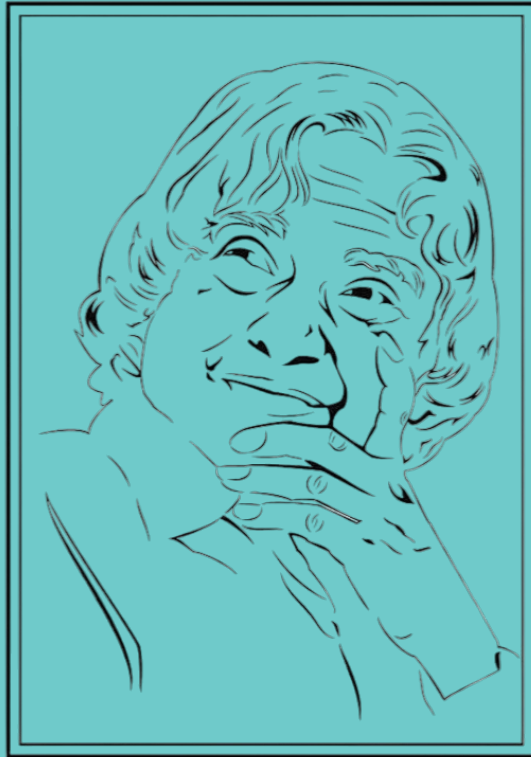




Honey Bee Network

Dr A P J Abdul Kalam Ignited Mind Children Creativity and Innovation Awards 2023



www.sristi.org



sristiinnovation.com



www.gian.org



Dr A P J Abdul Kalam Ignited Mind Children Creativity and Innovation Awards 2023



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Introduction

The Honey Bee Network, with SRISTI (Society for Research and Initiatives for Sustainable Technologies and Institutions) and GIAN (Grassroots Innovation Augmentation Network), proudly organizes the Dr. A.P.J. Abdul Kalam Ignited Mind Children Creativity and Innovation Awards annually. This prestigious competition celebrates the creative talent of school-going students who propose innovative ideas, products, or processes aimed at improving lives, conserving energy, protecting the environment, enhancing productivity and safety, and increasing convenience. The competition is open to students up to Standard XII or the age of 19, both in and out of school, encouraging young minds to submit their ideas and innovations, whether they have proof of concept or prototypes.

This year, the competition received an overwhelming response, with 16,570 innovative ideas submitted by children from 23 states across India. The entries are meticulously evaluated by experts who look at the students ability to identify pressing societal needs often overlooked by adults. Many of these ideas demonstrate deep empathy and a strong commitment to addressing unmet needs within society.

Out of these entries, the jury selected 16 outstanding student innovations from 10 different states for awards. These innovations not only address local problems but also have the potential to tackle national and global challenges. The selected innovations are categorized into five different areas: Sustainable Technologies, Enhancing Accessibility and Inclusivity, improving Health and Safety besides Environmental and Community Impact.

Three students from a government school and one proposing a solution to prevent suicides among children will be given a special Sadhana Samvedana Puruskar



Sustainable technologies

To minimize environmental impact and material waste while offering cost-effective solutions for lighting needs, Aditya Raj Chopra, a Class X student of DPS Indirapuram, proposed the G.LED bulb in his project. Observing traffic congestion during rush hour, Udayshankar Ravikumar, a Class IX student at the National Institute of Open Schooling, developed a portable “Remote Lane Reversal System” to efficiently manage and decongest urban traffic, reducing the need for costly infrastructure.

Enhancing Accessibility and Inclusivity

Udayshankar created a voice-interactive indoor navigation smartphone app designed to assist blind individuals in navigating unfamiliar indoor spaces safely and independently. Additionally, he developed a coding app that allows users to learn programming in their native language, enhancing comprehension and accessibility. Reena Dilkar of Class X at The Guardian and Guide Public School developed special Bluetooth glasses equipped with advanced sensors and connectivity to address mobility and accessibility challenges faced by visually impaired individuals.

Improving Health and Safety

Oorjit Mahajan, a Class XII student from Shiv Nadar School, developed DextraBot, an affordable device designed to assist individuals with hand tremors, helping them perform daily activities with greater ease and dignity. Saiansh Tapuriah from The Shri Ram School developed a wearable device to detect epileptic seizures and immediately alert caregivers. This device ensures timely intervention and reduces anxiety for both patients and their caregivers by providing immediate notifications when a seizure occurs.



Family and societal pressures, combined with the lack of available support, have contributed to a rising suicide rate among younger generations. To address this critical issue, Ms. Zeba Siddhiqui has proposed the creation of a chatbot. This bot aims to provide a safe space for children experiencing suicidal thoughts, allowing them to talk openly without fear of judgment.

Sindhoora Raja, a Class X student at New Horizon Public School, integrated ASL MRI-derived cerebral blood flow features with structural MRI data to enhance brain age prediction accuracy using machine learning.

Innovative Solutions for Everyday Challenges

Tuhin Bhattacharjee of Class XI at D.A.V. Public School developed Anushrawan, an anti-theft transportation system to prevent the theft and illegal smuggling of natural resources like coal and sandalwood. Rishita Samantaray proposed a device to be installed at bus stops that notify conductors of the presence of pregnant women. Alagulakshmi P, a Class IX student at Government Higher Secondary School, Tamil Nadu, proposed a simple gear lock system for motorcycle stands to prevent accidents. Sufiyan Mohammed Hanif Patel, a Class VIII student at Tapti Public School, proposed a high-tech two-wheeler with a cooling and heating mechanism, along with features such as side-stand alarm systems and a key and mobile phone safety system (Magic Key).

In order to distract dental patients, especially children, from the discomfort of treatment, Ms. Ekta Dewangan, a Class XI student at St. Xavier's High School, proposed adding puzzles to the ceiling walls of dental clinics. This innovative idea aims to provide a engaging visual distraction, helping to alleviate anxiety and improve the overall experience for young patients during dental procedures.



Environmental and Community Impact

Dakshesh Sarada, a Class IX student at Amity International School, developed a mathematical model for sustainable White-Tailed Deer Population Management to address fluctuating populations in the USA. Dupesh Manjare developed a Wildlife Hazard Detection System to detect the presence of dangerous animals during outdoor exploration. Shital Mandalakar developed a Smart Beach Cleaner, an automated solution for efficient beach cleanup, promoting a cleaner and safer environment. Akshara Gupta, a Class X student at SMS Dutta Memorial Mosegay Public School, developed an efficient soldering exhaust system to mitigate the release of poisonous gases, ensuring a healthier work environment for electricians

The Honey Bee Network acknowledges the invaluable support, guidance, and encouragement from the late Dr. A.P.J. Abdul Kalam, who believed in the power of young creative minds to make India self-reliant and a developed nation. In cases where societal need is high, recognition may help draw attention from designers and policymakers. The network will also assist students in connecting with mentors and fabricators to further develop their innovations.



Prof. Anil K. Gupta

CSIR Bhatnagar Fellow 2018-21

Founder, Honey Bee Network, SRISTI, GIAN & NIF

Visiting Faculty, IIMA & IITB, Academy Professor, ACSIR



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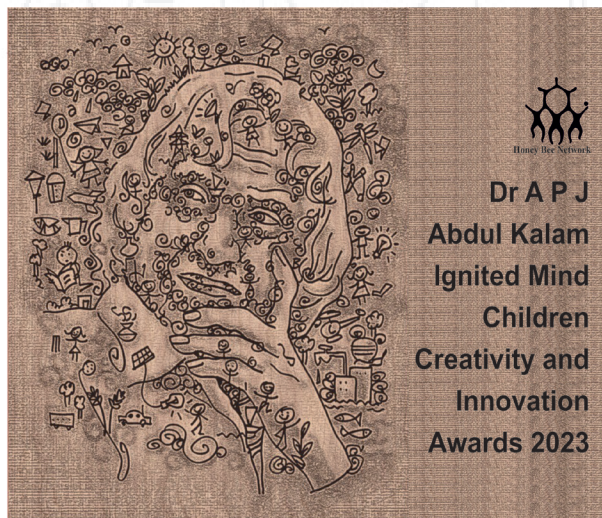
Annexures

