

*Event update
Upcoming Hackathon*

*Article by
Arijit Bhattacharya*

*Achievements of
Rishav & Mitadru*

**TINKER
TIMES™**

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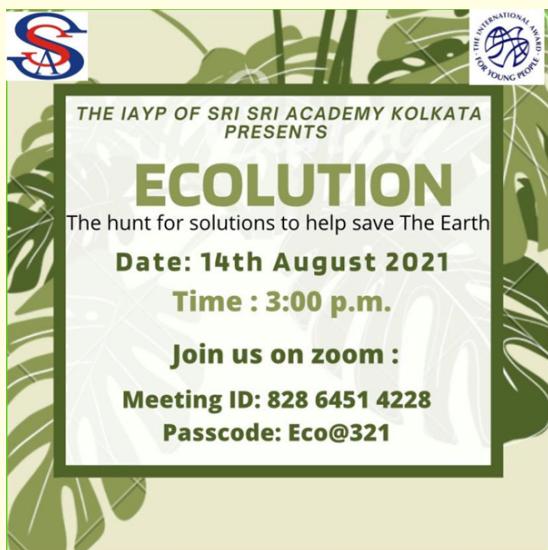
HAPPENINGS @SSA

A workshop was conducted with the initiative of ATL and DTL lab on the topic of Sustainability and Design where the students participated and made models of the sustainable houses. The students were also trained to make circuits in the online software and introduced to ways and means to reduce power consumption.

Additionally, other aspects like rainwater harvesting, compost pits and vertical gardening concepts were introduced in the sustainable buildings also known as Green Buildings. However, due to the onset of the examination, the students are completing their models.



The school's IAYP (International Award for Young People) club also arranged a competition on 14th August 2021 called Ecolution, where the students were asked to submit videos and posters based on Climate change and its alert. There was an overwhelming response throughout and the jury members (teachers from the school) marked the entries based on certain categories and declared the result. The main aim of this competition is to create an awareness of climate change in our environment and also at the same time nurturing the digital skills of the students while making the videos and posters for participation.



Anshika Tibrewal of class 7A secured the second position at the city level and third position at the state level in the KIDEX CHAMPIONSHIP organized by NITI Aayog, Govt. of India.

The championship was organized by NITI Aayog, Govt. of India. The school also has been ranked the First position by the Kidex Championship for maximum participation alongside securing the maximum marks.

YOUNG ACHIEVERS

"With ordinary talent and extraordinary perseverance, all things are attainable."

This was proved by Mitadru Dasgupta and Rishav Majumder of Sri Sri Academy. Their research paper titled "IoT Based Smart City for the Post Covid World: A ChildaCentric Implementation Emphasis on Social Distancing" has been selected as the best paper at the GCAIA 2021: 2nd Global Conference on Artificial Intelligence.



The event was organised by the University of Engineering & Management (UEM), Kolkata from 8-10th September 2021. The event had around 100 teams present their papers and among them, their paper was chosen the best in their category. The paper will be published in CRC Press.

Achieving this remarkable accolade at such a young age is a true mark of a genius. This of course is a result of their hard work and the guidance provided by Rabvik Innovations that helped them accomplish this at such a young age. Thus proving that there is truly no limit to excellence.

AUGMENTED REALITY GLASSES- A DEEP LOOK

By: Arijit Bhattacharyya



Arijit Bhattacharyya is a Serial Entrepreneur, Angel Investor, Public Speaker, Business Matchmaking Expert, Government Advisor, Artist, Author, Community Builder, Game Programmer, Virtual Reality Specialist (with VRML to C# using game engines), AI Evangelist (Since 2002), Blockchain Specialist (Since 2018 mainly in fintech, crypto and Healthtech) & Globe Trotter (Over 90+ countries business network), Startup Mentor.

There is a quiet highlight about the virtues of virtual reality, but the popularity of augmented reality is truly breaking out. People are mostly introduced to this technology with the help of popular smartphones games for example Pokemon Go, a Snapchat suite of filters. Apple and Google are also launching their own smartphone-driven AR platforms, ARKit and ARCore. Augmented Reality gives a feeling of a make-believe creature thus making yourself look like a cute puppy via a smartphone.

