

TINKER TIMES™

Expert Talk by
Shekhar Niyogi



Android 12's
Gesture Control
mobile features

Importance of
Cyber Security
and job opportunities

AUGUST 2021

EXPERT'S ADVICE

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There's a whiz kid in all children. The right motivation and instilling the spirit of inquiry motivate and catalyzes their potential to think, act and innovate. Science appeals to the logical part of the children's cognitive processes and thus triggers the ability for innovative thought. As they grow, emotionally and intellectually, the immersion in science and technology will enable them to create. From simplicity emerges complex solutions. And thereafter, the propensity for creating substantial processes or machines that will change tomorrow's world and so on, ad infinitum.

Incubation, by the very essence, means nurturing. The impressionable minds of children can be channelled to think like entrepreneurs, allowing them the bandwidth to see their creative, scientific thought translated to real solutions that can be realized as workable and marketable products and services. To learn. To excel. To achieve. That should be the mantra.

HAPPENINGS @SSA

A workshop was conducted in collaboration with the ATL and DTL lab where students were asked to work on problems related to their environment. The students have selected the problem of houses getting destroyed every year by natural calamities like Amphaan, Yaas cyclones and natural floods due to heavy rainfall of flash floods.

The students have designed and proposed models of houses using the concepts and principles of aerodynamics that would save the houses from getting damaged by natural calamities. However, due to the widespread pandemic effect, the students were asked to prepare their models using the easily available materials at home, hence they have used the cardboards, shoe boxes, popsicle sticks, etc. that were at reach.

