SCIENCE, Technology, Engineering and Mathematics – STEM story festival 2018 was organised as a tribute to Dr. A.P. Jayaraman, Scientific Advisor to Labour India Educational Research Centre, Kerala and Logic Mills Academy, Singapore, Vice Chairman, National Centre for Science Communicators (NCSC) and a pioneer in the genre of creative science stories. Dr. Jayaraman completed 75 years on 15 January 2018.

Nehru Science Centre, Mumbai, National Council of Science Museums (NCSM), NES and SVS group of educational institutions, Indian Development Foundation (IDF) and NCSC, jointly organised the seminar on 13 January 2018 at the Auditorium of Nehru Science Centre, Mumbai.

The STEM storytelling festival engaged teachers and educators with STEM stories and encouraged them to create science stories, which they can use as value additions to science teaching. The goal of the festival was to explore the expanding world of creative STEM stories and to establish networking with resource persons.

Dr. S. Sivadas, Professor of Chemistry, and Former Editor, Eureka, a publication of the Kerala Shastra Sahitya Parishad (KSSP), delivered the keynote address. He talked about his long-lasting association with Dr. Jayaraman and about his rendezvous with all forms of literature – stories, dramas, puppets, cartoon, comics and most importantly science storytelling.

Dr. S.K. Jain, Chairman, Mahapragya Public School, Mumbai described the various modes of storytelling. He informed the audience about the norms that are used in storytelling such as setting, details, time, date, scenery, weather and location to build a story, its background creating images in the mind. According to Dr. Singh involvement of the listener can be achieved by including personal experiences, anecdotes, sounds and images of animals for younger children thus generating larger than life imageries.

Dr. Renuka Thergaonkar, Head, Department of Cosmetics & Fragrance, V.G. Vaze College, Mumbai, who teaches perfumery and cosmetic science, presented an interesting story explaining about essential oils from plants being used in aromatherapy. She brought out the fact that storytelling can impart an easy understanding of the subject.

Ms. Jyothy Ramachandran, Principal, Mahapragya Public School, Mumbai referred to storytelling as “Rasayanik Manthan”. According to her storytelling or transfer of knowledge has been passed on from generation to generation. Stories were depicted as cave paintings 27,000 years ago. Text and language came into being 35,000 years back. Today, in this digital age, PowerPoint is used to depict stories.

Ms. Ramachandran narrated the story of Mr. David JP Phillips from Sweden, CEO of a training company in presentation skills. Mr. Phillips has been training people in communication and has delivered TEDx talks such as the magical science of storytelling and how to avoid death by PowerPoint, which have been uploaded on the YouTube. She gave examples of how difficult subjects can be presented and taught in a simple manner. One of them was about neurochemicals in the brain. She talked about the angel’s cocktail consisting of endorphins, the feel-good chemicals and devil’s cocktail, which include cortisol and adrenaline, the two stress hormones. She averred that the best way to impart science education is through storytelling in a simple and fun-way, which helps develop love for science.

Mrs. Usha Venkatraman, educationist and a performing artist, narrated stories and sang songs to reveal how science can be woven into them to make it exciting, fascinating and easy to grasp especially for younger children.

Ms Payal Shah Karwa, author and content director at the Word Jockey Creative Content Studio, Mumbai talked about
why stories work with children. She mentioned plots of storytelling in general, for instance, stories with monsters, whom the good people win over or stories that have a theme about a poor person becoming rich – rags to riches and many more. Ms Karwa stressed that using such plots in the stories makes them motivating and thought-provoking.

Harshada Kalai Arasan Swamy, a student of NES Ratnam College of Arts, Science and Commerce, Mumbai, narrated the story entitled “The Happiest RO man”, written by Dr. A.P. Jayaraman. The story explains the reverse osmosis process used to supply safe potable drinking water.

This was followed by demonstration of scientific experiments by Ms Manjula Yadav, education officer at Nehru Science Centre, Mumbai.

Mr. Abhay Mokashi, senior journalist, moderated the panel discussion on STEM stories in classroom or out of classroom. The participants on the panel were Principals of

Mumbai schools, Dr. Sagareeka Bhatia, RBK International School, Ms. Seema Sabhlok, S.M. Shetty High School, Dr. Latha Venkat, KGS Sarvodaya Balika Vidyalaya, and Dr. Sangeeta Srivastava, KES TP Bhatia High School.

During the discussion, issues were raised regarding teaching in schools. There emerged a few striking points. In recent times, students are curious and learning has reached a different level. They use Internet, You Tube etc. to search for information. It is important that the schools use guided learning techniques. Principals felt that language should not be a barrier for any teaching or learning. Storytelling is a good way to teach. In addition, poetry also serves as a good medium to catch the students’ attention.

Regarding the role and contribution of teachers, it came to light that some teachers are motivated and eager to learn and they even try out newer teaching techniques while there are others who do not want to change their old teaching methods. Most importantly, teachers have to be ahead of students. They have to be good readers and should be technology savvy to guide and educate students.

Mr. Vithal Nadkarni, senior journalist and Dr. Siddhvinayak Barve from the Department of Biotechnology, V.G. Vaze College, Mumbai, conversed with Dr. Jayaraman regarding his learning curve; his scientific vocation, his synthesis of the Kerala Sasthra Sahitya Parishat, his interest in education of children and his creative science storytelling abilities.

Following the felicitation, Dr. Jayaraman gave the valedictory address in which he presented his tryst with STEM stories and his journey through storytelling.