18th IAA SYMPOSIUM ON BUILDING BLOCKS FOR FUTURE SPACE EXPLORATION AND DEVELOPMENT (D3)
Systems and Infrastructures to Implement Sustainable Space Development and Settlement - Systems (2A)

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HOW TO ACCELERATE THE PRODUCTION PROCESSES FOR THE SURVIVAL OF HUMAN COLONIES.

Abstract

The European Space Foundation (ESF), the Laboratory of Innovation of Things (LIT), the National Learning Service (SENA) and The Mars Society Colombia, develops a research seedbed program in STEAM with college students, technicians and professionals, to inspire, innovate and develop projects in the space sector ecosystem where the main objective is the benefit of humanity in its primary needs using the Internet of things (IOT) applied to the sciences of earth and space, we have different projects where Applications are included in the food industry where bread, biscuits and cereal bars have been produced from the cultivation of Arthospira maxima and Haematococcus pluvialis microalgae, preparation of mead for the transformation and use of honey from the raising of bees In vitro cultures have been automated with LED technology to accelerate the production processes of some s vegetables that can be used on Earth and in the space sector, aquaponics processes have been carried out for the sustainable production of plants and fish, oils and creams for skin care have been developed in the cosmetic industry, through the use of herbs and natural extracts, in the area of robotics, processes for the optimization of each of these projects have been automated in order to accelerate the production processes for the survival of human colonies, outside and inside the Earth, supported with the construction of exploration rovers for extreme environments where the conditions are analog of celestial bodies all these projects are framed in an education program based on 14 subsystems (kinship, health, loyalty, recreation, among others) which are the roadmap of human behavior on Earth and how it can be applied to a space mission, each of These projects are supported by a group of professionals in different areas of knowledge which allows interdisciplinary work between professionals and new generations of students who are very interested in all these projects in the space sector.

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