

## SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)

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## SPACE TECHNOLOGY IN CAPACITY BUILDING FOR SUSTAINABLE ECONOMY

**Abstract**

Space technology remains a critical driving force behind the success stories of the economies of many nations of the world today. Nigeria has made good effort to be in this community of Nations who produce space data and provide space-based services. The path to the attainment of Nigeria's relatively high profile in space-based technology and application was charted with the establishment of the National Space Research and Development Agency (NASRDA) in 1999 and the subsequent launch of Nigeria's first Earth Observation Satellite (NigeriaSat-1) in September 2003. Nigeria has pursued the establishment of space capabilities as an essential tool in her socio-economic development particularly in the enhancement of the quality of life of her people. The need to build indigenous capacity in Space Science and Technology (SST) in Nigeria and indeed all over Africa especially in core areas such as information communication technology (ICT), navigation and Earth observation systems for geo-information production and management cannot be over-emphasized. The advent of space technology has changed the way resources are managed. It has revolutionized the development and use of technology in handling data acquisition, management and transfer as well as sharing. With space-based technology, it is now possible to arrive at informed decisions in socio-economic development planning. The use of space-based resources thus has the potential to impact many areas of socio-economic development including food security issues, energy, resource inventory and management, environmental monitoring, healthcare delivery, infrastructural development, disaster prevention and rapid response in emergencies, defence and security. It is also capable of enhancing Nigeria's commitment towards global partnership to address global challenges such as hunger and diseases and promote peace, education, human rights, gender equality and environmental sustainability. The interface of space technology and sustainable development has to be defined and exploited through appropriate capacity building for national development. This requires concerted efforts at putting space resources in the mainstream of tools for the development of the various sectors of the nation's economy. Hence, Space technology offers a wide range of innovative and cost effective solutions for sustainable development by providing a unique opportunity to balance consumption and production, and therefore ensure sustainability of our resources and the global environment. What are the prospects for the requisite knowledge generation, development and sharing through regional and international co-operation? What challenges needs to be overcome? These and other related issues are discussed in this paper.