



**inspire awards - manak**  
*million minds augmenting national aspiration and knowledge*

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# **Compendium - 1**

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**Prof Ashutosh Sharma**

Secretary

Department of Science and Technology  
Government of India

*Preface*

“The way to get good ideas is to get lots of ideas” perfectly defines the INSPIRE Award MANAK (Million Minds Augmenting National Aspiration & Knowledge), a scheme being implemented by the Government of India through Department of Science & Technology (DST), under its flagship program “Innovation in Science Pursuit for Inspired Research (INSPIRE)” which aims to attract young talent to explore science, evolve creativity and innovation among them and help them to pursue research career. The MANAK scheme lies at the very base of this programme, focussing on ideas from school children studying in classes 6 to 10, with a target to attract one million ideas every year. The scheme primarily aims to scout, reward, mentor and showcase these ideas and innovations having potential to address societal needs and national priorities.

I am hopeful that this National Level Exhibition and Project Competition (NLEPC), being organized under the INSPIRE Award MANAK scheme, will give a chance to participants to exhibit/showcase their innovations to general public, experts and other fellow young innovators from the country. The NLEPC will also give them a chance to meet creative children from other states, understand and appreciate their innovative projects. This year’s NLEPC is particularly important, as it is being organized at IIT Delhi, one of the premier technology institutions of the country and I believe that being at this institution itself will inspire and motivate all the participants.

I welcome all the INSPIRE awardees, their teachers and guardians in this year’s National Level Exhibition and Project Competition at IIT Delhi during Feb 14-15, 2019 and wish them success. This compendium showcases brief summary of the innovative and creative ideas/projects of all the national level participants. This was made possible by the hard work and creativity of the students, with support from their teachers and schools authorities and the mentoring support provided by the premier institutions of the country. I am confident that this compendium will prove immensely useful for various stakeholders. I hope that all the INSPIRE Awardees will continue to be creative and innovative in all pursuits of their life.

Best wishes to all young innovators,

Ashutosh Sharma



**Dr. P S Goel**  
Chairperson

National Innovation Foundation-India

## *Foreword*

Science, Technology and Innovations are key to development of the country. The best minds are attracted towards Engineering and Medicine and Science is considered as last option. Realising that basic sciences need special attention, Department of Science and Technology started a flagship scheme, the Innovation in Science Pursuit for Inspired Research (INSPIRE) to attract young minds towards science.

Further, it is important that we bring the spirit of innovation in our children at very young age when they are at school level. It is a kind of cultural change that we need to bring when every youngster thinks of doing something new of his/her own.

The INSPIRE MANAK (Million Minds Augmenting National Aspirations and Knowledge) Awards for the school children (Class 6-10) jointly executed by the Department of science and Technology, Govt of India and National Innovation Foundation-India has been created towards this goal. Same children when grow up will turn up as innovators and turn entrepreneurs through start-ups in millions. I am sure many students among INSPIRE Awardees will have brilliant ideas, which can be developed into products and then taken up as commercial ventures providing innovative solutions to the society. NIF will incubate the best innovative technologies and extend all support to young innovators. I the people will read the success stories of students' ideas based commercial entities soon.

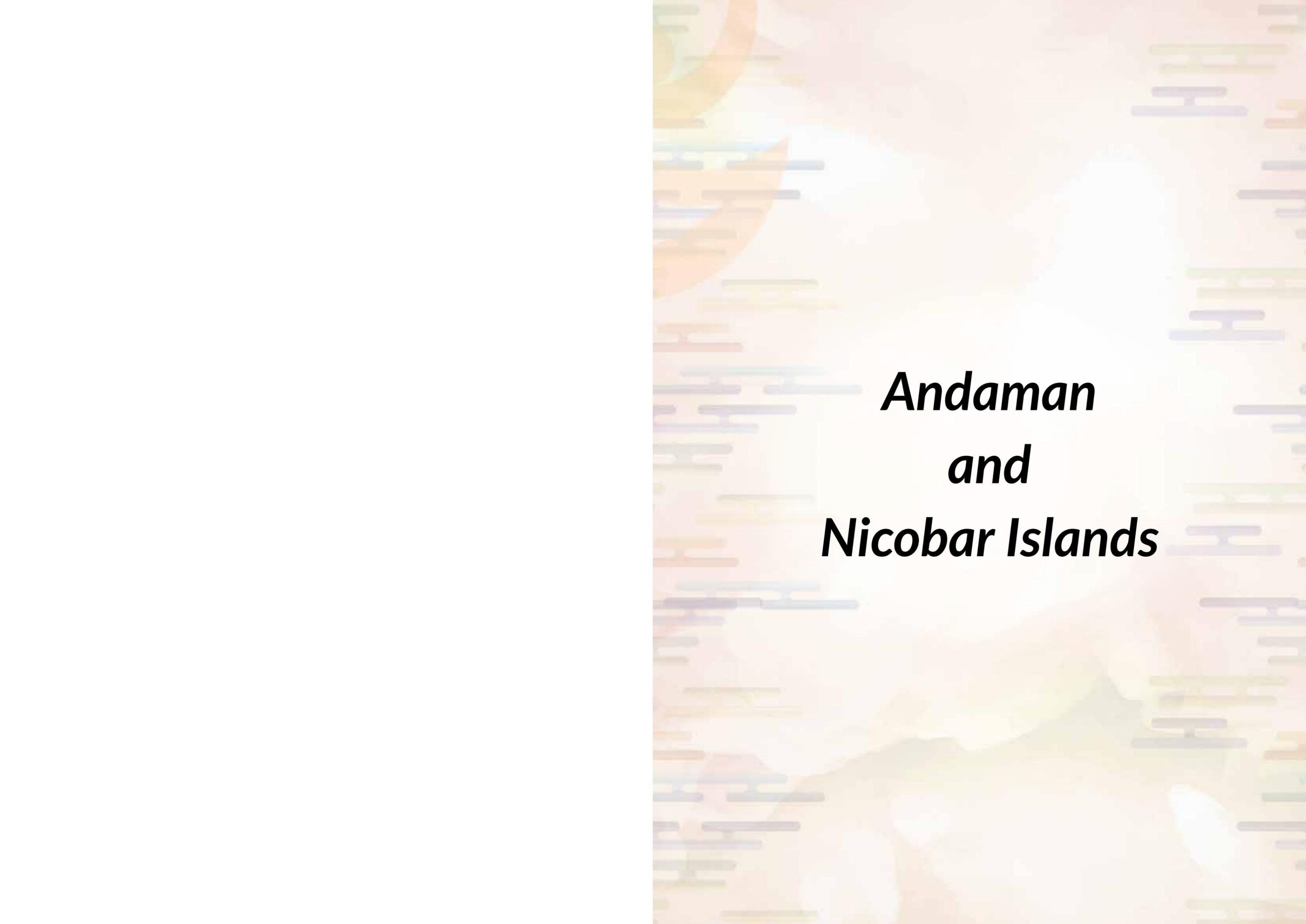
My best wishes to all the INSPIRE Awardees with the hope that they will pursue a career in Science and Technology and bring many more laurels to the country.

P S Goel

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***Andaman  
and  
Nicobar Islands***



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Idea/Innovation : Common Man's Hot Box  
 Awardee : E Sravanthi  
 Reference No. : 18AN1480941  
 Class : 9th  
 School Name & Address : Govt. Senior Secondary School  
 Telugu Medium, Haddo  
 District & State : South Andaman, Andaman and  
 Nicobar Island  
 Guide Teacher : B Rama Devi



Student lives in a surrounding where there are lot of bamboo trees. She often used bamboo spatulas for cooking. Since it's a resistant to heat, she decided to make a product out of it. She uses locally available bamboo, sawdust and cloth to prepare a low cost insulated hotbox for a common man. Food kept in this box remains hot for 4 to 5 hours. The material used are biodegradable and does not cause any harm to the environment. Also, since bamboo is extensively available in Andaman Islands, artisans can also get employment.



Sravanthi likes reading story books, playing badminton, football and kabaddi.



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Idea/Innovation : Mirror cum Iron stand  
 Awardee : Navin Bara  
 Reference No. : 18AN1480958  
 Class : 6th  
 School Name & Address : Govt Middle School Dolly Gunj  
 District & State : South Andaman, Andaman and  
 Nicobar Island  
 Guide Teacher : D S Deepu



Student always thought that accommodating all the things of daily use was a bit difficult. In such situations, if we can come up with some idea that saves space will help.

This inspired him to develop "mirror cum iron stand". It's a dual purpose product. On one side, clothes can be ironed and when folded upright the other side can be used as a dressing mirror. This can be fixed on walls or any corner of the room. The whole setup is fixed through hinges. This also occupies less space.



Navin likes experimenting and making new things. He also participate in sports. His hobbies includes reading books, drawing and painting.



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Idea/Innovation : Advanced Stapler  
 Awardee : K Gautam  
 Reference No. : 18AN1480953  
 Class : 8th  
 School Name & Address : Govt. Model Sr. Sec. School  
 Aberdeen, Port Blair  
 District & State : South Andaman, Andaman and  
 Nicobar Island  
 Guide Teacher : Swarna lata Kindo & Rakhi Singh



While stapling bundle of papers for project work, student found out that he run short of pins. In order to save his time of finding new pins during work, he decided to make a unique "Advanced Stapler". Uniqueness of this device is that it makes the pins visible. This device replaces the half portion of metallic material of normal stapler with transparent material.

Gautam hobbies include reading books of eminent personalities.



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Idea/Innovation : Yam Remover  
 Awardee : Anjali Munda  
 Reference No. : 18AN1480893  
 Class : 9th  
 School Name & Address : Govt Senior Secondary School,  
 Kalighat  
 District & State : North and Middle Andaman,  
 Andaman and Nicobar Island  
 Guide Teacher : A Arun Malar Vizhi



Student's science teacher highlighted few local issues which can be solved through scientific innovation. This inspired student to address one such issue i.e. Hardship in removing local yam variety called as "Maan Kuchhu". This local variety yam is a tuber yam that grows from 70 cm to a meter depth. For easy removal of yam student develop "Yam Remover machine". This machine uses vertical and horizontal bars at the bottom. With the help of centrally placed screw, claws are inserted into the soil which will dig out yam from soil.

Anjali loves reading books, writing essays, participating in quiz competitions and national science congress.





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Idea/Innovation : Weed Cutter  
 Awardee : Julina Sanam  
 Reference No. : 18AN1480894  
 Class : 8th  
 School Name & Address : Govt Senior Secondary School  
 Kalighat  
 District & State : North and Middle Andaman,  
 Andaman and Nicobar Island  
 Guide Teacher : A Arun Malar Vizhi



Student's science teacher highlighted few local issues which can be solved through scientific innovation. This inspired student to address one such issue i.e. Hardship of removal of weed plants, especially Colocasia in the paddy field after harvest. This machine uses two rods at one end and a wheel at other. The wheels are attached to an axle with multiple blades.



Julina loves reading books, participating in national science congress and sports. She received many gold medals in high jump, shot put and badminton at state level.



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Idea/Innovation : Plastic (safety) cap opener of LPG cylinder  
 Awardee : Sayen Akhtar Shaik  
 Reference No. : 18AN1480940  
 Class : 9th  
 School Name & Address : Govt Senior Secondary School, Neil  
 Island  
 District & State : South Andaman, Andaman and  
 Nicobar Island  
 Guide Teacher : Bimal Madhu



Student's mother suffered a cut in her finger while she was trying to open the plastic cap, by pulling the nylon thread which is attached with LPG cylinder. This incident inspired student to develop an opener a "Plastic (safety) cap opener of LPG cylinder". This can be used for various purpose. It may be used to reduce the difficulties faced by women while opening the plastic safety cap attached with the nozzle of LPG cylinder. It can also be used to open tomato sauce bottle. It is also used to hold vessels during cooking.



Sayen's hobbies include reading books and developing new things.



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Idea/Innovation : Hi-Tech Brush  
Awardee : Sourabh Kumar  
Reference No. : 18AN1480954  
Class : 7th  
School Name & Address : Govt. Model Sr. Sec. School  
Aberdeen, Port Blair  
District & State : South Andaman, Andaman and  
Nicobar Island  
Guide Teacher : Swarna lata Kindo & Rakhi Singh



Painting is student's hobby. While painting he observed that a lot of colors get wasted and surrounding becomes dirty. To overcome this problem, an idea comes to student mind. He thought of modifying brush in the form of pen. This "Hi-Tech Brush" is used like a pen. You don't need to dip this brush into colors rather a refill cartridge is attached to it. The paint flow is controlled by a button and nib is fitted with the help of screw. This product is made up of Padauk wood. Therefore its eco-friendly.



Sourabh hobbies include making innovative projects and painting.

## Andhra Pradesh



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Idea/Innovation : Current Saver Chair  
 Awardee : Devabattula Suneel  
 Reference No. : 18AP1412240  
 Class : 9th  
 School Name & Address : Z.P.School Peda Bondapalli.  
 District & State : Vizianagaram, Andhra Pradesh  
 Guide Teacher : P Ch Mowleeswara Rao



After observing the large number of ceiling fans operating continuously throughout day and night at railway and bus stations and subsequent loss of electricity associated with it an idea struck to the mind of student about how to save the electricity. He come up with an idea of developing sitting chair which will be connected in such a way with ceiling fan circuit as fan will only start once any person or passenger will sit on chair. As soon as person will left the chair the fan will stop automatically and in this way save electricity.



Suneel aspires to become an engineer in future.



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Idea/Innovation : Coconut De husking Machine  
 Awardee : Pedada Yaswanth Abhi  
 Reference No. : 18AP1412727  
 Class : 8th  
 School Name & Address : Z P H School, Velivenu  
 District & State : West Godavari, Andhra Pradesh.  
 Guide Teacher : G Hanuman Raju



Dehulling of coconut is very laborious and time consuming job. It takes a lot of time to dehull coconut shell and sometimes worker/labour gets injured while doing the process manually. To eliminate drudgery and save time and labour cost of farmers student have developed simple gadget which removes shell of coconut easily and increase production of farmer. Although electrical dehullers are available in market but poor farmers are not able to purchase those due to financial constraints.



P. Yashwant aspire to become a scientist and serve his country and people by inventing new innovations.



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Idea/Innovation : Air Cooler RTC Bus  
 Awardee : Pattan Sumiya  
 Reference No. : 18AP1411052  
 Class : 8th  
 School Name & Address : Z.P.P High School A.S.Peta  
 District & State : Nellore, Andhra Pradesh  
 Guide Teacher : Mohamad Azaz



During hot summer season travelling in non-air conditioned buses is very harsh experience. Especially in villages old aged people and school children suffers a lot and there is always chance of dehydration and sun stroke due to scorching heat present inside bus. Student have come up with project of "Air Cooling RTC Bus" with modified windows consisting of wet pads. Hot air when pass through these pads will be converted into cool breeze and give relief to large number of passengers including old aged people and children's etc.



Sumiya likes dancing and singing and wants to become a doctor when she grows up.



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Idea/Innovation : Bioremediation of Heavy Metals Using With Algae  
 Awardee : P. Mohammad Azam  
 Reference No. : 18AP1409709  
 Class : 8th  
 School Name & Address : A.P. Model School Rayachoty.  
 District & State : Kadapa (YSR), Andhra Pradesh  
 Guide Teacher : K Nagaraju



Industrial pollution emits harmful by-products including chemical waste, heavy metals and other wastes into the water bodies thereby polluting them thus effects both aquatic and terrestrial ecosystem directly or indirectly. Student has developed the system whereby industrial effluents are treated at various levels for elimination of different wastes including heavy metals which are neutralised with the help of specific strain of algae through the process of bioremediation. This project will help in the treatment of industrial pollutants thereby saving water bodies and other forms of life.

Azam likes to watch cartoons and play badminton.



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Idea/Innovation : Anti-Bag Snatching Alarm  
 Awardee : P. Nayaz  
 Reference No. : 18AP1409829  
 Class : 6th  
 School Name & Address : Z.P.H.S.P. Gollapalli.  
 District & State : Chittoor, Andhra Pradesh  
 Guide Teacher : M. Bilwanath



Luggage and bag theft cases are very common during travelling in bus or train. Thieves also snatch bags in public places. Once while watching the news regarding luggage snatching somewhere on television inspired Nayaz of developing such luggage or bag which can give alarm if someone other than its owner tries to take it. The gadget is fitted with sensors and one needs to on switch to make sensor/ alarm work.



Playing cricket, volley ball, kabaddi and football is among the hobbies of Nayaz and wants to become police officer.



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Idea/Innovation : Energy Kites  
 Awardee : Korivipati Anwar Basha  
 Reference No. : 18AP1411691  
 Class : 8th  
 School Name & Address : Govt. High School Pamur Mandal.  
 District & State : Prakasam, Andhra Pradesh  
 Guide Teacher : V Koteswara Rao



The speed of wind is more at higher altitudes as compared to lower altitudes. Anwar is of opinion to develop energy kite with inbuilt turbines for the generation of electricity. The electricity thus generated can be collected and used for domestic purpose. In this way electricity can be generated from natural available sources instead of non- renewable sources like coal, water etc.



Anwar likes to play games and wants to become scientist.



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Idea/Innovation : Floor Level Measuring Machine  
 Awardee : Kuttuboyina Radhakrishna  
 Reference No. : 18AP1411146  
 Class : 9th  
 School Name & Address : ZPHS Kaligiri  
 District & State : Nellore, Andhra Pradesh  
 Guide Teacher : D Vijayakumar



Krishna has developed a gadget "Floor Level Measuring Machine" to record the level of particular surface. It uses graph paper, pencil scale etc. mounted on small vehicle. This vehicle is moved from one end to other of room, corridor etc. and level of floor is recorded on graph paper. Gadget has been developed especially for masons to ease and increase the efficiency of levelling during tile work or marble laying of rooms, corridors etc. either on domestic or commercial level.



Krishna wants to become an innovator.



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Idea/Innovation : Rescue of a Child from the Bore Well  
 Awardee : B. Praveen Kumar Reddy  
 Reference No. : 18AP1409353  
 Class : 10th  
 School Name & Address : Z.P.H.S. Upplavandla Palli  
 District & State : Kadapa (YSR), Andhra Pradesh  
 Guide Teacher : K V Prasad



Infants and children's most often fell into deep bore wells while playing around. Hundreds of children's have lost their lives till date because of these tragedies. Rescuing victims from narrow bore well is very tough and risky job. To overcome this situation Praveen has developed "Child Rescue System from Bore Well" which consists of sensor and alarm system, long hollow tube whose one end is provided with airbag and CCTV camera. This system gives us exact location and view of trapped children. Air bag is put under the victim with the help of narrow tube and air is filled inn as a result air bag inflates below the victim. Tube along with inflated airbag and trapped child is pulled out carefully.





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Idea/Innovation: Improving Water Level In Bore Well

Awardee: Nukala Sravani

Reference No.: 18AP1410333

Class 9th

School Name & Address: Z. P. H. School Thamballapalli

District & State: Chittoor, Andhra Pradesh

Guide Teacher: K Ravanamma



Due to unabated deforestation the level of water table has decreased gradually which has resulted in decrease of water level in bore wells as well. Bore well recharge system has been developed to increase underground water level by harvesting rainwater and discharging same into pits made near bore well. The water present in pits around bore well will be naturally filtered and will also result in increasing the level of bore well water.



Srivani loves to play cricket, music and read books. She wants to be a teacher.



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Idea/Innovation : Smart Biometric Voting Machine

Awardee : Vaisyaraju Manasa

Reference No. : 18AP1411907

Class : 8th

School Name & Address : Z.P.H. School Chapara.

District & State : Srikakulam, Andhra Pradesh.

Guide Teacher : Ramesh Choudhary



To avoid bogus voting Manasa has developed unique "Biometric Voting Machine" which will allow single voter to cast only one single vote. When voter put any of his finger on scanner his details will be displayed on small screen kept with polling officer. After authentication voter needs to cast his vote. Once vote is casted his finger print will not be accepted by machine again in this way single person will be able to cast only one vote.



Her hobbies include reading books, playing games and watching movies. She wants to be a teacher.



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Idea/Innovation : Yuktha Device  
 Awardee : Kurupati Twenayuktha  
 Reference No. : 18AP1410952  
 Class : 6th  
 School Name & Address : Cettamanchi Ramalinga Reddy School, Dinnedavarapad  
 District & State : Kurnool, Andhra Pradesh.  
 Guide Teacher : N Rajesh



To prevent snatching and molestation incidents Yuktha has developed anti molestation device called "Yuktha Device". It produces both current and alarm sound if someone touches or try to snatch belongings of women/girl. An incident of snatching with her aunty inspired her to develop this type of gadget. Yuktha device is a safety weapon for women again any incident of snatching or molestation.



She wants to become doctor and likes watching scientific movies and dancing.



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Idea/Innovation : Arduino Based Home Automation System Using Bluetooth and android Smart Phone  
 Awardee : K. Venkata Sai Kumar  
 Reference No. : 18AP1409784  
 Class : 8th  
 School Name & Address : St. Joseph English Medium High School  
 District & State : Kadapa (YSR), Andhra Pradesh  
 Guide Teacher : Anuradha



Sai has developed smartphone based home automation system for physically challenged, old people and children's using bluetooth and voice command implementation. With the help of this module person can switch on or off appliances like bulbs, fan, television A.C, refrigerator etc. via application installed in smart phone. This application also regulates opening and closing of gas regulator, gate etc.



He loves to play cricket and video games. Sai wants to become an engineer.



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Idea/Innovation : Plastone  
 Awardee : N. Mahesh  
 Reference No. : 18AP1409300  
 Class : 9th  
 School Name & Address : Z. P. H. School Raketla Uravakonda Mandal  
 District & State : Anantapur, Andhra Pradesh  
 Guide Teacher : A Gangabhavani



Accumulation of plastic objects like plastic bottles etc. have led to a high prominence of plastic pollution in the environment. Mahesh has come up with idea of converting plastic into useful bricks and tiles for preparation of boundary walls and roads respectively by converting plastic into plastone. Plastone is prepared by heating granite powder and gravel at 120-140 0C and adding plastic to heating mixture. The resultant material plastone thus formed is used.



Mahesh is fond of playing games, dancing and singing and reading books. He aspires to become teacher and serve his society.



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Idea/Innovation : Solar Bike  
 Awardee : Chattu Ganesh  
 Reference No. : 18AP1410727  
 Class : 8th  
 School Name & Address : Z.P.H. School Kandlagunta.  
 District & State : Guntur, Andhra Pradesh  
 Guide Teacher : Shaik Mohammad Gouse



To reduce the emission of harmful gases produced by petrol and diesel vehicles solar e-bicycle has been developed by Ganesh. This bicycle receives solar energy through solar panels which in turn charge DC batteries and help bicycle to move. E-bicycle is idle for short and moderate journeys.



He wants to develop other new projects and likes his studies and wants to become a scientist to develop different technologies for the benefit of his people and nation.



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Idea/Innovation : Drainage Pipe Cleaning  
 Awardee : Ponguluri Phani Shashank  
 Reference No. : 18AP1411305  
 Class : 8th  
 School Name & Address : U.N.R.E.M. High School Nawabpet.  
 District & State : Nellore, Andhra Pradesh  
 Guide Teacher : R Srilatha



Shashank has developed remote operated, robotic underground drainage pipe cleaner to clean and clear narrow, blocked savage pipes. It is very difficult to locate site of blockage of underground sewage pipes manually. Commonly long iron rod is used to clear block of pipe which is very hectic and time consuming. This device not only clears block within meagre time but also gives us internal view of pipe with the help of camera installed on it. One can easily inspect same for any leakage etc. His hobbies include drawing, reading stories, dancing and listening music.



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Idea/Innovation : Automatic Paralysis Patient Care System  
 Awardee : K. Sai Udaya Sree  
 Ref No. : 17AP1403934  
 Class : 10th  
 School Name & Address : C.S.T.E.M High School Tirupathi  
 District & State : Chittoor, Andhra Pradesh  
 Guide Teacher : Gajula Sneha



Patients who have suffered major paralysis attack are not able to speak and move their body parts or convey their need or massage to caretakers which adds more to their miseries. In order to provide some sort of relief to these patients Udaya Sree has developed gadget "Automated Paralysis Patient Care System" which will recognize the impressions or movements of patient and will convey them to care takers through this gadget. Udaya loves to watch movies and play kabaddi and wants to become doctor.



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Idea/Innovation : From Utility to Production  
Electricity Generating Sintex Tanks

Awardee : Y. Dilli Prasad

Reference No. : 18AP1410177

Class : 7th

School Name & Address : Aprsbc (B) Vr Kandriga

District & State : Chittoor, Andhra Pradesh

Guide Teacher : B Shameer Khan

Prasad has made "Electricity Generating Syntax Tank" which includes 500 litres or more capacity water tank to which two water turbines have been installed one at the top side and another at bottom side of tank in such a way that single inlet water is utilized to rotate two water turbines simultaneously and generate electricity which is then used for domestic purpose.

Prasad likes watching television, playing badminton, listening music and swimming. In future he would like to become badminton player.



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Idea/Innovation : Smart Umbrella

Awardee : Bollimuntha Anitha

Reference No. : 18AP1410776

Class : 9th

School Name & Address : Z.P.High School Athota.

District & State : Guntur, Andhra Pradesh

Guide Teacher : Rayapati Siva Nageswara Rao



Anitha has developed multipurpose "Smart Umbrella" provided with micro solar panels, batteries, small fan, LEDs and mobile charging ports. This umbrella has wide range of applications ranging from students to fruit vendors. It provides relief from scorching heat during day time and during evening time it acts as light source for vendors. Old aged people can use it as stick etc. During the non-availability of electricity one can charge his mobile phone with the help of USB port provided for the purpose. Smart umbrella works on solar energy.

