

# INSEF Valedictory – Chief Guest



#### Prof. RAJAT MOONA, DIRECTOR, IIT BHILAI

- Prof. Moona heads the Indian Institute of Technology, Bhilai(IIT Bhilai), which is one of the six new IITs established by the Ministry of Human Resource Development, Government of India.
- Prof. Moona is also a Professor of Computer Science at IIT Kanpur and has supervised several postgraduate theses. He along with his students and colleagues, has authored 10 patents, several research papers and books.
- He had been instrumental in defining applications such as smart card driving license, vehicle registration, e-passport, electronic toll collection, mobility card, etc. The research area of Prof. Rajat Moona spans over embedded computing, computer security, VLSI design and Operating Systems.
- In the past Prof. Moona was the Director of the Centre for Development of Advanced Computing (C-DAC) in capacity of Director General. Prof. Moona is recipient of several awards and recognitions, including Indo-US Science and Technology Fellowship, Poonam and Prabhu Goel Chair Professorship, VASVIK Award for the year 2010, IESA Techno-visionary Award 2014, fellowship of Maharashtra Academy of Sciences 2015 and National award of Election Commission of India 2016 for the best electoral practices.
- Prof. Rajat Moona is an active member of the technical committee of Election Commission of India for EVMs and has been instrumental in defining the EVMs and VVPAT. He has also been instrumental in defining national voter service portal and national electoral search for the voters.

# INSEF Regional Fair 2020-21 Online

• We have Gold, Silver, Bronze & Honourable Mention

Bio-04 (Jr)	ENHANCEMENT OF SHELF- LIFE OF TOMATOES IN THE DOMESTIC SECTOR		6	Krishna Madhavi P A	Sishu Griha Montessori and High School	Bangalore, Karnataka
CompSc-14 (Jr)	Word Chunking App for people with Dyslexia	Vasudha Bhat	8	Krishnamoorthy Patla Shankaranarayana	Vivekananda English Medium School	Puttur, Karnataka
Env-13 (Jr)	Eutrophication	Detroja Drashti Hiteshbhai	6	Detroja Shobhanaben Hiteshbhai	Shree G.K. Dholakiya School	Rajkot Gujarat

Math-02	A Algorithm/Model Maximizing Profit for Taxi Drivers	Udayan Chatterjee	12	Kaushik Sen	Kalyani Public School	Kolkata, West Bengal
Env-17 (Jr)	Ecofriendly Stainless Steel Composite Cups	Dhriti Dixit	5	Bhanu Priya	Sishu Griha Montessori and High School	banglore, karnataka
Math-01 (Jr)	Improving students mathematical reasoning, logic and self-efficacy through Game	KOTAK PREKSHA P.	7	NIKUNJ R. CHHAIYA	LATE SHREE S. G. DHOLAKIYA MEMO. PRI. SCHOOL	RAJKOT, GUJARAT

Bio-01	MAGICAL LEAF OF HOUTTYUNIA CORDATA FIGHTING AGAINST ALTERNIA LEAF BLIGHT IN BRASSICA JUNCEA	ABHIJIT BARMAN	11			No guide	KV ONGC SIVASAGAR NO. 1	Sivsagar ASSAM
Bio-02	A novel plant based stain for histological studies	Abhilasha Dhota	9			Sindhu v k	G.P.U.COLLEGE.KOMBETTU	PUTTUR, KARNATAKA
Tech-01	IMPROVED MAGNETIC FILTRATION DEVICE FOR ARSENIC REMOVAL FROM DRINKING WATER AND METHOD THEREOF	Arpit	11	Abhijeet Kumar	10	Manju Kumari	Kilkari Bihar Bal Bhawan	Patna, Bihar

Phy-03 (Jr)	Foot operated hydraulic hand sanitizer dispenser	Vaishnavi Manohar Kolge	8	Prahanth Madna	Zhilla Parishad Prathmik School Gadiwat	Aurangabad, Maharashtra
CompSc-04	BEEPER FOR BLIND	Rutva Shah	9	Revathi Haval	P.G.Garodia School (I.C.S.E)	Mumbai, Maharashtra
Bio-06 (Jr)	An Electronic hand sanitizer	Joshi Jatan Bhagvatiprasad	6	Janvi Anadkat N.	SHREE GK DHOLAKIYA SCHOOL	Rajkot