- Honey Bee Network
- SRISTI
- Techpedia
- GIAN
- HBN Innovation Club



Creativity is seeing the same
thing but thinking differently

-Dr. A.P.J. Abdul Kalam



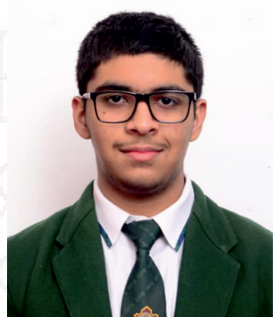
Honey Bee Network



Awards



Modified LED Lighting: The G.LED Bulb for Sustainability and Cost-Efficiency



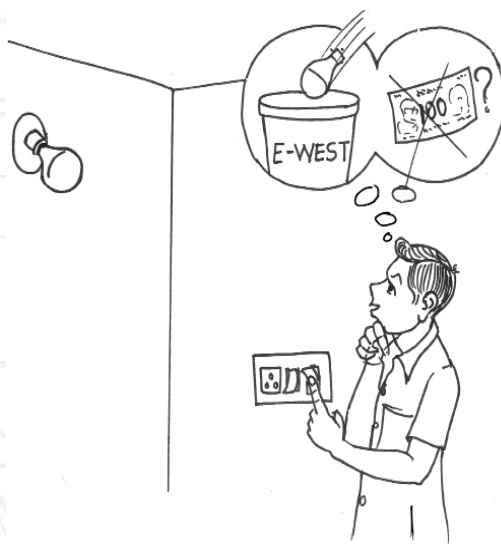
ADITYA RAJ CHOPRA

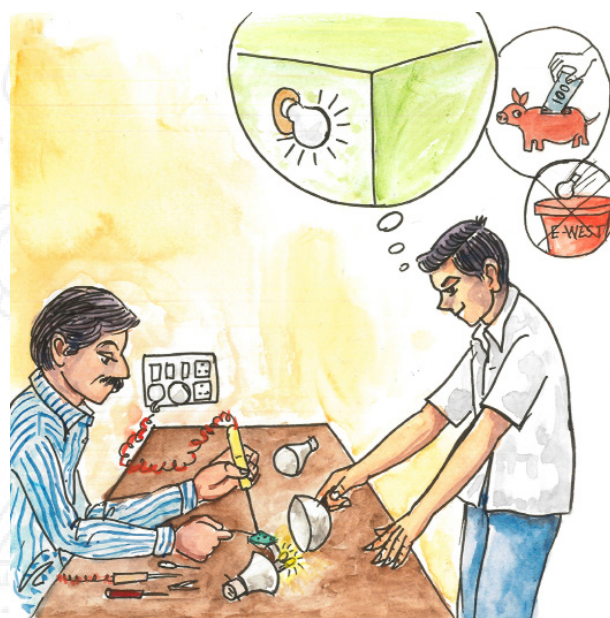
Class: 10th
DPS Indirapuram,
Ghaziabad, Uttar Pradesh



Problem

To minimize bulb wastage, conserve materials, and reduce environmental pollution.



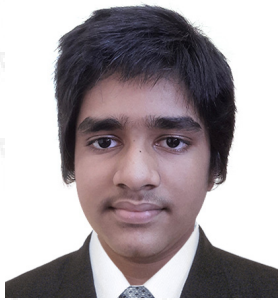


Solution

G.LED bulb addresses this issue with a design that has only three assembly parts: a reusable bulb body, a diffuser cap, and a replaceable PCBA-LED (Printed Circuit Board Assembly -with- Light Emitting Diodes) cartridge. When the LED bulb fails, the PCBA-LED cartridge can be easily removed by hand and replaced with a new one, similar to replacing a SIM card. This helps reduce cost and use of materials like plastic and aluminium while also reducing carbon emissions and mitigating global warming. Moreover, it lowers the replacement cost for failed LED bulbs, making it an economical and environmentally friendly choice.



Voice interactive indoor navigation smartphone app for the Blind People



UDAYSHANKAR RAVIKUMAR

Class: 9th

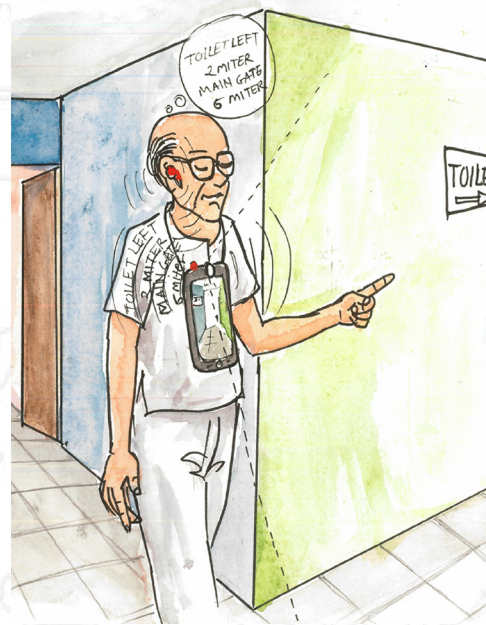
National Institute Of Open Schooling (NIOS),
Ernakulam, Kerala



Problem

Navigating blind people through unfamiliar indoor spaces.



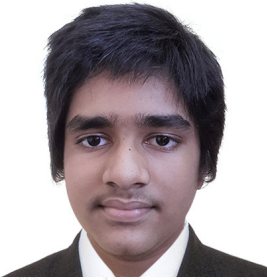


Solution

3rDi 4 All is a smartphone android application for the blind that is equipped with voice interaction to guide a person to their preset point of interest. This preset path has metadata about steps, elevators and such features and warns the user in case of obstacles. For example, a blind person entering an office asks the application the direction to the washroom.



Remote Lane Reversal System: A Portable Solution for Efficient Traffic Management and Decongestion



UDAYSHANKAR RAVIKUMAR

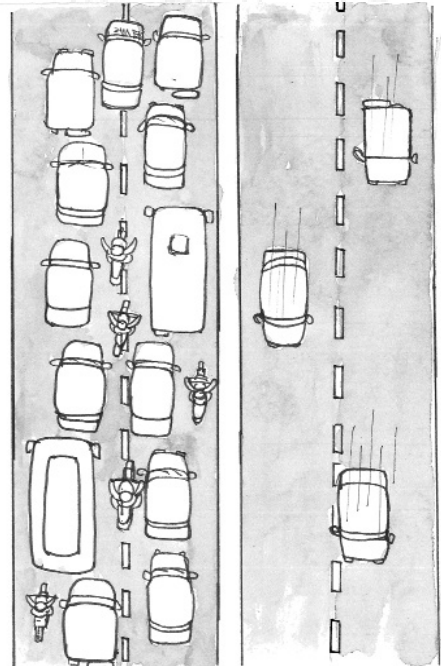
Class: 9th

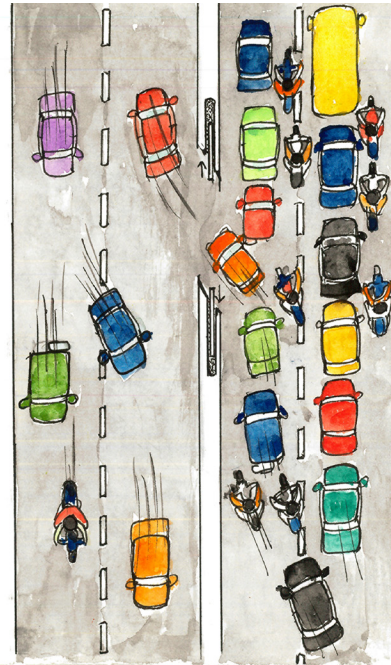
National Institute Of Open Schooling (NIOS),
Ernakulam, Kerala



Problem

Traffic congestion and blocks that occur during rush hours in cities leading to economic loss for the nation and individual.



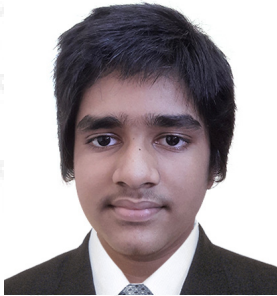


Solution

Remote Lane Reversal System, is a portable system that can be placed or removed at any point along the road. Its servo mechanism, sensors, and Time of Flight Cameras allow the traffic to flow by increasing the availability of lanes thus reducing the need for costly infrastructure.



CodeBhasha: Empowering Learning Through Native Language Coding Apps



UDAYSHANKAR RAVIKUMAR

Class: 9th

National Institute Of Open Schooling (NIOS),
Ernakulam, Kerala



Problem

Learning to code using only one language.





Solution

It is known that learning in native language gives the best results in understanding science. CodeBhasha, an android coding app allows the user to learn and code in their native languages. So far, the app is available in Malayalam. However, it can be implemented in any native language by simply changing the syntax of the computer code.



DextraBot: Empowering Lives with Affordable Tremor-Assistive Technology and AI-Enhanced Insights



OORJIT MAHAJA

Class: 12th
Shiv Nadar School Noida,
Noida, Uttar Pradesh



Problem

Costly and inaccessible product to prevent hand tremors for people that face trouble in day-to-day activities.





Solution

DextraBot, is a non-intrusive, cost-effective device designed to assist those with hand tremors in performing daily activities with dignity and self-sufficiency.

It is developed at a fraction of the cost of existing solutions, priced at ₹2500 (\$35). It ensures the handle remains stable even when the user's hands shake.

By making such technology accessible and affordable, DextraHelp seeks to restore dignity and self-reliance to older individuals affected by hand tremors, thus catalyzing significant social impact.



