

NIFTEM @ TATA CRUCIBLE CAMPUS HACKATHON 2019

Tata crucible campus Hackathon was organised by Tata Crucible at National level that witnessed a huge registration of around 1000 teams from the prominent Institute across India. The event was which was distributed in four zones across India. From each zone around 12 teams were selected. The last and final Zonal event of Tata Crucible Campus Hackathon 2019 was held on Saturday March 30, 2019 at NIT Delhi. Dr. Saakshi Dhanekar, Research Scientist from IIT Delhi, Dr. Anurag Singh Assistant Professor, Department of Computer Science and Engineering at NIT Delhi and Suneel from GTIO team were the Jury members.

The team from National institute of Food Technology Entrepreneurship & Management (NIFTEM) comprising of 4 members Muskan Bhatt, Swarnika Raj Singh, Poorva Bugalia and Tapasya Godwani were selected for the north zone finals. The team presented the solution for the problem statement “Low cost technology solution for effective sanitization of community toilets” and developed the prototype for the same. The present condition public toilets is very poor that discourages many from using them hence leaving the problem of open defecation intact which is responsible for spreading of diseases and unclean environment.



Poorva, Muskan, Swarnika, Tapasya with Vice chancellor, NIFTEM

The solution for sanitization of toilet (SLAC TOILET-Sanitisation, Low cost, Automatic, Clean) consisted of automatic cleaning of floor, toilet bowl cleaning and seat cleaning after every use to ensure providing clean toilet to every user. The sensors, reed switch and buzzer were used to create awareness among users to use flush after every use. The sensors were also used to detect the blockage in toilet, the occupancy of the toilet and sensor controlled lights and fan to conserve energy when toilet is not in use. The information of occupancy, cleanliness and blockage would be displayed on the door as well as sent to the users using IOT. For the convenience of users the toilet is designed such that it can be converted from Indian toilet to western toilet and vice versa. The complete system would use solar energy with use of water conserving taps and flush. The cost for every use was estimated for SLAC toilet to be less than Rs 1. Thus the developed toilet will ensures clean and hygienic conditions which would increase the acceptability for the use of toilets. Ultimately it would help eliminate the problem of open defecation. In future the team intend to improve our system such that they can be easily installed in rural areas, making it more energy efficient so that it can be installed all over India even for harsh climatic conditions. Also we intend to develop a mechanism to enable recycling of the flushed water saving water which can be then used for drought prone areas.