Phy-06 (Jr)	A Comparative Geophysical and Mathematical Analysis of Lunar and Terrestrial Lava Tube based on the Latest Lunar and Terrestrial Lava Tubes' Data	Sonit Sisolekar	8	Dr. Santosh Sisolekar	Paradise English Medium School	Pune, Maharashtra
Chem-03 (Jr)	FORMULATION AND ANTIMICROBIAL EFFICIANCY OF HERBAL HAND SANITIZER	FEFAR DIYA BHARATBHAI	8	MAKADIA MAHEK BIPINBHAI	SHREE G K DHOLAKIYA SCHOOL	RAJKOT, GUJARAT
Phy-01	Table top cooler	Prajakta Arun Sable	9	Priyanka Sharma	Sarasvati Vidhya Mandir Walunj	Aurangabad, Maharashtra

Engg-03 (Jr)	Automatic Spray Machine for Various Applications (Automatic Hand Sanitizer Machine)	Patanvariya Het Rajnibhai	8			Mr. Rajni Patanvariya	SHREE K.G.DHOLAKIYA SCHOOL	RAJKOT
CompSc-07	Split-Second Vehicle Motion Planning to Prevent Crashes	Yash Jha	11	Vinayak Jha	12	AJITHKUMAR K.G.	Delhi Public School, RKP and Modern Vidya Niketan, Sec-17	Rama Krishna Puram, New Delhi, Delhi and Faridabad, Haryana
Env-03	AN OIL SPILL SOLVER-BP CLAY	YASH.B.KIRTE	9	RUKSAR GULAM RABBANI SHAIKH	9	SHAIKH SOFIYA BARKATULLA H	saraswati high school	Mumbai , Maharashtra

Tech-07	Are you wearing your mask right?	Megha Iyer	9			Shylashri C	Yashashvi International School	Bangalore, Karnataka
Env-12 (Jr)	A STUDY TO OPTIMISE SELECTION OF OXYGEN ENRICHING PLANTS WITH RESPECT TO ELECTROMAGNETIC RADIATION ABSORPTION FROM WIFI SOURCES	Navya Karthik	7	Kalyani Dhanasekaran	7	Usha Tripathi	Sishu Griha Montessori and High school	Bangalore, Karnataka
Env-10 (Jr)	EFFECT OF ACTIVATED CARBONS OF COCONUT SHELL AND RICE HUSK TREATED WITH ALOEVERA TO MINIMISE RADIATIONS INTENSITY FROM WIFI SOURCES IN LIVING AREAS	Sharanya Mysoremath	5	Srishti R Gulur	5	Usha Tripathi	Sishu Griha Montessori and High School	Bangalore, Karnataka

# Congratulations to all the Honourable Mention Award winners Next, we go to the Bronze category winners of INSEF Regional Fair Online

Env-02 Mask fo

Mask for the Impaired

Tvisha Mehta

a 9

Nandita Ashar 9

Revati Haval

P.G.garodia school (ICSE

Mumbai, Maharashtra

https://meet.google.com/kua-dydo-onk



Energy-04 (Jr)

Automatic Leg Massager to give relief from leg pain

SAMARTH S
HEGDE

Automatic Leg Massager to give relief from leg pain

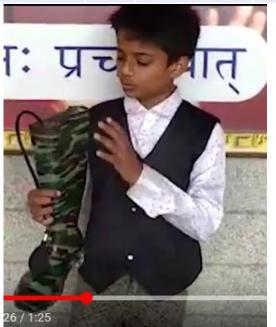
SAHANA M

SAHANA M

SAHANA M

SCHOOL PUTTUR

KARNATAKA



Env-04

EVALUATION OF LEAF MUCILAGE OF MUSSAENDA FRONDOSA AS HERBAL HAIR CONDITIONER

Rakeshkrishna K

11

Prof. Deviprasad K.N Expert Pre-University College Valachil, Mangaluru, Karnataka



12

A Novel Approach in Pharmacogenomics: Automated identification of anti-cancer drugs for cancer patients ...