She wants to become teacher and is fond of music and playing games.





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Idea/Innovation : Tsunami Tornado and Hurricane Protective System  
 Awardee : N. Sravan Kumar  
 Reference No. : 18AP1409992  
 Class : 9th  
 School Name & Address : Z.P. High School Balinayunipalle  
 District & State : Chittoor, Andhra Pradesh  
 Guide Teacher : K Vishnuvardhan Reddy

Thousands of people die every year due to natural calamities like tsunamis and floods etc. either by drowning or collapse of buildings etc. Sravan with the help of his physics teacher has developed protective floating capsule system which consists of metallic covering with entry and exit gate. It is also provided with all other necessary accessories which are essential for survival of human being. Raven is of opinion that whenever any natural calamity like flood occurs one needs to enter into the capsule as it will save him by floating on water.

Sravan is fond of playing games likes cricket and throw ball. He also loves singing, reading stories and watching television. He wants to become soldier and serve his country.



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Idea/Innovation : Multipurpose Agricultural Robot  
 Awardee : N. Suvarna  
 Reference No. : 18AP1412119  
 Class : 9th  
 School Name & Address : A.P.S.W R Junior College  
 District & State : Vishakhapatnam, Andhra Pradesh  
 Guide Teacher : T Rambabu



Suvarna has developed solar operated multipurpose agriculture robot to perform various agricultural related tasks to minimize manpower and increase productivity of farmers. According to her, robot will perform activities like ploughing, pumping of water from bore well for irrigation purpose, broadcasting of seeds and fertilizers. It will also spray the pesticides and herbicides in the fields.

She wants to be a scientist.





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Idea/Innovation : Eco Friendly Agricultural Methods  
 Awardee : A. Dharani  
 Reference No. : 18AP1409813  
 Class : 8th  
 School Name & Address : Z.P. High School Narasingapuram.  
 District & State : Chittoor, Andhra Pradesh  
 Guide Teacher : G Raghavendra Rao



After observing the disastrous damage caused by Parthenium hysterophorus (famine weed) in agricultural fields, Dharani with the help of her guide teacher thought of developing bio herbicide against same weed to protect crop as well as environment. Bio herbicide was prepared by adding Parthenium (ash form) and milk followed by subsequent fermentation. Fermentate were then sprayed for control of weed.

She loves to read books, watching television and listening music. She aspires to become doctor.



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Idea/Innovation : Dry latrine  
 Awardee : A. Neelesh Reddy  
 Reference No. : 18AP1409394  
 Class : 8th  
 School Name & Address : Z.P. High School Chitvel  
 District & State : Kadapa (YSR), Andhra Pradesh  
 Guide Teacher : T Venkataramanaiah



Neelesh has come up with the idea of developing dry latrines. In case of normal latrines water is used for cleaning purpose however he is of opinion to use dehydrating agents like lime water, charcoal and husk etc. to dehydrate faeces and convert them into manure. These dehydrating agents will also eliminate foul smell and save water. Dry latrines will have wide application for maintaining environmental hygiene especially in areas of water scarcity.

He loves to play games and watch television.





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Idea/Innovation : Slow Melting Rate of Ice  
 Awardee : Kommu Sobha Rani  
 Reference No. : 18AP1411686  
 Class : 8th  
 School Name & Address : ZPHS, Edumudi  
 District & State : Prakasam, Andhra Pradesh  
 Guide Teacher : Kaki Swarnalatha



Global warming is projected to have a number of effects which include rising sea levels due to thermal expansion and melting of glaciers and ice sheets, and warming of the ocean surface, leading to increased temperature stratification. Sobha has given an idea to slow down melting rate of ice.

Her hobbies include reading and dancing and wants to become teacher.



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Idea/Innovation : Recycling of Styrofoam  
 Awardee : Ramisetty Hema Madhuri  
 Reference No. : 18AP1412158  
 Class : 7th  
 School Name & Address : Z.P. Girls High School Narsipatnam  
 Guide teacher : N K L Chandana  
 District & State : Vishakhapatnam, Andhra Pradesh



Hema is of opinion to convert waste thermocol (Styrofoam) into some useful products like children's toys, learning material for students and teachers etc. which is otherwise lying on roadsides etc. and makes environment nasty. She is preparing toys from waste Styrofoam by dissolving it into acetone and helps in solid waste disposal and management.

She wants to become an innovator and loves reading.





# inspire awards - manak

million minds augmenting national aspiration and knowledge

Idea/Innovation : Vacuum Cleaner  
 Awardee : G. Bharath  
 Reference No. : 18AP1411627  
 Class : 7th  
 School Name & Address : ZPHS, Vemulakota  
 District & State : Prakasam, Andhra Pradesh  
 Guide Teacher : N R K Murthy



Cleaning with normal broom produces dust and cause numerous diseases like chest infection and allergy etc. Mother of Bharath also was suffering from dust allergy because of dust produced during manual cleaning of home. To prevent her from such health deteriorating ailment he thought of developing modified "dust remover (vacuum cleaner)" which will not produce any kind of dust during cleaning.

He loves reading books, drawing and playing games. He desires to become bank manager.



# inspire awards - manak

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Idea/Innovation : Produce Oil and Gas from Waste Plastic  
 Awardee : Jawaji Harika  
 Reference No. : 18AP1409651  
 Class : 9th  
 School Name & Address : Z.P.High School, Thallapaka.  
 District & State : Kadapa (YSR), Andhra Pradesh  
 Guide Teacher : V C Siddaiah



Increased use of plastic objects (e.g.: plastic bottles and much more) in the earth's environment adversely affects wildlife, aquatic habitats and humans. To overcome the menace of plastics, Harika has developed an innovative method which converts plastic by de-polymerization process into gas, crude oil and tar which can be then subsequently used for domestic cooking, fuel for vehicles and making roads respectively after refining.

Her hobbies include book reading and performing science experiments.





# inspire awards - manak

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Idea/Innovation : Bio plastic  
 Awardee : J. Sandhya  
 Reference No. : 18AP1409408  
 Class : 10th  
 School Name & Address : Z.P.High School, Chitvel  
 District & State : Kadapa (YSR), Andhra Pradesh  
 Guide Teacher : Gnaganjani



Plastic pollution has created mayhem on natural environments, leading to long-term issues for plants, animals, and people. The only way this problem can be addressed is by replacing non-degradable plastic with bio-degradable plastic. Sandhya has prepared bio-plastic from vegetable stock, vegetable peels and household plant wastes.



# inspire awards - manak

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Idea/Innovation : Sub lift system (for apartment culture)  
 Awardee : Chadala Rakada Mani  
 Reference No. : 18AP1444914  
 Class : 6th  
 School Name & Address : Z P H S Satrampadu  
 District & State : West Godavari, Andhra Pradesh  
 Guide Teacher : V Durga Prasad



Now a day's people living in apartments have to carry some small goods like newspapers, milk packets, vegetables, medicines etc. They are using a rope which is linked with a basket or bucket and they throwing down and pulling to upstairs to carry small goods. And they are using repeatedly main lift to carry small goods. As a result the more energy is consumed. The student observed that such a process is tedious and not safe. She designed the project of sub lifting system for buildings to carry small goods to respective apartments with low consumption of energy.

In this project the magnetic sensors and one two in one motor is used. It is very simple to use at low cost and the energy consumption is very low. By this sub lift we can reduce the usage of main lift, we can save the energy and time. Dr A.P.J Abdul Kalam is the inspiration for Chadalavada.





# inspire awards - manak

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Idea/Innovation : Army secured jackets  
 Awardee : Ch Rami Reddy  
 Reference No : 18AP1442992  
 Class : 10th  
 School Name & Address : ZPHS, Sirigiripadu, Veldurthy Mandal  
 District & State : Guntur, Andhra Pradesh.  
 Guide Teacher : D Raja Babu



In order to meet out the needs of the military in colder regions of the country like Siachen glacier the student has designed a smart jacket that will help the army jawans to keep their bodies warm during winters or extreme cold conditions The jacket is designed in such a way that it can always keep body warm between at desired temperature range. While watching a TV show on Siachin the student developed this idea.



# inspire awards - manak

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Idea/Innovation : E Helmet  
 Awardee : Chitturi Karthik  
 Reference No : 18AP1444270  
 Class : 8th  
 School Name & Address : A.P.Model School  
 District & State : Srikakulam, Andhra Pradesh.  
 Guide Teacher : P Ramakrishna Rao



After observing the growing death rate due to bike accidents as most of the bikers avoid wearing helmet the student developed an e helmet to avoid the deaths occurred due to bike accidents. A micro switch is incorporated in the helmet with the attachment of RF transmitter. When a person wear the helmet the switch will automatically press down and the RF signals will transfer to the RF receiver that is present in the bike controller at the receiving end the micro controller also the receive the same data from RF transmitter in the micro controller transfer the receiving data to display panel when the signal reach the (RF) receiver then the bike will ready to drive then we put the key and start the bike.





# inspire awards - manak

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Idea/Innovation : Multi used power weeder  
 Awardee : D. Shaheer  
 Reference No : 18AP1439892  
 Class : 10th  
 School Name & Address: A.P.Model School Junior College  
 District & State: Anantapur, Andhra Pradesh  
 Guide Teacher: A Ranaprathap Naik



Student's science teacher highlighted few local issues which can be solved through scientific innovation. This inspired student to address one such issue i.e. Hardship in removing local yam variety called as "Maan Kuchhu". This local variety yam is a tuber yam that grows from 70 cm to a meter depth. For easy removal of yam student develop "Yam Remover machine". This machine uses vertical and horizontal bars at the bottom. With the help of centrally placed screw, claws are inserted into the soil which will dig out yam from soil.



Anjali loves reading books, writing essays, participating in quiz competitions and national science congress.



# inspire awards - manak

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Idea/Innovation : Sleep Sensing and Alert System for Drivers  
 Awardee : D. Sudeep  
 Reference No : 18AP1441471  
 Class : 9th  
 School Name & Address : Z P H S Pujaganipalle  
 District & State : Chittoor, Andhra Pradesh  
 Guide Teacher : K Vijaya Lakshmi



Sudesh has developed an alcohol sensing system for vehicles to minimize the chances of accidents due to alcohol consumption by drivers. The system developed by him detects sleepiness and drowsiness of drivers also. The system uses set of sensors viz micro controller, eye blink sensor, alcohol sensor, buzzer, ordinal board etc.





# inspire awards - manak

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Idea/Innovation : Hygienic, safe and user friendly bathrooms  
 Awardee : J. Monisha  
 Reference No : 18AP1441291  
 Class : 8th  
 School Name & Address : Govt. High School, Palasamudram, Chittoor  
 District & State : Chittoor, Andhra Pradesh  
 Guide Teacher : M Deepika Rani



Observing the problems faced by elderly people while using bathrooms Monisha developed the project that can prove helpful to elderly people. She thought to develop the project after her grandfather suffered multiple fractures when he falls while using the bathroom. The bathroom is divided into two cabins. A heat gun [300-500] degree Celsius is fixed in the wall of the bathroom for drying purpose. An U-V Lamp of C-type; an exhaust fan; and an air freshener are also fitted in the wall.



When a person uses the bathroom and switches on the devices and go away' with the help of a timer' they work for a minute' and make the bathroom dry; purify the air and remove bad odour within a minute; enabling the next user to use a dried, hygienic bathroom.



# inspire awards - manak

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Idea/Innovation : Purification of Water with Agricultural Biowaste  
 Awardee : K. Vinuthna  
 Reference No : 18AP1443436  
 Class : 9th  
 School Name & Address : The Athena School  
 District & State : Kurnool, Andhra Pradesh  
 Guide Teacher : Rasool Royal



The water pollution is the biggest threat to living to human beings. The student has used different ways to purify the contaminated water using agricultural bio-waste. The condition of rural people motivated her to develop this project as people in rural areas face many problems in getting pure water. She observed people in rural areas are drinking contaminated water and are the chances of spread of water borne disease is one of the great risks using contaminated water. The project will help financially weak people to get the purified water without spending money.





# inspire awards - manak

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Idea/Innovation : Green Toilets  
 Awardee : K. Deepika  
 Reference No : 18AP1441342  
 Class : 8th  
 School Name & Address : AP Model School, Peddamandyam  
 District & State : Chittoor, Andhra Pradesh  
 Guide Teacher : M Reddi Prasad



The student has developed the project Green toilets that aims at zero defecation on the railway tracks and will improve level of cleanliness at railway stations , reduce corrosion of rails and rail fittings and consumption of water in Indian trains. The human waste undergo hydrolysis, fermentation, anerobicoxidatiaon & releases methane carbon dioxide. Releasing IMO, waste undergo anaerobic decomposition & produce liquid waste, then it is treated to chlorination process. After treatment it goes to tank which can allow all compartments for toilet purpose. By this process we can reduce wastage of water in ZDIS, solid liquid separator separates solid & liquid separately .this solid then treated to IMO it speed up the decomposition process & series of reaction it produces natural fertilizer liquid waste contain urine which is having 96% of water.2%urea is extracted from urine & used as fertilizer to the plants uric acid converted into urea which is used as fertilizer to the plants ammonia gets converted into ammonium salts. After this water treated to chlorination chamber after treatment it is pumped to tank which can have allowed to all components & toilet purpose by this process we can reduce the wastage of water.



# inspire awards - manak

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Idea/Innovation : Free energy water pump  
 Awardee : K. Saila  
 Reference No : 18AP1441790  
 Class : 9th  
 School Name & Address : Govt Girls High School Sathyavedu  
 District & State : Chittoor, Andhra Pradesh  
 Guide Teacher : V Subramanyam



After observing the erratic electricity in the rural area the student has developed water pump that does not use electricity. The pump is used to lift a lesser amount of water to a higher elevation. The energy free pump is used to fill the water tank at the terrace of the house.





# inspire awards - manak

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Idea/innovation : Avoid Accidents by Using Mobile Sensors  
 Awardee : M Lakshmi Pathi  
 Reference No : 18AP1442112  
 Class : 9th  
 School Name & Address : Sp Jnm Muncipal High School  
 District & State : Chitoor, Andhra Pradesh  
 Guide Teacher : D Kavitha



The student has developed the model using sensor technology to avoid the accidents. Many accidents are reported due to the drowsiness of the drivers while driving. The problem was observed by the student and he came with the idea to incorporate sensors in the vehicle that can sense the drowsiness of the driver and trigger alarm and the vehicle will come to a halt of side of the road.



# inspire awards - manak

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Idea/Innovation : APMS (Advanced Protecting Management System Frp, Smales)  
 Awardee : M. Anitha  
 Reference No : 18AP1441341  
 Class : 6th  
 School Name & Address : AP Model School, Peddamandyam  
 Diistrict & State : Andhra Pradesh  
 Guide Teacher : M Reddi Prasad



The student has developed a snake guard instrument that releases vibrations in all directions up to 10 meters distance around its position .These vibrations can travel up to 10 meters from its position for every second .When these vibrations reaches to the snake which is 10 meters away from the farmer in any direction, it can recognize and receive these vibrations as danger signals and go away from the farmer. This instrument work on solar power using solar panel located in the middle of instrument. While working in agriculture field farmer. It can release vibration to his surrounding area if any snake detect in farmers surrounding area in the field, such snake receives danger signals and goes away from its position.





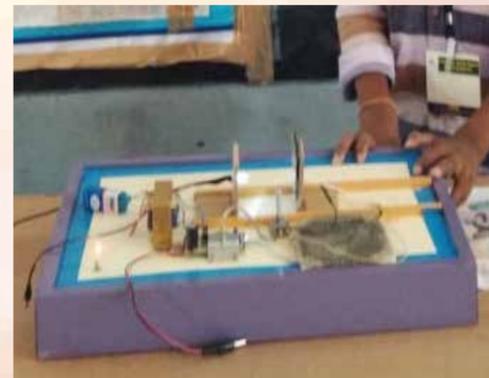
# inspire awards - manak

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Idea/Innovation : Li Fi Technology in Wireless Communication  
 Awardee : M. Bharat  
 Reference No : 18AP1440064  
 Class : 9th  
 School Name & Address : ZP High School, Salakamcheruvu  
 District & State : Anantapur, Andhra Pradesh  
 Guide Teacher : K Umamaheswari



Hailing from India's second lowest rain falling & draught prone district, Anantapur, Andhra Pradesh M.Bharathisinterestedinhandlingmobile,particularly in sharing the messages with friends and teachers. We all know that one can share messages, through internet, blue tooth, shareit, and the most populous one - WiFi (Wireless Fidelity).All these technologies are using Radio Frequency Wave (RFW) signals have severe impact on the health of the human beings and even less secure. To overcome these obstacles our project Li-Fi was invented by Professor Harald Hass of Germany shown the way in sharing the all audio, video and text messages almost 100 times faster than the Wi-Fi, without causing any harm. It uses visible light communication to transmit high speed data. It is cost efficient as compared to radio technology. Li-Fi is not complicated one; the components of Li-Fi are just LED bulbs, photo detector and lamp drivers. The usage of energy in Li-Fi is minimized by LED illumination.



Li-Fi more secure than Wi-Fi.Data transmitted over Wi-Fi is prone to hacking as it has a wider reach. However, the reach of Li-Fi is limited as for a simple reason that light cannot penetrate through walls. This limited reach makes it more secure. Unlike Wi-Fi, Li-Fi doesn't interfere with radio signals. It works on visible light communication which works by switching on and off LED bulbs within nanoseconds, invisible to the human eye.



# inspire awards - manak

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Idea/Innovation : Shine during Rain  
 Awardee : Meghan Datta Sai Ram S  
 Reference No : 18AP1443451  
 Class : 8th  
 School Name & Address : Montessorim High School  
 District & State : Kurnool, Andhra Pradesh  
 Guide Teacher : B Malleswari



The student has designed the project to generate electricity in rainy season. Through this project the student has shown that generation of electricity is possible even during rain. In this case, two polymer layers were used to make a 'TENG' on top of a photovoltaic cell. Using the imprints from normal DVD's that we use at home to watch movies, the slits have been added to one polymer to improve its efficiency in gathering energy. The textured polymer layers added as a mutual electrode for both the TENG and the solar panel underneath in tests. They conduct energy between the two devices when raindrops fall and bring the layers into contact. The extra layers were transparent and sunlight could still be captured. Dr A.P.J Abdul Kalam is the inspiration for him. S Meghan Datta want to become a scientist.





# inspire awards - manak

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Idea/Innovation : Clean Energy  
 Awardee : N. Neelima  
 Reference No : 18AP1441891  
 Class : 8th  
 School Name & Address : ZP High School, Urandur  
 District & State : Chittoor, Andhra Pradesh  
 Guide Teacher : P Manjula Devi



While in Tirumala Tirupati Devasthanam the student observed that free meal is served to devotees but what caught her attention are the chimneys of mega kitchen. She thought why the energy generated from them can't be reused to produce wind energy. This motivated her to develop the project. Then I got the idea that "Why don't we use this kinetic energy to reproduce into electric energy." That I explained to my views on clean energy to my guide teacher. After so many discussions we developed this project. A chimney was developed with plywood. An exhaust fan was fixed inside of the chimney. A DC dynamo was fixed just above the exhaust fan. This dynamo converts the mechanical energy into electrical energy.



Dr. A.P.J Abdul Kalam is her inspiration. She likes dance, reading books etc.



# inspire awards - manak

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Idea/innovation : Mineral Segmentation  
 Awardee : Patoori Girija  
 Refreenc No : 18AP1444541  
 Class : 8th  
 School Name & Address : ZPHS, D.L Puram  
 District & State : Vishakhapatnam, Andhra Pradesh  
 Guide Teacher : D Alekya Prasana



In order to overcome air pollution and global warming effects the student has developed the project to reuse the pollutants for various purposes like re using CO<sub>2</sub>, NO<sub>2</sub>, SO<sub>2</sub>, CO, CFC's. Main concentration on Minerals Sequestration of Carbon Dioxide in Basalt to reduce the effects of global warming. She likes book reading, playing etc. The project shows how to reduce the air pollution.





# inspire awards - manak

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Idea/Innovation : Groundnut Thresher  
 Awardee : S.Chaitanya  
 Refreence No : 18AP1442201  
 Class : 9th  
 School Name & Address : PVC Government High School,  
 Valmikipuram  
 District & State : Chitoor, Andhra Pradesh  
 Guide Teacher : S J Kameswari



After observing the struggle of father in agriculture field while harvesting the ground nuts the student came with an idea to develop the ground nut thresher to help his father and other farmers to separate the ground nut pods easily without using much energy. The student has used a cycle to execute the work easily.



# inspire awards - manak

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Idea/Innovation : Smart Eco-Friendly Pellet Stove  
 Awardee : Thambali Kavya  
 Refreenc No. : 18AP1443401  
 Class : 8th  
 School Name & Address : Z P H S, Pulakurthy, Kodumur  
 Mandal  
 District & State : Kurnool, Andhra Pradesh  
 Guide Teacher : K.Kesavaiah

Some people suffers from smoke while cooking with timber and kerosene. The student has developed the project of a pellet stove that burns compressed wood or biomass pellets to create heat for cooking. The stove produces a constant flame that requires little to no physical adjustment. Today's central heating systems operated with wood pellets as a renewable energy source can reach an efficiency factor of more than 90%. The stove is Eco having High Calarofic value.





# inspire awards - manak

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Idea/Innovation : Automatic Crop Protector from Rain  
 Awardee : Taninki Phani Kumar  
 Reference No. : 18AP1442371  
 Class : 9th  
 School Name & Address : Z.P.P.High School, Jonnada  
 District & State : East Godavari, Andhra Pradesh  
 Guide Teacher : Chinta Srinivasa Reddy



The farmer is the back bone of Indian economy. They toils and does hard work to produce the crop by suffering a lot at the end for drying the crop due to unexpected rains. These factors like unexpected rains damage the crop when it is dried before selling, which will completely destroy the crop yield or make the yield second grade. To reduce the loss of crop due to unseasonal rains the student has developed an automatic crop protector from rain to help the farmers. When it is raining or any drop of water is dropped on the rain Sensor, the rain sensor will sense the water. The sensed data is sent to the Arduino. An Arduino is an intelligent micro-controller which is pre-programmed according to the requirement. The data collected from the sensor is processed and relevant action is taken. The Arduino is instructed to control the Geared DC Motors which is used to rotate the motors in Anti-Clock Wise Direction. Thus Roof Top is covered on the crop.



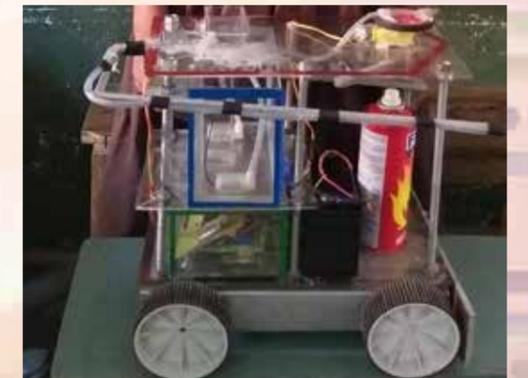
# inspire awards - manak

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Idea/Innovation : Automatic Fire Extinguisher  
 Awardee : V.Krishnaveni  
 Refreenc No. : 18AP1442622  
 Class : 8th  
 School Name & Address : Mandapeta Public School  
 District & State : East Godavari, Andhra Pradesh  
 Guide Teacher : Hemambika



The student has developed an Automatic Fire Extinguisher robot is based on Bluetooth to operate automatically to extinguish the fire during fire accidents. This robot has important features to move in the direction sensing the fire intensity. The temperature of this robot is varied out by heating to put off the fire by using two sources one is water and another is foam. Side sprinkler is used to put off the fire at sides of the robot. Front sprinkler is used to put off the fire in front. By spraying foam fire can be put off in all the directions by moving the robot operated by blue tooth.





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Idea/Innovation : Fog Controller  
 Awardee : V.Bhavya Sree  
 Refreenc Number : 18 AP1441421.  
 Class : 10th  
 School Name & Address : Z.P.H.School, Piler  
 District & State : Chitoor, Andhra Pradesh  
 Guide Teacher : P Rajendra Kumar



In order to reduce the fog to avoid road accidents the student has developed a fog controller. The fog controller will help the airplanes departure and arrival timings. When we use fog controller to increase temperature in the air. This leads to the air temperature being warmer than the dew point temperature, which causes the fog droplets to evaporate. The fog controller travel on the road by spreading hot air on fog, the fog evaporate road become clear.



# inspire awards - manak

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Idea/Innovation : Bore Well Child Rescue  
 Awardee : B. Jaswanth  
 Reference No. : 18AP1443713  
 Class : 6th  
 School Name & Address : Andhra Pradesh Tribal Welfare Residential School (Boys)  
 District & State : SPSR Nellore, Andhra Pradesh  
 Guide Teacher : Renuka Devi.D



The aim of Jaswanth project is to prevent the children from falling in bore well. In this project a thin balloon and oxygen pipe, light was arrange to the tube and send into bore well. We can lift the baby by pumping air into balloon with the help of air pump and lifting is easy.  
 Jaswanth takes his inspiration from out Indian Scientist and teachers and he likes reading books and watching T.V.





# inspire awards - manak

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Idea/Innovation : Accident Prevention and tracking system for night drivers  
 Awardee : Chodipilli Ramesh  
 Reference No. : 18AP1442808  
 Class : 10th  
 School Name & Address : Ichthus English Medium High School, Vodarevu  
 District & State : Guntur, Andhra Pradesh  
 Guide Teacher : Kundhurthi Pal Raj



He observed that many incidents which caused many deaths due to drowsiness of drivers at night time. So he came with the solution of automated security system that provides high security with alarm. It is IOT based eye blinking sensor which works based on circuit and alert the driver.

