

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Enabling the Future - Developing the Space Workforce (5)

Author: Mr. Muhammad Ziyaad Soreefan
Mauritius Research and Innovation Council (MRIC), Mauritius, z.soreefan@mric.mu

Dr. Vickram Bissonauth
Mauritius Research and Innovation Council (MRIC), Mauritius, v.bissonauth@mric.mu

INITIATING KNOWHOW ON SPACE TECHNOLOGIES IN MAURITIUS

Abstract

The Republic of Mauritius is a small island developing state located in the Indian Ocean, with a population of 1.3 million and a land mass of about 2000 km². Since its independence in 1968, Mauritius has advanced from a low-income economy, relying mainly on the agricultural sector, to a middle-income multi-sectorial economy such as industrial, financial, ICT and tourism. However, recently, the growth of its economy has slowed down significantly in a world where the economy today is highly driven by innovation. Since winning the KiboCUBE Programme organised by the United Nations Office for Outer Space Affairs (UNOOSA) and Japan Aerospace Exploration Agency (JAXA) in 2018, the Mauritius Research and Innovation Council (MRIC) has trained 2 engineers on space technologies. The Engineers were taught the basic knowledge and skills to develop a CubeSat. From the training, they have the responsibility to control and operate MIR-SAT1 and responsibility to operate the MRIC Ground Station (GS). The MRIC invested 1 million USD into the space project. The GS at the MRIC is considered to be state-of-the-art which consist of UHF, VHF and S-Band capabilities and a mission flatsat with MIR-SAT1 components. Moreover, the Council has invested in software such as STK and high-powered computing to assist MIR-SAT1 and future space mission. In parallel the Council is also looking into space data applications. In the view of setting up a space unit at the MRIC, graduates are being recruited to join. They will be taught the skills and knowledge which has already been acquired by the engineers and assist on future projects. In parallel, the MRIC is currently working on a strategy to initiate a space development programme in Mauritius by leverage on the existing flatsat. Through this programme, the Council intend to engage local universities to develop CubeSat structures, subsystems and payloads which will need to pass a renowned space agency fit-to-fly requirement.