A wearable device to detect epileptic seizures and raise alarms on caregiver's mobile phone



SAIANSH TAPURIAH

Class: 8th
The Shri Ram School,
Gurgaon, Haryana



Problem

To provide a cost-effective product that reduces the anxiety of caregivers tending to patients with epilepsy.





Solution

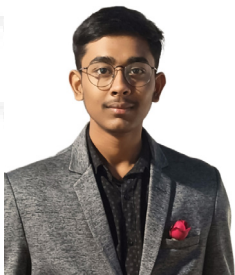
A wearable wristband device that can detect epileptic seizures and send an immediate alarm to the caregiver's mobile phone, thereby enabling immediate care and medical attention to the patient who is suffering an attack. This reduces the risk of harm to the patient and alleviating caregiver anxiety.

The innovation includes two things; a wearable wristband containing a microcontroller with a sensor, and a mobile application which on receiving data from the microchip, raises an alarm in the caregiver's phone.

This device is significantly more affordable than existing solutions, reduces caregiver anxiety, and is user-friendly, and provides a more practical and accessible solution for managing epilepsy.



Anushrawan (Anti-Theft Transportation)



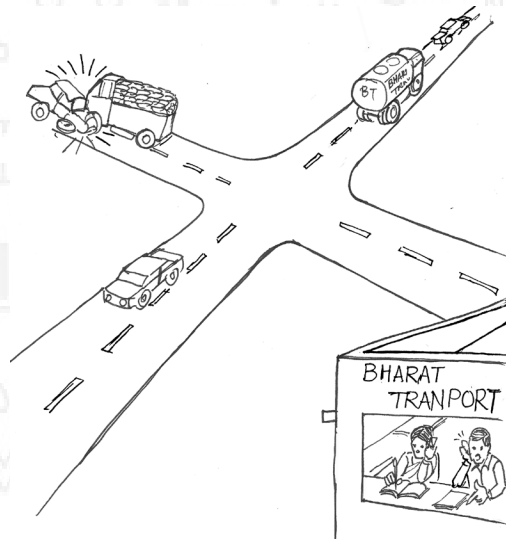
TUHIN BHATTACHARJEE

Class: 11th
D.A.V. Public School,
Dhanbad, Jharkhand



Problem

To reduce economic losses caused by the theft and illegal smuggling of natural resources like coal and sandalwood.





Solution

Anushrawan, is a system to prevent the theft and illegal smuggling of natural resources like coal, and sandalwood.

The system works as follows: When the goods are loaded onto a vehicle, the initial weight is recorded. The system tracks the movement of the vehicle via GPS and continuously monitors the weight of the goods. The data transferred by the load cell weigh bridge ensures that any discrepancy in weight or route is promptly detected. If any illegal activity, such as unauthorized unloading or rerouting, is detected, the control room sends a signal to stop the fuel supply, warning the driver. ensures that the goods reach their destination without tampering.

This system ensures that the goods reach their destination without any tampering, thus reducing economic losses caused by the illegal activities.



Devices installed at bus stops which informs conductors of pregnant women's presence



RISHITA SAMANTARAY

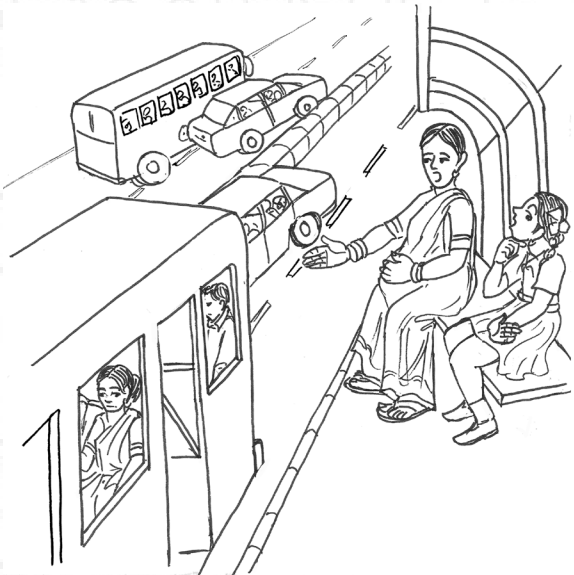
Class: 8th

KIIT International School,
Bhubaneswar, Odisha



Problem

Uncomfortable environment for pregnant women while commuting.





Solution

A device to ensure the safety of pregnant women during uncomfortable commute. These devices send a signal to the driver/conductors to make them aware of the presence of pregnant passengers on the transport. This alert system will help conductors take necessary actions, such as offering reserved seating or providing additional assistance during boarding and alighting, thus enhancing the overall travel experience for pregnant passengers.

By implementing such solutions, public transportation can become a safer means of travel for pregnant women.



Advancing Brain Age Prediction: Integrating Vascular Status Enhances Accuracy



SINDHOORA RAJA

Class: 10th
New Horizon Public School,
Indiranagar, Bangalore



Problem

To improve the prediction capability of neurodegenerative diseases.





Solution

This project explores the integration of ASL MRI-derived cerebral blood flow features with structural MRI data to enhance brain age prediction accuracy using machine learning. Accurate brain age prediction is crucial for identifying individuals at risk for neurodegenerative diseases like Alzheimer's. Cerebral blood flow, measured with Arterial Spin Labeling (ASL) MRI, could provide additional information about these early vascular changes.

Incorporating ASL MRI-derived cerebral blood flow information into brain age prediction models significantly enhances their accuracy. This improved prediction capability could facilitate early detection of individuals at risk for neurodegenerative diseases, enabling timely and potentially more effective interventions.



Safeguarding Health: Efficient Soldering Exhaust System for Poison Gas Mitigation



AKSHARA GUPTA

9th Class

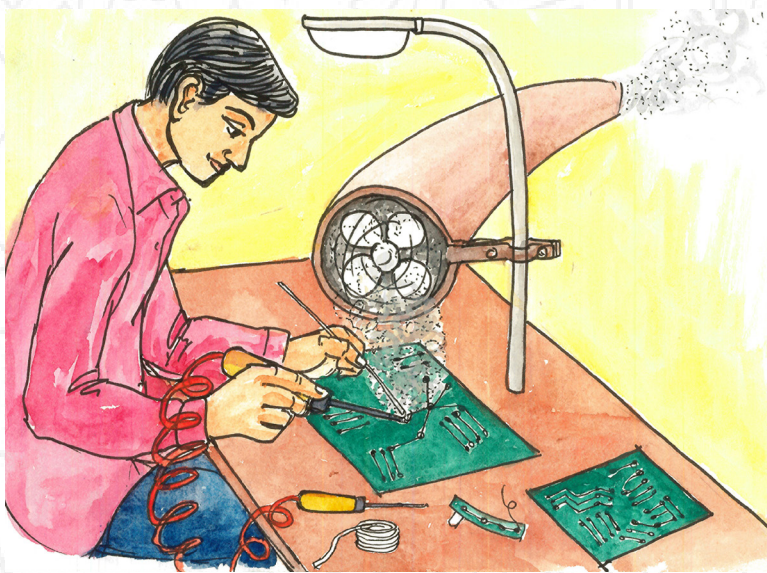
SMS Dutta Memorial Nosegay Public School,
Khatima, Uttarakhand



Problem

Ensuring a safe work environment for electricians to prevent respiratory issues.





Solution

The proposed solution is a soldering exhaust system designed to capture and filter poisonous gases released during soldering. It aims to utilize efficient ventilation to capture and remove toxic soldering fumes, directing them through a duct network to an outlet for safe dispersion or filtration for further experiments.

The system effectively removes poisonous gases from the soldering environment, reducing the risk of respiratory issues and other health problems for electricians, ensuring a safe environment for them.:

By implementing this cost effective soldering exhaust system, the exposure of electricians to hazardous fumes is significantly minimized, promoting safer and more compliant soldering practices.



Equilibrium in Nature: Mathematical Modeling for Sustainable White-Tailed Deer Population Management



DAKSHESH SARDA

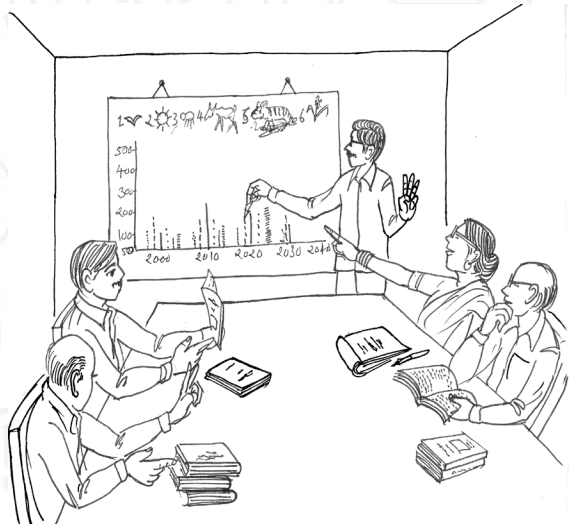
9th Class

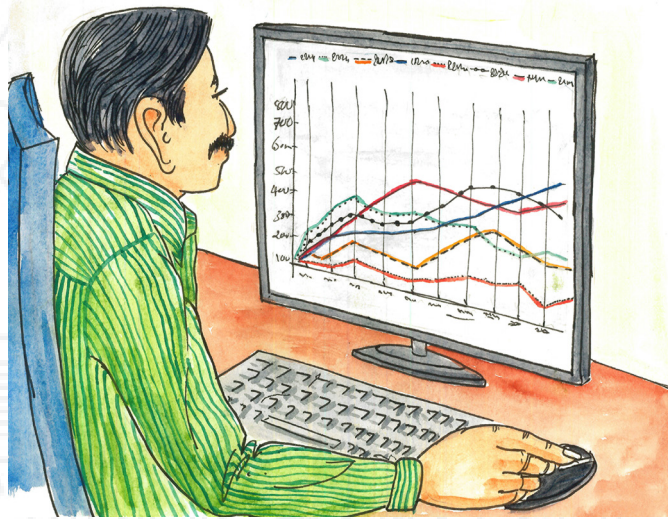
Amity International School,
Gurugram, Haryana



Problem

The fluctuating population of White-tailed deer in the USA.