Dr. A.P.J Abdul Kalam was his biggest inspiration. His hobbies are reading science and technology books sometimes and help to his father in repairing net & very much interested in finding new things divergent thinking and preparing science projects.



# inspire awards - manak

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Idea/Innovation : Waste Heat to Electricity  
 Awardee : D. Dakaraja Reddy  
 Reference No. : 18AP1441988  
 Class : 9th  
 School Name & Address : Z.P.High School, Kannemadugu  
 District & State : Chittoor, Andhra Pradesh  
 Guide Teacher : P.L.N.Sastry



When he was listening to the conservation of energy, his teacher taught that there will be no 100% transmission of energy. Some energy will be lost in the form of heat. So, he asked his teacher to know the possibilities for recovering the waste heat. By searching regarding this he got an idea of using thermo Electric Generator module. It works on the principle of Seebeck effect.

Dr. A.P.J Abdul Kalam was his role model. His hobbies are listening stories from his grandparents and reading books. He would like to become a scientist in future.





# inspire awards - manak

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Idea/Innovation : Drain Water  
 Awardee : D. Venkata Narasimha Reddy  
 Reference No. : 18AP1441027  
 Class : 9th  
 School Name & Address : Z.P.High School, Madanapalli  
 District & State : Chittoor, Andhra Pradesh  
 Guide Teacher : C. Venu Gopal Reddy



Student observed that drain water causes soil, air and water pollution. So he decided to clean the drain using neutralization, centrifuge, precipitation and filtration. Acidic nature drain is neutralized by adding appropriate Base and the soap water is neutralized by adding appropriate acid. Urinals containing some complex ions, these ions are precipitated by adding opposite ions, eliminated by electrolysis method. This drain can be centrifuged under centrifugal machine which can be separated heavy particles from lighter particles. The centrifuged drain can be filtered by four step filtration method which is having four layered cylinder containing carbon, stones, sand and foam are as layers. In this way drain can be purified.



His teacher C. Venu gopal reddy was his biggest inspiration. His hobby is reading.



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Idea/Innovation : Simple Tools for Smart Life  
 Awardee : Kundurthi. Khuresh  
 Reference No. : 18AP1442925  
 Class : 10th  
 School Name & Address : C.K. JRC. High School  
 District & State : Guntur, Andhra Pradesh  
 Guide Teacher : B Titus



To make the life of blind, old aged and handicapped people easy, student came up with the idea of smart tools. These tool will reduce the risk.A.P.J. Abdul Kalam was his biggest inspiration. His hobbies are innovating new things, reading Science magazines, games and listening music.





# inspire awards - manak

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Idea/Innovation : Crop Protection from Birds and Animals using Eco Friendly Techniques.  
 Awardee : K.Veera Raghava  
 Reference No. : 18AP1441781  
 Class : 9th  
 School Name & Address : Z.P.High School, Madana Palem  
 District & State : Chittoor, Andhra Pradesh  
 Guide Teacher : Dr N Subramanya Sarma



Student observed that in his village farmers are suffering from crop damage by birds and animals in addition to pests. Buffaloes were dying due to electric shock from fencing around fields. So he suggesting the Eco friendly techniques to protect crops from birds and animals apart from solar /electrical fencing (harmful to animals and human beings). By using these techniques crops as well as animals are saved to protect the biodiversity.

A.P.J. Abdul Kalam was his biggest inspiration. His hobbies are reading books and developing projects useful to farmers.



# inspire awards - manak

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Idea/Innovation : Shoe Charger  
 Awardee : Meesala Manikanta Karthikeya  
 Reference No. : 18AP1444283  
 Class : 10th  
 School Name & Address : A.P Model School Jr. College, Tamada  
 District & State : Srikakulam, Andhra Pradesh  
 Guide Teacher : K.V.V. Subrahmanyeswara Rao



Power generation and its use is one of the issues these days. A number of power sources are present, non-renewable & renewable, but still we can't overcome our power needs. Among these human population is one of the resources. In this project he proposing generation of power by walking or running. Power can be generated by walking on the stairs. The generated power will be stored and then we can use it for domestic purpose. This system can be installed at homes, schools, colleges, where the people move around the clock. When people walk on the steps or that of platform, power is generated by using weight of person. The control mechanism carries piezoelectric sensor, this mechanical energy applied on the crystal into electrical energy. When there is some vibrations, stress or straining force exert by foot on flat platform. It can be used for charging devices e.g. laptop, mobile, etc. A.P.J. Abdul Kalam was his biggest inspiration. He interested in learning new software in computer and his hobby is playing cricket.





# inspire awards - manak

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Idea/Innovation : Tesla Coil  
 Awardee : P. Avinash  
 Reference No : 18AP1443820  
 Class : 9th  
 School Name & Address : Sri Chaitanya E.M. School  
 District & State : S.P.S.R Nellore, Andhra Pradesh  
 Guide Teacher : Dherendhra



The tesla coil is an air coiled transformer which gives high frequency current and voltage output. Many alterations were done to the original design to increase the efficiency and usage of the device. This paper deals with one such alternation which is replacing the A.C supply with a DC supply and study the output of the device with the change in the supply the circuit components were changed as well. A DC supply is given to a solid state miniature tesla coil with a slayer exciter. A series of simulations and practical tests are run to study about the nature of output that is being received. Various applications and uses are also suggested theoretically and which are under development. This paper opens up a wide scope for future study in the area of wireless power transmission and high voltage electronics.



Dr A.P.J Abdul Kalam is the inspiration for him. His likes and hobbies include watching National Geographic, Animal planet, reading discovery of Science, playing outdoor games like kabaddi, khokho, collecting the stories of science articles in daily magazines etc.



# inspire awards - manak

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Idea innovation : Li-Fi  
 Awardee : Pudi Hemanth  
 Reference No : 18AP1444045  
 Class : 9th  
 School Name & Address : Zilla Praja Parishad High School  
 District & State : SPSR Nellore, Andhra Pradesh  
 Guide Teacher : SK. Saida Parveen



The most beautiful thing in the world is to hear birds humming and twittering around us. We enjoyed their natural melodies. But nowadays, birds are dying due to the electromagnetic radiation. This radiation is created by wireless cell phones and high-tension electrical towers. This inspired student to study about Li-fi Technology which means Light Fidelity. In Li-Fi transmission of data is done using light. This is an alternate technology to Wi-Fi. Li-Fi uses the visible spectrum which will alleviate concerns arising from Wi-Fi technology. In his project student demonstrated this technology. He used a LED as a transmitter and a solar panel which is connected to a speaker as a receiver. He attached an auxiliary cable to the cell phone. He transmitted data through LED which means this communication is free from radiation. Hemanth likes playing games etc.





# inspire awards - manak

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Idea/ innovation : Semi Hydroponic Plantation  
 Awardee : Pashupati Sri Charan  
 Reference No : 18AP1443494  
 Class : 9th  
 School Name & Address : Z.P.High School, Brahmanakotkur  
 District & State : Kurnool, Andhra Pradesh  
 Guide Teacher : B. Venkateswarlu



The student observed the natural calamities and sufferings of farmers particularly in rayalaseema area, he thought to develop semi hydroponic plantation which can avoid mental tension and mind stress by spending our time and money with the plants. Growing plants with limited soils & limited water. We need not worry about rains. There is no need to worry about pests and pestilence .We can save up to 97% of water that periodicity of crops will be decreased. The yield will be 10 times higher and there will be reduction in transportation cost. No technical knowledge is required. The expenditure on labour will be reduced by 75%.



The project developed by student is a good solution for food crisis in near future.



# inspire awards - manak

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Idea/Innovation : Best from Bottle  
 Awardee : Thupakula. Lalitha  
 Reference No : 18AP1441940  
 Class : 9th  
 School Name & Address : A.P.T.W.R.School of Excellence  
 District & State : Chittoor, Andhra Pradesh  
 Guide Teacher : A.V. Jayakumar



We see so many used materials on the road side parks, domestic places such as papers, plastic bottles. Materials etc., the used plastic bottles cause a lot of damage to the Environment because it is non-biodegradable and pollutes the area. The student has developed a machine that converts plastic bottles into thread. The machine has a long iron thread rod. This is adjusted to the two poles. The one end of the rod has a cutter and another end has a handle. The used plastic bottle should be fixed to the long iron thread rod. Rotate the handle gently. Now with the help of the cutter, the used plastic bottle is converted into a thread.





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Idea/Innovation : A Manual Mobile Phone Charger  
 Awardee : Udegolam Mamatha  
 Reference No : 18AP1440142  
 Class : 8th  
 School Name & Address : Z P H School, Nerimetla,  
 Urvakonda Mandal  
 District & State : Anantapuramu, Andhra Pradesh  
 Guide Teacher : B Ravi Kishore



The student has designed a device that would generate enough current to charge a cell phone battery. Most of the cell phone users have experienced having their cell phones run out of battery while important conversations to avoid this situations a manual mobile charger becomes necessary. This is a quickest way to charge cell phone.



# inspire awards - manak

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Idea/Innovation : Smart India and Digitilisation  
 Awardee : V. Sathvik  
 Reference No : 18AP1444293  
 Class : 9th  
 School Name & Address : GMR Varalakshmi DAV Public  
 School, Rajam  
 District & State : Srikakulam, Andhra Pradesh  
 Guide Teacher : S. Kiran Kumar



At present in India there is no prior information source to identify Fire Accidents, atrocities on Women, terrorist movements and so on. To overcome the current problems faced by India the student has designed the project and introduced the Computer Programme Language for endless possibilities in affected areas better than using sensors. Fire detection and alerting mechanism can be achieved with a computed vision aided with artificial intelligence rather than depending on physical sensors. The project is able to detect the fire, saving women using gestures, movements of terrorists, information of collision of vehicles through digitalisation in an effective way.





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Idea/Innovation : Multipurpose Agriculture Wheel Sprayer and Water sprinkling system  
 Awardee : Vasa Sekhar  
 Reference No : 18AP1444996  
 Class : 8th  
 School Name & Address : Zilla Parishad High School, Kommuchikkala  
 District & State : West Godavari, Andhra Pradesh  
 Guide Teacher : David Raju



The Indian farmers currently uses manual operated backpack sprayer for pesticides. This type of sprayer consists of tank 10 -20 litre capacity carried by two adjustable straps. Constant pumping is required to operate this which result in muscular disorder .Also the backpack sprayer cannot maintain pressure, results in drifts/dribbling. Developing adequate pressure is laborious and time consuming. Back pain problems may arise during middle age due to carrying of 10-20 litre tank on back. This



inspired student to develop a device having multiple functions to ease the work of farmers in the field - "Multipurpose Agriculture Wheel Sprayer and Sprinkling water System". This device aims to reduce work pressure and labour charges of farmers. This multipurpose device is used for spraying pesticides, insecticides and other chemicals, deseeding, ploughing in the sandy and other types of soils.



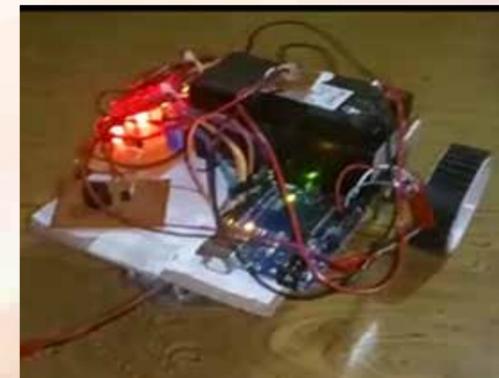
# inspire awards - manak

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Idea/Innovation : Queen - Technology that Helps the Rescue Team in Earth Quake, Disaster Management  
 Awardee : Gundu Meghana  
 Reference No : 18AP1411189  
 Class : 10th  
 School Name & Address : Narayana E Techno School (Kavali)  
 District & State : Nellore, Andhra Pradesh  
 Guide Teacher : Kezia T



Recent kolkata flyover incident in which steel span of the bridge collapsed, trapping many pedestrians and vehicles underneath inspired student to prepare a robot that can reach to people that are caught alive under concrete slidings. The robot is small enough to go in to the gaps between sliding. In future this robot can be equipped with thermal sensors which can detect body temperature and identify the dead ones from alive. A small spy camera can also be used so that the person can operate it from outside using wi-fi. In short duration person alive can be detected and rescued from under sliding immediately.



Meghana, who is an NCC cadet, likes reading books, collecting coins and trekking.



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Idea/Innovation : Low cost ventilator for critical patients  
 Awardee : Prapti Chatterjee  
 Reference No : 18AP1442514  
 Class : 8th  
 School Name & Address : Akshara School  
 District & State : East Godavari, Andhra Pradesh  
 Guide Teacher : Avasarala Sai Prasad



Many precious lives are lost in our country because we are not able to transport a critically sick or injured patient to a well-equipped hospital. Another important rationale is that due to non-availability of high cost equipments we are not able to educate and train health workers in smaller places. This inspired student to develop "Low cost ventilator for critical patients" which can serve the purpose of transporting patients to nearest hospital. If we can keep such machine in each center, our junior level staff will get trained. This ventilator uses rotating motion by a motor which is converted into linear motion used for compressing the ambu bag. Frequency and compression per stroke can be adjusted depending on need of the patient.



Prapti loves reading books and writing poems.



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Idea/Innovation : Air Filter  
 Awardee : D.Nitya Sivani  
 Reference No : 18AP1439377  
 Class : 7th  
 School Name & Address : Saint Augustines English Medium High School  
 District & State : Anantapuramu, Andhra Pradesh  
 Guide Teacher : K Anitha Priyadarshni



Now a day's people living in cities are suffering from both in and out door pollution. Market available air purifiers are not easily affordable because of cost. This inspired student to develop "Air Filter". This air filter is made in the form of air purifying window map. It is made up of non-corrosive & biodegradable chemicals & materials, which includes mesh & cotton cloth, activated charcoal, calcium carbonate, zeolite, silica, colophony, chitosan, sodium alginate, powders of indoor plants and neem powder. This air filter adsorbs both indoor & out door pollutants. It is economic, eco-friendly, portable and works without electricity.



Nitya loves reading books. Her biggest inspiration is Dr A P J Abdul Kalam and Madam Curie.



# inspire awards - manak

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Idea/Innovation : Making condenser at home  
 Awardee : Manepalli Satyanarayana Swami  
 Reference No : 18AP1412180  
 Class : 9th  
 School Name & Address : Z P High School, Butchempeta, Rolugunta Mandal  
 District & State : Visakhapatnam, Andhra Pradesh  
 Guide Teacher : Kalipu Satyadev



The harmful gases which are released by air conditioners and refrigerators are causing a great damage to the ozone layer. To overcome the problem of heat waves and high cost of Refrigerators and air conditioners inspired student to develop "Eco-friendly condenser" at home. This is a low cost condenser which is pollution free

Manepalli likes to observe the surroundings and likes to focus on problem solving.



# inspire awards - manak

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Idea/Innovation : To save children from borewell  
 Awardee : Velagala Prem Aditya Reddy  
 Reference No : 18AP1412302  
 Class : 10th  
 School Name & Address : Z P H School Aravalli  
 District & State : West Godavari, Andhra Pradesh  
 Guide Teacher : E.V. Rama Rao



Recent incident in neighbourhood in which a baby girl fell into borewell inspired student to develop a rescue machine. This machine uses principle of torch for its working. When a baby falls into the bore well, people should not be allowed to gather around that place because it will cause oxygen deficiency to the child. This device will provide oxygen by sending a pipe. A camera can also be connected to watch movements and conditions of the child. After getting to know the depth of the bore well, machine can be send to bring the baby back to safety.

Aditya's biggest inspiration is Dr. A.P.J Abdul kalam, great Indian scientist and motivator who played a leading role in the development of India's missile and nuclear weapons programs. His hobbies include reading science magazines, playing volleyball and cricket. He has keen interest in physics.





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Idea/Innovation : Automatic Drainage Cleaner  
 Awardee : Vadra Sai Ramesh  
 Reference No : 18AP1412139  
 Class : 10th  
 School Name & Address : Z P H School Gajuwaka  
 District & State : Visakhapatnam, Andhra Pradesh  
 Guide Teacher : P Raja Rao



Increased cases of malaria and dengue due to stagnant water and garbage inspired student to develop "Automatic Drainage Cleaner". This project will replace manual workers job with automatic machine. This machine will remove garbage or trash from water, and send it to garbage collector.

Sai Ramesh biggest inspiration behind project is Swatch Bharat Mission. He help his father in leisure time.



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Idea/Innovation : Stick for Blind  
 Awardee : Vemangiri Abhishek  
 Reference No : 18AP141274  
 Class : 9th  
 School Name & Address : Canossa English Medium High School  
 District & State : Visakhapatnam, Andhra Pradesh  
 Guide Teacher : Sheik Karumulla Baba



Student developed a "Stick for Blind" which is not only useful for blind people but also for deaf people. The visulatory system helps the blind and deaf people to avoid obstacles. This stick uses a sensor and adruino board. As the blind person is moving with stick if there is any obstacle in front of him the stick will produce a sound in the stick. This help the blind person to easily escape from the obstacle and reaches his destination safely. This is done due to the action of a factory connected with speaker

The idea came to student's mind when he witnesses a blind person getting hit by a cement pole while walking on the road.

Abhishek biggest inspiration for project is Helen Keller and Mother Teresa. Both dedicated their lives for the service of people. He likes reading story books and playing chess





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Idea/Innovation : Marine Guarding Capsules  
 Awardee : Udayagiri Mahesh  
 Reference No : 18AP1411142  
 Class : 9th  
 School name & Address : ZPHS, Kothapalli  
 District & State : S.P.S.R Nellore, Andhra Pradesh  
 Guide Teacher : K.Sreenivasulu



Observing that fishermen going for fishing with no safety measures in the sea Mahesh conceived the idea to develop Marine Guarding Capsules to help the fishermen during the times of emergency and cyclone. The main problem that fishermen are that there is lack of proper protecting measures when they are in the sea. The guarding capsules which the student is anticipating to float in the sea in any of the conditions, these fishermen can use these Capsules to protect themselves in those dangerous situations. There is a GPS system incorporated in the capsules which can help track them very easily in any situation. Dr A.P.J Abdul Kalam is the inspiration for him. He want to become a scientist.



# inspire awards - manak

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Idea/ Innovation : Solar Dryer Models for Domestic and Grain Crops Purpose.  
 Awardee : Pedada Pavani  
 Reference No : 18AP1444771  
 Class : 10th  
 School name & Address : Z.P.H. School, Nelivada  
 District & State : Vizianagaram, Andhra Pradesh  
 Guide Teacher : P Raghavakumar



Every year huge losses are suffered by farmers of the country especially in rural areas. The loss of crop yields during the time of rains and cyclone inspired student to develop this project. Approximately 20-30% food grains, 30-50% vegetables, fruits, fishes etc are lost before it reaches to the consumers. The project solar dryer developed by the student is capable of drying every type of crop without losing the quality of the crop. It is an innovative project useful for house holders and farmers to dry their food grains and all types of crop yield. There are some methods to use sun light directly and indirectly to dry the crop yields.





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Idea/ innovation : Geothermal Power Plant  
 Awardee : Girijala murali durga simhadri venkata swamy  
 Reference No : 18AP444530  
 Class : 9th  
 School Name & Address : ZP High School, D L Puram  
 District & State : Visakhapatnam, Andhra Pradesh  
 Guide Teacher : T.Siva Jyothi



In order to utilize the heat energy inside the earth the student has developed project geothermal power plant. It explains how heat energy inside the earth can be used in the form of steam. The steam can be used to run turbines and generate electricity.

Geothermal power plant is eco-friendly and cost effective. It is renewable, clean and promising alternative to the fossil fuels.



# inspire awards - manak

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Idea/Innovation : Hacksaw cutter  
 Awardee : S K. Zeenath Aman  
 Ref No. : 18AP1411795  
 Class : 11th  
 School Name & Address : Govt. High School, Yerragondapalem  
 District & State : Prakasam, Andhra Pradesh  
 Guide Teacher : G. Ramakasulu Naik



While observing the wood cutter at Wood Timber depot, an idea in young innovator mind to develop this cutter. It works on the principle of Change in motion i.e. rotatory motion leads to oscillatory motion. Pedal operated system can reduce the effort. Thus to cut PVC pipes, she invented pedal operated hacksaw cutter. Easily available materials are used to make this cutter, like PVC Pipes, T-bends, L-bends, Bolts, Hack saw, Wooden Blocks, Iron block, Vise Slot etc. Firstly, Attach the PVC pipes and T- bends and L-bends in the form of frame. Frame has a pedal. Hacksaw should be attached to the rotator. PVC can be placed under hacksaw in front place. A vise set up should be made to hold the pipes. Place the PVC pipe under Hack saw. Rotate the Pedal. The Hack saw will move in front and back motion. (To and fro motion). Gradually the PVC pipe will be cut. This device can be effectively used in small industries and can reduce electricity loss, can be used for exercise purpose.

S K Zeenath has a keen interest towards Reading books, participating in science activities. She is inspired by Dr. A P J Abdul Kalam and teachers.





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Idea/Innovation : Integrated Fish and Plant Farming  
 Awardee : Kurra Chinna Veera Reddy  
 Ref No. : 18AP1444244  
 Class : 9th  
 School Name & Address : K.R.R. Zilla Parishad High School,  
 H. Nidamanur  
 District & State : Prakasam, Andhra Pradesh  
 Guide Teacher : P.V. Ramanaiah



Aquaponics is the integration of recirculating aquaculture and hydroponics. Thus on reading an article on global warming, health problems in small children's and drought conditions in the district, student experimented with this project. He installed vertical and horizontal pipes with holes in it to arrange holding cups. The roots of the plants enter through the cups. Water from the fish pond is fed to the hydroponic system from pipe to pond. It works continuously and there is less wastage of water by this process.



The wastage from poultry farm is used as a food for the fish. The excreta of fish consist of ammonia (harmful for fish) which is counter balance by the bacteria present in water which converts it into nitrite and nitrates which are essential nutrient for plants. Thus, without using any kind of fertilizer, good variety of plants and vegetables can be grown by these methods.

He has keen interest in playing cricket, reading books. His teachers are the idol and greatest inspiration to him.



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Idea/Innovation : Garbage Drilling Robot  
 Awardee : Bovilla Vidya Sri  
 Ref No. : 18AP1441666  
 Class : 9th  
 School Name & Address : Keshava Reddy E.M. High School  
 District & State : Chittoor, Andhra Pradesh  
 Guide Teacher : M.C. Veerama Naidu

To overcome the problem of water leakage and bad drainage system in Municipalities, the student, Bovilla Vidya Sri came up with the idea of garbage drilling robot by utilizing robotic technology. She used wireless communication through ARDUINO board Bluetooth for drainage system. She used microcontroller, Bluetooth module, motor drive, D.C motors, Arduino Bluetooth (HC-05) as materials.

Vidya is very much fond of reading books, watching scientific programs on Television.



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Idea/Innovation : Water absorbing roads  
 Awardee : Upadhyayula Chandra Sekhar  
 Ref No. : 18AP1443153  
 Class : 8th  
 School Name & Address : TMRMCH School  
 District & State : Vijayawada, Andhra Pradesh  
 Guide Teacher : P. Sri Sarada

In 2015 Chennai city is severely affected because of sewage system blockage. Huge property loss and public life disruption took place. In November 2018 the coastal districts are affected by Pethai cyclone. Crops are submerged, roads and sewage systems are blocked. These issues motivated Upadhyayula Chandra Sekhar to develop this idea. He thought to increase ground water level by utilizing rain water. He used fiber transparent box, baby chips, Coco peat, Water pipes, Card board, Colour papers, Colour stickers, LED bulbs, wire and battery as materials. Student thought of using rain water accumulated on main roads through small channels for every 100/200 meters depending on the average rainfall in the area and utilize the rain water through a pipe having small holes on its surface filled with pervious concrete made with baby chips, cement and water mixed in the ratio 7 : 1 : 0.32. He used pipes of various diameters for same rate of water flow as well as same diameter pipe for various rates of flow of water.



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Idea/Innovation : Solar Power by Zener Diodes and C.D's  
 Awardee : D. David Raj  
 Ref No. : 18AP1439571  
 Class : 10th  
 School Name & Address : Zilla Parishad High School, Khadarpet  
 District & State : Anantapur, Andhra Pradesh  
 Guide Teacher : M.Radha Krishna

Solar energy is a source of renewable source, by using Solar energy we can develop solar power like Technologies, for example photovoltaic's Solar-thermal Energy, Molten Salt power plates and others Solar power is produced by Solar panel that give micro voltage and it is made from 10 Zener Diodes connected in series and is glued on Music "CD". Student claimed that, when the Diodes are connected in series and exposed to the sun light, it can give 0.3 to 0.9 Volts current. This is a simple solar power that produced by a diodes.



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Idea/Innovation : Wattering Terrace Garden by Cycling  
 Awardee : A Dinesh Kumar  
 Ref No. : 18AP1444878  
 Class : 10th  
 School Name & Address : Z.P.H.S, Satrampadu  
 District & State : West Godavari, Andhra Pradesh  
 Guide Teacher : P Venkateswara Rao

Now a days people are well aware of their health and are doing yoga to make them fit, so A Dinesh Kumar thought about the mechanism of watering terrace garden by cycling, which can fulfil dual purpose. He has taken a bicycle and removed the tyre of the back wheel and the rim is connected to a pulley with a belt drive. The pulley is connected to the piston of the hand pump with the help of iron rod and ball bearings. The water inlet of the hand pump is immersed in the water. When someone start cycling, the back wheel will start to rotate and automatically the pulley will rotate which will help to move the piston of the hand pump. As a result, water can be lifted easily through the tube. The principle involved in this project is conversion of rotator motion into up-and-down motion.