STUDENT'S PROJECTS



Debangana Sengupta
Class 7



Maanya Chhabra
Class 8



Sonal Rana
Class 6



Panshul Sahu
Class 7

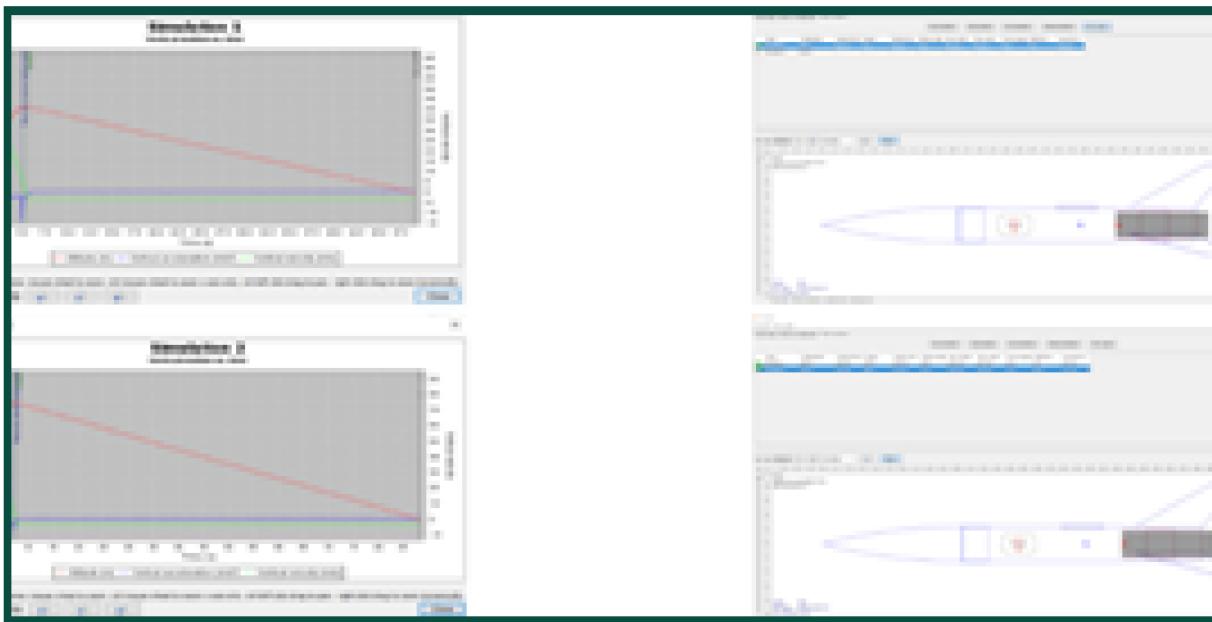
TINKERPRENEUR

Sanyam Surana
Class 8A, Sri Sri Academy

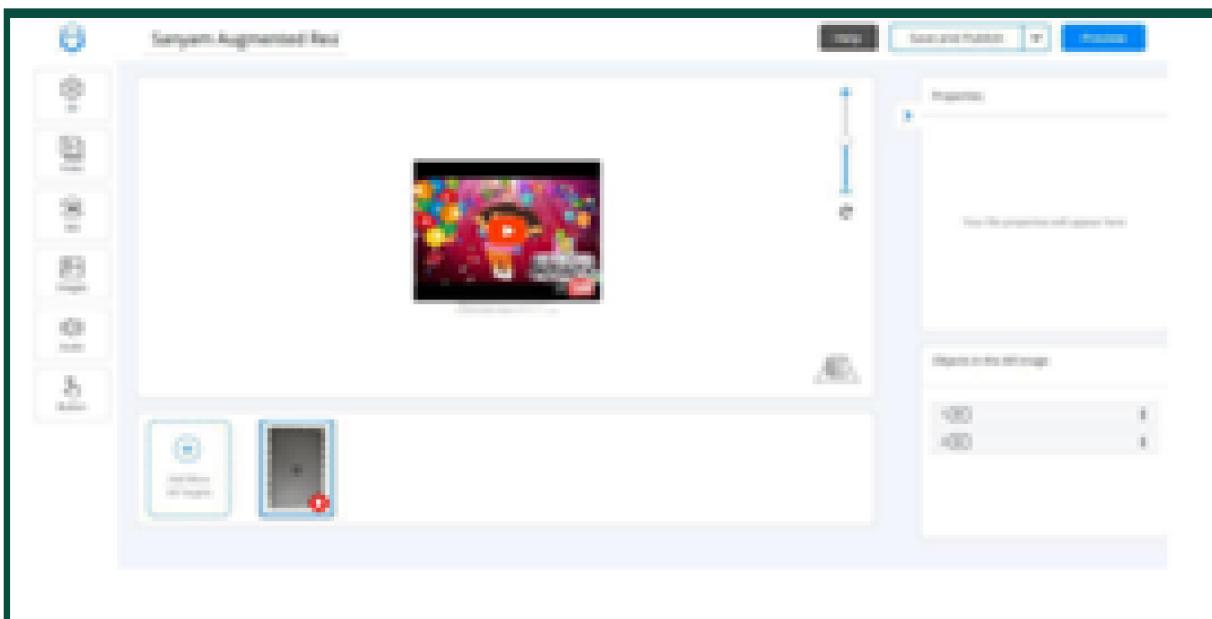
The 60 days long Tinkerpreneur organized by NITI Aayog, Govt. of India, has finally come to an end. 16 students from SSA participated in this event. One of the Syrian shared his experience and work on this 60days long journey.

“My experience in this Bootcamp was fairly good. In the beginning, it was easy and we had full support from our mentors. In this Bootcamp, we’re being made Entrepreneurs. In week 1, we had to make do many tasks, nearly 20. Out of which I was easily able to complete 18. It was compulsory for us to do at least 1 task but if we wanted then we could do more. I was the one who did the most tasks in Week 1 amongst those who were in my team and I got to know this by the graph sent to us. This graph was made by him. I enjoyed Week 1 a lot. We were taught new things with which we were able to do our tasks and if we have stuck anywhere, our mentors had immediately helped us.”