Microsoft, Google Vuzix and others are working to bring AR in eyeglass form. There are also many glasses giving you full-colour apps which you can check at a glance and helmets delivering direction in real-time when you can ride around on your bike or motorcycle. AR headsets create holograms with a level of interactivity seeming straight out of a science fiction fever.

Top Augmented reality glasses:

Microsoft Hololens:

Microsoft Hologram themed augmented reality glasses- is the true augmented reality glass having wearers waving their arms to interact with screens and full-coloured virtual objects. Willing to dial up the coolness factor a bit? Then you can also take an augmented reality-driven trip through Mars. Microsoft Hololens is still at the stage of development. Oculus Rift like use, this might not be the headset which you are going to wear at the time of walking to the grocery store.

Its uses: Interior decorators, aspiring designers, gamers, who want to learn home improvement tasks. They have yearned for a Minority report interface for interacting with digital data. Microsoft sees a lot of potential scenarios for Hololens.

Key features: No dangling cords or wires; this is lightweight and fits any adult head size. HD Holographic images, a bunch of cameras and sensors which Microsoft isn't talking about; "holographic processing unit".

Google Glass Enterprise Edition:

After failing to gain mainstream success Google retooled its augmented reality headset as a business focussed product. Google glass enterprise edition has a similar feature but with upgraded hardware. The new headset has a big, red light that turns on at the time of filming that was absent from the consumer version. The transparent display known as the Glass pod is also removable this time. You can detach the display from the included frames use it with safety goggles and prescription glasses.

Its uses: Strictly for business use.

Key features: Has 8-megapixel camera, detachable lens, longer battery life, fast wi fi, more powerful processor.

Meta 2:

The second-generation headset offers one of the augmented reality experiences. This is exactly similar to Microsoft Hololens but at half-price and also with a better AR display and more comfortable design. The Meta 2 can project high-quality holograms that uses 3D imaging with a 90-degree field to view and a 2560 x 1440 resolution. This uses ultrasound technology and a gorgeous car app. The only problem is unlike wireless Hololens, the Meta 2 requires a cable for power, video and data.

Its uses: Best for those who are willing to fill their home or office with Holographic images.

Key features: 720 front camera, tinted screens, 90-degree field of view, 2560x1440 pixel resolution, Windows-based operating system.



Solos:

This is a cycling focussed AR device having few standout features. This is an all in one pair of smart sunglasses with a built-in heads up display. This is the smallest in the world.

Its use: The cyclists looking for improvement through database training are ideal for Solo use. They are a solid choice for those wanting all one option that can be connected with your smartphones.

Key Features: 5-hour battery, dual microphones, micro speakers, adjustable display, Bluetooth.

DESIGN IMPLEMENTATION

By: Vatsala Surekha, 8A

A design is how we express our imagination in a creative and innovative way. A design can be interrupted in many ways, may it be the way an object is constructed in a certain matter or patterns and shapes drawn on the object itself. A design helps us speak our minds. Design helps us execute our emotion, creativity, artistry.



Some objects are designed in a way so that they can be a better substitute for our daily items and work better. Some are made in an extremely unique way to be sold. This unique object when seen by a consumer may find it attractive and want to buy it.

So, design is also used for commercial purposes. Design is used for paintings, interior designing, and packaging and much more. Design is one of the most important steps of creating a product. If the design of the product is not satisfactory there are high chances that they may not buy the product.

A design can be a couple of prints, colour combinations, shapes and construction. Nowadays many businesses concentrate on the design more because most of the products are broadcasted online, and just by seeing the picture, the consumers may find it attractive and be allured to it leading to them wanting to buy the product. Design is of utmost importance in the making of a product.

