INTRODUCING STEM EDUCATION IN STATE SCHOOLS ACROSS SRI LANKA

Ashu Marasinghe

The Parliament of Sri Lanka ashu@parliament.lk

This report presents a proposal for the implementation of STEM (Science, Technology, Engineering and Mathematics) - education across state schools in Sri Lanka. The project partnered with SCCIP Japan Company Limited (SCCIP) and Kaatsu International University(KIU) - STEM Center will manifest the importance of a curriculum based on Robotics Education for students from grade one to grade ten in state schools in order to create a school culture where the significance of STEM education is highly recognized and valued. The project aims to consolidate the skills of students such as critical thinking, application of information gained through experience and reasoning and integration various education disciplines to solve authentic problems thereby, fostering innovation and entrepreneurial spirit among the young work-force of the country. This project will motivate for a strong robotics curriculum in order to encourage STEM education among school students. Robotics education is of a substantial platform to influence students as this will utilize student imagination for the process of designing, building and testing solutions for real-world problems. The novel curriculum will fulfill the needs of economic, scientific and technological developments in the contemporary world of the fourth

Industrial Revolution. This will strongly focus on student preparing to enter the job market with the necessary skills set which is an inadequate factor in the current education curricula.

The initial pilot project will commence with the launch of the robotics-based curriculum (developed by SCCIP) to a selected group of state schools across Sri Lanka. The schools include Royal College, Ananda College, Vishaka Vidyalaya, Sangamitha Balika Vidyalaya, Hemali Balika Vidyalaya and Darussalam Maha Vidyalaya. SCCIP intends to provide a STEM Robotics Curriculum for each grade, a STEM Robotics trained teacher and required STEM Robotics Kits and Software. This pilot project would encourage students to participate in Robotics competitions actively, conduct student-teacher exchange programs, summer camps & tours, etc. that will show cast Japanese advanced Technology and to develop the knowledge, skills & habits of mind associated with STEM disciplines by adopting an interdisciplinary & applied approach.

Keywords: School education, Encourge Students, Robotics Curriculum