PROJECTS FROM BOOTCAMP

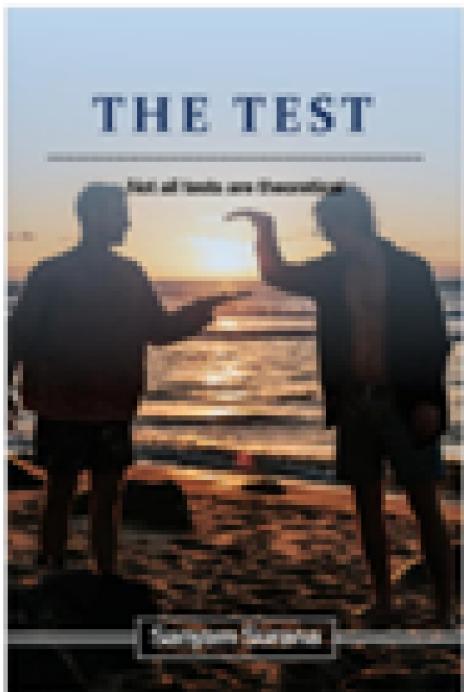


Design and simulate a rocket

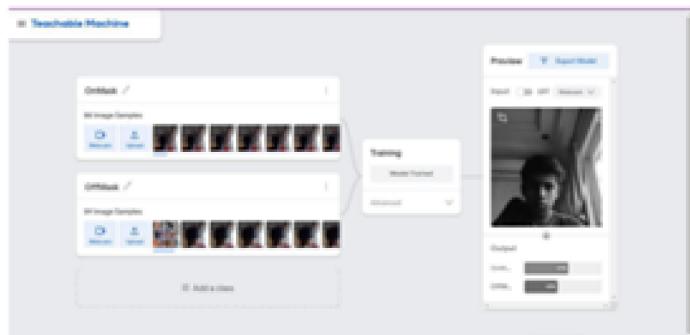


Create an augmented reality experience

PROJECTS FROM BOOTCAMP



Author an e-book



Recognise and classify objects in images



Create an animation story



Create a QR code

CYBER SECURITY

Korock Hazra
Class 8, Sri Sri Academy

Cyber Security - also known as information technology security or electronic information security, is the procedure of securing servers, computers, mobile devices, networks, data and electronic systems, from malicious attacks.

This term covers business and mobile computing and has a few common categories like –

Network Security – this secures computer networks from malware or attackers.

End-user education – It is important for users to be taught not to use unidentified USB Devices, and to adopt many other safe practices.



Application security – An application that has been compromised can prove very hazardous for the data that it is supposed to protect.

Information security- This feature protects data privacy and integrity both in transit and while in storage.

Operational security – This is instrumental in handling and protecting data assets.

Is Cybersecurity a Good Career Option?

With the increase in cybercrimes day by day, this career is in great demand. This is a demanding yet very rewarding career. The challenges in cybersecurity are growing and evolving every day, therefore skilled cybersecurity professionals are needed in large numbers all over the world.

In India, the cybersecurity jobs that have witnessed a high demand are –

- **Network Security Engineer**
- **Cyber Security Analyst**
- **Cyber Security Manager**
- **Security Architect**
- **Chief Information Security Officer**

Few key skills required for jobs in Cybersecurity-

- **Attention to Detail**
- **Communication Skills**
- **Knowledge of Security Across Various Platforms**
- **Problem-Solving Skills-**
- **Technical Aptitude-**
- **A Desire to Learn –**
- **An Understanding of Hacking –**
- **Fundamental Computer Forensics Skills –**

GESTURE CONTROL FEATURE

Did you ever dream of controlling your mobile phones without even tapping the screen?

This may soon come true with Google's new Android 12 features which will let users control their phones by using facial gestures. Using the camera switches feature which is an accessibility service in the Android Accessibility suite will support gesture control for this user interface. Users will be able to use gestures to control their device's actions such as raising an eyebrow to return to the home screen or open their mouth to access the notification panel.

It is useful as it provides more simplicity to anyone who struggles with fine motor control tasks, making touch screens difficult to use. This eliminates the need for users to have an external switch device or keyboard with them at all times. Camera Switches, combined with face gestures, gives an Android phone's integrated camera similar capabilities to a range of externally connected switch devices that are paired via Bluetooth or connected via USB.

Corresponding camera actions include getting to the homepage, scrolling backwards and forward, and selecting. The users also will be ready to select how sensitive the gesture is going to be by adjusting the gesture size and duration. The new feature is currently in beta mode and is touted to be handy for specially-abled users.

Users will be able to customise these gestures based on their preferences. The gesture size for each gesture type, as well as the duration of the gesture tied to an action, will be customisable in Switch Access settings. Currently supported face gestures include 'open mouth', 'smile', 'raise eyebrows', 'look left', 'look right' and 'look up' -- all actions that could allow users to navigate and control the Android UI without the hassle of connecting an external switch device.



The users also will be ready to select how sensitive the gesture is going to be by adjusting the gesture size and duration.

This feature is not just specific to Android 12 but will also be compatible with Android 11, based on the XDA test. This new feature could be a huge revolution increasing the accessibility of mobile devices especially for people with special needs. Google is said to release the new version of Android later this year where we may be able to see this feature in action.

QUIZ TIME

Korock Hazra
Class 8, Sri Sri Academy



ANNOUNCEMENT

The second edition of SSA Hackathon is coming right after your exams! Gear up with your innovative ideas and this time there's an add on. If you have some innovative toy ideas or game ideas related to our heritage, our culture, our tradition, our topography and our history well, save them all and keep them ready. SSA Hackathon 2021 will have another segment accepting toy ideas apart from only innovation.

So why wait?

Start thinking, start tinkering and start innovating!



ABOUT US

Rabvik Innovations aims to train and prepare the next generation of robotics, scientists, and engineers innovative enough to push the envelope and be creative enough to achieve the impossible. Rabvik Labs prepare the students for a toe-dip in the pool which will become an ocean in the pool which will become an ocean in a few years and will also allow them to get real-life experience in the world of robotics, automation, AI and IoT.

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