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Idea/Innovation : Save Energy  
 Awardee : Gandi Siri  
 Ref No. : 18AP1444823  
 Class : 7th  
 School Name & Address : Zilla Parishad High School, Cherukumilli  
 District & State : West Godavari, Andhra Pradesh  
 Guide Teacher : Z V Satyanarayana

Gandi Siri came up with an idea of a multipurpose gas stove, which can be used to save energy and money. She installed a 2 meters copper wire on the setup through which the fluid (steam and water) will flow. Copper pipe is provided which is rolled on the top portion of the stove. She claimed this as a household women friendly project. Student hobbies are cooking food, doing experiments and preparing different innovative projects.



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Idea/Innovation : Railway Track Fault Detection  
 Awardee : S.Shahid  
 Reference No. : 18AP1440615  
 Class : 9th  
 School Name & Address : Z.P.Highschool, Theertham  
 District & State : Chittoor, Andhra Pradesh  
 Guide Teacher : K Chittibabu

Safety has been one of the biggest concerns in the Indian railway system. A news report about railway accidents in Jharkhand caused due to the derailment of coaches caught Shahid's attention and intrigued him to make a device that can be fitted along a railway track to detect cracks. He thought of detecting faulty railway tracks without any human intervention (by Robot). I.R Sensors are fitted on robot.

S.Shahid likes to do school level Projects, Book Reading, Cycling, reading journals etc.



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Idea/Innovation : GSM Based Home Automation  
 Awardee : R Muddu Krishna  
 Reference No. : 18AP1440220  
 Class : 8th  
 School Name & Address : Z.P.High School, Ramanpalli  
 District & State : Kadapa, Andhra Pradesh  
 Guide Teacher : D Nageswar Rao

Student while going outside his house, used to forget to switch off the appliances. So he developed a device by which he can control the appliances in the house. In this device he is using a microcontroller which can control the appliances from the mobile phone. GSM technology is used to receive the messages and will be connected to controller. Relay is used for switching the appliances ON and OFF. LCD is used to display the messages which received by the GSM.

R Muddu's biggest Inspiration is his parents and the surrounding in which he is raised.



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Idea/Innovation : Automatic Dam Gates Open  
 Awardee : S.M. Syed Hussain  
 Reference No. : 18AP1409463  
 Class : 9th  
 School Name & Address : Z.P. High School, E. Ramapuram  
 District & State : Kadapa District, Andhra Pradesh  
 Guide Teacher : M Sreenivasulu



Student read a newspaper article about floods in A.P, in which many people had died and lost their properties. This inspired him to come up with an idea of how to control the flood water. He made automatic dam gates open system. During heavy rains, the dam filled with water is beyond the limit and is often dangerous. To cater this problem, the gate of dam will open automatically and will save the public and their properties. Gates are made using lightweight material and is connected with floater. To open the dam, the floater comes up and attract the magnets to open the dam and rings the buzzer.

S.M. Syed Hussain likes to read the scientific articles, watching national geographic channels, playing games, collecting news paper articles.



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Idea/Innovation : Cellphone Controlled Spy Vehicle (Robot)  
 Awardee : N. Lakshmi Priya  
 Reference No. : 18AP1443510  
 Class : 9th  
 School Name & Address : Good Shepherd E.M School, Nandyal  
 District & State : Kurnool, Andhra Pradesh  
 Guide Teacher : Paul Dev Kumar

After seeing the tragic death of our soldiers encountered by the terrorist, N. Lakshmi priya got this idea to make something to save the lives of our soldiers and to preserve the sovereignty of our country. In this project a GSM and GPS wireless system is used in which spy vehicle can be operated with a mobile using GSM system. The location of the vehicle can be detected by using GPS system. A camera is fixed to the vehicle which sends the images of the vehicle so that we can move the vehicle in required direction by giving instructions from our mobile phone. And also we can detect the surroundings near the vehicle like movements of any anti social elements so that we can take necessary military actions.

N. Lakshmi priya likes dancing, Reading books, Essay Writing, Elocution, and Quiz.



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Idea/Innovation : Smart gloves for speech less people  
 Awardee : U.Rajeswari  
 Reference No. : 18AP1440248  
 Class : 9th  
 School Name & Address : Z.P.H.School, Dommaranandyala.  
 District & State : Kadapa, Andhra Pradesh  
 Guide Teacher : K Chandra Sekhar

Student witnessed dumb or physically challenged people facing difficulties in their day to day life. This motivated her to develop "Smart gloves for speech less people". Smart speaking glove is a glove fitted with flex sensors. Flex sensors are used to sense the finger movements. According to change in finger movements the resistance values of sensor will change. These digital values are display on LCD. The purpose of this project is to reduce the communication gap between speechless people and normal people.

U.Rajeswari likes reading magazines and watching T.V.



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Idea/Innovation : Innovative method injection borewell to raise ground water  
 Awardee : T Ramalakshmi  
 Reference No. : 18AP1443516  
 Class : 10th  
 School Name & Address : Z. P. H. S Chapirevula  
 District & State : Kurnool, Andhra Pradesh  
 Guide Teacher : K V Subba Reddy

After seeing the water problem arising in summer due to less rain fall in her village, Ramalakshmi thought of an innovate idea to soak the water in to the bore well by injuction process to raise ground water. Around the Bore Well she made pitins quire shape of 6x6 feet area with six feet's depth and is filled with charcoal, sand and pebbles which promote the water filtration capacity to rise the groundwater. This reduces the fluoride content in the ground and acts as a germ check to protect man from water born diseases.

T Ramalakshmi like reading science magazines, visiting fields and doing science projects.



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Idea/Innovation : Floating house to resist the floods of climate change  
 Awardee : V.Sreedevi  
 Reference No. : 18AP1440842  
 Class : 10th  
 School Name & Address : ZPHS, Gutharlaplli  
 District & State : Chittoor, Andhra Pradesh  
 Guide Teacher : A Sujatha

After watching the panic scenes of Hudud and Kerala Floods and Nepal Earth Quakes from television, newspapers V.Sreedevi thought of Floating house to resist the floods due to climate change. It works on Archimedes principle that the volume and mass of the house is less than the equitant water creating Buoyancy. Four strait and pillars are fixed on the four corners. Four pipe like structures are fit around the pillars, then we attach these pipes to the base of the house. Then buoyancy blocks are fixed at the bottom of the house.

It is her teacher who motivated her to work on the trending issues and supported her to work on this. Sreedevi aspire to become a scientist.



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Idea/Innovation : Tree Shifter Hydraulic Machine  
 Awardee : Chiriki Varshini  
 Reference No. : 18AP1444346  
 Class : 10th  
 School Name & Address : Kasturbha Gandhi Balika Vidyalayam, Anandapuram  
 District & State : Visakhapatnam District, Andhrapradesh  
 Guide Teacher : M Shanti Lata

When Chiriki Varshini came from Anakapalli to Anandapuram, she saw that many trees were cut down for extension of Roads. She asked her teacher, is there any possibility to replant this Trees at another place. Her teacher suggested this idea of tree shifter hydraulic machine. For this we have to bring the device near the tree, then the blades will surround the tree and uproot it. Then we will replant it in other planned area.

Chiriki Varshini likes innovative thinking, reading story and playing games.



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Idea/Innovation : Aquaponics – Farming of the future  
 Awardee : G.Varsha kumari  
 Reference No. : 18AP1441427  
 Class : 10th  
 School Name & Address : Z P H S, Mellacheruvu, Piler Mandal  
 District & State : Chittoor Distrct, Andhra Pradesh  
 Guide Teacher : B.Kusumamba

After observing the scarcity in natural resources, Varsha thought of sustainable use of land, water and other natural resources. Aquaponics combines hydroponics with aquaculture. Hydroponics is the science of growing plants without soil in nutrient-rich water. The nutrients are exactly tailored to nourish and meet the growth requirements of the plants.

Varsha's inspiration is her mother, father and her school Teachers. She loves to observe the nature. Her hobbies include playing indoor games, participating in cultural activities, dance and music.



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Idea/Innovation : Preventive Measure to Eradicate Boat Accidents Using Technology  
 Awardee : M. Mounika Devi  
 Ref No. : 18AP1442727  
 Class : 9th  
 School Name & Address : ZPGHS, Ramachandrapuram  
 District & State : East Godavari, Andhra Pradesh  
 Guide Teacher : A. Vara Lakshmi

M. Mounika Devi came up with the idea to eradicate Boat Accidents. She arranged water based balance support on either side which is balancing the boat. She prepared metal boat, in the boat two motors are fixed to left and right side at the bottom inside of the boat. Inlet of the motors is drown in water through the holes of the boat and sealed. Outlets are connected to two bottles either side of the boat through pipes. These motors are connected to two 6V batteries which are connected in series. On three sides of the boat (left, right, back) the water sensors are connected through electrical wires. Now she kept the device kept in the water for working. When the boat overloads towards right where there is a motor started working automatically by using water sensors. It works and pumping the water through pipes to left side of the boat. Similarly left side motor also working the same process is working accordingly. When overload back side of the boat it signals and gives buzzer alert. These arrangements are made accordingly connected in circuit.



## inspire awards - manak

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Idea/Innovation : Paper Recycling  
Awardee : Peddy Reddy Kalyani  
Ref No. : 18AP1443681  
Class : 9th  
School Name & Address : K .G.B.V.S, Nandipadu, Duttalur  
Mandal  
District & State : Nellore, Andhra Pradesh  
Guide Teacher : M. Indrasen

While reading the news about increasing Environmental Pollution, Kalyani got the idea of recycling paper and stopping the use of plastics. Kalyani believes that this will save Biodiversity, control water pollution and help the country to accomplish the objective of Swacch Bharat. Kalyani likes reading books.

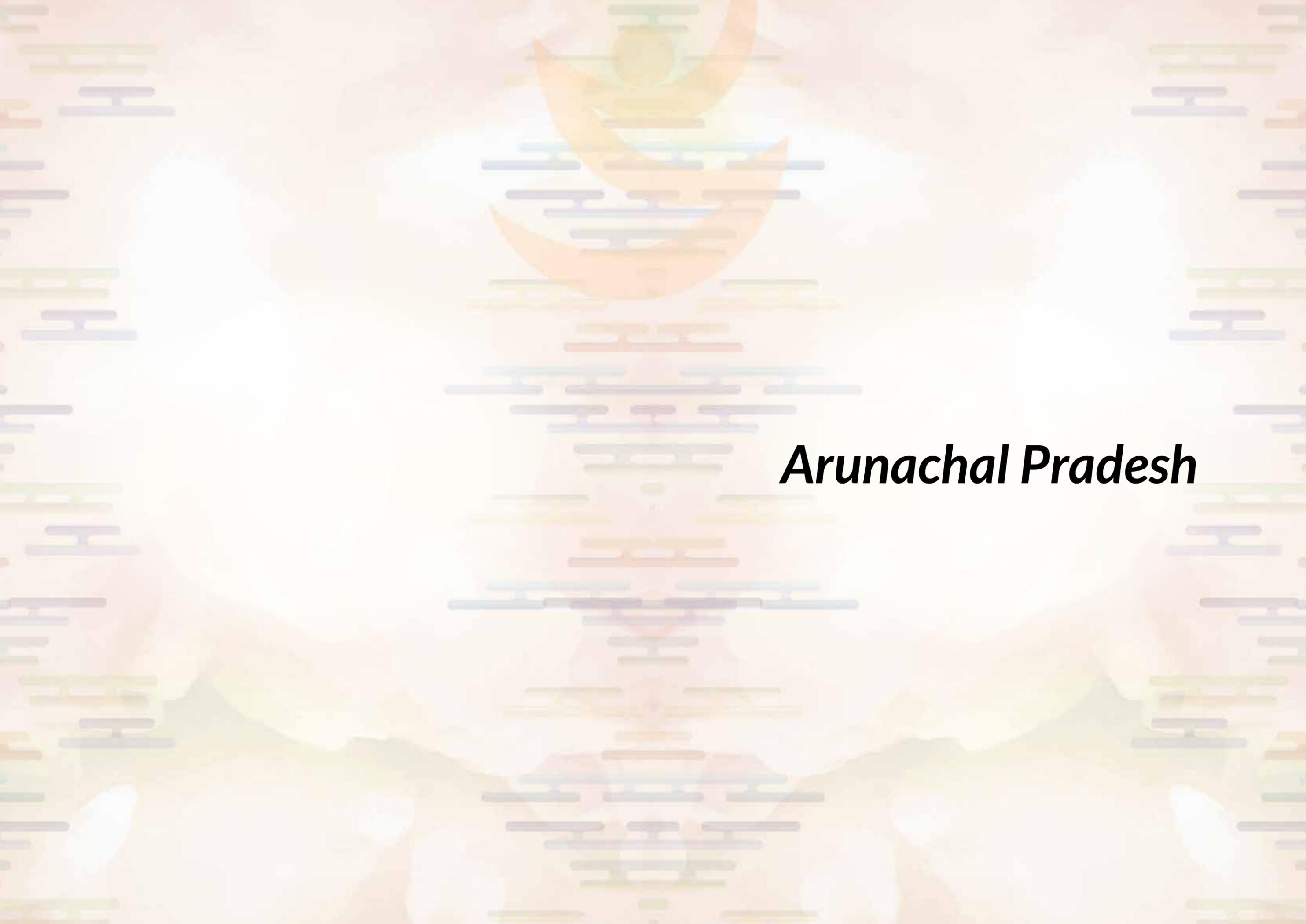


## inspire awards - manak

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Idea/Innovation : Poorman Home Made Aircooler  
(Cum Room Heater)  
Awardee : P. Meera  
Ref No. : 18AP1441555  
Class : 9th  
School Name & Address : Z.P.High School,  
Parameswaramangalam  
District & State : Chitoor, Andhra Pradesh  
Guide Teacher : S. Gajarajan

Looking at the problem of affordability of Air cooler and room heater by poor people Meera came up with an idea of developing poor man's air cooler cum room heater which is a gift for poor families which is affordable and works as cooler in summer and room heater in winter. Meera's hobby is to research and invent something new, she also loves reading science based news and facts.



# ***Arunachal Pradesh***



# inspire awards - manak

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Idea/Innovation : Baggage Security System/  
Consignment tracker

Awardee : Debanil Roy

Reference No. : 125257

Class : 9th

School Name & Address : Vivekananda Kendra Vidyalaya,  
Itanagar

District & State : Papumpare, Arunachal Pradesh



The idea of developing a baggage security system came in student's mind when he heard about various stories of thefts and shopliftings. The device developed by him keeps track of the items connected to it; it assures the safety of the item. A minicomputer, a 4G modem and power bank is needed to operate the device. The unique idea of tracking consignment involves usage of 4 G modem instead of GPS which reduces the cost of operations.



Debanil wants to become an engineer. He believes- 'Knowledge is like a tree, rather than taking it will always give something'



# inspire awards - manak

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Idea/Innovation : Solar Wheelchair for Differently  
Abled People

Awardee : Rinu Doji

Reference No. : 126174

Class : 8th

School Name & Address : Vivekananda Kendra Vidyalaya,  
Jirdin

District & State : West Siang, Arunachal Pradesh



Student got an innovative idea of solar powered wheelchair for differently abled person when she was in hospital, she observed the commuting difficulties being faced by the differently abled persons. Additionally they were dependent on someone for their movement. It will facilitate movement of a person through GPS tracker, the wheels are propelled by battery which is charged by sunlight. Rinu dreams to become a doctor. She believes; 'Necessity is the mother of invention'





# inspire awards - manak

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Idea/Innovation : Scarcity of water and proper irrigation system  
 Awardee : Minto Koyu  
 Reference No. : 18AR1439361  
 Class : 10th  
 School Name & Address : Vivekananda Kendra Vidyalaya, Itanagar  
 District & State: Papumpare, Arunachal Pradesh  
 Guide Teacher: Aurobindo Mohanty



Minto saw poor farmers struggling for water for irrigation in North east and other hilly areas. He thought of developing some sustainable solution where villagers can conserve water for self-consumption and can also use for irrigation. The idea of Minto is to utilize stream water for pounding cereals grains such as rice or wheat without the use of electricity just as the "Gharat water mills" and to meet the solution for scarcity of water in remote hilly village lying nearby the streams. The stream water is made to flow through the G.I pipe (Galvanized Iron) and is used for pounding of rice/ wheat or other cereals through water mill. The waste water coming out through the mill will be used for irrigating vegetable farm located at lower slope. The rest of the water flowing through the "Man-made streams" will be stored at a water reservoir or water harvesting structure. Because of the flow of water from higher elevation to lower elevation under the gravitational force, the water can be pump back to villages located at higher elevation by means of pump which runs without electricity such as ram pump. The water is then further utilized for micro-irrigation the small pipes containing drip.



Minto likes reading chemistry and travelling to different places.



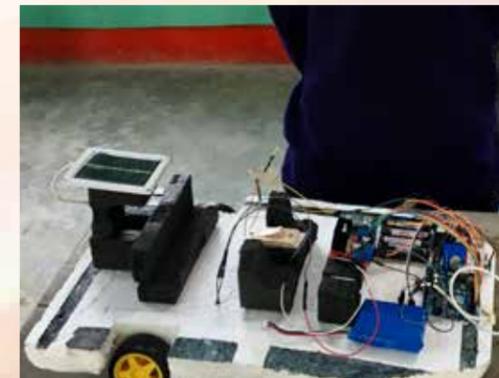
# inspire awards - manak

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Idea/Innovation : Automatic Solar and Electric Vacuum Vehicle  
 Awardee : Nalo Nalo  
 Reference No. : 18AR1439360  
 Class : 7th  
 School Name & Address : Vivekananda Kendra Vidyalaya, Itanagar  
 District & State : Papumpare, Arunachal Pradesh  
 Guide Teacher : Aurobindo Mohanty



Nalo came up with idea of automatic and solar based electric vacuum vehicle as they are Eco-friendly, quiet, they have zero emission level thus reducing ecological damage and use of fossil fuel. His idea is to develop a vehicle which is Automatic and based on the availability it either runs on Solar or through vacuum principle based on electricity. Nalo is nature loving and wants to protect environment from his project thus improving air quality, reduce congestion and providing clean, reliable and affordable energy to the people.



Nalo likes playing chess and reading science facts and figures.



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Idea/Innovation : Aerobic Composter  
 Awardee : Akshitha Sivasdas  
 Reference No. : 18AR1439355  
 Class : 7th  
 School Name & Address : Vivekananda Kendra Vidyalaya,  
 Tafrogam  
 District & State : Lohit, Arunachal Pradesh  
 Guide Teacher : Ashok Singh



Inspired by Swacch bharat mission student wanted to develop a compost pit which does not smells bad, she observed two problems that were coming when people were making compost pits. First was bad odour coming from the pit and second was the constraint of space for people who stay in urban areas. So, Akshitha thought of developing a compost pit that is overcoming these problems, Aerobic composter developed by her has added advantage of fastening the process of composting the volume that can accommodate is 0.209 m<sup>3</sup> & length and radius is 85 cm, 28 cm respectively. Aerobic composter developed by her is light in weight, portable and affordable. Akshitha likes reading and learning new things especially books related to science.



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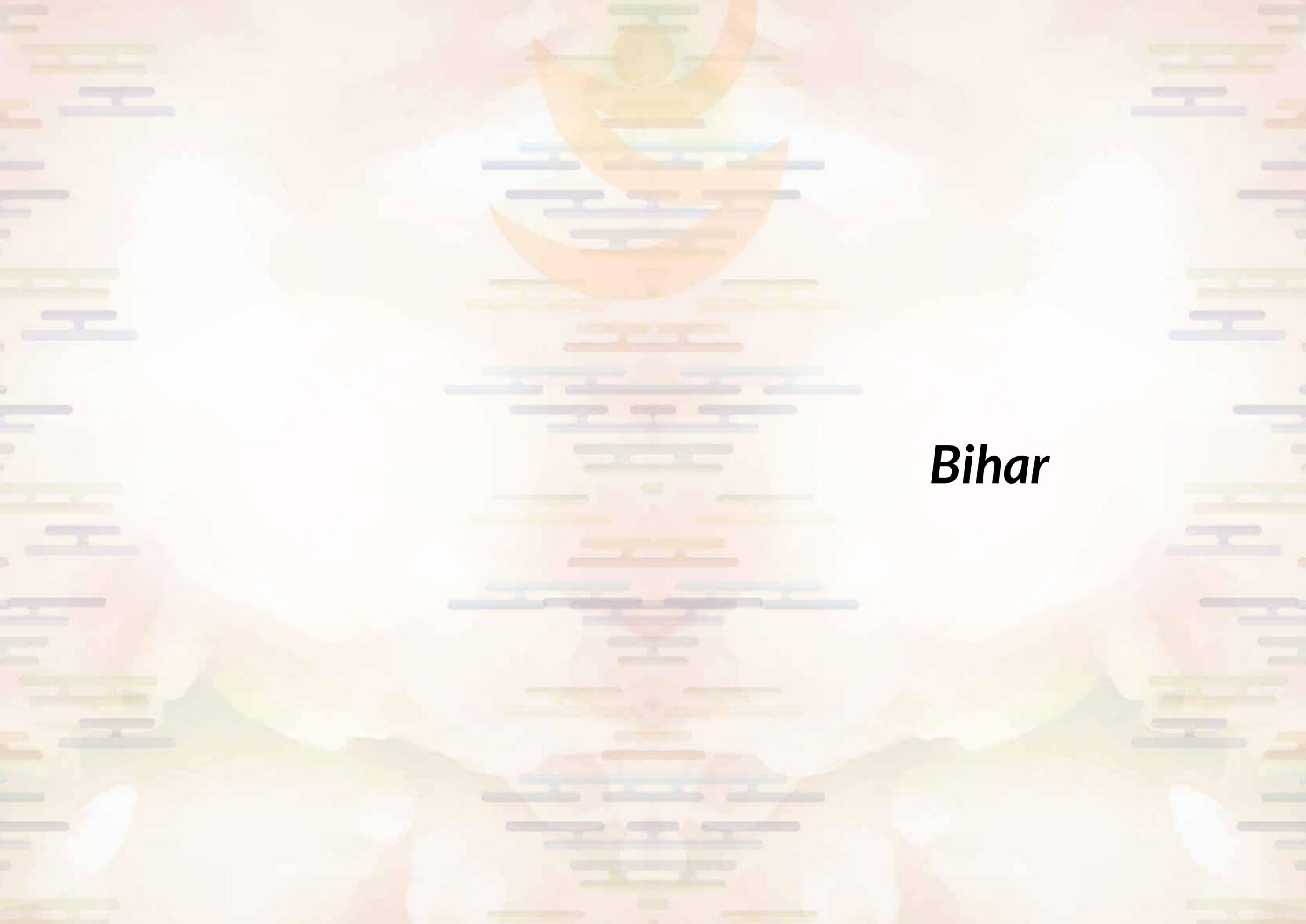
Idea/Innovation : Fibre from Stinging Nettle Plant  
 Awardee : Tannu Khamblai  
 Reference No. : 18AR1439357  
 Class : 10th  
 School Name & Address : Vivekananda Kendra Vidyalaya,  
 Tafrogam  
 District & State : Lohit, Arunachal Pradesh  
 Guide Teacher : Ashok Singh



Stinging Nettle plant is a widely distributed plant that grows very easily on damp disturbed ground. It has been used since traditional times as fodder for livestock and to make tea and a plant dye. Student also read somewhere about the environmental damage caused by the production of fabrics, so, she came up with new ecologically friendly fabric stinging Nettle plant. For the first time she saw her grandmother using the nettle plant after researching on it she got the information that Nettle plant was used in traditional time to make fibres. The idea is to harvest the stem of nettle plants, then the epidermis is taken and boiled to extract the fibre, once it is boiled it is made run through running water then dried in sunlight and then the yarn is weave into yarn ball.



Tannu likes reading novels.



***Bihar***



# inspire awards - manak

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Idea/Innovation : Mosquito Repelling Machine

Awardee : Aman Kumar

Reference No. : 18BR1408894

Class : 9th

School Name & Address : M J.N. Giri J.N. Shah H.S. School  
Chak- Sikandar, Vaishali

District & State : Vaishali, Bihar

Guide Teacher : Mr Ashok Kumar



This is a small machine of the size of a container, with a small fan inside it to help diffuse the organic solution into the air that would repel mosquitoes. The oil has neem, mint, garlic, marigold and rose extracts which are completely harmless and would also remove any bad odour present inside the room.

Aman aspires to serve society and create a significant impact through his work.



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Idea/Innovation : Reinforcement of roof and road by  
homemade slab

Awardee : Chandra Mohan

Reference No. : 18BR1408791

Class : 8th

School Name & Address : Prarambhika School

District & State : Patna, Bihar

Guide Teacher : Pankaj Kumar



Chandra has come up with an innovative homemade slab made of coconut fibre, calcium oxide powder (CaO) and jaggery to repair the leakages that occur on rooftops and roads. The ingredients provide a formidable binding at a very low cost, which makes it suitable for use even in rural and remote areas.

Chandra dreams of serving the nation by becoming a doctor or joining the Indian Navy in the future.





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Idea/Innovation : Mobile Charging with sound  
 Awardee : Hemant Kumar  
 Reference No. : 18BR1408861  
 Class : 10th  
 School Name & Address : Gram Panchayat High School  
 District & State : Sheikhpura, Bihar  
 Guide Teacher : Manoranjan Kaushik



Hemant has come with an innovative idea of charging cell phones using sound energy. In his project, he has mainly used sound energy produced from the noise of running a generator. Hemant is always on the lookout for new technologies and he loves to read about them and implement something using them.