Solution

A multifaced approach to address fluctuations in White-tailed deer populations.

Advanced tracking methods and data analysis must be employed to gain insights into population dynamics, allowing conservationists to develop informed management strategies. Habitat management efforts aimed at improving food sources and cover are crucial to providing stable conditions for deer populations.

Public education and community engagement are also essential components of any effective conservation strategy.

Thus, a holistic approach that integrates scientific research, and public education, is necessary to ensure the long-term sustainability of the White-tailed deer's populations.



Smart Beach Cleaner: Automated Solution for Efficient Beach Cleanup



SHITAL ANIL MANDALAKAR

6th Class

NMMC School No 34,
Navi Mumbai, Maharashtra



Problem

To reduce the time-taken and direct contact of waste materials with humans during beach clean-up.





Solution

The smart beach cleaner is a device that aims to clean beaches by reducing direct contact and manpower.

The device consists of an automatic wheel made up of net that filters the sand through the net and collects all waste material after elimination.

Hand-driven or motor-operated machines will run on wheels and dig out the sand with the help of spikes placed at the front side. The excavated sand is then sifted into the mesh-like sieve. Thus, reducing the time taken to clean.



Simple Gear lock system for stand of motorcycle



ALAGULAKSHMI P

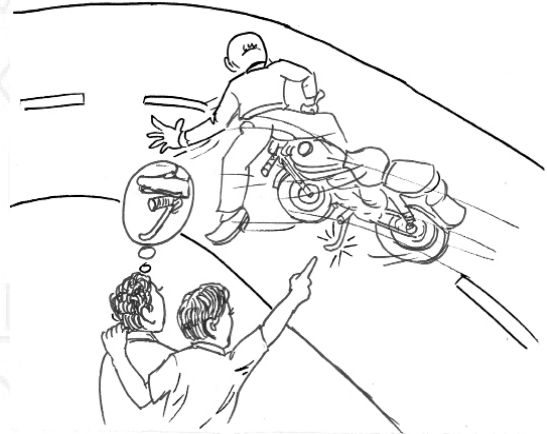
Class: 9th

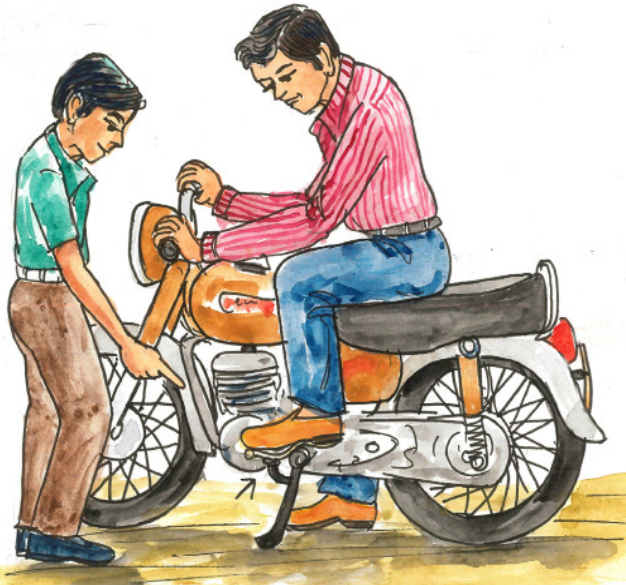
Government Higher Secondary School,
Thailapuram, Tamil Nadu



Problem

A device to prevent motorcycle accidents occurring due to the side-stands not being pushed back.





Solution

This system is designed in a way such that, the passenger is unable to start his motorcycle unless the stand is pushed upwards. Generally accidents occur because the motorcycle side-stand had not been pushed back before starting the vehicle. However, a simple, low cost hook, can be retrofitted to a two-wheeler, so that the user is unable to move his vehicle unless the side-stand is pushed up.

It is a small mechanical device that can be easily fabricated, and can be assembled and disassembled as and when required.



Wildlife Hazard Detection System: Mobile Solution for Animal Detection and Safety Awareness



DUPESH MANJARE

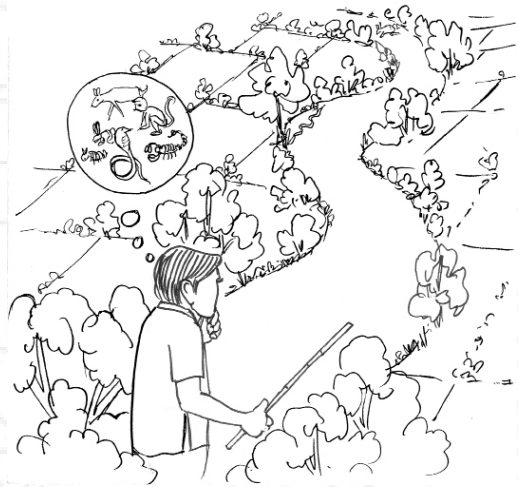
Class: 10th

Swami Atmanand Gov. Hindi/English school,
Bilaspur, Chhattisgarh



Problem

Avoiding dangerous animals in natural environments during outdoor exploration and research.





Solution

A mobile phone-based sensor system to detect the presence of animals like snakes and scorpions in the surrounding area.

The sensor can utilize advanced detection algorithms and sensors integrated into the smartphone to identify specific animal signatures or movements indicative of potential threats. On detecting the presence of dangerous animals nearby, the sensor system will alert the user through visual, auditory, or haptic feedback. Additionally, the sensor could provide real-time information about the proximity of the detected animals, allowing users to make for their next steps.

This innovative technology has the potential to revolutionize outdoor exploration and research, enabling individuals to venture into fields and forests with confidence, knowing that they have the tools to stay safe and informed.



Special type Bluetooth glasses

REENA DILKAR

Class: 10th

The Guardian and Guide Public School,
Chhattisgarh



Problem

Limited mobility
and alertness
due to visual
impairment.





Solution

Special Bluetooth glasses equipped with advanced sensors and connectivity address the mobility and accessibility challenges faced by individuals with visual impairments.

These glasses feature key functionalities such as obstacle detection, navigation assistance, and text-to-speech capabilities. The integrated sensor system detects obstacles and hazards and offers turn-by-turn navigation instructions. The text-to-speech functionality, allows users to access printed materials by pointing at them. The text can then be read into the user's ears, allowing comprehension through audio cues. With the help of these Bluetooth glasses, users can overcome mobility barriers, enhancing their independence and quality of life.



HI-TECH Two Wheeler with Cooling and Heating Mechanism and other Safety for Two Wheeler Rider



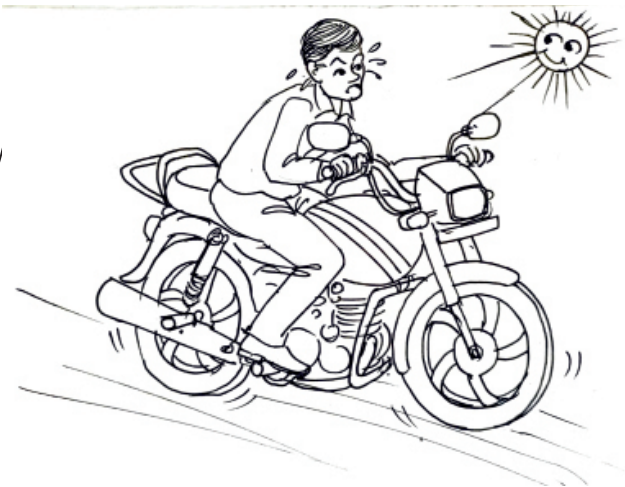
SUFIYAN MOHAMMED HANIF PATEL

Class: 8th
Tapti Public School,
Jalgaon, Maharashtra



Problem

Safety and cooling / heating modes for two-wheelers.





