



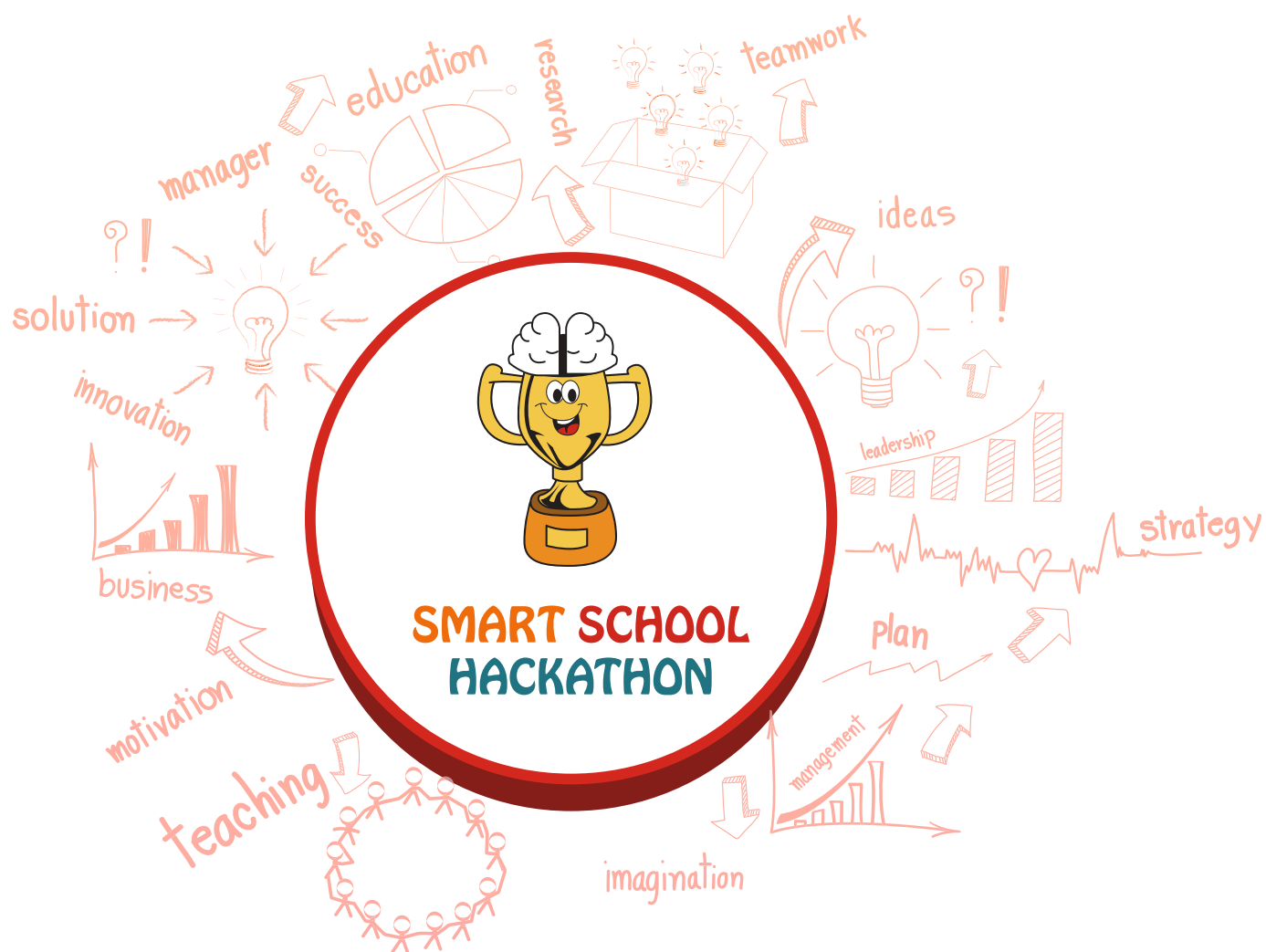
**The first-of-its-kind innovation competition  
aimed at tapping creativity of school students**



**Smart School Hackathon**

January 2020





# Foreword



**Mr. Vivek Kulkarni**

AVP - Engineering,  
Persistent LABS,  
Persistent Systems and Secretary,  
Executive Council, i4C

"We have always believed in giving an impetus to developing a culture of innovative thinking and encouraging path-breaking ideas. Like Smart India Hackathon, a unique initiative, Smart School Hackathon too draws inspiration from our ideology of creating technical leaders of tomorrow. For India to remain at the forefront of global technical leadership, it is essential that we seed innovative thinking in young minds from the school level itself.

I went through all the ideas submitted by the students; I was absolutely impressed by the level of technical awareness and know-how these school students have at a young age. It will be very interesting to see how students between the age group of 11-14 years put on their thinking hats and tackle these problem statements in an innovative and disruptive manner."



**Mrs. Sonali Deshpande**

Chairman,  
Persistent Foundation  
and Educationalist

"I am extremely proud to be associated with the Smart School Hackathon initiative. It has encouraged these brilliant school students to think out of the box and seek innovative solutions that are above and beyond the obvious. What impressed me most about SSH's model was its self-exploratory and heuristic approach towards learning and problem solving - the ability to seek solutions on their own will benefit the students in their future technical careers.

I am positive that while they were working together on the problem statements, this activity has also helped them imbibe valuable and essential life lessons like teamwork, decision making, troubleshooting, critical and creative thinking, interpersonal relations and communication that will help to shape and strengthen their personality. I must also thank the school management, principals, teachers and parents of these students, for motivating and guiding them to design innovative solutions. This kind of encouragement and boost is the need of the hour to create powerful Indian-origin global tech leaders for the future. I look forward to seeing students from all parts of India participate in the Smart School Hackathon next year."



