

The World Science Day for Peace and Development

This edition of Vidurava has appropriately focused on Space Exploration as the theme for commemorating the World Science Day for Peace and Development, an event celebrated annually on the 10th of November under the auspices of UNESCO. An enlightening and inspirational set of articles have been lined up in this number, articulating a wide – angle view of satellite technology, space travel, communication, as well as an array of spin-offs arising for the greater benefit of mankind.

It is indeed a remarkable achievement and a commemorative event that a distinguish citizen of Sri Lanka, the Late Sir Arthur C. Clarke, whose prediction in 1945 of the possibility of creating a global communication system through what is referred to as a geostatic satellite, was to become a reality a couple of decades later. As commented by one of the contributors, Clarke's remark on 'the absurdity of mankind's present tribal divisions, and the need to conceive the idea of a global village', has been gradually taking shape over the past six decades or so. Space travel is known to involve a state of zero gravity, or a condition that may be referred to as 'microgravity'. How this phenomenon acts on the biological and physical functions of astronauts is not common knowledge. The critical impact of such an environment on astronauts, who are obviously prepared to face risks during space travel are discussed in an article in this number.

It may seem paradoxical that while climate and environmental changes back on our good Earth are demanding more and more research to help mitigate adverse consequences for the survival of living beings, it may be thought idealistic to spend huge sums of money searching for alternate human-friendly habitats elsewhere in the universe.

Space research in search of light weight materials, miniaturized devices, health effects under gravity, rapid computing systems, water and air filtering systems, energy harnessing mechanisms, as well as robotics appear to have opened up new technological pathways and innovative products that could serve the well being of human beings.

Thus NASA's efforts in developing high resolution space telescope, had led to an innovation capable of measuring complex surfaces with high degree of accuracy. This technology has apparently been transferred to ophthalmology and eye surgery for measuring the eye lens before eye operations. Likewise a worthy contribution to agriculture had been the assembly of an automated device for monitoring of plant growth and optimizing water requirements to plants, which has helped to reduce water usage in large scale farming by about 25 %.

Many more unique applications have been described by contributors to this number, which are bound to inspire the reading public.