Solution

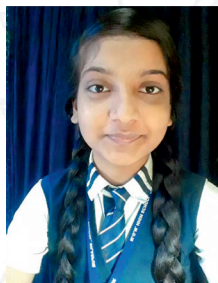
A sophisticated cooling and heating mechanism along with safety features for two-wheelers.

Upon activating the cooling system, the compressor, powered by the motorcycle's engine, initiates the cooling process. The pressurized gas, directs it to the condenser where it cools down through external airflow, transitioning into a liquid state. This liquid travels through a tube to the cooling coil, absorbing heat from the surrounding air and transforming back into a gas. The cooled air is then circulated through a flexible pipe to a jacket worn by the rider, providing relief from extreme temperatures. The mechanism also holds scope of a heating effect.

A safety system is also integrated into the motorcycle, with features like side-stand alarm systems, and key and mobile phone safety system (Magic key). By combining these features, the innovation aims to improve the comfort and safety of two-wheeler riders, making motorcycle travel more enjoyable and secure, regardless of weather conditions.



Suicide Prevention Bot



Zeba Siddiqui

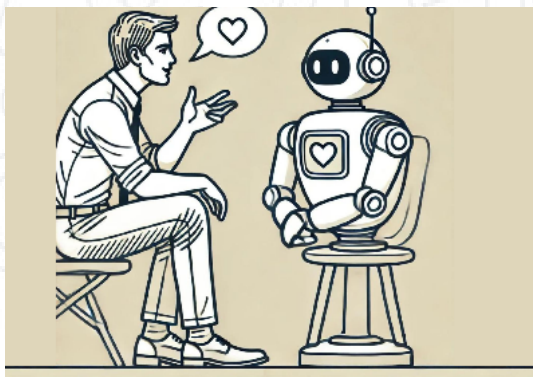
Class 12th
School M.G.M School,
Bilaspur, Chhattisgarh



Problem

Many people, including children and adults, feel pressured by their families, society, or fear of failure. This can lead to feelings of hopelessness and suicidal thoughts. Often, they have no one to talk to because they fear being judged.





Solution

Create a bot that people with suicidal thoughts can talk to without fear of judgment. This bot will provide a safe space for them to share their feelings and get solutions to their problems. This can help save lives by offering support and guidance when they need it most.



Ceiling Wall with Puzzle in Dental Clinic to divert attention from pain



Ekta Dewangan

Class 11

School: St. Xavier's High School,
Bilaspur, Chhattisgarh



Problem

Dental treatments can be painful and take a long time, especially for kids. This makes them feel scared and restless, which can make it hard for dentists to do their work properly.





Solution

Put a bright, colourful puzzle on the ceiling of the dental clinic. This will distract kids and make them focus on the puzzle instead of the pain. It will make the visit more fun for kids and help dentists do their job without getting disturbed.



Honey Bee Network

Honey Bee Network

The Honey Bee Network (HBN) is a social movement supported by a large number of volunteers. The network which had pioneered the open innovation culture much before the term became popular. For the past 33 years, it has been the vanguard of protecting knowledge, resources and rights of the knowledge rich, economically poor people. It aims at i) cross-pollination of ideas, promoting lateral learning among creative individuals and communities, ii) overcoming anonymity of the grassroots innovators and other knowledge holders iii) ensuring that whatever is done with their knowledge is shared with them in local language, and iv) if any profit or income is generated using their knowledge, a fair and just share should go back to the people. It has been promoting creativity and green grassroots genius in several countries. It has facilitated documentation of over 45000 ideas, innovations and traditional practices besides student projects through volunteers. Honey Bee Network has incubated a series of institutions to support green grassroots innovators and others. It has given birth to Society for Research and Initiatives for Sustainable Technologies and Institutions (SRISTI), Grassroots Innovation Augmentation Network (GIAN), National Innovation Foundation (NIF) and inspired many national and international innovation policies. It is a global platform where like-minded individuals, innovators, farmers, academicians, policymakers, entrepreneurs and non-governmental organizations (NGOs) come together to respect, recognize and reward grassroots innovations. Various volunteers associated with the network help in scouting innovators, supporting them, mentoring them and provide help in disseminating the innovations as well.



The key areas of engagement:

- Scouting, spawning, and supporting innovations and outstanding traditional knowledge at grassroots. It links formal and informal science, tries to validate and add value in sustainable innovative technologies, promotes creativity among children and also pursues learning from grandparents, particularly centenarians, about viable and green traditional knowledge.
- Promoting innovations and creativity among grassroots farm and non-farm workers, communities and women's groups engaged with culture, folk art, school and college technical education, institutions (particularly common properties or community managed) for conservation of biodiversity and natural resources.
- Mentoring individual innovators in various sectors and linking them with each other and informal sector innovators. Lobbying for policy and institutional changes in support of grassroots creativity and innovations at regional, national and international levels.
- Supporting knowledge and intellectual property rights (IPR) of economically poor people, young inventors and encouraging them to share their knowledge with other self-employed people, as a part of Technology Commons. The transfer of people's knowledge to firms is facilitated on fair and just licensing terms with benefit-sharing.
- Linking innovators with formal research and development (R&D) institutions, market and communication institutions & networks, media etc., so that more and more people are inspired to find solutions to problems of our society. SRISTI (www.sristi.org) and GIAN (www.gian.org) provide institutional support to the Network, along with other volunteers.

Linking technology students with small industry, entrepreneurs and informal sector through techpedia.in and facilitating Gandhian Young Technological Innovation [GYTI] Awards by SRISTI. Creating world's largest open-source pool of sustainable solutions developed by people without outside help, accessible to communities worldwide. Bringing out Honey Bee quarterly newsletter, a unique voice of creative and innovative people at grassroots in different languages. Motivating commercial organizations and public systems to become more empathetic in providing extremely affordable services and products to common people.



www.sristi.org

SRISTI (www.sristi.org)

INTRODUCTION:

SRISTI, which means creation in Sanskrit, was born in 1993, to support the activities of the Honey Bee Network (1987-88) to recognize, respect and reward creativity at the grassroots level.

SRISTI, as a developmental voluntary organization strengthens the spirit of creativity and innovations by knowledge-rich, economically poor individuals and communities. It builds bridges between informal and formal science, protects intellectual property rights of grassroots innovators and helps in conserving and augmenting biodiversity and associated knowledge systems.

It supports eco-friendly solutions to local problems being scouted, spawned and spread by the Honey Bee Network volunteers for the last 27 years. It also nurtures ecopreneurs engaged in conserving biodiversity, common property resources, cultural diversity and educational innovations. There are five pillars of Honey Bee Network which SRISTI is committed to backstop:

[1] Educational innovations by school and college students, teachers, and other stakeholders; [2] Institutional innovations at community and other levels in managing natural and other resources, [3] Cultural creativity so that curiosity, collaboration, and compassion grow through art, literature and crafts; [4] Technological innovations and traditional knowledge dealing with human, animal, plant and ecosystem health, and [5] Policy reforms to generate frugal innovations for sustainable development at all levels, with specific reference to youth, children, women and elderly.

Essentially, it aims at improving access of knowledge-rich, economically poor people to various informal and formal institutional resources to trigger self-reliant development process as per the Gandhian ethics and principles.



OBJECTIVES:

Systematic documentation and dissemination of and value addition in green grassroots innovations and supporting biotechnological innovations by communities, technology students and others for a sustainable future.

BIODIVERSITY

- Providing intellectual property rights protection and risk capital support.
- Extending necessary support for in-situ and ex-situ conservation of local biodiversity and associated knowledge system.
- Empowering the knowledge-rich, economically poor people by adding value to their innovations, traditional knowledge and associated biological diversity including microbial diversity.
- Linking formal and informal science to enrich both the knowledge systems, build databases of innovations by farmers, artisans, mechanics, technology students, teachers and other social innovators.
- Providing early stage risk capital and mentoring support to grassroots innovators, students and other mavericks to scale up their products and services which are based on grassroots innovations through commercial or non-commercial channels. Embedding the insights learnt from grassroots innovations in the formal educational, policy and institutional systems in order to expand the conceptual, cognitive, institutional and policy space available to these innovations.

INITIATIVES:

BIRAC's BioNEST

Sanctuary of Innovation, Incubation and Entrepreneurship (SIIE), SRISTI-BioNEST is an innovation and grassroots distinctive traditional knowledge based business incubator, an entity funded by BIRAC (Biotechnology Industry Research Assistance Council, Department of Biotechnology, Govt. of India). Innovations based on 'out-of-the-box' thinking, traditional knowledge, grassroots level knowledge systems, ideas of university students and even children are supported for successful product development and commercialization. Innovations from both formal and informal sectors are supported. The incubator caters to sectors like biotechnology, biological sciences, environmental sciences, food technology, medical science and technology, nanotechnology, pharmacy, rural development and other allied areas. Currently there are 28 incubatees incubated at SIIE-SRISTI BioNEST.