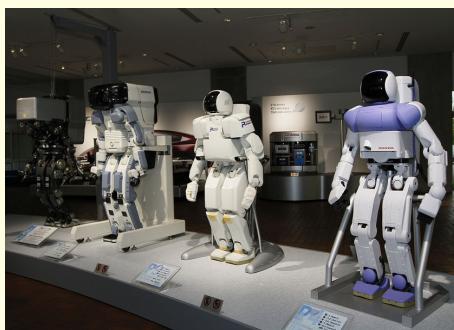


MODERN LIVING WITH HUMANOID ROBOTS

By: Shriyans Ball, 8F

Haven't we all wondered "I wish I had somebody to help me with my daily chores!" The good thing is that this dream. Welcome to the Modern Life with Humanoid Robots!

We all have must have come across the term Artificial Intelligence, but what does it really mean? This is nothing but a very modern form of a programming language, often used to make devices 'intelligent', or in other words, to make devices understand and interpret human emotions to give us a very precise and accurate output.



This same technology is being used in a specialised design of a robot, referred to as a Humanoid Robot. As the name suggests, it is human-like, ie it can understand and interpret humans emotions and make judgements and can work with the speed and efficiency of a robot.

You can converse normally with a Humanoid Robot. Asking questions is even fun since these robots literally have the answer to anything and everything.

The most popular Humanoid Robot to date is Robot Sophia. She had been in the spotlight for quite some time, especially when she came to Kolkata in December 2017 for a tech-based Q 'n' A session. She is also the first of the kind, humanoid robot citizen of the world.



Another popular robot was designed in a school in Bengaluru and functioned as a teacher. Several other big multinational companies like Panasonic and Tesla have already begun manufacturing Humanoid Robots for domestic usage.

We do have this wonderful technology, but in the end, only time will tell the fate of humanoid robots, whether they really will become part of our modernised living, or they will end up in vain.

QUIZ TIME

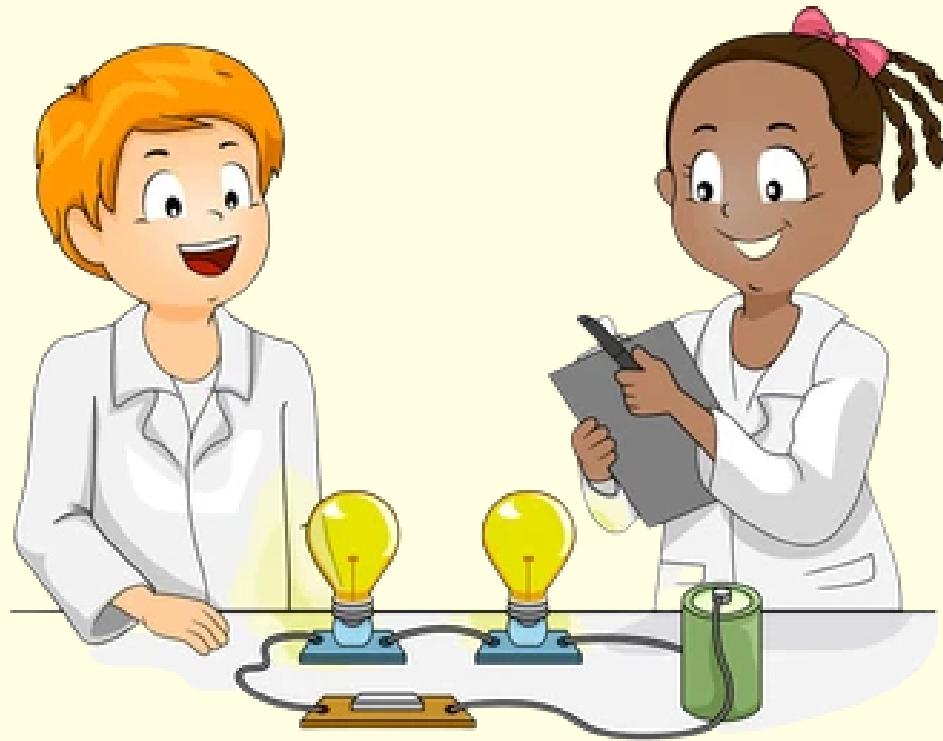
Sanyam Surana, Class 8



ANNOUNCEMENT!!

The second edition of the **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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Page- 14