# Message from Atal Innovation Mission, NITI Aayog, Govt. of India



**Dr. Unnat Pandit**  
Program Director  
at Atal Innovation Mission,  
NITI Aayog, Govt. of India

Dr. Unnat Pandit, the Chief Guest at the Closing Ceremony had many words of praise and encouragement for the students as well as the organizers.

“Witnessing the Smart School Hackathon unfold and watching these school students come up with innovative ideas has been a refreshing experience. The synergies among the teams, creative focus, inventiveness, advanced technical knowledge, and futuristic thinking were a testimony to the fact that India is indeed blessed with a rich pool of young technical talent. Competitions like Smart School Hackathon encourage students to work together on issues outside their regular curriculum and broadens their horizons in terms of the latest technology and industry expectations. When these bright students will step out of school after a couple of years, they will have better clarity about their technical and non-technical education preferences and can pursue them accordingly.

Honorable late Dr. APJ Abdul Kalam always believed that children should be encouraged to express themselves creatively, allowed to take risks and innovate, this will help them become better people that society needs. Today because of the Smart School Hackathon, these students have learned how to turn challenges into opportunities. Tomorrow they will become leaders and drive exponential technical growth for India. I would love to see how this platform expands and students from the remotest corners of India participate and benefit from the Smart School Hackathon initiative.”



## SMART SCHOOL HACKATHON 2020

EVENT REPORT SSH 2020 held on January 18, 2020

### Overview

There are multiple challenges facing our society and country today, and we look towards a handful of people to provide solutions. Imagine the transformational power that would be created if citizens worked on these challenges as well. That's the power of crowdsourcing.

Globally, the public sector has been experimenting with innovation crowdsourcing with dramatic results. The creative force of the crowd has been proven to solve a number of problems. Crowd creativity has already developed software for humanoid robots to complete tasks in space, created ways to predict mass atrocities and even tagged millions of historical documents to help understand history.

The White House has led the way and released a "Federal Crowdsourcing Toolkit" to accelerate adoption across the Government.

**The Indian Government has also embarked on a journey of crowd sourcing solutions to address issues with governance, efficiency, and transparency.**

The Smart School Hackathon (SSH) is one of the steps taken in this direction by Persistent Systems, i4C and Persistent Foundation.

### About Smart School Hackathon

Persistent Systems, i4C and Persistent Foundation hosted the first-ever Smart School Hackathon (SSH) 2020 - a unique innovation competition aimed at tapping into the creativity of school students. It was designed with a vision to prepare high school students for engineering and allied technical careers, enabling them to explore and develop their competencies, and surge ahead in the future. SSH also aims to provide a platform for students to showcase their creative expression, enhance their cognitive skills, inculcate out-of-the-box thinking while boosting their confidence.

SSH 2020 derived inspiration from the Smart India Hackathon, a popular initiative that hones technical skillsets of engineering students across India and works to solve the nation's problems. The SSH 2020 format was an 8-hour, non-stop, product development competition. Each participating team comprised of 3 to 4 students and 2 mentors with no limit on the number of entries that could be sent by each school.

SSH this year, was launched for schools in Maharashtra, and the organizers have plans to take this competition to the remotest corners of the country and provide advanced learning and development opportunities to students with technical acumen. Looking at the overwhelming participation and interest in SSH 2020, the organizers are also planning to undertake many such innovative initiatives to encourage high-potential ideas among school and college students, that can have commercial viability and applicability for the benefit of society at large.

## SSH 2020 In a Nutshell

The Smart School Hackathon reached out to 35+ schools across Pune and Nashik in Maharashtra. With prizes worth INR 1 lakh to be won under various award categories, it was indeed a golden opportunity open to over 3500+ students.

Jointly organized by Persistent Systems, i4C and Persistent Foundation, the official venue for the Grand Finale of the hackathon was at Persistent Systems Limited, Pune.

**Figure1: Smart School Hackathon in a Nutshell**

### Reach

3500+ students from 35+ schools across Pune and Nashik

### Prizes

Prizes worth INR 1 Lakh won by student teams



### Partners

Persistent Systems, i4C and Persistent Foundation hosted the event. Special prizes from PLEZMO

### Infrastructure

Persistent Systems Limited, Pune was the official venue for SSH 2020

## Problem Statements Addressed

The 5 critical concerns addressed in SSH included topics like water conservation, waste management, cleanliness, noise pollution control and creating wonders out of waste.

# Problem Statements for Smart School Hackathon 2020

- Unlimited teams from each school
- 3 or 4 participants in each team
- Teams can work on any one appealing problem statement
- School SPOC to register on <link> and submit ideas on behalf of respective teams

3

Alert for cleanup - toilets | corridors | school area:

#### Problem Statement

Hygiene at school is extremely crucial for health reasons of students.

#### Explanation

A system may be designed that detects usage of dirty corridors, classroom or even the toilets. A sensor-based mechanism can be created which alerts dirty toilets | toilets with no tissue paper and wrappers and papers littered in the school premise.

4

Tracking water usage at home and school:

#### Problem Statement

Water is a very critical natural resource especially in India and tracking water usage in daily routine is a need of the hour. Student needs to develop a system to optimize and track the water usage at home and school.

#### Explanation

Use of sensors | a like system to determine water usage at every home | school and the system should help in educating people about the importance of water and reusable water activities.

5

WOW:  
(Wonders Out of Waste, Open Innovation Model)

#### Problem Statement

Building useful electronic products from reusable and waste components. (eg: reusable battery propeller systems to drive low weight drones).

#### Explanation

Students are free to select any challenges encountered during their daily routine and develop a product in-line with the statement.

1

A device that indicates noise pollution level in the classroom:

#### Problem Statement

How to manage a noisy classroom?

#### Explanation

A device which can sound an alarm or an indication if noise made in the classroom goes beyond the control level. It will indicate to the students that they should reduce their voice. They can make use of the decibel management system which is available | Use class volume meter in real time | Fun lights appearing across the room telling students to settle down.