Tech-08

Soham Pradhnesh Patil

None

Veermata Jijabai Technological Institute (Diploma, Polytechnic)

Mumbai, Maharashtra



CompSc-09

A DEEP LEARNING WEB BASED APPLICATION TO DETECT & PREDICT COVID-19, LUNG CANCER AND OTHER LUNG ABNORMALITIES

Aryan Gulati

12

Vikram Gulati

Delhi Public School R.K. Puram

New Delhi, Delhi

#### Radiological Detector



#### Covid-19 Risk Assessment

This assessment is not a substitute for professional medical advice, diagnosis or treatment. The assessment aims to guide you to the right next steps to take, based on your symptoms and risk factors.

CompSc-06

BlindPi

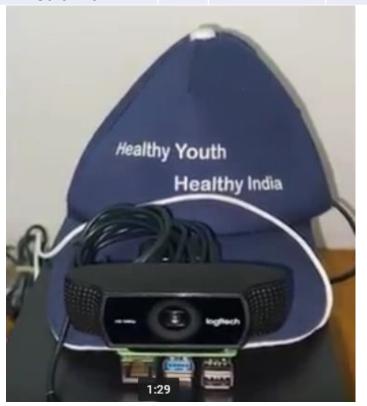
Syed Mohammed
Sulaiman

Syed Mohammed
Sulaiman

12

Priya S

Christ Junior Bangalore,
college Karnataka



Energy-03 (Jr)

WATER ALARM

AARAV VASAVADA

7

URVA VASAVADA G K DHOLAKIYA SCHOOL

**RAJKOT** 

AARAV VASAVADA I Islandi valle, companie della comp

https://meet.google.com/upx-uwgp-yda

Energy-02

reducing the carbon footprint through innovetive lamp

Vibha K Bhat 9

K L Bhat

shrniketana school isloor

Sirsi



Prevention of urban flooding due to encroachment using Computer Vision

Shashank Kumar

9

Mr. Sudarsun Sathiappan

Bala Vidya Mandir Chennai, Tamil Nadu



https://meet.google.com/gsw-thuo-hob

Env-09

Energy-01 IMPACT OF EVAPORATIVE
COOLING ON THE PERFORMANCE
OF PHOTO VOLTAIC CELLS

Sharvani Mysoremath

M Lakshmi

Krishna Madhavi P.A Sishu Griha Montessori and High School

Bangalore, Karnataka

Sharvani Mysoremath & M Lakshmi IMPACT OF EVAPORATIVE COOLING ON THE PERFORMANCE OF PHOTO VOLTAIC CELLS



https://meet.google.com/ysp-mksf-kmj

Tech-02 ECO FRIENDLY AGRI SPRAYER NEHA BHAT 10 SHIVAPRASAD CH ENGLISH MEDIUM SCHOOL, PUTTUR, PUTTUR,.



CompSc-01

Eye-Disease Recognition using machine learning

**DEEPIT SHAH** 

12 Dhaval Shah

Rustomjee Cambridge International school

Maharastra, Mumbai



Engg-04 (Jr)

Eco-friendly solar powered Cooling System

Mast. Aaradhya Singh

Ms. Sanchari Banerjee

8 Samir Khule

Bhavan's B P Vidya Mandir, Ashti, Nagpur

Nagpur, Maharashtra



https://meet.google.com/boc-zwov-nkc

# Congratulations to all the Bronze category winners Next, we go to the Silver category winners of INSEF Regional Fair Online

Engg-02

ABWFC: A novel approach for conservation

Saksham Solanki

Harsh Kumar 11

Radhika Solanki

**KV No.2 EME** 

Vadodara, Gujarat



Env-06

DUCKWEED AS GREEN MANURE FOR POTTED PLANTS

SAYALI SONAWANE

NE 10

DIKSHA GAJBHIV SHAIKH SAMINA ABDUL

10

SARASWATI HIGH SCHOOL MUMBAI, MAHARASHT RA



https://meet.google.com/kho-imss-qwm

Phy-05 (Jr) Face Mask Steam Sterilizer Gouthami K 7 Priyanka Sharma GMPS Saneguruvanah alli Engaluru,