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Idea/Innovation : Water Hyacinth used as Biofertilizer on Wheat crop  
 Awardee : Hritik Kumar  
 Reference No. : 18BR1408675  
 Class : 9th  
 School Name & Address : High School Beri  
 District & State : Aurangabad, Bihar  
 Guide Teacher : Amit Ranjan



Hritik's innovation is that of a biofertilizer, which is both harmless and low cost. It is completely safe for use on plants as no harmful chemical goes into its making, and the low cost can be attributed to the utilization of water hyacinth in its composition. Hence, it provides the necessary nutrition to plants on a routine basis with no harmful repercussions. Hritik likes to stay updated on all the new technologies and innovations happening in the field of engineering.





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Idea/Innovation : Self Installed Cloth Dryer  
 Awardee : Siddharth  
 Reference No. : 18BR1408633  
 Class : 7th  
 School Name & Address : D.A.V. Public School  
 District & State : Aurangabad, Bihar  
 Guide Teacher : Jitendra Kumar



Realizing the importance of electricity conservation while growing up, Siddharth came up with a Self-Installed Cloth Dryer, which can be used to dry as well as iron clothes in a very short span of time. It works on the principle of conversion of solar energy into heat and wind energy and thus is highly useful for remote areas with no/limited electricity. It has a simple wooden box, black from inside to block all reflections, and few aluminium rods with motors inside them so that they roll the clothes placed over and create strong reverse heat through sunlight and black body radiation. Siddharth takes a keen interest in new discoveries and innovations and is particularly keen on working to solve the energy crisis.



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Idea/Innovation : The Smart Blind Walking Stick  
 Awardee : Kumar Sanchay Vijay  
 Reference No. : 18BR1445175  
 Class : 9th  
 School Name & Address : D.A.V Public School Aurangabad  
 District & State : Aurangabad, Bihar  
 Guide Teacher : Jitendra Kumar



Visually impaired persons find themselves in the midst of a difficult challenge every time they try to go out independently. In a bid to decrease their dependence on helping hands around, Jitendra developed a smart blind walking stick with improved navigation, which works like an artificial vision and alarm unit. It consists of various sensors and microcontrollers which will receive and process the signals. He has made use of wireless RF- based remote to track this stick in case the user forgets it somewhere. Sanchay aspires to become a scientist.





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Idea/Innovation : Solar Crop Cutter  
 Awardee : Manish Kumar  
 Reference No. : 18BR1445178  
 Class : 10th  
 School Name & Address : S.B. High School  
 District & State : Aurangabad, Bihar  
 Guide Teacher : Mohan Kumar Mehta



Agriculture, along with its allied sectors, is the largest source of livelihood in India serving over 70 percent of our rural households, of which 82 percent are small and marginal farmers. In order to help his father who slogged away day and night in his fields, Manish thought of utilizing the abundant solar energy to drive power for crop cutting. Thus a solar-powered crop-cutter was designed and developed by him, based on the general principle of mowing. It is easy to use a machine.



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Idea/Innovation : Remote Sensor Lock  
 Awardee : Anand Vijay  
 Reference No. : 18BR1445229  
 Class : 9th  
 School Name & Address : S.N.P.M.2 High School Madhepura  
 District & State : Madhepura, Bihar  
 Guide Teacher : Raj Kumar



Increasing incidents of burglary and theft in the neighbourhood inspired Anand to make a remote sensor lock. This lock works on the principle of wave theory. When you press the lock button of remote, the system locks down the gate, and the same is indicated by an LED. An alarm circuit is also attached to it. If in any situation the lock is operated without remote and the door is moved from its required place, the door will get attached and the circuit will produce a siren. In emergency cases such as fire, the door shall open automatically. In case some person uses force beyond 125 decibels, the system will initially create a warning before producing an alarm. His hobbies include drawing and listening to music.





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Idea/Innovation : A Railway Station That Produces Its Own Electricity  
 Awardee : Punya Purushottam  
 Reference No. : 18BR1445235  
 Class : 9th  
 School Name & Address : Kendriya Vidyalaya Khagaul  
 District & State : Patna, Bihar  
 Guide Teacher : Dr A K Sangahi



In this age of increasing costs and diminishing non-renewable energy supplies, it has become a necessity to come up with new and cost-effective ways of producing energy. Punya targets to minimize the cost of producing energy by covering platforms of busy railway stations like New Delhi and Chhatrapati Shivaji Terminus, Mumbai, which will serve more than five lakh commuters with piezoelectric sensors daily. These sensors will deliver an electric charge when mechanical stress (walking) is applied. This method of producing electricity is cost-effective and can be used at various public places like malls, bus stops, jogging tracks etc. His biggest inspiration is his father and he loves to cycle and read non-fiction.



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Idea/Innovation : Cleaning of Toilet on the Washroom Wall by Using Waste Vehicle Wiper  
 Awardee : Harsh Raj  
 Reference No. : 18BR1445237  
 Class : 7th  
 School Name & Address : Prarambhika School  
 District & State : Patna, Bihar  
 Guide Teacher : Pankaj Kumar



Harsh belongs to the area where people still use Indian toilets. Generally, after such calls, people wash only the surface and ignore the walls. Because of this washroom walls stay infected. He noticed the same while travelling in Rajdhani Express and thus developed a unique motorised wiper for cleaning washroom walls. If a person urinates on the walls then to clean, wiper system can be switched on which will sprinkle (kitchen and wash basin wastewater along with neem extracts) water on the walls. This project will help in maintaining hygiene and improving bad odour at a low cost.





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Idea/Innovation : Reclamation of Alkaline Soil by Mixture of Blue Green Algae and Press-Mud

Awardee : Abhinav Kumar

Reference No. : 18BR1445238

Class : 9th

School Name & Address : Prarambhika School

District & State : Patna, Bihar

Guide Teacher : Pankaj Kumar



In India, saline soil is found in many states such as U.P., West Bengal, Punjab, Bihar, Orissa, Maharashtra, Tamil Nadu, M.P., Andhra Pradesh, Gujarat, Delhi and Rajasthan, covering an area of about 7 million hectares. Due to excessive accumulation of salts, saline concentration becomes high, which decreases absorption of nutrients by plants and causes plasmolysis of cell cytoplasm in plants, which may be fatal sometimes. All these effects are responsible for the stunted growth of plants. This motivated Abhinav to make a low-cost treatment solution of soil. He reclaimed the alkaline soil with a mixture of blue-green algae and press-mud in appropriate proportion. This reclamation process resulted in turning an unsuitable land to the one suitable for farming.



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Idea/Innovation : Using of U.V Light inside Drawers to Sanitize Our Daily Useable Things

Awardee : Uday Kumar

Reference No. : 18BR1445242

Class : 9th

School Name & Address : F.N.S Academy

Guide Teacher : Mr Sanjay Kumar Jha

District & State : Patna, Bihar.



Uday read an article which stated that smartphone and paper money has 10 times more germs than a toilet seat. This means a lot of people on a daily basis being exposed to so much risk of falling sick. Besides this, his father works in a shop where there is a daily exchange of goods and money. This inspired Uday to take up the project for sterilization of shopkeeper's drawer, as phones and paper money are not washable. In this drawer, the shopkeeper can keep money which will be sterilized when the drawer is locked. To be safe from direct contact with UV radiations, he has used a switch and LED light as an indicator. His hobbies include reading about science and its latest trends.





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Idea/Innovation : Potential Food War and Its Solution  
 Awardee : Aditya Kumar  
 Reference No. : 17BR1397488  
 Class : 9th  
 School Name & Address : Chaman Sah Saraswati Vidya Mandir, Jagatpur, Banka  
 District & State : Banka, Bihar  
 Guide Teacher : Vinod Kumar



Due to increasing population in cities, towns and rural areas, it is going to affect the agricultural land and agricultural produce which may lead to food crises in future. The student has found the solution such situation arising out due to population and more and more construction in agriculture land. The project shows how to use fewer resources to increase the crop production. The less land is required for the project to execute the farming process.



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Idea/Innovation : Wind Mill  
 Awardee : Anjali Kumari  
 Reference No. : 16BR1347298  
 Class : 10th  
 School Name & Address : Government senior secondary school, Tilouthu, Rohtas  
 District & State : Rohtas, Bihar  
 Guide Teacher : Sanjay kumar Maurya



Most of the rural areas have erratic electricity problem due to obvious reasons. In order to overcome this problem the student has developed a windmill having more efficiency to generate the electricity using wind energy. The electricity problem in the village motivated her to develop this project.





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Idea/Innovation : Advance Railway Safety System  
 Awardee : Maghvendra Kumar  
 Reference No. : 16BR1346828  
 Class : 10th  
 School Name & Address : G.M.Inter School Jehanabad  
 District & State : Jehanabad, Bihar  
 Guide Teacher : Dr. Sanjay Kumar



Many people die on railway tracks as they are unable to predict the exact train timing. A large number of people die due to train accidents. In order to prevent the chances of accidents on railway tracks the student has developed the advance railway safety system to keep track on the arrival and departure of train.



In India the train moves at an average speed of 140 km per hour and the average speed of passenger/goods train moves at 60 km/hr. The sensors will be installed at level crossings which can detect the arrival of train at the distance of 3 kms, thus the gate will not be closed for more than 4 minutes. The proposed technique uses to IR sensor, one pairs DC motor, one buzzer, Arduino UNO R3 pinot board, and microcontroller, some wires and Screws for the automation process of railway gates operation.

Dr A.P.J Abdul Kalam is the biggest inspiration for Maghvendra.



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Idea/Innovation : Sewage Treatment Plant  
 Awardee : Mukesh Kumar  
 Reference No. : 16BR347020  
 Class : 12th  
 School Name & Address : Inter School Pakariya  
 District & State : Nawada, Bihar  
 Guide Teacher : Kanchana



The water scarcity is one of the biggest issues that world is facing today. Lot of water is wasted and flowing river water is not safe for drinking and the situation is going from bad to worse with every passing day. After observing this problem the student has designed the project sewage treatment plant is to purify the waste and dirty water for to make it suitable and safe for drinking. The water is treated through a chain various processes to remove the physical, chemical and biological impurities from water before drinking.





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Idea/Innovation : Energy Salt Water  
 Awardee : Sahil Raj  
 Reference No. : 17BR1397804  
 Class : 9th  
 School Name & Address : Rama Krishna Mission Vidya Mandir  
 District & State : Katihar, Bihar  
 Guide Teacher : Santosh Kumar



In order to overcome the problem of electricity in future the student has prepared the project using salt water to generate electricity. It requires simple and eco-friendly components to produce electricity at low cost. As we know that the resources of our planet are depleting day by day. The using of resources which are available abundantly will be the new way generating electricity in future.



The great scientists Sir Albert Einstein, Nikola Tesla and Dr. APJ Abdul Kalam and Sir Stephens Hawking are inspiration for Sahil.



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Idea/Innovation : Fire Alarm  
 Awardee : Md. Alamgir Ansari  
 Reference No. : 16BR1346641  
 Class : 10th  
 School Name & Address : +2 High School Balapur, Belaganj (Gaya)  
 District & State : Gaya, Bihar  
 Guide Teacher : Md. Mustaq Ahmad



When Alamgir was in 8th standard, one of the families in his colony had a huge loss because of the fire that got caught in his house. He thought of developing a solution where the person is warned in case of fire. A fire alarm system has a heat and flame detector system, which in contact with smoke, fire or other emergencies alarm will start buzzing. This would help a person in preventing himself from various accidents. Alamgir loves new technology and likes reading about astronomy.





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Idea/Innovation : Safety House Device  
 Awardee : Nishant Kumar  
 Reference No. : 16BR1347528  
 Class : 10th  
 School Name & Address : Raj Rajeshwar +2 High School  
 District & State : Sheikpura, Bihar  
 Guide Teacher : Mithlesh



Nishant got the idea of making a safety house device when one of his friend's family was travelling to another state and in their absence, their house was robbed. He thought of developing a Safety House device which will not only prevent robbery but also make your home smart by providing fire alarm, gas leakage alarm etc. The device developed by Nishant works on Arduino and microcontroller and is affordable for everyone. The device assists the person to intimate police or relative through the call in case of an emergency like robbery, fire etc. to take appropriate action.



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Idea/Innovation : Alternative source of Energy  
 Awardee : Udit Narayan  
 Reference No. : 16BR1346972  
 Class : 10th  
 School Name & Address : Inter School Hisua  
 District & State : Nawada, Bihar  
 Guide Teacher : Madhukant Kumar



Udit's idea is to create an alternative source of energy from the waste of a papaya tree. He resides in a village in Bihar where there is a severe crisis of electricity and fossil fuels, as they are both limited and pollute the environment. One day while reading he got to know about electricity generation from acid and the idea struck his mind and he started hunting for other sources of electricity. He observed that after the maturity the leaves of Papaya trees fall, he came up with the idea of a generation of electricity from the waste of Papaya tree. Udit likes travelling and reading books.





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Idea/Innovation : Waste Water Purification  
Awardee : Shraddha Sandilya  
Reference No. : 16BR1346668  
Class : 9th  
School Name & Address : Delhi Public School  
District & State : Gaya, Bihar



The project waste-water purification is subdivided into various fields leading through a detailed study of various ways to purify waste-water in individual households, and is dedicated for the poorer sections of the society. The project deals with a handy, economic and accessible way to purify waste-water for drinking purposes in individual households using some of the economic wastes of the globe. There's no need for any investment or sanction of funds by the government, there is just the need of awareness.



The unavailability of proper drinking water and the unsatisfactory suffering faces of poor people still after lakhs of innovations and their initiation motivated Shraddha to develop this idea with an objective to provide poor people an independent, economic and handy method to purify waste-water utilizing some of the economic waste of the globe.

## Chandigarh



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Idea/Innovation : Gas Level Indicator and Leakage Detector  
 Awardee : Shreya Sharma  
 Ref No : 18CH1428159  
 Class : 8th  
 School Name & Address : St. Kabir Public School  
 Union Territory : Chandigarh  
 Guide Teacher : Vaishali Sharma



Running out of gas at peak hours is something we all would have experienced, and we are all aware that gas leakage can result into a major accident. Having been in situations where there was a shortage of gas, Shreya came up with this innovative idea. This project has two main components- Pressure meter attached to a regulator, an alarm and an LED and Arduino UNO, pressure sensor, an LED and a buzzer



These components help monitor the gas level with the help of sensors and detect leakage of gas. The buzzer gives an alert in case of a gas leak. The sensor readings can also be read on electronic devices like laptop, mobile phones, etc. The device would enable individuals and communities to monitor usage of gas and plan accordingly. It also has the potential to drastically bring down accidents caused due to leakage of gas. Shreya loves dancing, sports and is also interested in arts. She has also been an active participant of Olympiads and quizzes.



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Idea/Innovation : Smart Helmet Safety System  
 Awardee : Rachita Bhandari  
 Reference No. : 18CH1428170  
 Class : 10th  
 School Name & Address : Govt. Model Sr. Sec. School Sector 35D, Chandigarh  
 Union Territory : Chandigarh  
 Guide Teacher : Sapna Solankey & Mamta Mehta



Horrified by the deaths caused by road accidents and concerned about the carbon emissions, Rachita was inspired to come up an innovative solution.

Rachita's project uses facial recognition to identify whether the rider is wearing a helmet or not. A small camera will capture the image of the person, and a mini computer will process and determine whether the person is wearing a helmet or not. Rachita has designed the project such that an attached circuit will not let the engine to start if the rider is not wearing the helmet. Rachita is keenly interested in coding.





# inspire awards - manak

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Idea/Innovation : The Saviour Jacket  
 Awardee : Aryaman Mohan  
 Reference No. : 18CH1428172  
 Class : 8th  
 School Name & Address : Bhavan Vidyalaya, Sector 27  
 Chandigarh  
 Union Territory : Chandigarh  
 Guide Teacher : Kamaldeep Modgill



This innovative idea of a saviour jacket struck Aryaman when he was watching a documentary on the major causes of deaths during an avalanche. This jacket which serves as a pre-rescue kit will benefit skiers and mountaineers if they are stuck in an avalanche. The Saviour Jacket will have an automated hammer in the sleeves which will be activated by pressure. The collar has a concentrated solution of water fructose- which will keep the person hydrated. The seam will have two rods that will act as oxygen inlets.



Aryaman admires Indian Army and loves learning facts and acquiring new skills. He is passionate about writing poetry and is also a black belt holder in Choi Kwang Do which he practices on a regular basis.



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Idea/Innovation : Colour Code Tyre  
 Awardee : Vikram Kumar Shah  
 Reference No. : 18CH1428187  
 Class : 10th  
 School Name & Address : GSSS, Mauli Jagran  
 Union Territory : Chandigarh  
 Guide Teacher : Nimmi



Worried about the surge in road accidents caused due to tyre bursts, Vikram came up with a unique idea of colour coding the tyres. This would help the users to know about the condition of the tyre. There are three layers of colour in this tyre suggested by Vikram. Black being the outermost one, yellow the intermediate, and red being the innermost. The black colour indicates the normal condition of the tyre, yellow indicates that the tyre needs to be changed soon and red indicates that the tyre has been ruined. Authorities will be able to easily identify vehicles that require tyre change and may fine the owner of the vehicle considering the safety of others.





# inspire awards - manak

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Idea/Innovation : Jyrobike  
 Awardee : Abhishek Garcha  
 Reference No. : 18CH1428181  
 Class : 10th  
 School Name & Address : Govt. Model Sr. Sec. School, Sec 33, Chandigarh  
 Union Territory : Chandigarh, Chandigarh  
 Guide Teacher : Ishwerdeep Kaur



Two-wheel riders tend to lose balance in cases of sudden directional changes which many-at-times have dangerous consequences. This led Abhishek to come up with a self-balancing bike. He has installed a gyroscope in the bike – which consists of a flywheel that resists the bike from falling in a direction when it senses a sharp bend.



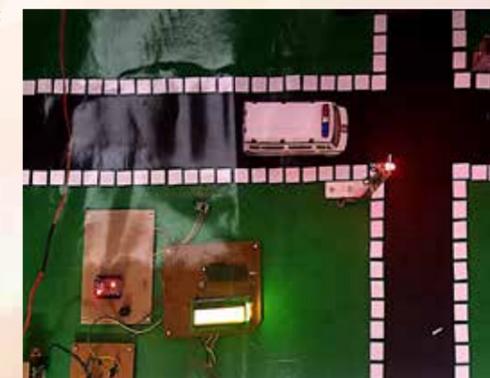
# inspire awards - manak

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Idea/Innovation : RFID Based Ambulance  
 Awardee : Siddhant Agarwal  
 Reference No. : 18CH1481011  
 Class : 7th  
 School Name & Address : Delhi Public School, Chandigarh  
 Union Territory : Chandigarh  
 Guide Teacher : Parul Singhal



Keeping in view the wide range of applicability of RFID (Radio-frequency identification) tags that use electromagnetic fields to identify and track tags attached to objects, Siddhant developed a project which uses RFID tags to identify the presence of an ambulance on the road and used subsequent technology for controlling and regulating traffic lights. This well synchronised system will hasten movement of the ambulance thus preventing delays and thereby saving lives. Siddhant likes to read books, conduct scientific experiments and play lawn tennis.





# inspire awards - manak

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Idea/Innovation : Smart Glasses  
 Awardee : Krish Khanna  
 Reference No. : 18CH1480996  
 Class : 7th  
 School Name & Address : St. Josephs Secondary School,  
 Chandigarh  
 Union Territory : Chandigarh  
 Guide Teacher : Reena Saluja



Inspired by the concept of Google glasses (a branded head-mounted device designed like a pair of glasses which displays information in a smartphone-like, hands-free format) Krish thought of developing similar sort of smart glasses that can be connected to our mobile phones via Bluetooth. He envisions the device to display texts, notifications, information on incoming messages and calls, location and name of nearby restaurants etc. He loves to read science books and his hobbies include coin collection.



# inspire awards - manak

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Idea/Innovation : The One Ring  
 Awardee : Aditya Prasad  
 Reference No. : 18CH1481014  
 Class : 10th  
 School Name & Address : Delhi Public School, Chandigarh  
 Union Territory : Chandigarh  
 Guide Teacher : Anuradha



Aditya has developed optical character recognition (OCR) based finger ring with the ability to convert images of typed, handwritten or printed text into machine-encoded text. The device can convert text from a scanned document, a photo of a document or from subtitle text superimposed on an image into voice. This ring can help blind and illiterate people to read the books of their interest and has the potential to increase literacy rate of the country. This ring can also be paired with smart glasses which will help in providing a panoramic and dynamic view of the surroundings. In his free time, Aditya reads books and performs scientific experiments.





# inspire awards - manak

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Idea/Innovation : OsteoSizer - an Exercise Buddy  
 Awardee : Manbir Singh Chhabra  
 Reference No. : 18CH1481045  
 Class : 7th  
 School Name & Address : St. Kabir Public School,  
 Chandigarh  
 Union Territory : Chandigarh  
 Guide Teacher : Aditya Bhatnagar



Keeping in view the joint pain and stiffness faced by osteoarthritis patients, Manbir thought of developing smart phone app-based gadget which he has named as "Osteo-Sizer". The gadget will assist the elderly people by demonstrating the exercises, keeping a record of number of repetitions and progress, reminding motivating the person to exercise. Manbir is fond of reading books, playing games like cricket and basketball, listening to music and performing on stage. He has performed at various stage acts.



# inspire awards - manak

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Idea/Innovation : Health Care Solution  
 Awardee : Gaurav  
 Reference No. : 18CH1480995.  
 Class : 7th  
 School Name & Address : Government High School, Dadu  
 Majra  
 Union Territory : Chandigarh  
 Guide Teacher : Bharat Bhushan & Sonia Jaiswal



Gaurav has developed an innovative technology "Health Care Solution" to address the problems of accidental cases of gas leakage, environment cleanness, high cost for conducting clinical test and malpractice by laboratories. These gadgets based on digital technology, working on robotic techniques will help minimize ill effects caused by the aforementioned problems. He wishes the device to be used to save human lives and make life better. He likes to listen to music in leisure time. He also likes to read science facts and books based on science fiction.





## inspire awards - manak

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Idea/Innovation : Vinegar as bio pesticide  
Awardee : Nandini Bisht  
Reference No. : 18CH1481002  
Class : 7th  
School Name & Address : St. Anne's Convent School,  
Chandigarh  
Union Territory : Chandigarh  
Guide Teacher : Chatna



Chemical fertilizers, pesticides and insecticides adversely affects the soil health and environment. To bring a decline on the ill effects caused by them, home remedies may be used. Vinegar is a commonly used household item. It has the property of repelling insects and other pests. Nandini is of the opinion to use vinegar along with baking soda as bio pesticide especially in kitchen gardens. She loves to read books and play games.



# Chhattisgarh



# inspire awards - manak

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Idea/Innovation : Herbal Tonic for the soil (Mitti ka Chyawanprash)  
 Awardee : Giridhar Yadav  
 Reference No. : 18CT1413357  
 Class : 6th  
 School Name & Address : Govt. M.S. Jhariabahara  
 District & State : Gariaband, Chhattisgarh  
 Guide Teacher : Santosh Kumar Mande



Giridhar has come with a very simple but fruitful idea of an herbal tonic for the soil, the aim is to improve the fertility of the soil organically without any kind of chemicals used. This is just a combination of natural ingredients like Neem leaves, Datura leaves, Karanja leaves, Turmeric etc. to increase the amount of humus in the soil. Giridhar is fond of dancing and acting, he loves to do theatres and dramas.



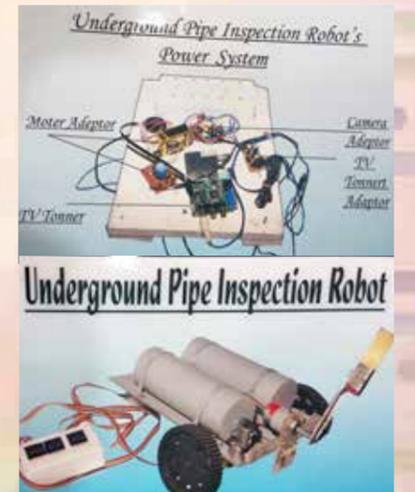
# inspire awards - manak

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Idea/Innovation : Underground Pipe Inspection Robot  
 Awardee : Hitesh  
 Reference No. : 18CT1413247  
 Class : 9th  
 School Name & Address : Govt. Higher Secondary School, Karanja Bhilai  
 District & State : Durg, Chhattisgarh  
 Guide Teacher : Hitendra Kurrey



This is a digital system having a camera which can detect if there is any blockage in the underground drainage pipe with a brush which is there to clean it after detecting any kind of blockage. Hitesh wants to serve for the society and for his reward is nothing but the invention is a must.





# inspire awards - manak

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Idea/Innovation : Automatic Bike Side Stand  
 Awardee : Jagriti Yadav  
 Reference No. : 18CT1413233  
 Class : 7th  
 School Name & Address : Govt. Higher Secondary School,  
 Nardha  
 District & State : Durg, Chhattisgarh  
 Guide Teacher : Manjulata Verma



This is an automatic stand system for the bike so that if the rider forgets to turn the stand-up, the stand will automatically raise and then turned down when the bike stops. This way it will help to prevent road accidents which might happen. Jagriti is very interested in learning and spreading the knowledge she gains; she seeks her interest in new discoveries.



# inspire awards - manak

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Idea/Innovation : Smart Helmet  
 Awardee : Khilesh Kumar Dewangan  
 Reference No. : 18CT1413292  
 Class : 10th  
 School Name & Address : J.R.D. Govt. Multipurpose H.S.  
 School  
 District & State : Durg, Chhattisgarh  
 Guide Teacher : Manjulata Verma



Looking at the increasing rate of road accidents, Khilesh came up with the idea of a smart helmet, without wearing which one can't start the bike and if he is drunk the sensor would not let him start the bike. Khilesh is very much interested in aeronautics, space science etc. and wants to make his career in these fields.