2

An alert to remind missing books from school bag:

#### Problem Statement

Students may need to carry a variety of books to school for different subjects based on daily timetable. Forgetting a book at home or even losing it can cause a lot of inconvenience for studies. Therefore, there should be an alert that would ring to remind students to pack the missing book in the school bag.

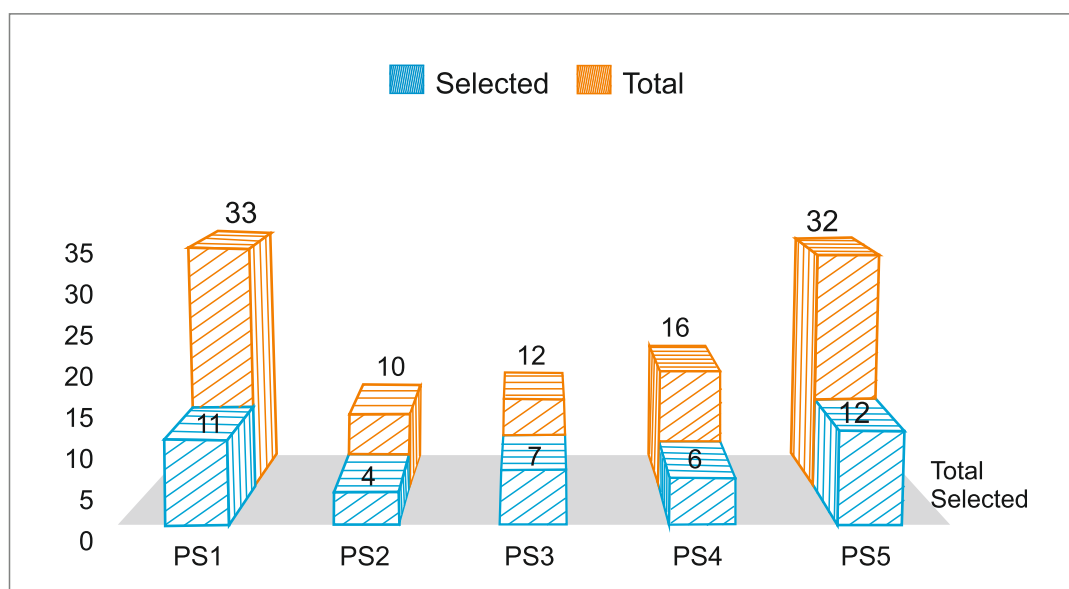
#### Explanation

Use of barcodes | a like system for books which will define subject wise | Use of notification on smart phones by alerting them the timetable of the day. Sending three reminders | alarms before the student leaves for the school | When the books are not found in the bag, an alert is notified with a beep.

## Participation Statistics

Over 160 **#LittleInventors** from Class 7, 8 and 9 from 23 schools in Pune, PCMC area and Nashik participated in the Grand Finale of the SSH 2020. Every school had enrolled several teams, each comprising 3 to 4 participants in SSH 2020. Of these, 40 teams were shortlisted for the Grand Finale, based on 100+ ideas received for the 5 problem statements.

As indicated by the bar chart in Figure 2.1 below, the most popular challenge that students opted to pick up for their hackathon project was the problem statement 1 (PS 1) - How to manage a noisy classroom. 33 teams submitted their ideas in response to this problem statement. Problem statement 2 (PS 2) – An alert to remind students of missing books in their school bags, was the least popular choice, with only 10 ideas submitted for it. The problem statement 5 (PS 5) - Creating wonders out of waste, was the project solution that had the most entries (32 entries) selected for the Grand Finale.



As indicated by the bar chart in Figure 2.1

As indicated in the Figure 2.2 below, The Orchid School and Walnut School, Shivane are notable for their 100% ratio of teams selected to total teams entered for the Grand Finale. Gynankur English Medium School, Kesnand and Dr. Kalmadi Shamrao High School saw the highest participation in terms of number of teams entered for the competition, with each entering 9 teams. MES Bal Shikshan Mandir English Medium School was notable for having the highest number of teams selected to be part of the Grand Finale, with 5 of their teams making it successfully to the Grand Finale.

