

IAF SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)
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Author: Mr. Rashed Almas

Mohammed Bin Rashid Space Centre (MBRSC), United Arab Emirates, rashed.almas@mbrsc.ae

DEVELOPMENT OF CLEANROOM CAPABILITY IN UAE

Abstract

The purpose of cleanroom and space laboratories is to support the development of scientific and technical projects in the United Arab Emirates. This abstract address the requirement to build a cleanroom in UAE in the aerospace industry with an application in Mohammed Bin Rashid Space Centre (MBRSC). MBRSC was previously named Emirates Institution for Advanced Science and Technology (EIAST) which was established in 2006, with a vision to be a leading global center for science and technology. In 2013 cleanroom development project was launched to start a new era of cleanroom space satellite manufacturing leaded by MBRSC UAE nationals. The aim of this to have capability to manufacture the space satellites in cleanroom which are developed by MBRSC engineers on UAE soil in order to lead our country towards a promising future. There are many factors that associated with building a cleanroom especially here in UAE where the weather conditions stands as a big obstacle in terms of temperature, humidity dust. In order to achieve a stable cleanroom environment conditions some factors need to be highlighted and considered during the cleanroom construction such as structure design, HVAC system, continuous monitoring system, materials, Electrostatic Discharge, classification standard, future expansion, maintenance and Sustainability