executive committee of the Manufacturing Enterprise Solutions Association (MESA) Africa and is an advisor to the board of directors of the Society for Automation, Instrumentation, Mechatronics and Control (SAIMC). SAIMC is a member of the NSTF under the proSET sector.

Dr Olanipekun Ayorinde has extensive background in the dynamic realms of machine learning research and data science, I possess specialized expertise in Data Science, software development, Research, and the practical application of Machine Learning to engineering challenges and real-world scenarios. My proficiency lies in constructing advanced predictive models, leveraging various machine learning algorithms to effectively address complex business



11:45-11:55

*The Future of Society: Tomorrow's
Tapestry - Charting the Course of
Technology and Democracy in the Fourth
Industrial Revolution*

challenges across diverse sectors such as Finance, Digital Marketing, Research, and Agriculture. Through my dedicated efforts, I have successfully contributed to innovative solutions that have significantly impacted and resolved critical issues within these domains.