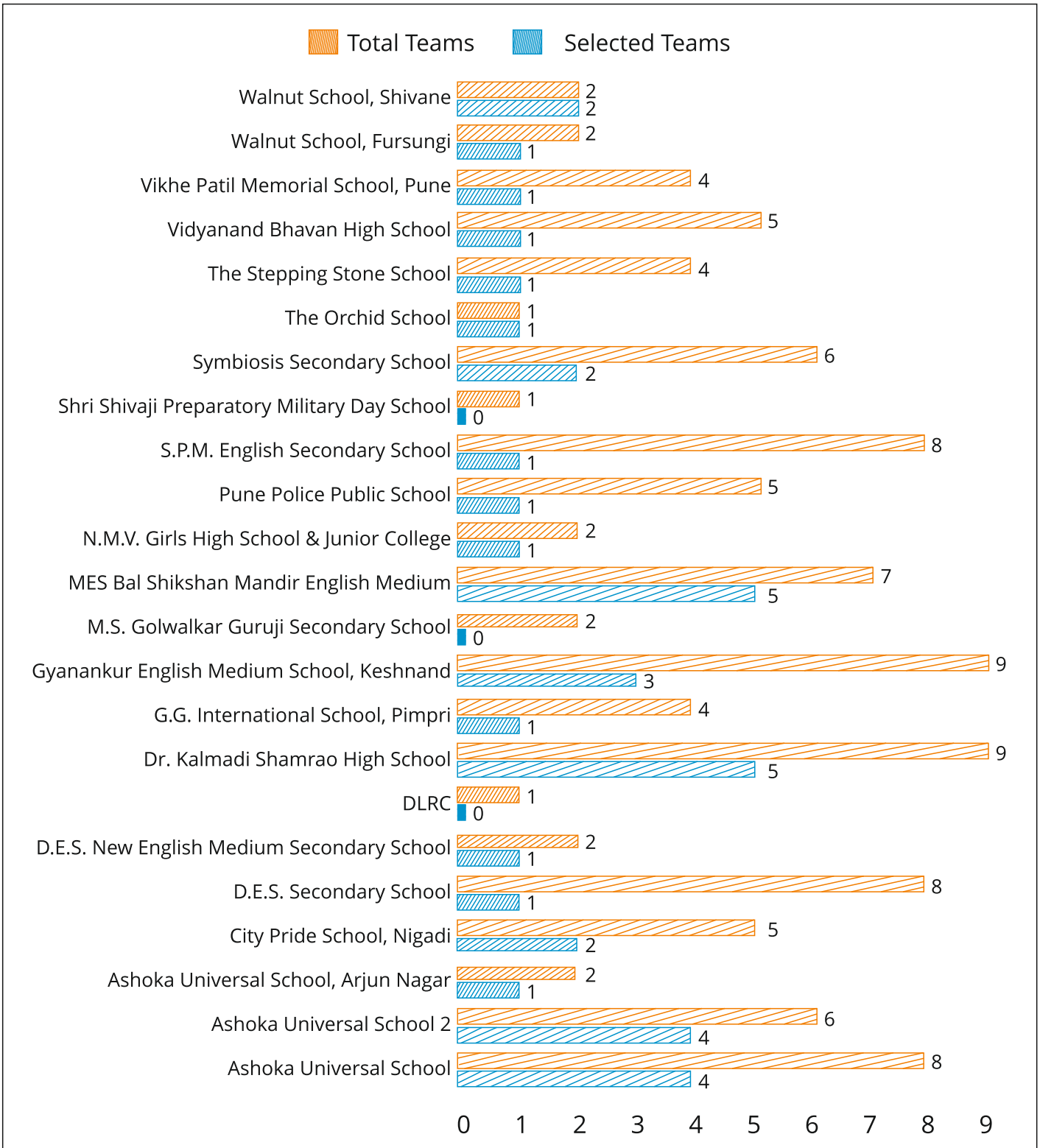


Figure 2.2: Ratio of Teams Selected for Grand Finale to Total Teams Entered

As indicated in Figure 2.3 below, Gyanankur English Medium School, Kesanand, was the school that saw the highest number of students who participated in the idea submission process (34 students). Ashoka Universal School and Dr. Kalmadi Shamrao High School were notable for being the schools with highest number of selected students attending the Grand Finale (15 and 16 students selected respectively).

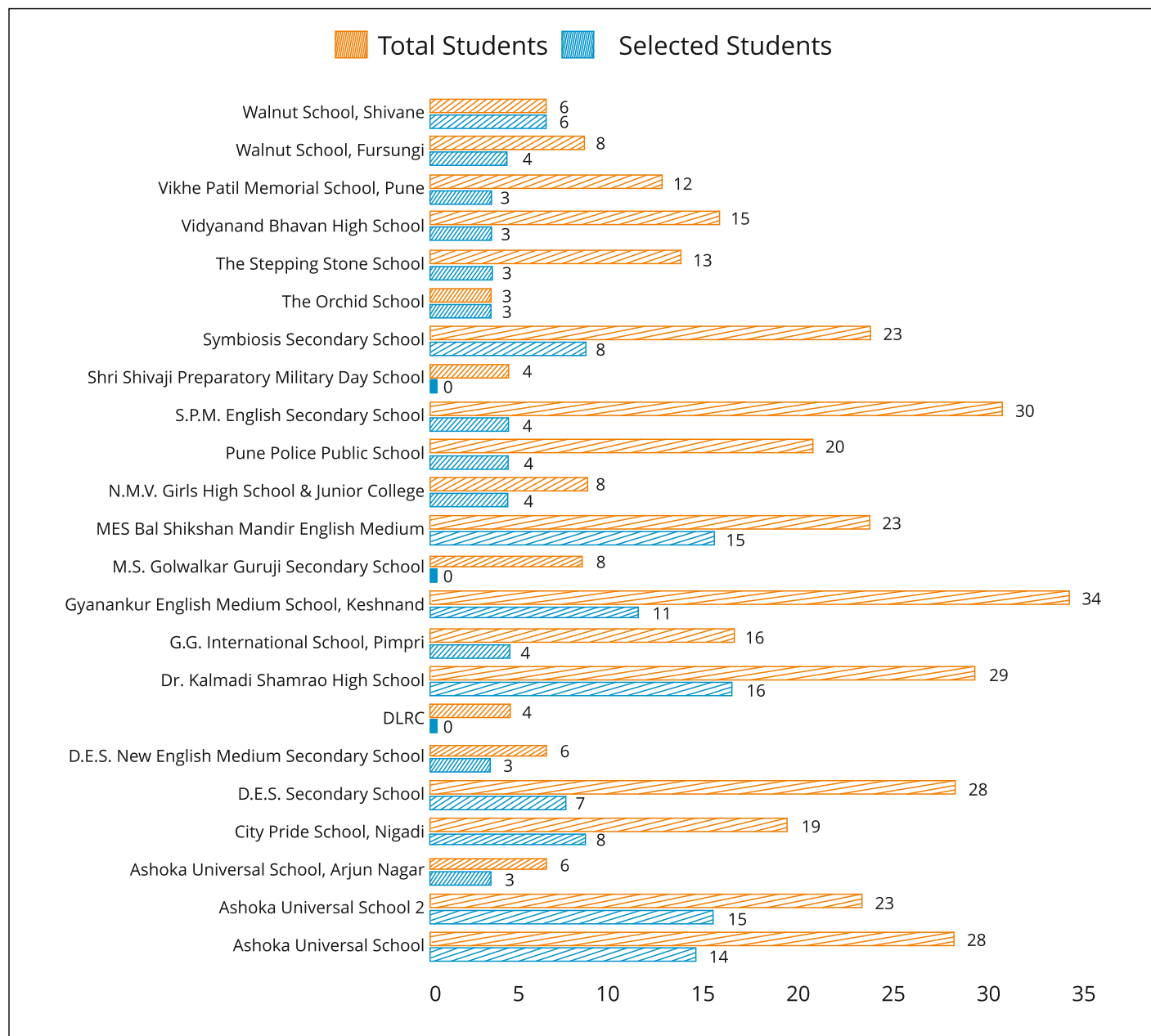


Figure 2.3: Ratio of Students Selected for Grand Finale to Total Students Entered



