

IAF MICROGRAVITY SCIENCES AND PROCESSES SYMPOSIUM (A2)  
Life and Physical Sciences under reduced Gravity (7)

Author: Ms. Ashwini Sathnur  
India, ashwiniashis@yahoo.com

INTRODUCTION OF ACCESSIBILITY AND NEW INNOVATIVE TECHNOLOGIES AND  
SOLUTIONS FOR SUPPORTING HUMAN LIFE ON THE INTERNATIONAL SPACE STATION

**Abstract**

The basic foundational idea is on the theories of Gene Expression fundamentals, representing the changes in the gene expression and changes in the neuronal genes in the International Space Station. The study is about the basic required qualities in the human crew neuronal genes which are missing in the microgravity.

Product description:-

Gene expression calculations algorithm based on the qualities of the human crew which is captured by the entries provided by the crew

Creating a mathematical equivalent for the human crew's gene expression qualities

Create mathematical representations of Earth – like gene expressions of the human crew

Create differences between the mathematical derivations of gene expressions on Earth – like instances and on the International Space Station [also calculating the similarities] With the aid of calculations in previous Step the health – imbalances qualities are derived

Create a neural networks algorithm that would design the health – balance return for the human crew based on the results of the previous step

Create a user interface design to display the use case results and crew information/ algorithm information in all web languages

Create a mathematical derivation equation to calculate changes in the previous timestamp's gene expressions and present timestamp's gene expressions

The previous step's calculation is performed over regular intervals of time

Based on the calculated gene expression changes, a use case is created to collect the data and statistics graphically for each and every human crew

Create a use case to study the economics of the graphical statistics

Create a use case to derive solutions for the health conditions of the human crew based on the previous step

Create a use case to display the remedial solutions for that particular human crew from the previous step

Create a use case to select a type of display web source language such as HTML, Javascript, Java etc. This option for selection would be captured from the human crew's requirements

Create a use case to convert the graphical results to a documentation format

Create a use case tool to create the graphical chart from the received data results and the crew's specific information

Create a use case to derive the variations in human health in micro gravity based on the economic statistics from the graphical representation to understand effects on crew in the International Space Station

Create JavaScript API user interface for all the above mentioned steps use cases [Tableau Javascript API]