

# STEM education – disruptions and the future NSTF/proSET Discussion Forum

Day 1

29 August 2022

## Speakers' biographies



Day1 (29 August 2022) 9:10 - 9:40

**Awareness of the importance of STEM subjects among learners, and the role of Vuwani Science Resource Centre**

**Dr Nnditshedzeni Eric Maluta** is the co-ordinator for the Vuwani Science Resource Centre under University of Venda. He is currently a member of the Council of South Africa Institute of Physics (SAIP) with a portfolio of Physics teachers' development; and a member of International Union of Pure and Applied Physics (IUPAP) Commission 14: International Commission on Physics Education. He is a current member of the Accreditation Committee for Science Centres under the Network of Science Centre in South Africa, which is an initiative of DSI and SAASTA. He holds a PhD from University of Bath (UK), MSc from University of Venda and BSc Honours from University of the North. His research focuses on the green energy both experimental and computational. He is an ambassador and communicator of Science, Technology, Engineering and Mathematics in the rural areas and the winner of 2021/2022 NSTF Science Communicator award.



Day 1 (29 August 2022) 9:40-10:10

**How to teach learners to be innovative? Does it make sense to include creativity as an aspect of STEM teaching and learning?**

**Ms Tshidi Morabi** is the owner of Ginini Consulting, an IT business consulting & IT training boutique company. In 2019 Ginini Consulting initiated STEAM4Kids education with the purpose to teach kids coding and robotics.

She holds a BCom Informatics, Post-Graduate Diploma in Risk Management, Artificial Intelligence in the 4iR, Certificate in Data Science, Applied Project Management in IT, TOGAF (IT Architecture), ITIL, COBIT 4 foundation, Certificate in Business and Systems Analysis, Business Process Practitioner as well as Training Assessor qualification. Tshidi has over 20 years in the IT industry, mostly in Software Development and Training.

	<p>In 2019 she invented a Scholar Transport App called LocTransie, which scooped 2 MTN Business App of the year 2019 awards in Best Women in STEM Solution and Best incubated Solution.</p>
<div data-bbox="312 427 676 965" data-label="Image"> </div> <p data-bbox="277 996 711 1028">Day 1 (29 August 2022) 10:10-10:40</p> <p data-bbox="209 1066 783 1178"><b>Challenges to mathematics education from the perspective of a Mathematics Olympiad Organiser</b></p>	<p data-bbox="809 400 1390 676"><b>Ms Ellie Olivier</b> is the General Manager of the South African Mathematics Foundation. Since she joined the Foundation in 2004, she has acquired a wide range of skills in the development and sustainability of non-profit companies and has implemented several learner and teacher development projects.</p> <p data-bbox="809 689 1390 882">She has been involved in the South African Mathematics Olympiad since 1997 and received an honorary award for serving on the Mathematics Olympiad Committee for 20 years in 2018.</p> <p data-bbox="809 896 1390 1088">When she is not working, she enjoys long distance running and has completed one Comrades and about 20 marathons. She also enjoys bird watching and is a member of Bird Life South Africa.</p>
<div data-bbox="272 1245 716 1827" data-label="Image"> </div> <p data-bbox="277 1861 711 1892">Day 1 (29 August 2022) 10:40-11:10</p> <p data-bbox="212 1930 778 2004"><b>SA Report on COVID-19's impact on education (Commonwealth study)</b></p>	<p data-bbox="809 1216 1390 1946"><b>Dr Andrew Paterson</b> has more than twenty years of experience as a researcher and research leader and has school teaching experience. Has been involved in a wide range of research projects with different methodologies and goals. He obtained PhD in social history in 1992. He has taught at higher education institutions predominantly in teacher education role for more than fourteen years focusing on history and political economy of education. His current research activity includes: studies on skills development for migrants and refugees, youth employment, work values of TVET college learners, and accountability in schools. His latest publication co-authored with Roelien Herholdt, James Keevy, &amp; Bina Akoobhai. Is "Assessing work-based values: The missing link in improving youth employability." (2021).</p>



Day 1 (29 August 2022) 11:10-11:40

**Education technology solutions for remote schooling**

**Mr Bez Sangari** is the CEO of Sangari South Africa, located in Kyalami, providing educational solutions for STEM and Industry 4.0 at all educational levels. He received an MBA from Schiller International University (London) 1985 and has been working in the Education field for over 30 years.



Day 1 (29 August 2022) 11:40 -12:10

**The pedagogy of technical and vocational skills: Robotics and beyond in the South African school curriculum**

**Prof Ian Moll** is research fellow at REAL (Centre for Researching Education and Labour) at the University of the Witwatersrand. He was retired from the Division of Educational and Engineering Information Technology at the university at the end of 2021. His interests lie in the psychology of learning; knowledge, work and skill; the networked society; learning and pedagogy; and educational technology. His PhD is in cognitive science from the University of Geneva. During his career, he has been an early childhood educationist, an adult literacy teacher, a trade unionist, a district director in the Gauteng Department of Education, a researcher at the South African Institute for Distance Education, visiting professor at the Universities of Makerere and Witwatersrand (where he was a lead researcher in the Panafrican Agenda on the Pedagogic Integration of ICTs), and a lecturer in educational theory and research, psychology of education and instructional design.