# inspire awards - manak

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Idea/Innovation : Steering Controlled Headlight  
 Awardee : Maan Singh  
 Reference No. : 18CT1413231  
 Class : 10th  
 School Name & Address : Govt. High School, Jangiri  
 District & State : Durg, Chhattisgarh  
 Guide Teacher : Mahesh Kumar Rajput



This idea deals with a very simple but helpful idea which is the headlight of cars getting controlled in the moving direction of the steering.

Maan wishes to serve the nation.



# inspire awards - manak

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Idea/Innovation : Hi- tech ATM  
 Awardee : Mohmmad Parvez Hashmi  
 Reference No. : 18CT1413212  
 Class : 7th  
 School Name & Address : Mahanadi Academy  
 District & State : Dhamtari, Chhattisgarh  
 Guide Teacher : Alok Sharma



Concerned after watching the news on ATM robbery, Parvez thought of an ATM, which will have a retina scanner in front of it and every card will have the scan of holder's retina attached to. If the two retinas do not match, the holder, the bank and the nearest police station would be notified about it. This project can also be a little step towards PM Modi's dream project "Digital India". Parvez wants to stay attached to the field of science, he also loves engineering innovations.





# inspire awards - manak

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Idea/Innovation : Clean India Clean Toilet  
 Awardee : Neha Sahu  
 Reference No. : 18CT1412846  
 Class : 9th  
 School Name & Address : Govt. H.S. School Badgaon Dondi Lohara  
 District & State : Balod, Chhattisgarh  
 Guide Teacher : Kewal Singh Nuruti



Neha's idea is in line with PM Modi's dream project "Swachh Bharat Abhiyan", and deals with the problem of environmental pollution. This model is basically a smart toilet which has an automatic lock system on the door, the door can't be opened until the toilet is flushed properly. Neha believes that nothing in this world is worthless and we can really do something meaningful out of anything.



# inspire awards - manak

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Idea/Innovation : Air Filtering Machine  
 Awardee : Neha Viswakarma  
 Reference No. : 18CT1412999  
 Class : 7th  
 School Name & Address : Govt. Middle School, Kanidabri  
 District & State : Dhamtari, Chhattisgarh  
 Guide Teacher : Rachana Naidu



Neha thought of a machine just made of three different blades, one having wooden particles to attract dust particles, another having a net to attract some harmful particles and the third one with sponge to attract all other particles along with two exhaust fans, one to supply the polluted air inside and the other to release the fresh air again in the environment. Neha loves Science, she believes in inventions, not in rewards.





# inspire awards - manak

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Idea/Innovation : Friendly Sanitary Napkin  
 Awardee : Reena Rajput  
 Reference No. : 18CT1413367  
 Class : 9th  
 School Name & Address : Shashkiya High School,  
 Jamnivali  
 District & State : Korba, Chhattisgarh  
 Guide Teacher : Dr Farhana Ali



Reena thought of an eco-friendly sanitary napkin made of Banana threshes, so that it would be helpful both to the environment by reducing the use of chemicals and plastics and also to the person having it as it is completely herbal and will have no side effects. Reena wants to remain attached to the field of science to serve society.



# inspire awards - manak

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Idea/Innovation : Automatic car wiper  
 Awardee : S. Prakash  
 Reference No. : 18CT1413249  
 Class : 10th  
 School Name & Address : Govt. Higher Secondary School,  
 Chhawani, Bhilai  
 District & State : Durg, Chhattisgarh  
 Guide Teacher : Swati Deshmukh



Prakash came up with an innovative idea of automatic car wiper which would automatically switch on by sensing the rainwater and would start operating. This system would be of immense help in the situation of sudden rainfall or fog, where often the wiper switch gets non-functional which cause accidents. S. Prakash has a keen interest to join the defence in future to serve our nation.





# inspire awards - manak

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Idea/Innovation : Hand Operated Reaper  
 Awardee : Shivam Sahu  
 Reference No. : 18CT1412959  
 Class : 8th  
 School Name & Address : Jai Hind Public School  
 Andhiyarkhor  
 District & State : Bemetara, Chhattisgarh  
 Guide Teacher : Vivek Tiwari



Shivam has an idea of hand operated, user-friendly and cheap reaper. The device would appear like a cycle having a handle, a set of peddling, a chain spoke, an iron frame and at the bottom, there would be a set of blades to reap the crops. Shivam is interested in Agriculture and he feels that being a responsible citizen of India, he should work in the fields of Science and Agriculture.



# inspire awards - manak

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Idea/Innovation : Women Safety Device  
 Awardee : Siddhi Pandey  
 Reference No. : 18CT1413018  
 Class : 9th  
 School Name & Address : Vandemataram English Medium  
 School, Ganesh Chowk  
 District & State : Dhamtari, Chhattisgarh  
 Guide Teacher : Kiran Kewat



Siddhi comes up with an idea to work a very serious issue of women assault. Her model consists of two devices; one is a purse with a switch attached to a siren having a sounds similar to police siren, Whenever the user is in problem she can use the switch, the other one is a scandal which also has an on-off button on it, by pressing it a low-intensity electric shock will be generated and that would be helpful in pushing the culprit.



Siddhi believes in positivity as the key and wants to do well in accounting field.



# inspire awards - manak

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Idea/Innovation : Digital Vehicle Operation System  
 Awardee : Siddhant Sahu  
 Reference No. : 18CT1412870  
 Class : 9th  
 School Name & Address : Government H.S.S  
 Chandanbirhi  
 District & State : Balod, Chhattisgarh  
 Guide Teacher : Ajay Kumar Thakur



Siddhant has come with an idea to solve the increasing rate of road accidents and bike thefts, he designed a set-top-box attached to the vehicle which will provide multiple facilities together i.e if someone other than the owner tries to start the vehicle, it would send message to the owner also the owner himself can't start the vehicle unless he shows his licence to the set-top-box, if by chance the owner has an accident the machine would inform his family, nearest police station and the nearest hospital. Concerned about the road accident victims, Siddhant truly wants to do something in the field of an automobile to prevent these severe mishaps.



# inspire awards - manak

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Idea/Innovation : The Grass Cutter (Multipurpose machine)  
 Awardee : Soursamya Tandan  
 Reference No. : 18CT1413456  
 Class : 10th  
 School Name & Address : Govt. H.S. School Haroli,  
 Sarangarh  
 District & State : Raigarh, Chhattisgarh  
 Guide Teacher : Manoj Kumar Jangde



Soursamya has innovated a multiple grass cutter, which a bi-cycle attached machine and is having two motors attached to the front wheel of the cycle and also there is a dustbin on the backside to collect the garbage. Soursamya wants to be a doctor and serve the people of the remote area, where they have limited options for health treatment.





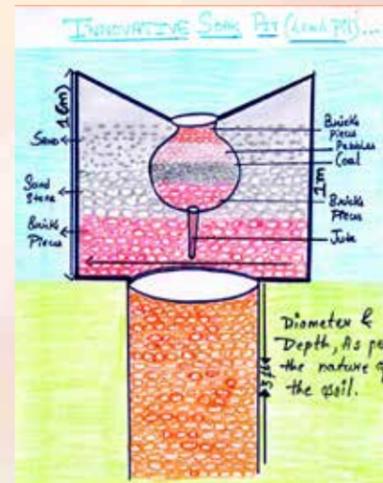
# inspire awards - manak

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Idea/Innovation : Innovative Soak Pit  
 Awardee : Uttam Kumar Tamboli  
 Reference No. : 18CT1412982  
 Class : 10th  
 School Name & Address : Bharatmata English Medium  
 Higher Secondary School  
 District & State : Bilaspur, Chattisgarh  
 Guide Teacher : Panu Halder



Uttam recognized a continuous depletion of underground water level and has found a modification of traditional cheap technique where we treat the soil with sediments like sand, pebbles, brick etc. to increase its absorption, purifying wastewater and redirecting it to the underground to recharge underground water level. Uttam has a great interest in the field of environmental science as according to him, nothing is wasted in the world, we should have the ability to use cent per cent of each & everything.



# inspire awards - manak

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Idea/Innovation : Ramp for the Divyang in Train  
 Awardee : Manish Kumar Sahu  
 Reference No. : 18CT1445618  
 Class : 9th  
 School Name & Address : Govt. Higher Secondary School  
 District & State : Durg, Chhattisgarh  
 Guide Teacher : Mahesh Kumar Rajput



Manish saw the problems of Divyang and elderly people while entering the train coaches. He thought of making travelling easy for Divyang/elderly people, his idea is to fix a ramp or lift connected to the entrance of coach which will enable their smooth entry. The innovation done by Manish requires a gear motor, transformer, rack pinion system, rectifier, limit switch to connect the ramp with a bogie and platform. It will be monitored by guard of the train through remote control which will open the ramp or lift. This will make Divyang independent while travelling. Manish likes playing cricket and reading.





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Idea/Innovation : Automatic Divider system on Railway Crossing  
 Awardee : Neelmani  
 Reference No. : 18CT1445619  
 Class : 10th  
 School Name & Address : Government higher Secondary School Janjiri  
 District & State : Durg, Chhattisgarh  
 Guide Teacher : Mahesh Kumar Rajput



Neelmani saw the chaos immediately after the train crosses from the railway crossing, he observed that the moment barrier is opened to cross the road people starts moving from both directions in order to find the way, and this creates a traffic jam, sometimes even lead to accidents. To overcome this problem Neelmani came up with the idea of developing a slider barrier (additional barrier to divide the tracks) connected to railway crossing barrier, the slider barrier will automatically open when the main barrier is opened so that people move only on their path. Neelmani likes playing games; Cricket and Kabaddi are among her favourites.



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Idea/Innovation : Advance Grub-Hoe (Khurpi)  
 Awardee : Kumari Chanchal Sahu  
 Reference No. : 18CT1445769  
 Class : 10th  
 School Name & Address : Govt. H.S. School Kugada  
 District & State : Durg, Chhattisgarh  
 Guide Teacher : Poonam Singh



Khurpi is an important and durable agricultural tool used more by women field workers to weed out unwanted grasses from the crops. Chanchal saw that traditional Khurpi has only one blade with one handle, because of which the task becomes more manual labour and time consuming. She thought of redesigning the Khurpi to make it more useful and to save efforts. Chanchal's idea is to attach three blades with one handle to improve efficiency. Each blade of the advance Khurpi is alternatively placed in a slightly downward & upward direction which makes it easier to work. Chanchal likes writing and dancing is her other hobby.





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Idea/Innovation : Sugar Cane harvester  
 Awardee : Krishna Gopal Patel  
 Reference No. : 18CT1445834  
 Class : 9th  
 School Name & Address : G.H. Sec School Bamhani  
 District & State : Kabirdham, Chhattisgarh  
 Guide Teacher : Gayatri Soni



When Gopal saw farmers harvesting sugarcane, he realised that it requires a lot of time and manual efforts. So, Gopal came up with Sugarcane harvester which is based on the principle of conversion of electrical power to mechanical, it will be tractor based operated by diesel. It will consist of branches cutting blade, leaf-cutting blade, rotating conveyor belt to collect Sugarcane, motor, plywood and battery. Saved time can be used for any other commercial activity. The harvester developed by Gopal moves along the rows of cane thereby removing the leafy tops of the cane and cutting the stalk. With the help of the conveyor, belt sugarcane is collected in the trolley. Gopal likes poetry and also likes making new working models.



# inspire awards - manak

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Idea/Innovation : Solution for road mud puddle spread by tractors  
 Awardee : Lokchand Sinha  
 Reference No. : 18CT1445811  
 Class : 10th  
 School Name & Address : Government High School  
 District & State : Gariaband, Chhattisgarh  
 Guide Teacher : Pradeep kumar Pandey



Nowadays all agricultural activities are performed using tractor and rotavator like ploughing, planting, harvesting etc. Lokchand saw that after the field activity is completed the mud is stacked in rotavator and when the tractors come to the road the collected mud makes it dirty and untidy. To provide a solution to this problem, Lokchand came up with a solution where he builds a pressure system inside a tractor which is done using a water gun and pump. Once the farm work is done the tyres and rotavator can be cleaned without putting many efforts. Lokchand likes studying and playing Games.





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Idea/Innovation : Helmet with Locker  
 Awardee : Keshav kumar Sahu  
 Reference No. : 18CT1445810  
 Class : 10th  
 School Name & Address : Sant Siya Bhuwaneshwari Saran  
 ji Vyas Gurukul HS Sirkatti,  
 Kutena  
 District & State : Gariyaband, Chhattisgarh  
 Guide Teacher : Harish Kumar Kashyap



Keshav observed that most of the people do not wear helmet thereby risking their lives. While discussing with others he also found that one of the main reason why people are not wearing the helmet is the fear that it will be stolen as it cannot be carried everywhere. So, Keshav thought of making locker inbuilt in the helmet, the lock will fit with your helmet so that it can be locked. Keshav likes listening to music and Kabbadi is his hobby.



# inspire awards - manak

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Idea/Innovation : To make thermocol or hard board  
 from Maize cob  
 Awardee : Priti  
 Reference No. : 18CT1445506  
 Class : 7th  
 School Name & Address : Government Middle school  
 Shakarwara  
 District & State : Dhamtari, Chhattisgarh  
 Guide Teacher : Ms. Anita Sori



After collecting kernels from maize plant residual corn cobs are burned which results in soil and air pollution. To address the problem Priti has developed a technique to transform leftover corn cobs into hardboards thereby reducing environmental pollution and generating additional income. During the process corn cobs are dried, powdered and mixed with the fevicol solution. The mixture is pressed into metallic dye to form rectangular hardboards which are then used for painting and another recreational purpose. Priti likes dancing and she makes beautiful Rangoli.





# inspire awards - manak

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Idea/Innovation : Safety concept for Vehicles using auto sensing device  
 Awardee : Omkar Dhruv  
 Reference No. : 18CT1445576  
 Class : 9th  
 School Name & Address : Kaliram M.S. Puplik Kurud  
 District & State : Dhamtari, Chhattisgarh  
 Guide Teacher : Devlal Yadav



Looking at the present scenario and increasing number of accidents, Omkar came up with a few safety concepts for vehicles. Safety vehicles includes a Seat belt system which would enable the vehicle to only start when the person is wearing a seat belt, Speed controller system in which certain speed would be fixed beyond that the person cannot drive, Alcohol system which if detects alcohol the vehicle would not start and Accident call system which will enable to call police, ambulance or relative of the driver in case of an accident.



# inspire awards - manak

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Idea/Innovation : Handicapped to just climb into the landing feature in the bus  
 Awardee : Anjali  
 Reference No. : 18CT1445938  
 Class : 8th  
 School Name & Address : Government Middle School, Surguja  
 District & State : Surguja, Chhattisgarh  
 Guide Teacher : Ajay Kumar Xalxo



Anjali observed the problem faced by Disabled people and how transportation affects their lives. So, she thought there is a need to focus on technology which will provide a "barrier free" environment and an easy and smooth means of transportation. She came up with two doors in a bus where disabled will enter from ramp/lift (fixed in one gate which will be operated by the driver) and the other door will be the other passengers. Anjali likes playing game her favourite is Kho-kho.





# inspire awards - manak

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Idea/Innovation : Anti Storm Umbrella  
 Awardee : Aksha Dayal  
 Reference No. : 18CT1445376  
 Class : 10th  
 School Name & Address : Bharat Mata English Medium H.S School  
 District & State : Bilaspur, Chhattisgarh  
 Guide Teacher : Panu Halder



Aksha thought of developing an umbrella that withstands the storm, heavy rain and inclement weather. She felt that when there is high wind velocity the umbrella gets inverted and when a person is riding vehicle it is difficult to hold umbrella and ride, so she redesigned Umbrella by changing the shape and varying the length of the spokes. Smaller spokes are placed in the direction of motion, then due to its special aerodynamic shape, the air flows both over and under the umbrella with nearly equal speed, therefore, the pressure difference between the two sides minimizes. The Anti-Storm Umbrella can be easily used during wind, rain, dust storm and can also be fixed on the handle of the bicycle. In her free times, Aksha likes painting and reading books.



# inspire awards - manak

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Idea/Innovation : Smart Multipurpose Cutter  
 Awardee : Harish Kumar Choudhary  
 Reference No. : 18CT1445371  
 Class: 10th  
 School Name &Address : Government Multipurpose H. Sec School Bilaspur Chattisgah  
 District & State : Bilaspur, Chhattisgarh  
 Guide Teacher : Dr. Dhananjay Pandey



Agriculture is an important part of the Indian Economy and culture, farmers' are still depending on manual efforts to carry out various Agricultural activities even if the technology is available it cannot be afforded by marginal farmers. Looking at this problem Harish came up with smart Multipurpose Cutter which is easy to carry, light in weight and affordable for farmers, it can plough, harvest, scrub the soil, cutting the leaves & tree branches and making the lane of the farm for proper seeding of vegetable. The Multipurpose cutter is easy to operate and maintain. In his free time Harish likes editing, compiling and making creative videos, he also likes playing cricket.





# inspire awards - manak

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Idea/Innovation : Smart Dustbin System with natural way of waste management  
Awardee : Aryan Patel  
Reference No. : 18CT1438435  
Class : 7th  
School Name & Address : Msp Public School, Junadih  
District & State : Raigarh, Chhattisgarh  
Guide Teacher : Preetam Kumar Panda



Concerned by the sight of overflowing garbage bins, Aryan came up with an idea of a dustbin with separate slots for segregating biodegradable & non-biodegradable waste with a message sending facility to the municipality once dustbin is filled up to a set level. Smart dustbin system is semi underground where bins are placed underground and two boxes are placed at the ground for people throw the garbage. When it is completely filled it can be easily removed by garbage collectors and it has another sensor which will identify the presence of the person and it will announce the message to segregate the garbage into biodegradable waste & non-biodegradable waste. Aryan likes reading stories.



## Dadra & Nagar Haveli



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Idea/Innovation : Smart Street Light Controlling System  
 Awardee : Vijay Prakash Bhatt  
 Reference No. : 18DN1428213.  
 Class : 9th  
 School Name & Address : Govt.Higher Secondary School, Tokarkhada, English, Medium  
 Union Territory : Dadra & Nagar Haveli.  
 Guide Teacher : Babita T Solanki



Vijay has developed smart street light controlling system which uses a transistor to turn on in the night time and turn off during the day time. The entire process is done by using a sensor LDR (light dependent resistor). This system doesn't need a manual operation to turn ON/OFF the street lights. The street light system detects whether there is need of light or not thereby by saving electricity.



He loves to perform unique scientific experiments. His hobbies include reading books playing games and yoga.



# inspire awards - manak

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Idea/Innovation : Parabolic Solar Cooker  
 Awardee : Dhum Payal Vijay  
 Reference No. : 18DN1428202.  
 Class : 8th  
 School Name & Address : P.S. Khanvel English, Medium  
 Union Territory : Dadra & Nagar Haveli.  
 Guide Teacher : Bhagyshree Ramanbhai Patel



Payal has developed parabolic solar cooker which uses the energy of direct sunlight to heat and cook food materials. Parabolic solar cooker use no fuel and cost nothing to operate. She is of opinion to promote their use worldwide in order to help reduce fuel costs (especially where monetary reciprocity is low) and air pollution, and to slow down the deforestation and desertification caused by gathering firewood for cooking. She likes to read books of science and maths.





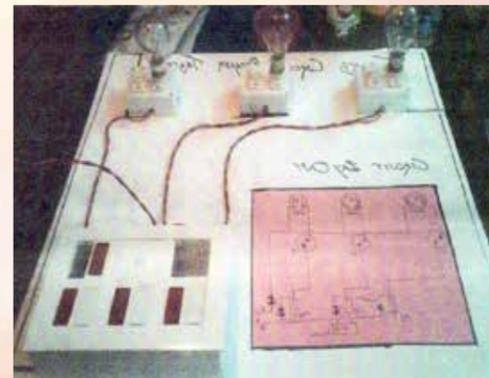
# inspire awards - manak

million minds augmenting national aspiration and knowledge

Idea/Innovation : Fused Circuit Breaker Tracer  
 Awardee : Pavithra Praveen.  
 Reference No. : 18DN1428193.  
 Class : 6th  
 School Name & Address: Lions English School Silvassa.  
 Union Territory : Dadra & Nagar Haveli.  
 Guide Teacher : Ms. Supriya.



Praveen has developed a circuit breaker tracer which is used for detecting and locating electrical circuits in walls and floors and for identifying circuit breakers. Circuit tracer also associate the correct circuit breaker with a particular electrical outlet. It consists of three parts transmitter, receiver and probe. The transmitter is connected to one end of the circuit, such as an electrical outlet. It transmits a signal that travels along the wire it is connected to. The receiver is used to detect the signal being transmitted on the electrical circuit.



He loves singing, dancing and painting.



# inspire awards - manak

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Idea/Innovation : Fully Automated water level controller with indicator  
 Awardee : Nidhi Sanjaybhai Ahir  
 Reference No. : 18DN1481069  
 Class : 10th  
 School Name & Address : Government high school, Dokarmadi  
 Union Territory : Dadra and Nagar Haveli  
 Guide Teacher : Preeti N Solanki



This innovation describes about the facility to minimize the consumption of water and electricity through automatic switching of electric motor by sensing water level of the tank.

The Water tank in this project is managed or controlled as and when the level of the tank reaches upto some limit. The motor automatically stops and water tank does not overflow.it can be effectively implemented at nominal cost in hospitals, home, corporates, etc.

Seeing the current scenario of shortage of water in urban and rural areas, Nidhi got this idea to prevent water shortage.

Nidhi has a keen interest towards science, environment and natural resources. She likes to watch discovery, and science fiction programmes on television. She even participates in cultural activities of school. She likes painting and drawing.





# inspire awards - manak

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Idea/Innovation : Reusing RO Run-Off  
 Awardee : Shanti Verma  
 Reference No. : 18DN1481059  
 Class : 7th  
 School Name & Address : C.P.S Silvassa, Hindi Medium  
 Union Territory : Dadra and Nagar Haveli  
 Guide Teacher : Pritiben B Patel



The idea emerges on shanti's mind when once she had been to her uncle's house and seen the RO water being wasted. Seeing this waste water, she has a thought in her mind to do the innovation and save the water. This idea discusses about the usefulness of high TDS rejected RO water. Plenty of water is being wasted in the form of rejected RO water which is not potable and advisable to drink by humans. But, there are various applications in which there are no harmful effects of high TDS water like using as a flush water, gardening of ordinary plants, cleaning home tiles, washing vehicles, etc. This innovation describes a methodology to use such high TDS rejected RO water.



Shanti's teachers are her inspiration who helped her to motivate. She is very much interested in playing different outdoor games, reading books, and to take innovative and new knowledge on different things.



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Idea/Innovation : Natural Antibiotic Paper  
 Awardee : Bhoja Jigneshbhai Ratanbhai  
 Reference No. : 18DN1481061  
 Class : 9th  
 School Name & Address : Government higher secondary school, Dudhani  
 Union Territory : Dadra and Nagar Haveli  
 Guide Teacher : Vimal Bhai A Patel



Due to usage of pesticides, many disease takes place and seeing these Jignesh tried to make this useful paper to protect food grain. This is an antibiotic paper which can be made easily at home. The ingredients for making the paper are easily and cheaply available from nature. It will help to maintain the nutrient in the food grain. It can also be used to establish homemade business for earning livelihood. No chemicals are used to make this paper. Tulsi leaves, pudina leaves and curry leaves are added along with this paper and mixed well and from the coin or tablet shaped paper which is kept in wheat jar or rice jar or pulse jar to keep it clean throughout the year. The paper is proved hydrophobic in nature.



Jignesh likes playing Kho-Kho, Kabaddi, reading books and dancing.



***Daman & Diu***



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Idea/Innovation : Seedling Planter  
 Awardee : Bhandari Priyanshu Ajaykumar  
 Reference No. : 18DD1428222  
 Class : 9th  
 School Name & Address : Sarvajanic Vidhyalaya Daman  
 Union Territory : Daman, Daman & Diu  
 Guide Teacher : Ambrish K Oza



Priyanshu observed difficulty faced in sowing of seeds and hence decided to develop a mechanism for the same. This is a simple innovation with a handle, with lever and an iron vessel. Every time the handle with lever is pressed the seed drops in the soil and hence it becomes really easy for the farmer to sow seeds. This technology will increase efficiency and competence of farmers.



# inspire awards - manak

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Idea/Innovation : Mobile Phone Detector  
 Awardee : Kava Vishal Bharat Bhai  
 Reference No. : 18DD1428234  
 Class : 9th  
 School Name & Address : Govt. High School, Fudam G.H.S  
 Union Territory : Diu, Daman & Diu  
 Guide Teacher : B K Solanki & Pijush Debnath



There's an increase in theft of mobile phones all over India, to avoid the same, Kava Vishal thought of developing an anti-theft mechanism. The device consists of a PCB board, LED light and a speaker. As soon as someone tries to snatch the phone or hold it from a place the speaker will start emitting noises due to which it can be saved from being stolen. He is also planning to install GPS tracker to stringent security of phones.





# inspire awards - manak

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Idea/Innovation : Egg Opener  
 Awardee : Heetachi Satish Halpati  
 Reference No. : 18DD1481094  
 Class : 9th  
 School Name & Address : GHS PARIYARI, Daman & Diu  
 Union Territory : Diu, Daman & Diu  
 Guide Teacher : Mahesh R Patel



Heetachi came up with an idea of developing an egg opener realizing that many are not able to open the egg shell properly and while doing so their hands become dirty. The egg opener developed by her is a simple, easy to use which can be used in both households and restaurants. Heetachi likes listening to music and dancing.