CHILDREN'S CREATIVITY:

The Children's Creativity and Co-creation Workshops aims to empower children to not only identify and articulate their own problems but also identify and try to solve problems of socially disadvantaged segments, individually and/or collectively. This workshop aims to involve children in solving the social challenges faced by community and thus help us mobilize the creative potential of children around the world. The aim is to overcome persistent social inertia in emerging and sometimes even in advanced geographical regions. It is hoped that many of these children will grow into empathetic, creative, and compassionate leaders in future and will try to work towards making an inclusive and sustainable society.

INSHODH - "TEACHERS AS TRANSFORMERS"

Teachers as Transformers is the initiative of Educational Innovations Bank (EI Bank), which is partnered with SRISTI and Honey Bee Network and based at the Ravi J. Matthai Centre for Educational Innovation, Indian Institute of Management Ahmedabad (RJMCEI-IIMA). EI Bank is a clearing house for effective educational innovations developed and implemented by elementary school teachers working in the public system. Teachers in the public system continue to play an important role in ensuring education for the marginalized sections of our society. In spite of the increase in the share of private sector enrolment, the precariously placed socio-economic strata will continue to depend on this system in the foreseeable future. However, the quality and other educational outcomes of the public system have often been criticized for their less than desirable levels. The EI Bank assumes that top-down reform is necessary but not sufficient: learning from those who have performed in spite of constraints that are common to many teachers, valorizing and supplementing their work and converting this work into a resource, will expose teachers to a solution-augmenting approach to local educational reform, and motivate them.

SHODHSANKAL

The concept of Shodh Sankal (a chain of experimenting farmers) to generate a lateral learning environment among grassroots innovators was started by SRISTI in 1996. The idea was to bring together experimenting farmers and discuss the results of trials that farmers have taken up on their own to solve various local problems.



The discussion also enhances the esteem for local knowledge systems apart from speeding up the process of technological change in regions where formal technology generation system has not been very successful - such as dry regions, mountainous regions and other disadvantaged areas.

SOCIAL INNOVATION FUND

The main objective of Social Innovation Fund (SIF) is to provide mentoring-, financial-, fabrication-, validation- support, and value addition facilities in labs, fields, and R&D Institutions for nurturing creativity in culture, education, technology, and governance.

SRISTI INNOVATIONS

A sec 8 company was set up with the objective of strengthening the capacity of grassroots inventors, innovators and ecopreneurs in the area of conserving biodiversity and developing eco-friendly solution to local problems and is engaged inter alia in the areas of documentation, experimentation, search, development and diffusion of sustainable technologies and institutions. It now hosts the BioNEST incubator besides publishing HBN newsletters and other books in Hindi, Gujarati and English languages. It also develops commercialization products ensuring a fair share of benefits going back to knowledge providing communities.

Gandhian Young Technological Innovation (GYTI) Awards celebrates the spirit of students' innovation in engineering, biotechnology, agriculture, pharmacy, material science, design and other applied technological domains through extremely affordable/frugal solutions or the ones pushing the technological edge. It is SRISTI initiative to foster youth-driven tech innovations. Gandhian Young Technological Innovation Awards 2019 were given by the Vice President of India, Shri M. Venkaiah Naidu at Rashtrapati Bhavan, New Delhi on July 06, 2019.



Other Activities:

SATTVIK FOOD FESTIVAL

SATTVIK is the festival to celebrate traditional nutritious food and associated knowledge systems. It was started fourteen years ago at IIMA to provide market based incentives for conserving agro-biodiversity and creation of demand for rarely or less cultivated nutritionally rich crops and varieties to stimulate their cultivation. In the regions with low rainfall, minerals inside of the soil don't leach much and hence crops which are grown there- like millets, sorghum, and pulses- are rich in nutritional value. The paradox of development is that the food that rich eat is often poor while food that poor grow (in poorer regions) is rich in nutritional value. This festival aspires to put the lesser known but nutrient-rich food from various states on the plate of urban communities, helping them to adopt healthier food habits and lifestyle. The festival also hopes to encourage farmers to grow more nutrition-rich crops and thus help them in augmenting their incomes. <http://sattvik.sristi.org/>

SHODHYATRA

Shodhyatra is a journey in some of the remotest areas of the country to search for knowledge, creativity, and innovations at the grassroots. It is an attempt on the part of SRISTI with a firm belief that the hardships and challenges of natural surroundings are prime motivators of creativity and innovations. It aims at unearthing such traditional knowledge and grassroots innovations. It is also a journey of mutual exchange and sharing of knowledge. Whatever knowledge and practices that are pooled in over various Shodhyatras are also shared back with the villagers during subsequent Shodhyatras, along with sharing of the various databases of the Honey Bee Network. During Shodhyatras also include women and children to display their ecological knowledge through recipe and children competitions respectively. Over the past 25 years, 51 Shodhyatras have been organised covering all the states of the country. <https://www.sristi.org/shodhyatra/>

SRISTI LAB

SRISTI believes that adding value to indigenous knowledge will help local communities co-exist with biodiversity by reducing primary extraction and generating long term benefits. Such an approach will lead to augmenting sustainable resource use and livelihood support systems. It converts local knowledge and resources into value added products with simultaneous development of processing facilities in rural region where natural resources exist but not enough in situ value addition takes place. more at <http://www.sristi.org/sristi-lab/>



AASTIIK

Academy for Augmenting Sustainable Technological Inventions, Innovations, and Traditional Knowledge (AASTIIK) began as an independent programme in 2005. It aims at creating a virtual and real knowledge community of professionals and experts in the field of invention, innovation and traditional knowledge

TECHPEDIA (www.techpedia.in)

Techpedia, an initiative of SRISTI, aims at putting the problems of micro, small and medium enterprises (MSMEs), informal sector, grassroots innovators and other social sectors on the agenda of young technology students across the country. For the past sixty years, India has not utilised much of the technological outputs of millions of students. But, this apathy will continue no more. Can a knowledge society really afford to ignore the huge talent, distributed in thousands of polytechnics, diploma and degree colleges of engineering, pharmacy, medical science, agriculture etc.? SRISTI is providing a platform for the industry and academic institutions to collaborate, co create and foster distributed and horizontal frugal innovations.

Goals of Techpedia

Promotion of originality among technology students by making it impossible for them to repeat what has already been done before. This will be possible only when they can find out what has been done before. Techpedia has 204,000 technology projects done by about 600,000 students from more than 600 colleges in India.

- Connecting the technical students with the problems of informal unorganised sectors and grassroots innovators.
- To harness collaborative potential of students across disciplines and colleges to solve persistent problems of our country in formal and informal sectors.
- Explore kho kho model (relay) of product development; the idea is that if one student group has brought the solution of a particular problem to a specific stage, the next group of the same/other department should be able to build upon it and take it forward.
- To pose challenges for students to address unsolved problems of our society. Gandhiji had announced an award of 7,700 pounds (Rs 100,000) to redesign charkha (spinning wheel). Today, the value of this prize will be more than Rs 10 crore. Industry association, government and others can offer attractive prizes for solving those problems which have remained unsolved for so long.
- Developing high-tech capabilities through network platforms so that India



becomes a hub for high-tech outsourcing for the world in future and does not serve only the low-tech needs.

- Promoting both IPR protected and open-source technology and eventually develop techpedia.in into an online virtual sanctuary of innovations and not just an incubator.
- Creating real-time online National Mentoring Network (NMN) to harness skills, insights and experiences of senior tech experts, for mentoring young students. Also, remote reverse mentoring by young start-ups and students.
- Encourage some of the innovations through SRISTI Social Innovation Fund, set up recently to promote frugal and extremely affordable socially useful ideas.
- Leverage policy and institutional changes to make innovation ecosystem more responsive to societal needs and aspirations of young talent.
- Organize summer schools to address specific social challenges so that young students can try to overcome institutional inertia by coming out with new prototypes for removing child labour, enhance women safety or supporting autonomy of physically-challenged people etc.
- Build global linkages so that collaborative open-innovation models, pioneered by the Honey Bee Network, are further diffused among student communities worldwide.

Summer School on Inclusive Innovations

SRISTI has been engaging with children for tapping their creativity to address unmet social needs for over 30 years. World over, children are often treated as a sink of sermons rather as a source of ideas. The children creativity workshops are organized see the societal inertia through the children eyes. They are empowered to do research and identify the unmet social needs, and suggest solution. Later, the engineering and other students take some of these ideas besides others for fabricating solutions for addressing these problems.

Purpose is to generate extremely affordable solutions over next three weeks which improve the quality of life of poor children, women, workers and other disadvantaged social segments. It is possible that solutions developed during summer school may not be fully finished. We will give opportunity to some of the participants or external designer to finish these in coming months in partnership with the potential users.