## Activities

SSH organized pre-event online workshops from industry experts on a variety of subjects, such as why hackathons, and its importance, IoT, recycled art, leadership, science in daily life, etc., that helped students to prepare for the competition, as well as for their future careers.

The Science Activity Centre (SAC) from IISER, Pune, promoted experiential learning and improved conceptual understanding by displaying interactive science toys for the students on the day of the finale. Winning teams walked away with attractive prizes for Best Innovative Idea, Best Team and many more at the Grand Finale

## Key Highlights of the Grand Finale

The Grand Finale of the Smart School Hackathon was held at Persistent Systems Limited, Pune.

Dr. Anand Deshpande, Founder and Managing Director, Persistent Systems, inaugurated the event, while Dr. Unnat Pandit, Program Director at Atal Innovation Mission, NITI Aayog, Govt of India, was the Chief Guest for the Valedictory Ceremony.

## The Winning Solutions and Taglines

While every student who participated was a true winner, the competition required for one outstanding team project to be declared a winner in each problem statement category. In some cases, the runner-up was also declared. In addition, a special award was sponsored by Plezmo, in which winners were awarded the Plezmo kit.

Each participating team had to write a tagline for their project and again, one outstanding tagline was chosen as the winner in each problem statement category.

### PROBLEM STATEMENT 1:

A device that indicates noise pollution level in the classroom: How to manage a noisy classroom.

### Winner

**Name of school:** MES Bal Shikshan Mandir English Medium School

**Name of the students:** Tejas Kulkarni, Shlok Sardeshmukh, Anish Dharmadhikari

**Name of the mentor:** Mrs Avantee Joshi

### Successful idea in the children's own words:

“Sound Spies 3.0: A noise-free classroom – a sign of success! Children make a lot of noise in the class.

The teachers are very tired and stressed due to the load of controlling the class. Thus, we have developed this solution. There are sound sensors in the classroom which sense noise and send a signal to the control room.

The CPU decides whether the classroom is noisy or not. If it is noisy, an LED in the classroom lights up, telling the students that they must calm down.”



## Runner Up

**Name of school:** D. E. S. Secondary School

**Name of the students:** Ved Asawa, Yash Vyas, Sarvesh Joglekar, Soham Bagade

**Name of the mentor:** Ms Radha Ketkar

### Successful idea in the children's own words:

"This device will help the teachers to know which classroom is making noise as a buzzer will beep in that classroom and an LCD screen will show 'Sound HIGH' if the classroom is noisy or 'Sound LOW' when the classroom is not too noisy."

## Winner for the Tagline Contest

**Winning Tagline:** Rewarding Silence ... Smartly!!!

**Name of school:** MES Bal Shikshan Mandir English Medium School

**Name of the students:** Harsh Modak, Mukta Soman, Kavish Choudhary

**Name of the mentor:** Mrs Avantee Joshi

### PROBLEM STATEMENT 2:

An alert to remind students about books missing from school bags.

## Winner

**Name of school:** Symbiosis Secondary School

**Name of the students:** Shwetark Kulkarni, Kartikeya Raghu, Chinmay Kale, Anish Deodhar

**Name of the mentor:** Ms Yamini Shinde

### Successful idea in the children's own words:

"Each book will have an RFID tag stuck to it. The tag can be edited via an app. A scanner is located in the mouth of the bag, which will be connected to the app via Bluetooth / WIFI. When the student drops the book inside, the scanner will scan that tag and send data to the app. This system is quite cost-effective, as RFID tags and the scanner is available at a low cost."

## Winner for the Tagline Contest

**Winning Tagline:** SmartPack: I remember what you forget...

**Name of school:** City Pride School, Nigdi

**Name of the students:** Aryan Singh, Raj Taware, Dhiraj Bora, Hardik Chaudhari

**Name of the mentor:** Ms. Aarti

### PROBLEM STATEMENT 3:

Alert for cleanup – toilets | corridors | school area: Hygiene at school is extremely crucial for the health of students.

## Winner

**Name of school:** Sharvari Shinde, Shrawani Gite, Vaishnavi Deshmukh, Dnyaneshwari Gawade

**Name of the students:** Pune Police Public School

**Name of the mentor:** Ms Vaibhavi Kunal Kulkarni

**Successful idea in the children's own words:**

"This device is a detector to warn the authorities for cleaning the toilets. The diode glows as per the range of ammonia levels in the toilet due to presence of urine. The sensors attached to the flush sense the level of ammonia and pass a signal to the transistors and these will then send the signal to the relay. The relay switches the diodes on and off depending on the level of ammonia indicated by the signal."

## Winner for the Tagline Contest

**Winning Tagline:** Don't Only Be Green, But Also Be Clean

**Name of school:** Pune Police Public School

**Name of the students:** Sharvari Shinde, Shrawani Gite, Vaishnavi Deshmukh, Dnyaneshwari Gawade

**Name of the mentor:** Ms. Vaibhavi Kunal Kulkarni

### PROBLEM STATEMENT 4:

Tracking water usage at home and school

## Winner

**Name of school:** Walnut School, Fursungi

**Name of the students:** Antra Waje, Piyali Waje, Anvesha Kumar, Srakshi Lamture

**Name of the mentor:** Ms Nandini Tilekar

**Successful idea in the children's own words:**

"Walnut Little Scientists: Water scarcity is a world-wide problem. It is our responsibility to save water for ourselves. If every person saves a couple of buckets of water every day, that will definitely make a major difference in the world. So, we have thought about this and made a water level indicator using waste material. This device helps avoid the wastage of water at home or at public water tanks as it send out an alarm whenever water overflows from the tank."