CompSc-08

Novel machine learning algorithms and neural networks for Diagnosing Arrhythmia

Mikki Jhuria

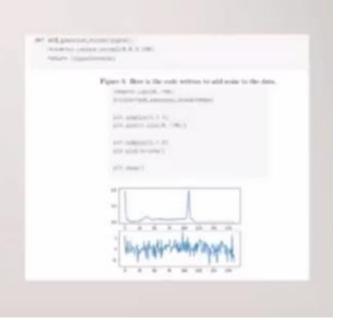
11

Rajbir Singh(parent) Army Public School, Dhaula Kuan

New Delhi,Delhi

#### AUGMENTING/MODIFYING THE DATA

- Adding noise expands the size of the training dataset.
   Each time a training sample is exposed to the model, random noise is added to the input variables making them different every time it is exposed to the model.
- This is done to overcome a common problem know as Overfitting when a model learns the detail and noise in the training data to the extent that it negatively impacts the performance of the model on new data.
- When you train a neural network with small datasets, the network generally memorizes the training dataset instead of learning general features of our data. For this reason, the model will perform well on the training set and poor on new data, hence, this technique is applied.



Env-16 (Jr) E

A NOVEL METHOD TO CREATE ECOFRIENDLY THERMOREGULATOR BRICKS

Mohammed Hashim A.U avaneeshkumar

Sujatha

INDRAPRASTHA VIDYALAYA UPPINANGADY

UPPINANGADY, KARNATAKA



https://meet.google.com/dke-joyq-gjj

Engg-01

A cheap and implementable novel IoT faucet extension that hypermodernises outdated taps

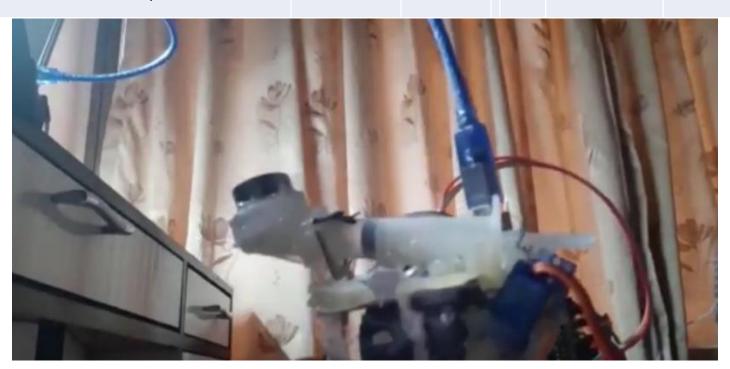
Shivam Garg

12

No Guide

SVKM International School

Mumbai, Maharashtra



Env-15 (Jr)

Earthquake resistant eco-friendly Brick

Simran Kotak Sachinbhai

8

Urvashiben kotak Shree G.k. Dholakiya Rajkot, Gujarat

Simran Kotak
Earthquake resistant eco-friendly Brick

https://meet.google.com/efh-ytoe-fgh

A NOVEL METHOD ON Formulation of bio degradable, composite wrappers from polymer-waste gruel starch PLASTARCH

Bio-03

Mahathirani P S

Sanvi Kamath

Prajna N

Indraprastha Vidyalaya, Uppinangady

Puttur Karnataka



CompSc-13 (Jr) An Innovative detachable device for driving special to avoid accident

Kapadiya Rudra Nileshbhai

8

Bharati Amipara Smt. K. K. Dholakiya School

Rajkot (Gujarat)

Kapadiya Rudra Nileshbhai

An innovative detachable device for driving special to avoid accident



https://meet.google.com/jhe-hnem-jqk

Phy-02 Dumb and Deaf helping machine Aditya Jaiswal 11 Moksha Desai 11 Poonam Doon Blossom Ahmedabad





