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NEW SATELLITE'S ASSEMBLY, INTEGRATION AND TESTING FACILITY IN UNITED ARAB  
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**Abstract**

UAE has well-established satellite communication operators and operational earth observation satellites. In addition, there is a strong drive to design, develop and manufacture satellites in the UAE by Emirati scientists and engineers. A great example is the KhalifaSat earth observation satellite that was developed at the Mohammed Bin Rashid Space Center (MBRSC). KhalifaSat was launched successfully in 2018 and has since provided good quality data. MBRSC is also the prime contractor for the ambitious Emirates Mars Mission, funded and overseen by the UAE Space Agency. With these major space activities it is clear that The UAE has taken a big leaps to be a major actor in the space industry. To sustain this drive the UAE has commissioned a series of educational CubeSats that will help develop a new generation of young mutli-disiplinary Emirati Space engineers. These CubeSat missions include Nayef-1 and Mysat-1 that were launched in 2017 and 2018 respectively. In addition, several other CubeSat projects led by universities are currently in progress. As a part of UAE government strategy to create a knowledge based economy the National Space Science and Technology Center (NSSTC) was established in 2016 as a collaboration between United Arab Emirates University (UAEU) and the Information and Communications Technology Fund (ICT Fund). The scope of the center is to be a lead research and development center for the region in the field of space science and technology. In order to achieve this the NSSTC with support from the UAE Space Agency is going to build a world class Satellite's Assembly, Integration and Testing (AIT) facility. This AIT facility will be responsible for hosting all the activities the satellite will be going through during its development lifecycle. The reference for the baseline requirements for this facility is the mass and the volume of the class of satellites that will be developed within the center. Namely, satiates with mass less than 200kg, and a maximum volume of 1m<sup>3</sup>. This paper will discuss the capabilities of the new facility and its importance to support the objectives of UAE space program. Also, the overall procedure of setting up an AIT facility especially for small satellites. Taking to consideration all types of environmental and functional testing required at qualification or acceptance levels. As the satellite experiences harsh conditions during the launch and while orbiting the earth. So, it has to be tested to ensure it will survive the required lifetime.