## Winner for the Tagline Contest

**Winning Tagline:** Be green like a pro by conserving H2O

**Name of school:** MES Bal Shikshan Mandir English Medium School

**Name of the students:** Nandan Tol, Gaurav Kulkarni, Atharva Mehendale

**Name of the mentor:** Mrs. Avantee Joshi

### PROBLEM STATEMENT 5:

WOW (Creating Wonders Out of Waste, Open Innovation Model)

### Winner

**Name of school:** D. E. S. Secondary School

**Name of the students:** Shlok Sangamnerkar, Ayush Padwal, Atharva Patwardhan

**Name of the mentor:** Ms. Radha Ketkar

#### Successful idea in the children's own words:

"Life Decoders: We have designed a low-priced fire alarm to save precious lives. It is a portable device which alerts us in case of a fire. It is totally made from e-waste.

### Runner Up

**Name of school:** Ashoka Universal School, Ashoka Marg

**Name of the students:** Vanad Palod, Varad Palod, Parshava Tatiya

**Name of the mentor:** Ms. Shagufta Patel

#### Successful idea in the children's own words:

"Drivers jumping traffic signals can be extremely dangerous for motorists and pedestrians. To prevent this, we have made a project which does not allow drivers to jump the traffic signals. Waste material we used: leftover mount board, an empty shoe box, used cardboard.

### Winner for the Tagline Contest

**Winning Tagline:** Cooling your future with care for nature

**Name of school:** Gyanankur English medium School, Kesnand

**Name of the students:** Mansi Gaikwad, Siddhi Jadhav, Sakshi Sharama

**Name of the mentor:** Ms. Sayali Satav

### Special Award (Plezmo kit)

**Name of school:** S.P.M. English School, Secondary

**Name of the students:** Vaishnavi Gulave, Sadnya Deshpande, Mrunmayee Vaidya, Shradha Vedpathak

**Name of the mentor:** Ms. Yogita Sheth

#### Successful idea in the children's own words:

"In the first phase, IR sensor is used to detect the presence of garbage such as tissue papers, wrappers etc. in the toilets. After a fixed duration, an alarm will ring on the mobile phone of the cleaning staff. In the second phase, the machine will detect unwanted gas and after crossing a certain range, it will send a message to the cleaning staff."

**Name of school:** Ashoka Universal School

**Name of the students:** Ishan Jayant Chaudhari, Harjyotsingh Tejinder Meen, Manav Madan Khandve

**Name of the mentor:** Ms. Zohra Shaikh

#### Successful idea in the children's own words:

"This device detects the level of water in water tanks (25%,50%,75%,100%). Whenever the water tank gets fully filled up, the siren rings. The instrument gives signals in the form of LED light and buzzer at different water levels."

## Winners and Dignitaries at the Smart School Hackathon

A host of dignitaries attended the SSH 2020 Grand Finale event. There were also principals of participating schools, parents, teachers, guests from supporting partner organizations, and of course the media! All in all, the Grand Finale was indeed a grand and memorable event, thoroughly enjoyed by the students!









## Hackathon brings high school fixes to everyday issues

By Sukhdev Khuridge, Pune Mirror | Updated: Jan 19, 2020, 06:00



(L) City Public School students learn QR codes on books with the app to price the books according to the innovation. (R) Four girls from Pune Public School.

**Students addressed a range of problems, from packing bags to cleaner toilets through technology**

It was field day for students of classes IX-XII, who delivered one innovation after the other at a hackathon, organised on Saturday by I4C, a non-profit organisation. The objective was humble: Use the technology balm to address problems related to schools and education, along with the water conservation, environment and

war. With respect to school-related concerns, students came up with mobile applications that could be operated from administrative offices.

Vivek Kulkarni, delivery head of innovation and R&D architect at Persistent Labs, who was present at the Hackathon, was impressed with the display. "Students have thought out of the box and the technology used is on a par with the engineering students. We were not expecting the complete prototype of the project, but they actually materialised their ideas," he said.

Of the 103 such varied projects, 40 were distinctive. These were displayed at Persistent Foundation on Saturday. Mirror took a glimpse at few initiatives;

## hindustantimes

Home / Pune News / Hackathons go to school: Pune students come up with 130 solutions to various problems

### Hackathons go to school: Pune students come up with 130 solutions to various problems

After the success of hackathons at engineering colleges, now Persistent has taken the concept to schools in a bid to offer students a platform to think out of the box.

PUNE | Updated: Jan 22, 2020 1:48 IST

PT Correspondent  
Hindustan Times, Pune



The hackathon was open to students of Class 7, 8 and 9. Forty solutions were shortlisted and nine were awarded prizes.

Persistent Systems, I4C and Persistent Foundation hosted the Smart School Hackathon 2020 on January 18-19 for 23 city schools.

After the success of hackathons at engineering colleges, now Persistent has taken the concept to schools in a bid to offer students a platform to think out of the box.

The Smart School Hackathon came up with 130 solutions to various problem statements that affect students, such as toilets that need to be cleaned, managing school books and bags and noise levels in classrooms, among the many.

The hackathon was open to students of Class 7, 8 and 9. Forty solutions were shortlisted and nine were awarded prizes.

Unnat Pandit, programme director at Atal Innovation Mission, NITI Aayog, said, "Today, because of platforms like Smart School Hackathon, these students have learnt how to turn challenges into opportunities. Tomorrow, they will become leaders and drive exponential technical growth for India. I would love to see how this platform expands and students from the remotest corners of India participate and benefit from the Smart School Hackathon Initiative."