# Regional Fair Gold category winners (Finalists for INSEF National Fair)

BehvSc-01	Autest: Culturally adapted assessment tool for autism and its clinical significance
BehvSc-02	Betazoid: A Mobile Application Implementing Machine Learning to Assess Bipolar Moods and Predict Bipolar Episodes
BehvSc-03	STUDY OF EYE BLINK RATE OF STUDENTS IN GRADE 3 TO 5 AND REDESIGNING THE TEACHING METHODOLOGY TO IMPROVE BLINKING RATE
Chem-01	Invisible anti fog coating for glass/plastic- musa paradisiaca peel
Chem-02	A STUDY ON THE EFFECT OF STORAGE TIME AND EXPOSURE TO HEAT ON INFILTRATION OF MICROPLASTICS AND BISPHENOL-A IN BOTTLED WATER
CompSc-02	Robovid 19:Development of a social distancing system.
CompSc-03	AIR (Artificial Intelligence through Robotics) IN HEALTHCARE
CompSc-05	IndivHear: An Inexpensive Smartphone-based Individualized Adaptive Hearing Aid using Deep Learning
CompSc-10	A Novel Deep Learning Algorithm for Screening Asthenopia
Env-01	FARM+
Env-05	Nature Driven Heat Reflecting Coating
Env-07	Conservation drone chain for wildlife husbandry
Env-08	A Novel Study of Bio-pesticidal Properties of Annona Reticulata
Env-11 (Jr)	Smart Farming
Env-14 (Jr)	Synthesis of Okra bio stick- A super glue from the mucilage of Abelmoschus esculentus
Tech-03	Stroke Monitoring And Rehabilitation using Technology (SMART)



Env-07

Conservation drone chain for husbandry of wildlife

Rhythm Dhangar 12

Ramesh Dhangar

Academic World School

Bemetara, Chhattisgarh



https://meet.google.com/xyk-eybk-pux

CompSc-10

A Novel Deep Learning Algorithm for Screening Asthenopia

Chirag Bhansali

11

Aakarsh Gupta Dr. Ratan Lal Parakh

10

Delhi Public School, Noida

Noida, Uttar Pradesh

Chirag Bhansali & Aakarsh Gupta

A Novel Deep Learning Algorithm for Screening Asthenopia





https://meet.google.com/qmo-hrpx-xiv

Env-11 (Jr)

**Smart Farming** 

Sujal p. Bhuva

8

Parin Bhuva Shree G. K. Dholakiya School Rajkot, Gujarat



https://meet.google.com/kdc-iisx-mym

Chem-02

A STUDY OF EFFECT OF STORAGE TIME AND EXPOSURE TO HEAT ON INFILTRATION OF MICROPLASTICS

Annette Ronnie Arushi Upadhyaya Usha Tripathi Sishu Griha Montessori and High School

Bengaluru, Karnataka



https://meet.google.com/mxn-qntx-wev

# Congratulations to all the Honourable Mention award winners Next, we go to the Bronze category winners of INSEF National Fair Online

#### National Fair Bronze category winner

CompSc-03

AIR (Artificial Intelligence through Robotics)
IN HEALTHCARE

Akshat Sharma

11

Ms. Anshu Agrawal

Amity International School Mayur Vihar, Delhi



https://meet.google.com/whu-achy-rjb

#### National Fair Bronze category winner

Betazoid: A Mobile Application Implementing
Machine Learning to Assess Bipolar Moods and
Predict Bipolar Episodes

