World Academy of Science, Engineering and Technology International Journal of Mathematical and Computational Sciences Vol:14, No:12, 2020

Viability of Smart Grids for Green IT Sustainability: Contemplated within the Context of Sri Lanka

Authors: Manuela Nayantara Jeyaraj

Abstract: Information Technology (IT) is considered to be the prime contributor towards most of the energy releases and hence recursively impacting on the environmental Carbon Footprint on a major scale. The hostile effects brought about due to this massive carbon release such as global warming and ecosystem wipe-outs are currently being realized in Sri Lanka due to the rapid development and merging of computer based technologies. Sri Lanka, being a nature-rich island, has the undying need to preserve its natural environment hence resolving to better ' Green IT' practices in all possible spheres. Green IT implies the IT related practices for environmental sustainability. But the industrial divisions in Sri Lanka are still hesitant to fully realize the benefits of applying better " Green IT" principles due to considerations related to costs and other issues. In order to bring about a positive awareness of Green IT, the use of Smart Grids, which is yet a conceptualized principle within the Sri Lankan context, can be considered as a feasible proof in hand. This paper tends to analyze the feasibility of utilizing Smart Grids to ensure minimized cost and effects in preserving the environment hence ensuring Sustainable Green IT practices in an economically and technologically viable manner in Sri Lanka.

Keywords: green IT, industry, smart grid, Sri Lanka, sustainability

Conference Title: ICSRD 2020: International Conference on Scientific Research and Development

Conference Location : Chicago, United States **Conference Dates :** December 12-13, 2020