Vivek Kulkarni, delivery head and chief architect, Persistent Labs, said, "The idea is to take this further. We aim to tie up with the Atal Mission and take it to Tier-2 and -3 cities next year, eventually taking it across the country."

## Smart School Hackathon Report 2020

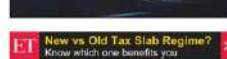
### Persistent Systems hold smart school hackathon, may work with Atal Innovation Mission

The event received 100 applications from students in Pune and Nashik, of which 40 ideas were finalised. The selected ideas are all at a prototype stage, which the students would further refine or modify over the course of the 12-hour event.

ET Desktop | Last Updated: Jan 18, 2020, 03:15 PM IST



PUNE: After having established the Smart India Hackathon as a national level event, Persistent Systems (NSE: PERSIST) today held the pilot edition of the Smart School Hackathon for students in class 7-9, in collaboration with the Persistent Foundation and I4C. The company is now working with the Atal Innovation Mission to grow this further.



Vivek Kulkarni, Delivery Head & Chief Architect, Persistent LABS, Persistent Systems and Secretary, Executive Council, I4C said, "For India to remain at the forefront of global technical leadership, we must seed innovative thinking in young minds from the school level itself." The next step, he said, would be to take this to Tier II cities, and eventually at the state and national level. Persistent Labs and I4C are also looking at how they could work with the Atal Innovation Mission, a NITI Aayog initiative to take this further. A large number of schools now have Atal Tinkering Labs and participate in annual contests. The company would try and work with these to help growth the Smart School Hackathon further.

Unnat Pandit, Program Director at Atal Innovation Mission, NITI Aayog, Govt. of India, said, "Witnessing the Smart School Hackathon unfold and watching these school students come up with innovative ideas has been a refreshing experience. Competitions like Smart School Hackathon encourage students to work together on issues outside their regular curriculum and broadens their horizons in terms of the latest technology and industry expectations."

The event received 100 applications from students in Pune and Nashik, of which 40 ideas were finalised. The selected ideas are all at a prototype stage, which the students would further refine or modify over the course of the 12-hour event. Kulkarni said that because they were working with students, the problem statements given to them were such that they reflected issues that the students would be familiar with- like whether the school bag can send an alert if a particular text book needed on that day is not in the bag, or how to send an alert if the decibel levels in the classroom rise above a certain level when a teacher is absent etc. The five critical concerns addressed include topics like water conservation, waste management, cleanliness, noise pollution control & wonder out of waste.

Sonal Deshpande, Chairman, Persistent Foundation, said, "What impressed me most about SSH's model was its self-exploratory and heuristic approach towards learning and problem solving - the ability to seek solutions on their own will benefit the students in their future technical careers."

## Hackathon for schoolchildren held in Pune

PUNE / EDUCATION / HACKATHON FOR SCHOOLCHILDREN HELD IN PUNE

Satyendrayan Iyer | TNN | Jan 20, 2020, 17:09 IST

Persistent Systems said that a pilot edition of Smart School Hackathon (SSH) was held at its office on Saturday. The company said it was co-organised in association with Persistent Foundation & I4C.



PUNE: Persistent Systems said that a pilot edition of Smart School Hackathon (SSH) was held at its office on Saturday. The company said it was co-organised in association with Persistent Foundation & I4C.

"Over 160 technical prodigies from grades 7, 8 and 9 hailing from 23 schools in Pune, PCMC area and Nashik participated in SSH 2020... The five critical

concerns addressed in SSH include topics like water conservation, waste management, cleanliness, noise pollution control & wonder out of waste," the company said in a statement.

The initiative drew praise from NITI Aayog's top official, who was the chief guest at the event.

"Witnessing the Smart School Hackathon unfold and watching these school students come up with innovative ideas has been a refreshing experience. Competitions like Smart School Hackathon encourage students to work together on issues outside their regular curriculum and broadens their horizons in terms of the latest technology and industry expectations," said Unnat Pandit, program director at Atal Innovation Mission, NITI Aayog.

The organisers said that they plan to take this competition to the remotest corners of the country and provide advanced learning and development opportunities to students with technical acumen.

"I went through all the ideas submitted by the students, I was impressed by the level of technical awareness and know-how these school students have at a young age. It has been exciting experience to see how students between the age group of 11-14 years put on their thinking hats and tackle these problem statements in an innovative and disruptive manner," said Vivek Kulkarni, delivery head & chief architect, Persistent LABS, Persistent Systems and Secretary, executive council, I4C.

## Testimonials from Schools

Educators from schools also had words of encouragement for SSH 2020.

### Ms. Zohra Shaikh

Educator, A.U.S Chandsi

"Competitions play an important role in motivating students to perform and excel. Competitions like Smart School Hackathon offer a chance for participants to gain substantial experience, showcase skills, analyze and evaluate outcomes.

We would like to express our gratitude for such a wonderful exposure given to our students.

We would also like to appreciate the excellent support and service provided by the entire team. The training for the educators was equally interesting and informative. It was a wonderful experience interacting with educators from various schools."

### Ms. Priya Shriram

The Orchid School

"The event was very well organized. The students enjoyed themselves and learned a lot. The judges' interactions with the students were very encouraging and inspired them to think of ways to improve their projects."

### Ms. Shagufta Patel

Ashoka Universal School

"A very successful event. It gave our students very good exposure and was an excellent good learning experience for all."

### Ms. Yogita Sheth

SPM English School

"The Smart School Hackathon was a very well-organized program. The students got a very good opportunity for hands-on work through their solution project."

