

# **SAKURA Science Program Completion Report**

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I find myself extremely fortunate to be part of the Sakura Science Exchange Program, implemented by Japan Science and Technology (JST), where myself along with 57 other students across India were able to experience both cutting edge Japanese technology and Japan's rich heritage and culture.

Through this program students from India and Japan come together to foster cultural exchange, friendship, and personal growth.

I am extremely delighted to share my experiences that made an ineffaceable impression on my mind.

We landed at Kansai International Airport on 9<sup>th</sup> July 2023 where we were divided into two groups and met our coordinators. For group 1, which I was part of, Japanese coordinators were Mr. Naoto Kato (KatoSan) and Mr. Ken Yamanaka (KenSan) , who were extremely cooperative during the whole trip and helped us a lot. Each day we travelled to our destinations by bus in which KatoSan and KenSan would provide us with some interesting information about the passing by places and the places we would be travelling to.

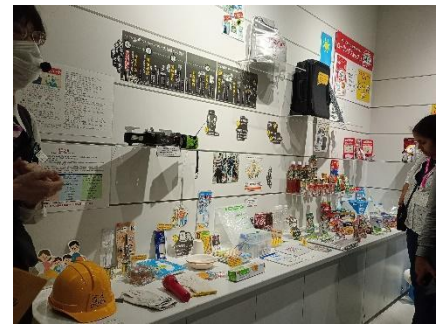
## DAY-1

10<sup>th</sup> July, 2023

The first day started with an orientation session in which we were briefed about the program. We were given general instructions regarding Do's and Don'ts during our stay in Japan. Shortly afterwards we made the acquaintance of fellow students from the countries of Mongolia, Tonga, Samoa and Solomon Islands.



In the afternoon we visited the Osaka city Abeno Life Safety Centre where we learnt about natural disaster management such as earthquakes and how to survive them. We learnt about safety and survival measures such as using a fire extinguisher to quickly stop fires at an early stage. The Virtual Earthquake Corner simulates the experience of a JMA Shindo 7 earthquake modelled after the Kobe earthquake.



In the evening we were taken to tour Dotonbori, known as the heart of Osaka City and one of the principal tourist destinations in Osaka. Its eye-catching



signage and billboards with a giant pufferfish, an octopus, a clown, the Kani Douraku crab all vying for our attention and creating an amusement park-like atmosphere. Of all these signs however, the most famous is that of the Glico running man above Ebisubashi Bridge.

## Day-2

11th July, 2023

Next day was for the visit to Kyoto Municipal Horikawa Senior High School where we interacted with Japanese high school students and together performed a group activity in which we had to find the colour of sample LEDs using non sample LEDs without actually connecting them to a circuit.



This was followed by a remarkable lecture by Prof Hiroshi Kitagawa (Department of Chemistry, Kyoto University) on the topic “Modern Alchemy for New Nano-Materials: Binary to High-Entropy Alloys”.

Next, we took a tour of Kiyomizu-dera temple known as Temple of the Pure Water Spring, a Buddhist temple in Kyoto. Situated atop a small mountain on the east side of Kyoto, offering a commanding view of the city. We, astonished by the



spectacular beauty of the temple, toured the shopping street that leads to Kiyomizudera and is lined with shops, tea rooms, and restaurants serving local Kyoto-style cuisine and souvenirs. Our coordinator Mr.Naoto Kato (we call them KatoSan) was very kind enough to suggest that I try his favourite confection Yatsushashi.



### Day - 3

12<sup>th</sup> July 2023

On day 3 we visited Osaka Prefecture University R&D Centre for The Plant Factory. After an introductory session we visited their laboratories and gained a deeper understanding of how plants can be grown in urban areas through aquaponics. Interestingly, lettuce (and other plants grown in the factory) are never exposed to outside environments. Plants are cultivated under a High-efficiency LED lighting system. Then we had a Q&A session where all our questions were answered.



After that we performed some hands-on activities conducted by The National Institute of Advanced Industrial Science and Technology (AIST). Students, seated in different groups, were provided with the materials along with the instructions to construct a fuel cell. We also glimpsed through the Polaroid



sheet. After the activities we got the opportunity to interact with PARO Therapeutic Robot and other robots.



## Day - 4

13<sup>th</sup> July 2023

Following morning we visited Kinkaku-ji temple, known as the Golden Pavilion, a three-story Zen Buddhist temple in northern Kyoto. It is one of Kyoto's most popular attractions and is a world-renowned tourist location. The beautiful range of mountains running along the northern part of Kyoto is known as Kitayama. Thus making it one of the most photogenic temples in all of Kyoto.



In the afternoon, we were taken to Kyoto University, one of the most prestigious universities in Japan. After an introductory session regarding how to take admission in Kyoto University. We got the opportunity to interact with the professor and visit their laboratories to acquire an in-depth understanding of their scientific equipment and ongoing research. We visited the Department of Energy Science and Technology and learnt about technologies like “Terahertz” Time Domain Spectroscopy which has various applications in the fields of communication, medical, nanoscience etc.

We saw various scientific devices like electron microscope, Low energy milling machine, high energy milling machine, fuel cell testing system, contact angle measure equipment, arc melt machine, glove box, BET surface area analysis etc.



## Day - 5

14<sup>th</sup> July 2023

On the last day we had to visit the RIKEN Centre for Computational Science in Kobe. We witnessed the presence of the World's Second fastest supercomputer 'Fugaku'. The K computer's successor, Fugaku, is developed to contribute to Japan's development by solving various scientific and social issues



and to take a place among the world's top supercomputers. The name 'Fugaku' is actually another name for Mt. Fuji, the tallest mountain in Japan. The height and the wide base of Mt. Fuji symbolizes the power of the supercomputer and the wide horizon that it will provide for its users.

In the afternoon we had an Introductory session about studying in Japan by JASSO followed by a closing ceremony in which students from each country gave cultural performances.



I thank the Ministry Of Education, Kendriya Vidyalaya Sangathan and most esteemed honourable, Shri R.Senthil Kumar, Deputy commissioner, K.V.S Regional Office Bhopal, for giving me this golden opportunity to represent our region . A special thanks to Respected Mr. Manish Tuli, Principal K.V.No.1 O.F.Itarsi , for showing faith in my calibre. I also thank all the teachers and school staff to support me and fellow students for their best wishes.