

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)  
Interactive Presentations (IP)

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AFRICA'S CONTRIBUTION TOWARDS THE SPACE INDUSTRY: FOCUS ON SOUTH AFRICA'S  
VALUE ADD TOWARDS CAREER DEVELOPMENT OF THE YOUTH.

**Abstract**

Abstract Author: Mr Tenda Madima Title: Africa's contribution towards the space science industry: Focus on South Africa's value add towards career development of youth. The paper will deal with an in-depth analysis of how Africa in general and South Africa in particular contribute towards enhancement of career guidance to the youth on space technology, space application and space travel. The value add that Africa as a continent contributes and what South Africa offers in the development of appropriate infrastructure and the platform for the would-be professional engineers and scientists in the space field is critical. An African youth will be equipping with critical knowledge on becoming an astronaut. Exploring knowledge of astronomy through instilling an understanding of the collaborative efforts and intercontinental partnership due to a surge in interest in astronomy and space science will focus on what appeals to almost everyone regardless of age, creed, gender and social background. Most importantly, we need to go beyond the school boundaries in order for young people who choose STEM careers because of futuristic needs such as the aspiration to orbit in space or visit one of the planets once they qualify. Today's youth can enhance the field of astronomy and through interacting with the public through blogging, Twitter and streamed live chats. This model has a global outreach, leading to the return on investment for professionals. Africa has set a milestone along humanity's journey into space which now fully recognizes that the benefits to humanity should be the motivation for further technological developments and explorations into space. South Africa hosts the Square Kilometre Array (SKA). Government's priority of job creation, strategic skilling using manufacturing which includes components the role of space as an enabler of industrial activities. There is an urgent need to encourage more youth into this field and therefore it would be imperative to ensure that the genuine steps and decisions taken on every occasion of the International Astronautical Congress (IAC) each year should remain a universal fundamental space guidelines. The paper will focus on the benefits of space security for development in Africa, long term sustainability of the outer space environment, space systems on climate and advanced communication, education access, and collection of critical data/information through earth observation and for disaster management. Furthermore, space is about investing in the next generation through research and development. African nations can develop best practice that will obviate threats to outer space.