## Note of Thanks

The concept of a hackathon for school students originated at i4C. The initial idea of the Smart School Hackathon was inception by **Mr. Vivek Kulkarni, AVP - Engineering, Persistent LABS, Persistent Systems and Secretary, Executive Council, i4C.**

His team led by Pratap Sanap, along with Pooja Kothari, Anuja Kanhere, Partish Patwardhan, Snehkumar Shahani, Sachin Ranawade, Disha Singh, and Madhushree Kelkar backed the initiative equally enthusiastically. A big thank-you goes out to the organizers and partners for a successful and fun event.

We are also deeply grateful to all the schools who participated in the Smart School Hackathon 2020. Your support will go a long way in helping young students pave their way towards a rewarding career and take India further through innovation, out-of-the-box thinking and creative problem-solving, while staying true to our slogan, **#TechIsFun!**

Last but not the least, a big thank you to all our **#LittleInventors** who were the stars of the show!



**SMART SCHOOL  
HACKATHON**

**Prizes  
to be won**



**Best Team**



**Best  
Innovative  
Idea**



**The first-of-its-kind**  
innovation competition aimed at  
tapping creativity of younger students

**Smart School Hackathon**



**Creative Expression**

**Special online  
trainings by experts**



**Abstract Thinking  
and Confidence**



**How  
students will  
benefit?**



**Guidance from school for  
innovation projects**



## About Smart School Hackathon

- For students from Class 7, 8 and 9
- Open for schools from Pune and PCMC area
- Unlimited teams from each school
- 3 or 4 participants in each team



## FAQs: Smart School Hackathon

### Q. Which schools are eligible to participate in Smart School Hackathon?

A. Participation to the hackathon is by invitation to a limited group of **30-35 schools from Pune and PCMC** area that have **Atal Tinkering Lab facilities, Robotics Lab** or similar facilities. There is no restriction on medium of education – English or vernacular.

### Q. Which students can participate in the hackathon?

A. Students studying in **7th, 8th and 9th** class are eligible to participate.

### Q. What are the benefits to the students participating in the hackathon?

A. Smart School Hackathon is a **special innovation competition that aims at tapping creativity of younger students** offering:

- Encouragement to students to think innovatively and out-of-the-box
- Special online trainings by experts
- Boost confidence and team spirit
- Plentiful guidance from school for innovation projects
- Exciting prizes under various categories

### Q. What is the schedule of the School hackathon?

A. The tentative schedule of the entire hackathon program is as below.

Aug 30, 2019	Formal announcement in Schools/ Unveiling of problem statements
Sep 15 – Nov 15, 2019	Idea submission via Videos on portal
Nov 16, 2019 – Dec 14, 2019	Evaluation of Idea submissions
Oct 1- 31, 2019	Special Online Trainings
Dec 15, 2019	Announcement of Shortlisted teams for Finale
Jan 2020 (Date TBD)	Smart School Hackathon Finale

### Q. What role does the school play in the hackathon?

A. The participating school needs to appoint a **Single Point of Contact (SPOC)** to represent it and student teams. The SPOC can either be a school principal, a science teacher or any other active faculty member who can mentor and guide teams regarding ideas, look after team registration formalities. He/she will also be a point of contact for sharing hackathon related updates from our end.

The two other roles that the SPOC needs to play is encouraging team registration and participation, sharing hackathon details with parents and mentor student teams whenever required. The schools can make use of tinkering labs, robotics lab or similar facilities for this purpose.

### Q. How would the school SPOC receive Hackathon updates?

A. SPOCs of all participating schools would be added on a **single WhatsApp group for ease of communication updates and resolving doubts**. SPOC will also be responsible to **publish regular updates on their social media handles**.

**Q. How should teams be formed? What would be schools' role in team registration?**

A. The SPOC appointed by the school must register himself/herself on the Smart School Hackathon registration link *\*\* (the link would be shared soon!) \*\** and later register his/her school's teams and their ideas. 3 or 4 students from the same school can register in a team and they will have to sign up with a unique team name. **There is no limit on number of teams from the school.**

**Q. How should the teams come up with ideas? How are the ideas to be submitted?**

A. Smart School Hackathon team would share a few problem statements (PS) on the hackathon portal. Teams are free to select any PS that appeals to them. Teams, under the guidance of their school's SPOC can come up with an idea that can help solve the problem. **The idea can be explained on a 3-minute-long video/PPT where student team will get to describe the problem they have chosen, the idea that they propose and may show a prototype/diagrams explaining their idea.** The video can be uploaded on YouTube as an 'UNLISTED' video. The SPOC is expected to then register a team and its idea YouTube link on the Smart School Hackathon Registration form.

**Q. How do ideas get shortlisted?**

A. The submitted idea **videos/PPT are viewed and evaluated by our expert panel** and the final shortlisted teams to participate in the hackathon finale would be announced.

**Q. When is Smart School Hackathon Finale scheduled?**

A. The schedule is yet to be finalized. The tentative date would be **1st or 2nd Saturday of January 2020.**

**Q. What happens at the Smart School Hackathon Finale?**

A. The Finale would be an **8-hour program where teams would be able to work together and create a usable product as per the idea submitted by them.** Experts would be viewing their products, asking them questions and giving scores to the ideas. **The winning teams would be announced at the end of 8 hours.**

**Q. What will be the venue for the Smart School Hackathon Finale?**

A. We will announce the venue, once we approach our finale dates for the Smart School Hackathon.

**Q. What are the prizes to be won?**

A. Prizes towards **Best Team** and **Best Innovative Idea** to be won at the Smart School Hackathon Finale.

**Q. What facilities will be provided at the venue for the Smart School Hackathon Finale?**

A. **All the facilities at the venue that are essential** part of the hackathon would be accessible to the participating teams **during the 8 hours' time frame.**

**Q. What if a team does not win?**

A. Winning and losing is part of the game. The overall experience derived from participating in the initiative would benefit the students in a huge manner. Besides this, all students whether their teams win or lose will be given **Participation Certificates for Smart School Hackathon.**



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