Eeshan
Zele

Dev Shah
11 NA International Mumbai
School

Eeshan Zele & Dev Shah

Betazoid: A Mobile Application for predicting Bipolar Episodes

https://meet.google.com/zwb-jfwp-fkn

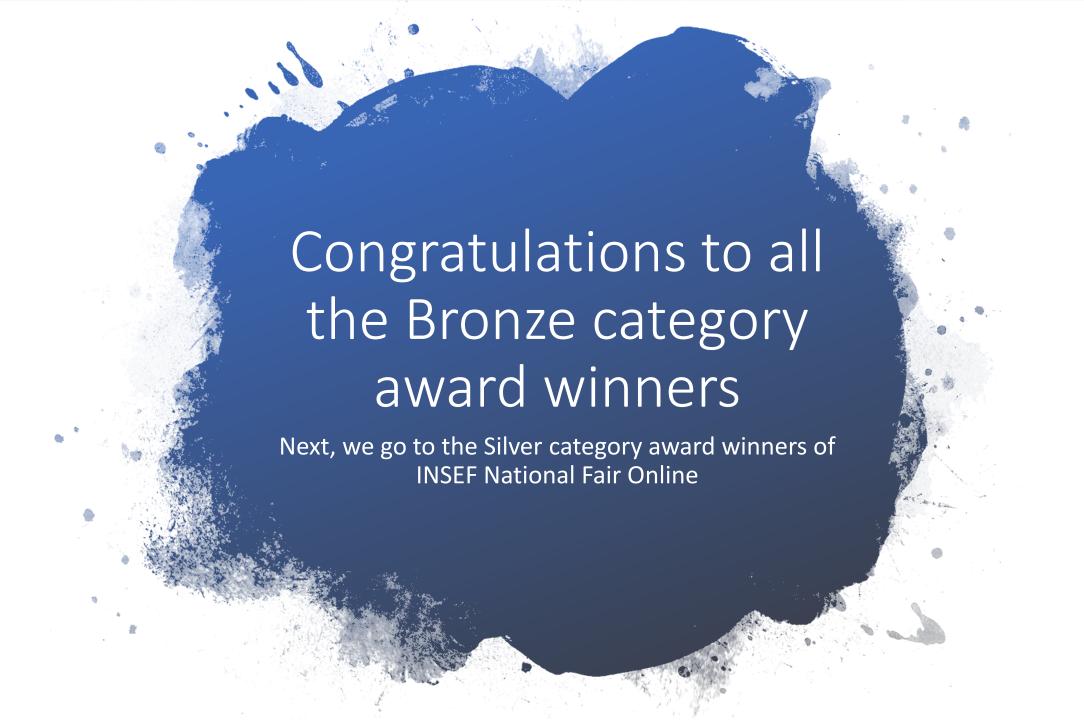
BehvSc-02



## National Fair Bronze category winner

Env-01 FARM+ Krish Sharma 11 Nalin Jayaswal 11 Radha Kumari International School Pushp vihar Delhi





Chem-01

Invisible anti fog coating for glass/plastic- musa paradisiaca peel

Sudarshan Laxminarayan Achar Revathi Haval PG GARODIA SCHOOL(ICSE), Mumbai

https://meet.google.com/pug-bzzj-crt



BehvSc-03 (Jr)

Study of Eye Blink Rate of Students in Grades 3 to 5 and redesigning teaching methodology to improve blinking rate

Keertana.S

Nithya Sankarnarayanan

8

Sishu Griha Montessori and High School, Bangalore

https://meet.google.com/kkp-ebda-kgt



Env-14 (Jr)