# inspire awards - manak

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Idea/Innovation : Headache Remover Instrument  
 Awardee : Parmar Ravi Shamjibhai  
 Reference No. : 18DD1481125  
 Class : 8th  
 School Name & Address : GMS Dagachi  
 Union Territory : Diu, Daman & Diu  
 Guide Teacher : N C Solanki



Parmar realised that Headaches are a common problem nowadays mostly because of increased stress in our modern lifestyle. He thought of developing a device catering to the problem. Headache remover Instrument developed by him consists of a hairband, rubber, colorful paper & motor which through vibration heals the headache, the device is portable and low cost. Parmar loves reading, drawing and working on interesting science projects.





# inspire awards - manak

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Idea/Innovation : Tyre tube Solar Cooker  
 Awardee : Sneha Sobran  
 Reference No. : 18DD1481090  
 Class : 9th  
 School Name & Address : GHS Moti Daman  
 Union Territory : Daman, Daman & Diu  
 Guide Teacher : Shri B S Prajapati



Sneha saw that there is a tremendous shortage of wood, kerosene and fuel for cooking, she thought of substituting it with solar heat. Unlike the Solar Cooker available in the market, she developed a low cost solar cooker which is made from a locally available material. The cooker developed by her is easy to make and can also be afforded by people on low budget. Sneha likes to read and dance in her free time.



# inspire awards - manak

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Idea/Innovation : Crab & Fish Catcher Device  
 Awardee : Sharad Chhagan  
 Reference No. : 18DD1481101  
 Class : 10th  
 School Name & Address : Govt. Higher Secondary School, Bucharwada  
 Union Territory : Diu, Daman & Diu  
 Guide Teacher : Y B Solanki



Sharad developed Crab & Fish Catcher device as he realised that in the present crab catcher device it is difficult to create the trap for crab and fish. He developed this device to inspire fish & crab catcher to carry out their traditional business efficiently. The material used in device is PVC pipes, ropes, frames of electric table fan wire & frame. The device is affordable and saves a lot of time. Sharad likes to play table tennis and read books.





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Idea/Innovation : House Fly Trap  
 Awardee : Jani Heet Dipakbhai  
 Reference No. : 18DD1481107  
 Class : 8th  
 School Name & Address : GMS Nagoa  
 Union Territory : Diu, Daman & Diu  
 Guide Teacher : Shri L K Bamania



House flies are strongly suspected of transmitting many diseases, this prompted Jani Heet to develop House fly trap. The trap is very easy to make and is completely made from material available everywhere. It is made with plastic bottle, honey, jaggery and other edible items, they are kept at the base to lure house fly trap. This trap is easy to handle and can be kept anywhere. Apart from innovating things, Jani Heet likes painting and reading.



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Idea/Innovation : Plastic Waste Management  
 Awardee : Aakash Shivam Jangid  
 Reference No. : 18DD1481083  
 Class : 10th  
 School Name & Address : Institute of Our Lady of Fatima  
 Union Territory : Daman, Daman & Diu  
 Guide Teacher : Priyanka Arekar



In lines with the Swacch Bharat Abhiyan campaign, Aakash came up with an idea of Plastic Waste management. His idea is to collect the plastic thrash at one place so that it can later be used in making roads (from plastic waste). These roads will be more durable, lesser in cost and also potholes won't be seen. Aakash likes doing creative things and listening to music.





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Idea/Innovation : Plastic Waste management  
 Awardee : Kathawle Tanmay Kiran  
 Reference No. : 18DD1481084  
 Class : 10th  
 School Name & Address : Institute of Our Lady of Fatima  
 Union Territory : Daman, Daman & Diu  
 Guide Teacher : Priyanka Arekar



Inspired by Swacch Bharat campaign Tanmay came up with an idea of Plastic collecting boat from plastic waste material. His idea is to clean the river and seas through the help of this plastic collecting boat which will collect all the waste material from river. This will further help in controlling water pollution. Tanmay loves studying Biology and participating in various exhibitions related to Science.



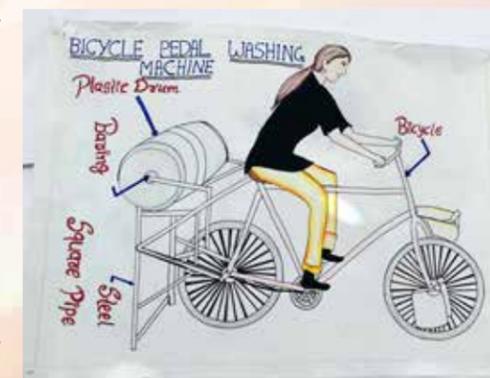
# inspire awards - manak

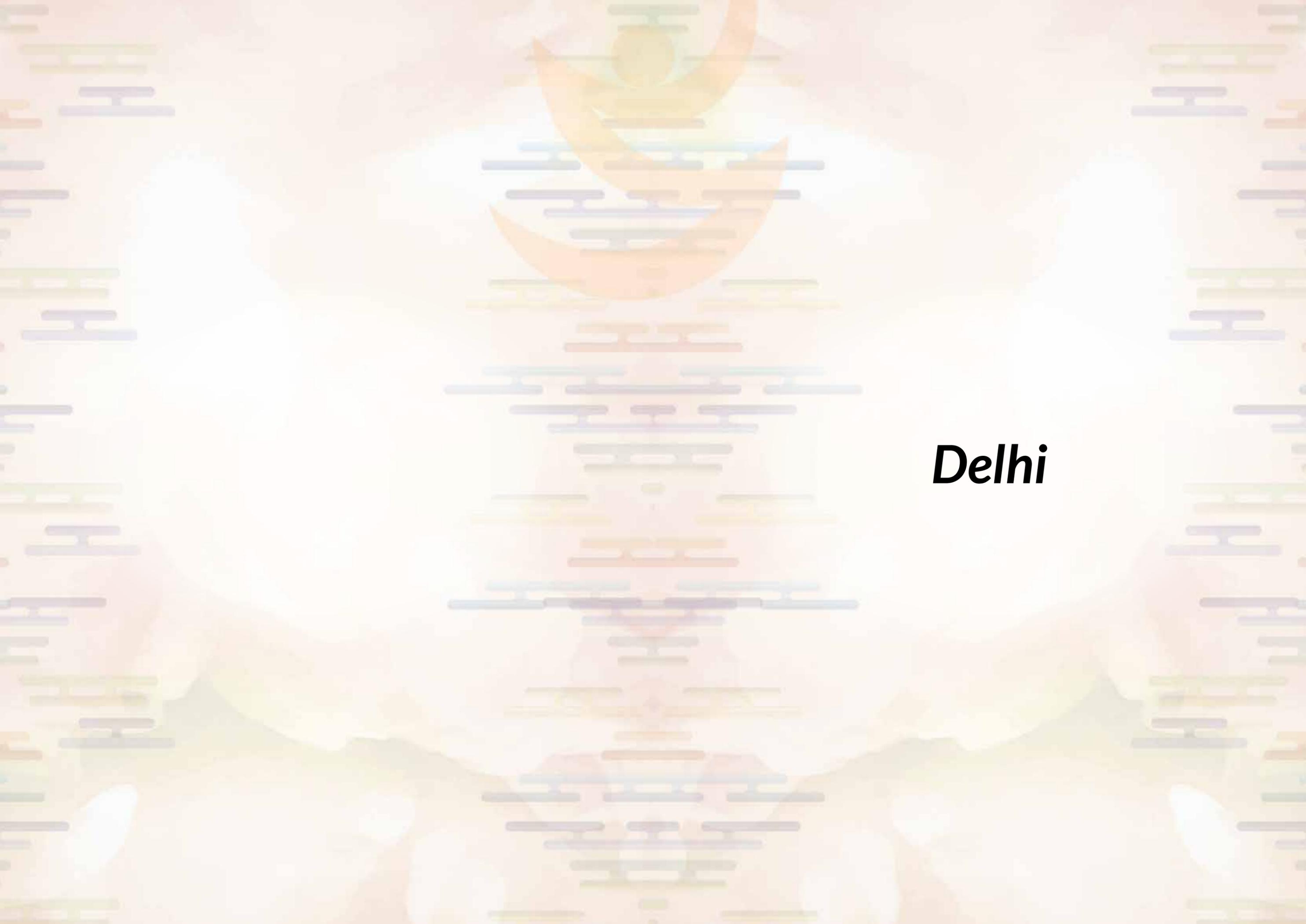
million minds augmenting national aspiration and knowledge

Idea/Innovation : Bicycle Pedal Washing Machine  
 Awardee : Barkha O Ram  
 Reference No. : 18DD1481081  
 Class : 10th  
 School Name & Address : Government High School (English Medium), Nani Dama  
 Union Territory : Daman, Daman & Diu  
 Guide Teacher : Vanesh B Patel



Barkha's idea is developing a machine of her own interest. She loves cycling but when she has to help her mother in washing clothes then in that case, she must let go of her cycling time. She thought of developing a bicycle based washing machine so that she can do both the activities and can also save electricity during the process, Bicycle based pedal washing machine is a healthy way of washing clothes, it is easy to make with very less investment. Barkha likes drawing and she also participated at national level Kala Utsav twice.





***Delhi***



# inspire awards - manak

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Idea/Innovation : Hydraulic Cleaning System for Drains  
 Awardee : Tooba Noor  
 Reference No. : 18DL1428287  
 Class : 6th  
 School Name & Address : Jama Masjid, No.2-SKV  
 Union Territory : N.D/Central, Delhi  
 Guide Teacher : Tabassum Yasmin



The blockage of drains and flooding of roads during rainy season has become a common thing. Tooba was inspired to find a solution to this, she came up with an idea of hydraulic cleaning system. The project has two hydraulic systems. The first system picks up and replaces the drain cover and the other system picks the garbage and collects it in a garbage van stationed nearby. The system when used with proper planning before and during the rainy season may help in avoiding flooding of roads caused due to blockage in drains. Tooba wants to become a teacher and inculcate clean India initiative among people.



# inspire awards - manak

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Idea/Innovation : GARDUNIO - An Automated Solar Power Gardening Device  
 Awardee : Ashneet Kaur Sukhija  
 Reference No. : 18DL1428360  
 Class : 6th  
 School Name & Address : Springdales School  
 Union Territory : South West-A, Delhi  
 Guide Teacher : Mandeep Sukhija



Ashneet was motivated to create a device that will measure the various parameters associated with soil and crop and send the information to a smartphone. Farmers can remotely monitor live data on their smartphone by operating the device which uses a solar-powered robotics vehicle. Various sensors used are pH sensor, temperature sensor and moisture sensor to measure the quality of soil and air quality sensor for monitoring the quality of air. Ashneet aspires to pursue research and make the life of people easier through ideas and innovations.





# inspire awards - manak

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Idea/Innovation : Road Cleaning Bus  
 Awardee : Radhe Nath  
 Reference No. : 18DL1428325  
 Class : 8th  
 School Name & Address : Rajkiya Pratibha Vikas Vidyalaya  
 Union Territory : South West, Delhi  
 Guide Teacher : Anamika Srivastava



Trash and garbage on the roads of Delhi and the health risk associated with it, inspired Radhe to take up this project which is also linked to Clean India Initiative. Student developed a Hydraulic Cleaning Car which will suck the dirt and garbage from the roads. The car will be attached to buses, thereby saving fuel. Radhe's ambition is to become an astrophysicist.



# inspire awards - manak

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Idea/Innovation : Plastic Body Structure  
 Awardee : Manoj  
 Reference No. : 18DL1428278  
 Class : 7th  
 School Name & Address : Rajkiya Pratibha Vikas Vidyalaya  
 Union Territory : N.D/Central, Delhi  
 Guide Teacher : Mrs. Manishi Verma



Huge volume of plastic bottles are discarded on daily basis which severely affects our biosphere. Manoj came up with an idea to utilise these bottles to support his village and remote areas. He devised three methods to use these bottles. In first method he filled the empty plastic bottles with stones and mud and used it as a brick. In second method he used it as eco-cooler by creating pressure difference. In third case he attached wheels to the container of water and used solar panel for powering it. His ideas are pocket friendly and serve the needs of economically backward regions and villages. The third method suggested by Manoj will reduce the physical effort of carrying water to far flung areas.



Manoj wants to become an IAS officer and serve the society.



# inspire awards - manak

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Idea/Innovation : C.H.E.E.S.E (Computerized Humanoid Electronically Enhanced Service Enforcer)

Awardee : Akshit Sharma

Reference No. : 18DL1481711

Class : 10th

School Name & Address : Veda Vyasa DAV Public School, Vikaspuri, New Delhi

Union Territory : West - B, New Delhi

Guide Teacher : Ratna Verma



C.H.E.E.S.E is an acronym to Computerized Humanoid Electronically Enhanced Service Enforcer. It reduces labour and it is enhanced electronically to serve people. It works on basic principles of Dual tone - multi frequency shield. The operator of the robot has to call on the phone, which is connected to the robot, and then two frequencies are created when specific keys are pressed on phone. These frequencies are converted to binary value by DTMF shield and it further sends those commands to motor driver shield and hence resulting it the rotation of motor. This robot is equipped with a well-developed AI robot, which is capable of singing streaming live video to the browser, answering almost every questions, and much more that an AI can do. The AI is developed with the help of Mycroft, which is an open source voice assistant platform.



# inspire awards - manak

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Idea/Innovation : Plastoscope Indigenous Microscope from plastic waste

Awardee : Ananya Singh

Reference No. : 18DL1481234

Class : 10th

School Name & Address : Salwan Public School, Old Rajendra Nagar, New Delhi

Union Territory : Central, New Delhi

Guide Teacher : Shilpa Raghuvanshi



Plastoscope is a user friendly, cheap and easy to handle microscope made from trash plastic bottles. Plastoscope will promote scientific curiosity among the students of rural areas, it will provide an opportunity to handle scientific apparatus and learn the basics of science through experiments. It is a low cost and effective microscope. The plastoscope gives the similar results than that of a conventional compound microscope





# inspire awards - manak

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Idea/Innovation : Levitating ceiling fan  
 Awardee : Biswajit Roy  
 Reference No. : 18DL1481534  
 Class : 9th  
 School Name & Address : Bloom Public School, Vasant Kunj, New Delhi  
 Union Territory : South West – A, New Delhi  
 Guide Teacher : Jui Vinay Panchpor



This prototype is based on levitating principle of magnets where the main rotating weight of the fan which is the blade hub and blades are suspended freely by using levitation. It requires less electrical energy to work as friction is reduced and is more efficient because of no wear & tear of ball bearings. Metal casing is provided to make it safer and it produces less sound as compared to conventional ceiling fans.



# inspire awards - manak

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Idea/Innovation : Solar Crop Dryer  
 Awardee : Palak  
 Reference No. : 18DL1481696  
 Class : 8th  
 School Name & Address : G.G.S.S.S No. 2, Janakpuri, New Delhi  
 Union Territory : West – B, New Delhi  
 Guide Teacher : Pamela



This Crop dryer is a technique by which crops are dried and moisture is extracted. It involves the separation of grains from the straw/husk either by impact of friction. Sieve is attached which helps in separating pebbles/stones from the grains. Aluminium sheet is used which gets sufficiently heated up under sun, which aids in drying the grains/crops.





# inspire awards - manak

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Idea/Innovation: Stairs Climbing Chair

Awardee : Sanskriti Rai

Reference No. : 18DL1481486

Class : 9th

School Name & Address : Balvantray Mehta Vidya Bhawan  
A.S.M.A, Greater Kailash – II

Union Territory : South East, New Delhi

Guide Teacher : Tushar Bhardwaj



This char is a modernized design of wheel chair, which can climb stairs. It is mainly for physically challenged people and for senior citizens. It has three wheels, which will rotate and enable the person to climb stairs. The design is based on the principle of Pythagoras Theorem.



# inspire awards - manak

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Idea/Innovation : Solar Panel with Lens

Awardee : Vaani Bhardwaj

Reference No. : 18DL1481301

Class : 8th

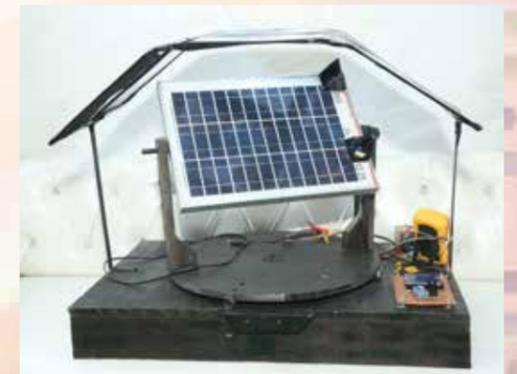
School Name & Address : Jain Bharati Mrigavati Vidyalaya,  
G.T. Karnal Road, Delhi

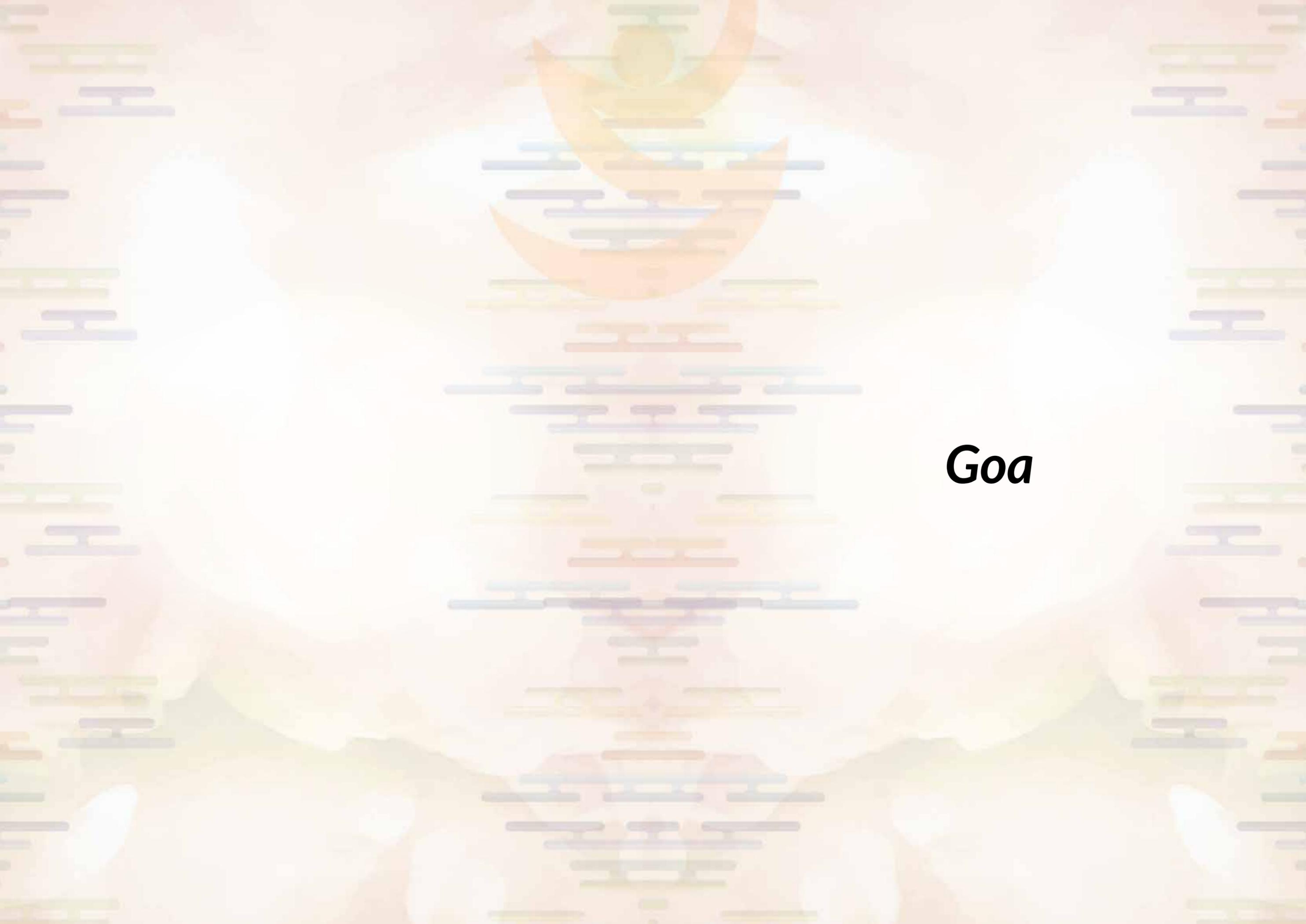
Union Territory : North West – A, New Delhi

Guide Teacher : Mr. Satyam



This prototype has two parts, one for commercial purpose and another for domestic purpose. Fresnel lens is used for domestic purpose variant. LDRs have are used to make the solar panel face the sun throughout the day. This will help the panel increase its efficiency up to 30% to 50%. Commercial purpose variant is made in such a way that it floats on water to decrease the usage of land and it has better efficiency.





***Goa***



# inspire awards - manak

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Idea/Innovation : Fruit Plucker  
 Awardee : Tejaswini Kolamkar  
 Reference No. : 18GA1413533  
 Class : 6th  
 School Name & Address : Lt. Narendra A Mayekar Govt. High School, Sada Morg.  
 District & State : South Goa, Goa  
 Guide Teacher : Sangeeta N Natekar



Tejaswini developed a special fruit plucker stick to overcome human drudgery by traditional fruit picking practice. The device is simple in design, yet very effective. The device is made of P.V.C pipe, ball shaped lamp, stainless steel blade and head with a flexible basket for fruit collection. The developed picker results in negligible damage to fruits, the device is affordable and within financial capacity of even a marginal orchardist. Tejaswini wants to become an innovator and serve for her country. Her hobbies include singing, dancing and playing badminton.



# inspire awards - manak

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Idea/Innovation : Grass Cutter  
 Awardee : Niteshpuri Surajpuri Goswami  
 Reference No. : 18GA1413524  
 Class : 8th  
 School Name & Address : Parra Bardez-Goa  
 District & State : North Goa, Goa.  
 Guide Teacher : Joe Dominic Dsouza



Gardeners in schools spend a lot of time in cutting and collecting weeds and plants. This inspired Niteshpuri to design a manual grass cutter. The machine was designed using gas welder, metal sheet, scissors etc. This machine saves both energy and time, which is not so with other mowing methods used at school, and provides more flexibility. Niteshpuri wants to become a scientist.





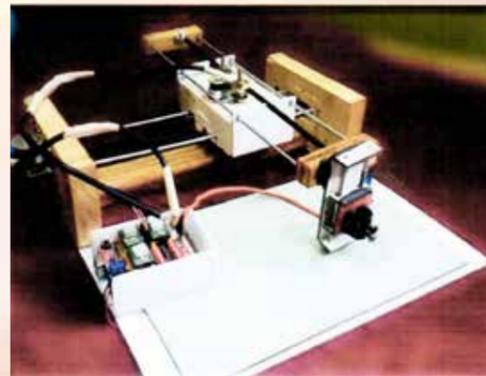
# inspire awards - manak

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Idea/Innovation : GRBL Based CNC Printer  
 Awardee : Mast Arfath Hafizulla Shaikh  
 Reference No. : 18GA1447253  
 Class: 8th  
 School Name & Address : GS Amonkar Vidya Mandir  
 District & State : North Goa, Goa  
 Guide Teacher : Salita Naik



High cost of buying printer and ink cartridges inspire Arfath to develop a reasonable and affordable printer at home using locally available material. He made a Computer Numeric Control (CNC) Plotter Machine based on Arduino (Microcontroller). A CNC plotter machine is a 3D controlled 2D plotting machines which uses a pen to draw text or image on any given solid surface. It is also used for the purpose such as PCB Design, logo design, etc. The maintenance cost is very low and it is easy to operate.



Mast Arfath has interest in mechatronics field.



# inspire awards - manak

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Idea/Innovation : To develop a blackboard with a device fitted to absorb chalk dust  
 Awardee : Riya Rajesh Paste  
 Reference No. : 18GA1447272  
 Class : 9th  
 School Name & Address : Shree Ganesh High School, Ganeshpuri, Mapusa  
 District & State : North Goa, Goa.  
 Guide Teacher : Suvarn B Kamat



While erasing blackboard with a duster, it is commonly observed that a lot of chalk dust is released into the air, some part of which is inhaled by the teachers, and sometimes also by the students. This can cause breathing issues and dust can cause skin irritation. To address these problems, Riya developed a "Hi -Tech blackboard fitted with Hi-Tech Duster". The developed blackboard and duster consists of exhaust fans with nets fitted on three sides of blackboard and a pipe attached to each exhaust fan to collect dust particles. This will result in improved indoor air quality.



Riya hobbies include dancing and travelling. She is a nature lover wants to become an ornithologist.



# inspire awards - manak

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Idea/Innovation : Smart Garbage Processing System  
 Awardee : Vedant Sawaikar  
 Reference No. : 18GA1447279  
 Class : 9th  
 School Name & Address : Progress High School  
 District & State : North Goa, Goa.  
 Guide Teacher : Kanayalal S Shet Talaulikar



Waste disposal involves a myriad of processes such as collection, transportation, dumping, recycling, or sewage treatment among other waste product monitoring and regulation measures, there are lots of problems associated with waste disposal. Vedant developed a "Smart Garbage Processing System" to address these problems. He used sensors which keeps a track on the available capacity of dustbins and sends a message to municipality to avoid overflowing. A conveyor belt is used to collect trash from dustbin outside home. The system also uses magnet to segregate iron from remaining waste. This system will save money and energy as it is powered by solar energy.



Vedant is fond collecting currency and gardening. He is a nature lover.



# inspire awards - manak

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Idea/Innovation : Smart water controlling and billing leading to water conservation  
 Awardee : Sailee Milind Phal  
 Reference No. : 18GA1447294  
 Class : 10th  
 School Name & Address : The Rosary High School Miramar  
 District & State : Panji, South Goa, Goa  
 Guide Teacher : Vinita Chico



Availability of fresh water is a problem faced globally. On one hand, women in villages still have to walk miles each day to fetch water and on other hand people are freely wasting it. Sailee has identified this problem and developed a device to prevent the same. This system consists of two parts. First is smart metering which will monitor per month consumption of water and second part is controlled consumption which will restrict per month consumption of household based on the number of occupants. WHO standards for threshold of water consumption are used. Households can be rewarded or compensated based on their consumption. With this simple digital water meter system, individual can track consumption reading on a mobile phone.