Even if some of the problems remain unsolved, there will be better appreciation



of the pathways that will not resolve these problems. SRISTI (Society for Research and Initiatives for Sustainable Technologies and Institutions) has organized this Summer School on Inclusive Innovation through open, reciprocal and responsible frame work guided by the Honey Bee Network Philosophy. It is hoped that young students will learn not to be patient with inertia. They may be sharpen their perceptions to learn the transition from samvedana to srijansheelta (empathetic way of creative problem solving).

A palm leaf broom maker has to beat the leaves on a wooden plank mounted with nails to tear a leaf into fine fibres. The drudgery involved in this act drains much of the energy of women who generally do this task.

Similarly, hundreds of thousands of tribals have to crack mahua nut to get the seed out for oil extraction. The construction workers carry brick on their heads straining their necks and spines. Women in Saurashtra and many other regions get hurt while harvesting the fruits from cactus like opuntia growing on the field bunds. Amla harvesting in the forest often involves cutting branches rather than just harvesting the fruits.

These and many other problems have been mobilized by the Honey Bee Network to challenge the young people to design solution to get over the indifference or inertia of formal design and technology institutions.

Every institution in the country will have to take the responsibility of mapping the unmet social needs in their hinterland and address them through student projects and summer and winter schools. Like every initiative that Honey Bee Network has taken, it may take years before policy and institutional reforms follow. The structure of governance in any society cannot remain indifferent to the persistent problems of the disadvantaged people for too long.

Email: summerschool@risti.org Web: ss.risti.org



IGNITED MIND

In the memory of Dr. A.P.J. Abdul Kalam, the Honey Bee Network, SRISTI, and GIAN have jointly organized an annual competition of innovative ideas by students. Dr. A.P.J. Abdul Kalam Children Ignited Mind Creativity and Innovation Award competition accepts entries from students up to class 12 and also from school dropouts. This award aims to develop a culture of the “Samvedna” among children to find solutions to the local problems addressing unmet social needs. The idea is to make children aware of the problems and hardships which are faced by common people in their day-to-day life, problems with which many of us have learned to adjust and adopt. It is believed that if children start becoming impatient with social inertia at an early age, it is likely that they will bring about more creative and compassionate changes in the society as they grow up.

SITARE BIIS: Opportunity for technology students to work on grassroots innovations

SRISTI (Society for Research and Initiatives for Sustainable Technologies and Institutions) in collaboration with BIRAC (Biotechnology Industry Research Assistance Council, Department of Biotechnology, Govt. of India) has been organizing a three-week SITARE BIIS (Students Innovations for Translation & Advancement of Research Explorations-Biotech Innovation Ignition School) for validating, value-adding and product development around grassroots innovations since 2017. The BIIS tries to develop solutions for grassroots applications for humans, animals, and agricultural applications including herbal technologies, medical devices, and microbial applications.

Due to COVID-19 pandemic, we have conducted BIIS (BIIS-5: June 8- June 27, 2020, BIIS-6: September 22- October 12, 2020, BIIS-7: December 1- December 21, 2020 and BIIS-8: January 25 – February 14, 2021) course as a webinar, where the prime focus has been to build the capacity of primarily undergraduate students to develop skills in the field of phytochemistry, pharmacognosy, extraction, separation of compounds, microbial diversity screening, pest control, development of extremely affordable solutions for farmers, livestock keepers, pastoralists, human applications, besides patent, biostatistics and ethical guidelines for work on grassroots knowledge and innovations.



The topics for the online course BIIS are designed based on the following fields and as a part of webinar we will assign some projects to the students primarily in five action-research areas drawing upon the Honey Bee Network Database:

1. Pharmacognosy/Phytochemistry - SRISTI's Grassroots database contains many traditional knowledge practices as well as contemporary innovations from across the country. These projects would involve validation/ value addition to these practices. A few of these practices are presented here- http://www.sristi.org/hbnew/honeybee_database.php
2. Soil Microbiology-SRISTI has a Microbial diversity bank containing 8000+ organisms (bacteria, fungi, and actinomycetes) isolated from the soil samples collected during ShodhYatras (learning walks for scouting and sharing innovations and local practices) in different parts of the country (<http://www.sristi.org/cms/shodhyatra>). An extensive study of screening these isolated microbes for novel human, animal, and agricultural applications would be conducted.
3. Veterinary Medicine- Validation of traditional practices for the improvement of livestock health, nutrition, and productivity.
4. Agriculture- Validation of grassroots practices by conducting trials in the lab, on the station, and in the field for product development/improvement.
5. Medical devices- Value addition/product development of any of the open-source projects listed on our summer school website (<http://summerschool.sristi.org/>) or medical devices for human and animal health care or meeting any other unmet social needs.

Eligibility to apply:

Students pursuing bachelors programs in life sciences can apply. The student should have a valid ID issued by the Institution/University. A few seats are reserved for post graduates too. In exceptional cases, even school children with interesting ideas may be considered.

The reading material for each subject will be shared with the selected students in advance. The participants would be expected to do literature review before joining the School. These students will be having expert lecture of various life science fields like, microbiology, agriculture, medical devices, biostatistics, phytochemical extraction procedures, live experiments and demonstration of various lab equipment (AAS, HPTLC, HPLC, ELISA, PCR, BSL-I & II etc.) during the webinar.



They are likely to develop a project proposal as well as work plan. These students would receive an expert feedback on their proposals from the reviewers.

The assignment, quiz and work done by students during the BIIS webinar will be assessed on the last day of the school. The outstanding studies (up to 10 per BIIS) may be identified for further support of INR 1 lakh each as SITARE-Appreciation Award Grant. The grantees are expected to conduct further research on the topic given either at home institution or at SRISTI lab.

Above all, students would get an invaluable opportunity to interact with both national and international experts as well as grassroots practitioners/innovators in their respective fields. It is hoped that each participant becomes a volunteer of the Honey Bee Network which has helped in scouting and disseminating rural creativity and innovation over the last three decades.

All the output will be credited to the grassroots knowledge providers and can be published thereafter with prior written concurrence of the BIIS team and knowledge providers.

Highest ethical code of biotech research is expected to be followed. Team spirit and willingness to develop open source solutions will be highly encouraged. Peer learning will be strongly encouraged. The findings will be shared with knowledge providers in local language with the help of SRISTI and Honey Bee Network team. Undergraduate student from life sciences can apply through the link https://birac.nic.in/gyti_registration.php?scheme_type=23



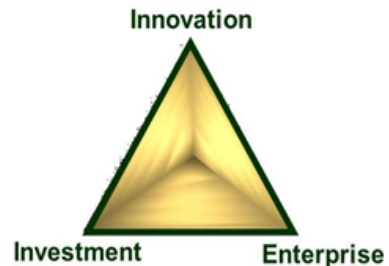
Grassroots Innovation Augmentation Network [GIAN]

One of the major reasons why grassroots innovations are not able to scale up in many regions and sectors is lack of handholding support for reducing their transaction cost in leveraging linkages with investors and entrepreneurs. The grassroots innovators cannot often make or present a business plan, nor can they construct scenarios under different assumptions of demand subject to availability of varying capacity for fabrication, manufacturing or development of other products and services. GIAN was set up in 1997 as a follow up of ICCIG (International Conference on Creativity and Innovations at Grassroots) held at IIMA in collaboration with Society for Research and Initiatives for Sustainable Technologies and Institutions [SRISTI] and Honey Bee Network.

The golden triangle for rewarding creativity thus became the purpose of GIAN. The reduction in ex-ante and ex-post transaction cost of innovators, investors and entrepreneurs was to be achieved by several operating principles: Never to ask innovators to come to office, instead provide them support at their doorstep; and organize financial, intellectual property, product and business development and dissemination support.

With a small team and limited funds, GIAN has achieved an admirable track record. So much so that it shared the best incubator award with IIT Madras at the hands of the then President, Dr. A.P.J. Abdul Kalam by Department of Science and Technology, 2003. GIAN worked in close collaboration with SRISTI which scouted various innovations for incubation purposes. In fact, the model of GIAN was scaled up in 2000 in the form of National Innovation Foundation [NIF].

GIAN has an independent board and a small team of professionals trying to experiment with new models of incubation, innovation and inculcation of experimental ethic at different levels in society.





Genesis

Being a pioneer is not easy. One has much higher expectations from pioneers. There is no template to copy from and much of learning takes place by doing.

The GIAN was set up in collaboration with Gujarat Government, IIMA and SRISTI besides volunteers of Honey Bee Network as a follow up of ICCIG (International Conference on Creativity and Innovations at Grassroots) held at IIMA. Its only assets were: the commitment of state government to support grassroots innovations from the state to become entrepreneur, access to SRISTI's Honey Bee Network Database of innovations by common people and guidance and support by faculty and support of students from IIMA.

Having got the best Incubator award in 2002? At the hands of then President, Dr A P J Abdul Kalam, jointly with IIT Madras, it made a point. India's first grassroots innovation incubator was a viable pathway to reduce transaction cost of innovators, investors and entrepreneurs. The golden triangle (see fig one) for rewarding creativity, now well known, summarizes the purpose of GIAN, handholding a grassroots innovator in her journey to become a social and/or economic entrepreneur. With passage of time, GIAN has expanded its scope work. It now works with women's groups, tribal communities, students of ITIs and polytechnics particularly women polytechnics besides farmers.