ITLE: Fabrication of Okra-Biostick from the mucilage of Abelmoschus esculentus

S A Deekshitha Jain

Jyothi Kiran

8

Indraprastha Vidyalaya, Uppinangady Karnataka



https://meet.google.com/wrr-oyei-eup

Env-05

Nature Driven Heat Reflecting Coating

Rishita Ghosh

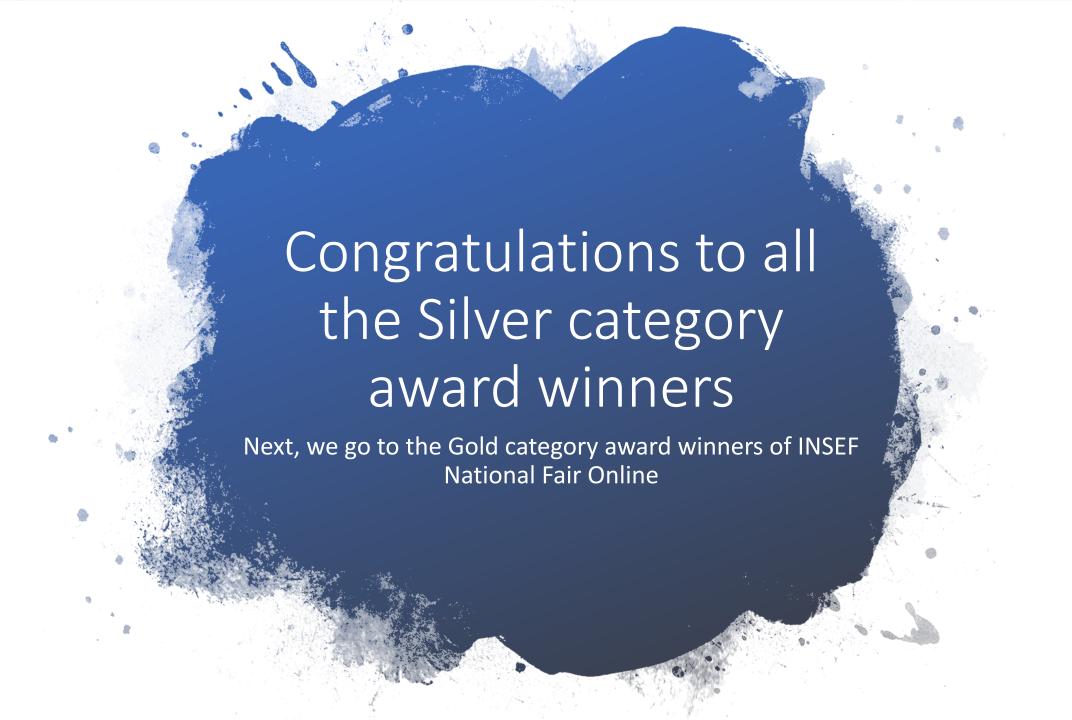
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Dr. Kaushik Ghosh Learning Paths School Mohali, Punjab

Rishita Ghosh
Nature Driven
Heat Reflecting
Coating

Onto Hall
NOTICE THE PROPERTY OF THE PROP

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- Gold awards winners are directly qualified to
  - Genius Olympiad\* & Global Youth Science and Technology Bowl 2021

- This year we have a new affiliation with
  - Global Youth Science and Technology Bowl 2021
  - It's a Hong Kong based global fair it will be held online

<sup>\*</sup>Genius Olympiad is undergoing some change – this qualification will be confirmed later

CompSc-05

https://meet.google.com/eni-uija-ojv

IndivHear: An inexpensive smartphone-based Individualized Adaptive Hearing Aid using Deep Learning

Sarthak Mangla

Dr. Sangeet Kumar Poddar Delhi Public School, R.K. Puram New Delhi, Delhi



Stroke Monitoring And Rehabilitation using Technology Siddhant Attavar

10

Abhijit Attavar

NPS Indiranagar

Bangalore Karnataka

Siddhant Attavar
Stroke Monitoring And

Rehabilitation using Technology



https://meet.google.com/sxb-xaxr-xoe

Tech-03

BehvSc-01

Autest: Culturally adapted assessment tool for autism and its clinical significance

Aranyo Ray

12

Anwesha Das

12

Simran Kaur Bhatty P1 - Kalyani Public School, Kolkata P2 -Delhi Public School, Kanpur, UP

Anwesha Das & Aranyo Ray

Autest: Culturally adapted assessment tool for autism

and its clinical significance





https://meet.google.com/ywk-vgwd-zoj

Env-08

A Novel Study of Bio-pesticidal Properties of Annona Reticulata Sarvesh Prabhu

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Abhishek Chandraker DPS, Raipur

Chattisgarh



https://meet.google.com/yia-xpzu-sko

CompSc-02

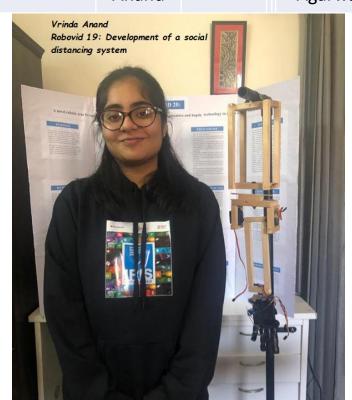
Robovid 19:Development of a social distancing system.

Vrinda Anand

11

Suruchi Agarwal Amity International School VASUNDHARA 1

**GHAZIABAD** 



https://meet.google.com/tyq-qbda-ajj



- Genius Olympiad (based on their confirmation ) &

- Global Youth Science and Technology Bowl 2021

Thank You all & Good night!

- Project mentorship wll be provided