It works in all sectors of human survival and adds value to people's knowledge in collaboration with other HBN institutions such as SRISTI and NIF. It has an independent board having three additional chief secretaries of agriculture, Industry and rural development departments, independent industry representatives, faculty, IIMA, Director, EDI and Director, IIMA and NID are permanent invitees.

Mission

GIAN aims at sustaining the spirit of innovation, encouraging experimentation and nurturing creativity at grassroots level of knowledge rich economically poor people, students, mechanics, workers, young start-ups by contributing to the creation of a knowledge network. This Network empowers the innovators, stems the erosion of traditional knowledge systems, recognises and augments contemporary innovations, and facilitates diffusion of grassroots green innovations through commercial as well as non-commercial public, private and voluntary channels



Objectives

- To identify socially, economically and ecologically viable innovations from Honey Bee data base which are amenable for scaling up, prototype development, diffusion with or without further value addition.
- To participate in the process of value addition being done by other research organizations in grassroots innovation so that eventual scaling up can be achieved effectively.
- To mobilize resources from regional, national and international private, public and other organizations and high net-worth individuals to strengthen the ecosystem of grassroots innovations.
- To undertake market research, project development, provide design, IP related and entrepreneurial support and help in protection of their intellectual property protection.
- To influence policy at micro and macro level to make it more responsive to the needs and expectations of green innovators so that society becomes more inventive and accommodative of local knowledge systems, innovations and practices.
- To publicize innovations and products through exhibitions, Shodhyatras, media and workshops.
- To organize entrepreneurial development workshops in collaboration with expert institutions for the innovators
- To trigger a rural development process that provides an alternative model of poverty alleviation in a fair, just and dignified manner through local resources, knowledge or otherwise

What does it do?

GIAN provides product development, business planning, innovation augmentation through design and development, dissemination and entrepreneurship support. It supports farmers and artisans, primarily in the informal sector in Gujarat, Maharashtra and Goa. However, it can mobilize innovation from any other regions for application in these states. Likewise, it can disseminate innovations from this region in other parts. It has recently started work with the students of ITI and polytechnic, besides school children. It has set up community innovation labs in one of the government primary schools in Ahmedabad. It has also experimented with community food and nutrition lab so that poor people [but also others] can



get more nutrition out of available food materials for healthier future. It is well known that despite economic growth, many regions in our country suffer from high anaemia among women and malnutrition among children.

How can you support GIAN?

Besides CSR and other kinds of funding support, GIAN will appreciate professionals on short term sabbatical, internship, apprenticeship with innovators or incubators; remote mentoring support, exposure for its staff, infrastructural support, mobile food and nutrition labs for women, community innovation lab, sponsorship for summer and winter schools for inclusive innovation to address the unmet social needs, shodhyatas, etc. GIAN also wishes to join hands with SRISTI in online courses in different languages on how to invent and innovate. GIAN wishes to organize mobile exhibition, also build a stationary centre for inclusive innovations; public books, collaborate in bringing out Honey Bee newsletter started 28 years ago, in different languages.

Trust, transparency and accountability

GIAN is committed to uphold highest standards of ethical responsibility in managing resources and other non-material contributions. GIAN welcomes opportunities for social audit where the people with whom it works evaluate its working and various contributions.



Honey Bee Network Innovation Club Search

Unless young students go out into the field, villages, urban workshops, slums and other MSME clusters to find out innovations by common people as well as others, they would not know the creative potential that already exists in our country. They can mobilize ideas from school children, college students, roadside mechanics, farmers, artisans, homemakers and others for solving various problems or improving the quality of life through incremental innovations. Every time a hidden innovation is brought to surface, many more people feel encouraged and may start trying to solve problems through their own genius. If every college and university starts mapping creativity in its hinterland, the whole society will bristle with positive energy and unleash tremendous dynamism in the economy. The innovations in different fields such as technology, education, institutions, public services, private enterprises, cultural creativity, governance at different levels, etc., will be documented first in a synoptic way and then detailed documentation will be taken up of the more significant ideas. In different courses, these ideas and documentation can be incorporated as a part of curriculum. The social, cultural, ecological, industrial and institutional connect are extremely important for overcoming possible alienation of people in certain areas.

Spread

Diffusion of existing innovations whether sourced from Honey Bee Network and National Innovation foundation [NIF] or other depositories have to be shared with the local communities in a systematic manner through various creative pedagogies and performances. In fact, searching innovations without sharing may neither appear very credible nor even ethical. In the process of sharing, the students and faculty will themselves become aware of how creative our country is and how limited is the support extended to these people/communities by the formal sector including academia. Such a realization will do more to trigger introspection and generate empathetic culture for blending ideas from formal and informal sector. The students can organize exhibitions, have street theatre performances or follow other means of creating awareness about innovations in the nearby villages, schools, communities, clusters of industry, government departments, etc.



Sense

There are a lot of problems in our society which have remained unsolved for long. Unless we benchmark the persistent problems and try to address them within the means available, we may develop an attitude of living with them indefinitely. Such an attitude will never let our society progress in the long term. Idea here is that students from different discipline should benchmark unsolved problems or challenges in different sectors, at various scales affecting numerous social groups. In technology institutions, third year students can go to both MSME clusters and units and informal rural and urban sector and benchmark the problems to be addressed. They can be given credit for identifying the problem and writing a synopsis on it. In the final year, they can take up projects to address these problems in one or two terms. Accordingly, they can get credit for that too. Practical examples of such a process are given at www.techpedia.in. The innovative solution can be given prizes at university level and also at national level through competition like Gandhian Young Technological Innovation Awards. In social sciences, one can identify gender and other cultural problems and address them likewise through action research approach. Language related students can help improve the linguistics skill of school children and develop innovative pedagogies. If every student develop one lesson for any one topic and for any class, a huge repository of open source local language lesson for school children can be developed to overcome the asymmetry in access to basic education. Different challenges can be sensed and responded.

Celebrate

During the interactions with different social and institutional segment, a lot of outstanding achievers. Will be identified in the hinterland. There may be an outstanding doctor who may have contributed in big way for making the communities almost disease free or a teacher who has created a very rich learning environment in a school or an innovator who has solved a problem or a public or private functionary who has created public goods for larger social development. There may also be outstanding artists, writers or other change agents who need to be invited in the universities to inspire students and create and insatiable desire to excel and serve society.

Honey Bee Network Innovation Clubs can be coordinated by the students under the oversight of empathetic faculty members. Students should have as much flexibility and freedom as possible. They should organize interaction with innovators in different fields and try to add value where possible, help in diffusion, create markets, provide linkage with other innovators and stakeholders and forge a knowledge network



around innovations. They should not remain restricted only with local innovations. They should also mobilize ideas from outside for local development and vice versa. If a few sessions can be organized in different courses to rigorously analyze the heuristics, triggers, motivations, outcomes and ecosystem characteristics, more and more students feel encouraged to take risk and try new ideas.

HBN will support the value chain development in the case of innovations from the informal sector and by school children. The mandate of HBN is restricted to supporting ideas, innovations and outstanding traditional knowledge practices from the unorganized sector by individuals or communities who have not received any professional training or support. The educational, cultural, institutional and other governance-related innovations will be pooled by the Society for Research and Initiatives for Technologies and Institutions [sristi.org] and linked to various other programmes. In due course, support may be mobilized to give traction to these ideas. At present, the major contribution will be to give voice and visibility to the innovative ideas in various sectors. Volunteers from among faculty, staff and students will hopefully join hands with the innovators at different levels and in different sectors to ensure the widest application for creative and compassionate ideas. Collaborative culture is likely to emerge when learning across formal and informal boundaries gets reinforced. During the visit of the Hon'ble President, such clubs can be inaugurated and the team of volunteers can be blessed by the President so as to motivate them to excel in search, spread, sense and celebrate the creativity and innovation in our country.

Dr A P J Abdul Kalam Ignited Mind Children Creativity and Innovation Awards 2024

.....Celebrating children as
source of ideas and not just

- You can send any number of entries with or without a proof of concept (POC) or prototype, those who have converted their idea into a POC will get additional credit. It is earnestly requested to parents/teachers not to send their ideas in children's name, they can submit their own creative ideas at HBNCRIIA@honeybee.org for separate awards.
- The children from families associated with Honey Bee Network institutions will not be eligible to apply for awards, though they can submit creative ideas.
- The Children should be allowed to share their ideas on their own without any outside tutoring or help.

If you are aged under 19 years and have original technological ideas to solve day to day problems.....send your entries at
a sink of sermons!

Email: ignitedmind@honeybee.org

Apply link: www.bit.ly/IgnitedMind2024

WhatsApp: 9313246772



Last date to send your entries is 31 August, 2024