## inspire awards - manak

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Idea/Innovation : Road Water Harvest : A need for future  
Awardee : Aditya Ashwin Upasane  
Reference No. : 18GA1447321  
Class : 10th  
School Name & Address : Manovikas English Medium School  
District & State : South Goa, Goa  
Guide Teacher : Sandra Alvares E Dacosta



Clogging of roads due to heavy rains inspired Aditya to develop "Road Water Harvester". This project will decrease flooding on roads and will also help in recharging ground water by percolation. Device includes methods of effective collection, purification and storage of rainwater that gets wasted along the roadside drains. It also has an inbuilt de-silting cum filtration chamber that purifies the inflow and directs it towards recharge well. Aditya hobbies include drawing and he loves experimenting with new things.



# Gujarat



# inspire awards - manak

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Idea/Innovation : Self Water Pump  
 Awardee : Bhanderi Ronak Rasikbhai  
 Reference No. : 18GJ1414597  
 Class : 6th  
 School Name & Address : Jilariya Kumar Primary School  
 District & State : Rajkot, Gujarat  
 Guide Teacher : Unadpotra Rajak S



Ronak's idea is to have a self-operated water pumps which will lift water from underground without using pump. The logic behind the idea is to reduce the manual effort of taking water from underground, the component used in Ronak's innovation is PVC pipe, two non-return valves, 3 pipes (1 straight, 1 bent and 1 air pressure pipe) and two water valves (1 open and 1 closed). The self-operated water pump can be used in farms, mountains and other places.



Ronak wants to become a doctor.



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Idea/Innovation : Solar Ropeway  
 Awardee : Choudhary Meghaben Hemrajbhai  
 Reference No. : 18GJ1414167  
 Class : 7th  
 School Name & Address : Umrecha Primary School  
 District & State : Mehsana, Gujarat  
 Guide Teacher : Prajapati Sunilbhai



Meghaben was travelling with her family in hilly area. While going from one place to another they needed rope way which was very costly. When she enquired about the high cost, she got to know it is because of the heavy amount of electricity consumed. This inspired her to make an airline ropeway which will be based on Solar panels. Solar ropeway will save time and can be afforded by anyone.



Megha aspires to become Doctor.



# inspire awards - manak

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Idea/Innovation : Green House Reducer Power cell  
 Awardee : Desai Tejasvi Niravbhai  
 Reference No. : 18GJ1414744  
 Class : 9th  
 School Name & Address : Shree H.M.Bachkaniwala Sardar High School  
 District & State : Surat, Gujarat  
 Guide Teacher : Sunil Jadhav



Tejasvi's idea is to control environmental pollution by reducing proportion of CO<sub>2</sub>. Green house reducer power cell takes CO<sub>2</sub> from atmosphere and releases oxygen and electricity; it works on the principle of Galvanic cell.

Tejasvi likes reading Economics & Accountancy. She wants to become Chartered Accountant and contribute towards country's economy.



# inspire awards - manak

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Idea/Innovation : RFID Toll Booth  
 Awardee : Dharmistha Ben Jayantibhai Parmar  
 Reference No. : 18GJ1413748  
 Class : 6th  
 School Name & Address : Sardarpura Primary School  
 District & State : Anand, Gujarat  
 Guide Teacher : BalramKumar K Suthar



Dharmistha come up with an idea of RFID Toll Booth when she was travelling to Anand and she has to wait for long time at toll booth. Hence, she developed a RFID tollbooth, which can do direct transaction by scanning the QR code from the top side of car. She claims that it can save time and minimize the corruption.

Dharmishtha dreams to become a scientist.





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Idea/Innovation : Walking Mobile Charger  
 Awardee : Makwana Kinjalben Dineshbhai  
 Reference No. : 18GJ1413572  
 Class : 6th  
 School Name & Address : Uttam Primary School  
 District & State : Ahmedabad, Gujarat  
 Guide Teacher : Chetankumar J Parmar



Student came up with an idea of walking Mobile charger when she was in her village where there was acute shortage of electricity and she could not charge her phone to make an emergency call. The idea is to use piezoelectric sensors wherein a person will walk and store the electricity in a battery/power cell and can be further used based on requirements. The components used are piezoelectric sensor, rechargeable battery, power circuit, USB device, wire and boot/shoes. The device can be used at places where there is shortage of electricity and can also be used for saving electricity.



Dr. APJ Abdul Kalam is an inspiration of Kinjal. She wants to become a Scientist and contribute to nation's development.



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Idea/Innovation : Mamta Yantra  
 Awardee : Machi Dhruptiben RohitBhai  
 Reference No. : 18GJ1413806  
 Class : 6th  
 School Name & Address : Prathmik Kanya Shala Zanor  
 District & State : Bharuch, Gujarat  
 Guide Teacher : Sandeep Devidas Kulkarni



During summer vacations Dhrupti went to her maternal aunty's place, there was a lady who was deaf and has a small kid of 7 months, she could not listen when the kid use to cry and someone else has to come to tell her, Dhrupti realized the pain how mother would be feeling about it. She thought of developing such device which could assist a deaf person to sense the voice through vibration & light transmitted in the wrist band wore by the mother. The device consist of a sensor, transmitter, circuit and a watch, sensor will detect the voice of a kid and will turns it into radiofrequency, and then further transmitted in watch which will be reflected in the form of vibration and light through which deaf and dumb person easily respond.



Dhrupti dreams to become a Doctor and wants to help old age people.



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Idea/Innovation : Robotics Chair  
 Awardee : Mer Mahapat B  
 Reference No. : 18GJ1413647  
 Class : 6th  
 School Name & Address : Shree Bhachadar Primary School  
 District & State : Amreli, Gujarat  
 Guide Teacher : Solanki Amitsinh H



Student witnessed that physically handicapped and disabled people face a lot of problem in day to day life. This inspire student to develop an instrument called "Robotic Chair". This device works on the principle of light reflection. By using this device, disabled people can easily go to any corner of house.

Mer inspire to become a teacher.



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Idea/Innovation : Modern Spray Pump  
 Awardee : Nikul K. Thakor  
 Reference No. : 18GJ1413714  
 Class : 7th  
 School Name & Address : Vishrampura Primary School  
 District & State : Anand, Gujarat  
 Guide Teacher : Bhaveshbhai J Patel



Nikul developed a Modern spray pump, which looks like a trolley. Recently farmers carry pump on their shoulders to spray pesticides in the farm and at the end of the day; it is very painful for that farmer. Addressing this problem, he developed a pump that can spray pesticides when the wheels of trolley will moves forward. He want to add a feature in existing prototype like "weed removal robotic hand."

Nikul likes to play cricket and observe new things. His dream is to become an Engineer and to solve the problems of country.





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Idea/Innovation : Solar e-Bike for Disable  
 Awardee : Patel Hanee Manishkumar  
 Reference No. : 18GJ1414614  
 Class : 6th  
 School Name & Address : Gadadhar Primary School  
 District & State : Aravalli, Gujarat  
 Guide Teacher : Pareshbhai Goswami



Student developed a vehicle, which is operated by solar energy, and it is useful for disable people as well as normal people. She made this vehicle using solar plates, e-bike components etc. She thought of this idea, when she went to market and observe a disable person, who was struggling to move forward with currently available wheel chair.

Her biggest inspiration is her teacher and her dream is to become an Engineer.



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Idea/Innovation : Teeth hearing innovation device  
 Awardee : Patel Kwila Chandubhai  
 Reference No. : 18GJ1414295  
 Class : 6th  
 School Name & Address : Bakarpur Anupam Primary School  
 District & State : Mehsana, Gujarat  
 Guide Teacher : Prajapati Dineshkumar Mangalbhai



Kwila idea is to help deaf people through developing a simple, portable and affordable device. The device works on DC motor which is attached from amplifier which produces magnetic field which creates vibration. The motor is places in between the jaws of a person who is deaf, when the person press the motor using teeth, the motors sends signals via cells to the brain. And a deaf person can listen. The device can also be connected through Bluetooth. This will be useful and affordable device for deaf people.



Kwila wants to travel to America and pursue her degree of Doctorate from there.



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Idea/Innovation : Wheelchair cum Stretcher  
 Awardee : Prachi H. Padhiyar  
 Reference No. : 18GJ1413707  
 Class : 6th  
 School Name & Address : Saraswati Vidhya Mandir  
 District & State : Anand, Gujarat  
 Guide Teacher : Alpanaben R. Rana



Prachi developed a wheelchair, which can work as a stretcher also. It is fully mechanical based wheelchair. She used stainless steel material, caster wheels, rubber, leather, sponge etc. she thought of this idea when she visited her grandmother at a hospital and observe the painful condition. Her grandmother was laying on bed and she want to sit for food but she felt trouble to sit. This scenario forced her to think about this innovation.



Her biggest inspiration is her Teacher. Prachi likes to Dance and specially Bharat natyam. Her dream is to become a Deputy Superintendent of Police.



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Idea/Innovation : Blender & Drill Machine  
 Awardee : Pradhan Shitalben Tankbhai  
 Reference No. : 18GJ1414227  
 Class : 7th  
 School Name & Address : Rampura (Kuvayada) Primary School  
 District & State : Mehsana, Gujarat  
 Guide Teacher : Patel Pratikkumar Vinodkumar



Pradhan got an idea of developing a Blender and drill machine when she got to know about the prices of blende machine available in market. She thought the machines available in market are not affordable for poor people. The machine developed by Shitalben is made up using waste and e-waste, mobile charger, PVC pipe, motor, elbow and a switch. Current passes through switch which in return blends/drills (as per the requirement).



Shitalben like reading and she aspires to become collector.



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Idea/Innovation : Temperature Fan  
 Awardee : Solanki Ritu Ashokbhai  
 Reference No. : 18GJ1413596  
 Class : 6th  
 School Name & Address : Giriya Primary School  
 District & State : Amreli, Gujarat  
 Guide Teacher : Dhorajiya Vipul Balubhai



Student developed a Temperature fan, which automatically decrease the speed of fan if temperature of room is increased. Temperature fan can used in home, hostel, hospital etc. she used some electronics components to complete the project. She thought of this idea when she was sleeping in a room and she felt cool at night. Then she got an idea of automatic temperature controlling fan.



Her biggest inspiration is her Teacher. Solanki dream is to become a Doctor and to help poor people by giving free treatment.



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Idea/Innovation : Digital Fuel Meter  
 Awardee : Sonu Umesh Yadav  
 Reference No. : 18GJ1414857  
 Class : 7th  
 School Name & Address : Primary School Dungra  
 District & State : Valsad, Gujarat  
 Guide Teacher : Bhavinkumar Ramchandrabhai Tandel



Sonu developed a device to check the quantity of fuel filled in any vehicle. He thought of this idea because he observed so many cases of petrol fraud. There are a number of petrol pumps that will try and con user by short-fueling or shortchanging user when they go to fill their car or bike up. Device will detect the quantity of fuel filled in vehicle. The device can attached at user side so driver can check the real quantity of fuel inside the tank.



Sonu's biggest inspiration is his Teacher.



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Idea/Innovation : Automated Motor Generator  
 Awardee : Thakor Harshkumar  
 Reference No. : 18GJ1414497  
 Class : 8th  
 School Name & Address : Panchshil High School  
 District & State : Mahisagar, Gujarat  
 Guide Teacher : A K Patel



Harsh's idea is to use Automatic Motor Generator at places where there is shortage of electricity. The generator developed by Harsh can be used for boring underground water, charging mobile phones, operating TV and charging 12V battery. The Generator available in market is costly and can't be afford by everyone, the one developed by Harsh is easy to operate and available in affordable rate.



Being inquisitive in nature, Harsh wants to develop/innovate new things and wants to become an Engineer.



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Idea/Innovation : Auto Sensaric Helmet  
 Awardee : Thiyyan Prajul Sankaranarayanan  
 Reference No. : 18GJ1414742  
 Class : 8th  
 School Name & Address : Mary Matha Public School  
 District & State : Surat, Gujarat  
 Guide Teacher : Ambika Sathish



The idea was inspired by large number of road accidents, and accident of his closest friend. The idea is using a helmet as an ignition in two wheelers. Essentially, this means that if someone is not wearing their helmet, the two-wheeler does not start. It is wireless and works on RF module and IR sensor.



Prajul wants to become National Security Guard (NSG) commando and wants to protect the country.



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Idea/Innovation : GPS Based Auto Messaging and Auto Calling System  
 Awardee : Vasava Kishanbhai Girishbhai  
 Reference No. : 18GJ1413817  
 Class : 6th  
 School Name & Address : Mortalav Primary School  
 District & State : Bharuch, Gujarat  
 Guide Teacher : Patel Niravkumar Devjibhai



While travelling Kishan saw an accident, the person was lying and could not communicate about it. Then he thought of an idea where a technology to be in built in the vehicle itself. After a lot of research he came up with GPS Based Auto Messaging and calling system, sensors will be there in the vehicle, through GPS module location and message is sent to 108 and to the concerned person so that someone is reaching to the person immediately. This is an easy control measures for road accidents.



Kishan loves drawing and exploring new places.



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Idea/Innovation : Sewage Cleaning Machine  
 Awardee : Ashaben Sitarambhai Pawar  
 Reference No. : 18GJ1446173  
 Class : 8th  
 School Name & Address : Dagdiamba Primary School  
 District & State : Dang, Gujarat.  
 Guide Teacher : Shivanand Dashrathbhai Patel



Student got an innovative idea of sewage cleaner when she saw a person cleaning the sewage with his hands in Waghai region; she observed the difficulties being faced by the workers for cleaning the sewage lines. He used chain of cycle, gear and boxes for making this device and it is hand operated.

Ashaben likes to play different games.





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Idea/Innovation : Water to Terrace by Swinging Swing  
 Awardee : Gohel Jaydip Kanjibhai  
 Reference No. : 18GJ1446117  
 Class : 8th  
 School Name & Address : Shree Gundi Primary School  
 District & State : Bhavnagar, Gujarat  
 Guide Teacher : Dharmendrakumar Solanki



Generally an electric motor is used for filling the water tank at terrace. The motors used for water lifting using electricity and huge electricity bills have to be paid by people at the end of every month. Observing this problem the student came up with an idea to fill the water tank on the house top by using the swing. While swinging the water is pumped through a pipe to fill the tank at terrace of the house. The backward and forward movement of swing will operate the hand pump to supply water to tank through a pipe connected to water pump.



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Idea/Innovation : Multipurpose Device  
 Awardee : Hardik Natavarji Rajput  
 Reference No. : 18GJ1446835  
 Class : 8th  
 School Name & Address : Motaramanda Primary School  
 District & State : Patan, Gujarat  
 Guide Teacher : Patel Ketankumar Girishbhai



Around 70% of Indian population depend on agriculture. With the advancement of science & technology different types of devices and equipment is developed to ease the life of a farmer but the tools required for farming are being sold at higher costs which a farmer cannot afford. The student has developed multi-purpose equipment which will help farmers in harvesting of fruits, spraying of pesticides and catching of the fruit. All the three tasks can be done with single gadget that Hardik has developed. The device is also used to catch snakes.





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Idea/Innovation : Energy Generating Health Band  
 Awardee : Henil Shalin Panchal  
 Reference No. : 18GJ1445983  
 Class : 10th  
 School Name & Address : D.A.V. International School  
 District & State : Ahmedabad, Gujarat  
 Guide Teacher : Anu Lakhotia



Many dies due to heart problems and High blood pressure etc. as the problem couldn't be detected immediately. Considering this problem student developed a health band to monitor health conditions of patient continuously. This band is capable of reading human body's vital signs (pulse rate, body temperature blood pressure etc.). This is a predictive technology for early screening of diseases and analysis of vital health statistics. The death rate can be minimized due to the device mentioned above.



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Idea/Innovation : Digital Voting System  
 Awardee : Hirapara Srushti Jayeshbhai  
 Reference No. : 18GJ1446019  
 Class : 8th  
 School Name & Address : Shree Khajuri Primary School  
 District & State : Amreli, Gujarat.  
 Guide Teacher : Khimani Hiteshbhai Vasantbhai



During elections bogus voting is reported from many places which become a problem for general public to choose their correct representative, besides the prevalent voting system has demerits. In order to avoid bogus voting during elections the student has conceived an idea of digital voting system wherein a voter has to login to insert password and user Id and then cast his/her vote. In this project a software link is generated for casting vote. The voter has to login to cast the vote. The details of voter will be displayed on the screen which is linked to Aadhaar. The software will get the impression of finger to ensure that real voter has casted the vote.



Srushti likes sky gazing, listening music and visiting different places.



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Idea/Innovation : Digital Dustbin  
 Awardee : Om Javaharlal Gupta  
 Reference No. : 18GJ1446685  
 Class : 8th  
 School Name & Address : Nagar Prathmik Mishra shala no. 8  
 District & State : Navsari, Gujarat.  
 Guide Teacher : Mehulkumar B Patel



Om thought of an idea of making digital dustbin when he heard about the problems occurred by the plastic waste. He developed a dustbin in which two compartments are there; one for paper waste and other for plastic waste. He designed the card for people and card will be inserted into the dustbin then the door of dustbin will open and waste will be throw after that. People get the reward in form of money after throwing the waste on the base of weight of wastage.



# inspire awards - manak

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Idea/Innovation : Water pump  
 Awardee : Prajapati Gautamkumar Sanjaybhai  
 Reference No. : 18GJ1446510  
 Class : 8th  
 School Name & Address : Primary school Nanibedvan  
 District & State : Narmada, Gujarat  
 Guide Teacher : Patel Kamlesh Ishvarbhai



He thought of this idea by observing the problem faced by people who are leaving in coastal areas. Where farmers struggle for irrigation in their areas and he got an idea to make the water pump. He developed the pump, which does not require any electricity to operate. His hobby is to make innovative projects.





# inspire awards - manak

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Idea/Innovation : Digital Transportation and Vehicle Safety  
 Awardee : Rakholiya Denish Gopalbhai  
 Reference No. : 18GJ1446020  
 Class : 8th  
 School Name & Address : Shree Khajuri Primary School.  
 District & State : Amreli, Gujarat  
 Guide Teacher : Khimani Hiteshbhai Vasantbhai



Many road accidents occur due to alcohol consumption of driver. Currently accidents due to drunken driving are the major problem in India and highest number of deaths have occurred due to this problem. Student thought about this problem and conceived the idea to incorporate an alcohol detecting sensor in vehicles so that if driver is drunk the vehicle will not start. Denish likes swimming, playing cricket etc.



# inspire awards - manak

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Idea/Innovation : Student Safety Belt  
 Awardee : Ranpara Roshan Mukeshbhai  
 Reference No. : 18GJ1447167  
 Class : 8th  
 School Name & Address : Nutan Vidyalaya Sama Road  
 District & State : Vadodara, Gujarat  
 Guide Teacher : Dipiksha H Gandhi



Student got an innovative idea of "Student safety belt" especially for students when he heard the news about mishap with a school girl in New Delhi. Roshan has been regularly reading different instances of rape, theft and other mishaps that happen with school students. The device developed by him keeps track of the students connected with safety belt; it assures the safety of the students within school, tuition, home, etc. when student feels uncomfortable with any person he/she has to push the switch placed in safety belt and it will directly give signal to principal's room and on parents' contact no. Microcontroller, GSM module, LCD, RF Module, Battery, and Push up switch is needed to operate the device.





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Idea/Innovation : Digital textbook with QR code and AR system  
 Awardee : Ronak Shivpujan Kharvar  
 Reference No. : 18GJ1447056  
 Class : 7th  
 School Name & Address : Dastan Primary School  
 District & State : Surat, Gujarat.  
 Guide Teacher : Vishal Pravinchandra Khatri



The idea of developing a Digital textbook with QR code and AR system came in his mind when he saw QR code system in petrol pumps and shopping malls. He developed separate QR codes for each lessons and then fixed it in textbooks. An augmented reality system helps in scanning the no. of pages. He integrate education into digital technology.

Ronak wants to join Indian Army.



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Idea/Innovation : Grain Protection Project  
 Awardee : Nishu Pankajbhai Suthar  
 Reference No. : 18GJ1446364  
 Class : 10th  
 School Name & Address : Shree Sarvajanik Vidhyalay,  
 Ambaliyasan  
 District & State : Mehsana, Gujarat  
 Guide Teacher : Patel Arvindkumar Mafatlal



Nishu got an innovative idea of making grain protection system when he constantly heard the news of wastage of grain due to rain. He developed a device, which protects the grain by sensing the rain. When rain occurs the sheet of plastic comes out of the system and it protects the grain. He is interested in science equipment.





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Idea/Innovation : Mobile Starter  
Awardee : Akabari Vaibhavi Pradipbhai  
Reference No. : 18GJ1446257  
Class : 6th  
School Name & Address : Bhiyal Primary School  
District & State : Junagadh, Gujarat.  
Guide Teacher : Kapadiya Hardik N



Student got an idea to make mobile starter when she was observing washing machine and thinking of removing relay from washing machine, and use it to start the mobile. Firstly, she converts the Alternate current into direct current and apply dc current to the appliances. A relay is connected with the mobile. Then the electronics appliances can be directly turn on/off by mobile using this system. Her device is working on Mobile sensing principle. Vaibhavi interested in music and computer. She likes to think on innovative scientific ideas.



## Haryana



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Idea/Innovation : Smart Prosthetic Arm  
 Awardee : Ankit  
 Reference No. : 18HR1415158  
 Class : 10th  
 School Name & Address : OP Jindal Modern School, Hisar  
 District & State : Hisar, Haryana  
 Guide Teacher : Lalit Mohan



Ankit conceived this idea when one of his friends lost his hand in an accident and his daily struggle with hands inspired him to develop a Smart Prosthetic Arm. He incorporated an adjustable belt to provide support to the arm, and this arm can be controlled by the user as it is powered by motors. His device includes components like gloves, switch, connecting wires, DC motors with 12 volts, 30 rpm, one selfie stick, grippers etc. It is operated by switches placed on the elbow of both hands and can be fitted in every size. Ankit's inspiration is his school teacher Vijay Negi. He loves to innovate, sketch portraits and swim in his leisure time.



# inspire awards - manak

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Idea/Innovation : Automatic Shed  
 Awardee : Mohit Jangra  
 Reference No. : 18HR1414962  
 Class : 10th  
 School Name & Address : GSSS LEGHAN  
 District & State : Bhiwani, Haryana  
 Guide Teacher : Anil Arora



Mohit visited his village and there he observed the plight of farmers dealing with unexpected rainfall. The unseasonal rain always affects the hard work and toil of farmers, and the strong winds accompanying it make things worse. To avoid such circumstances, he thought of an automatic shed which helps to protect crops against rain by incorporating a sensor. A protective shield is wrapped onto the rooftop sensor. To automate this task, a DC motor has also been installed. This automatic shed works when water falls on the sensor directly. Mohit's biggest inspiration is Albert Einstein. His hobbies include reading, playing and studying.





# inspire awards - manak

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Idea/Innovation : Diswap Fog  
 Awardee : Shivam  
 Reference No. : 18HR1415279  
 Class : 10th  
 School Name & Address : OSDAV Public School Kaithal  
 District & State : Kaithal, Haryana  
 Guide Teacher : Hitesh Kumar



Shivam observed that road accidents and fatalities during fog increase significantly since the chances of collision shoot up as visibility drops to zero in winter, and he figured an urgent need to focus on managing such crisis. His project addresses this with a series of multiple devices which not only prevents road accidents but also monitors car theft. For this he has added techniques such as dizziness alert for driver through eye detection; alcohol sensor to check the cases of drunken driving; infrared vision to counter low visibility in foggy conditions; driver authentication through fingerprint scanning; and obstacle detection to prevent collision of vehicle by using ultrasonic sensors. For the above purposes, he has managed to incorporate an ultrasonic sensor, an IR-heat vision camera, an alcohol sensor, a camera to monitor driver's pupil, a fingerprint sensor. His biggest inspiration is his chemistry teacher Mr. Hitesh Kumar and Albert Einstein. He loves reading books.



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Idea/Innovation : Wireless Robotic Hand  
 Awardee : Anmol Wadhwa  
 Reference No. : 18HR1415350  
 Class : 10th  
 School Name & Address : Bal Vikas School  
 District & State : Panipat, Haryana  
 Guide Teacher : Kusum Lata



Anmol thought of this innovative idea while observing the pain of physically disabled people and their daily struggle with life that tremendously impacts them physically and emotionally. Through this device, each finger can be controlled separately. It contains a myoelectric and a muscle sensor. At present it can be used for single/semi amputated persons, but it can be modified to cater to the needs of people with complete amputation too. He wants to make this technology affordable for use to the ones who need it the most. He considers his father as his biggest inspiration. His hobbies include making science related models, debate contests and indulging in poetry.





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Idea/Innovation : Solar Energy (energy conservation technique).  
 Awardee : Priya Saini  
 Reference No. : 16HR1393445  
 Class : 8th  
 School Name & Address : Adarsh High School, Satrod Khas.  
 District & State : Hisar, Haryana  
 Guide Teacher : Renu



Priya's father is into agriculture activities and he often faces a lot of difficulties during farming and irrigation on a daily basis which has inspired her to develop an auto irrigation system using solar energy. It is very important in agriculture to maintain the level of water or moisture in the soil where crops are planted. According to the measured moisture level, water pump turns on or off. The auto irrigation system keeps information about moisture level in land and controls moisture to the permissible limit. She has used image sensors which senses human intervention to regulate light control, and IR module to regulate the street light.



# inspire awards - manak

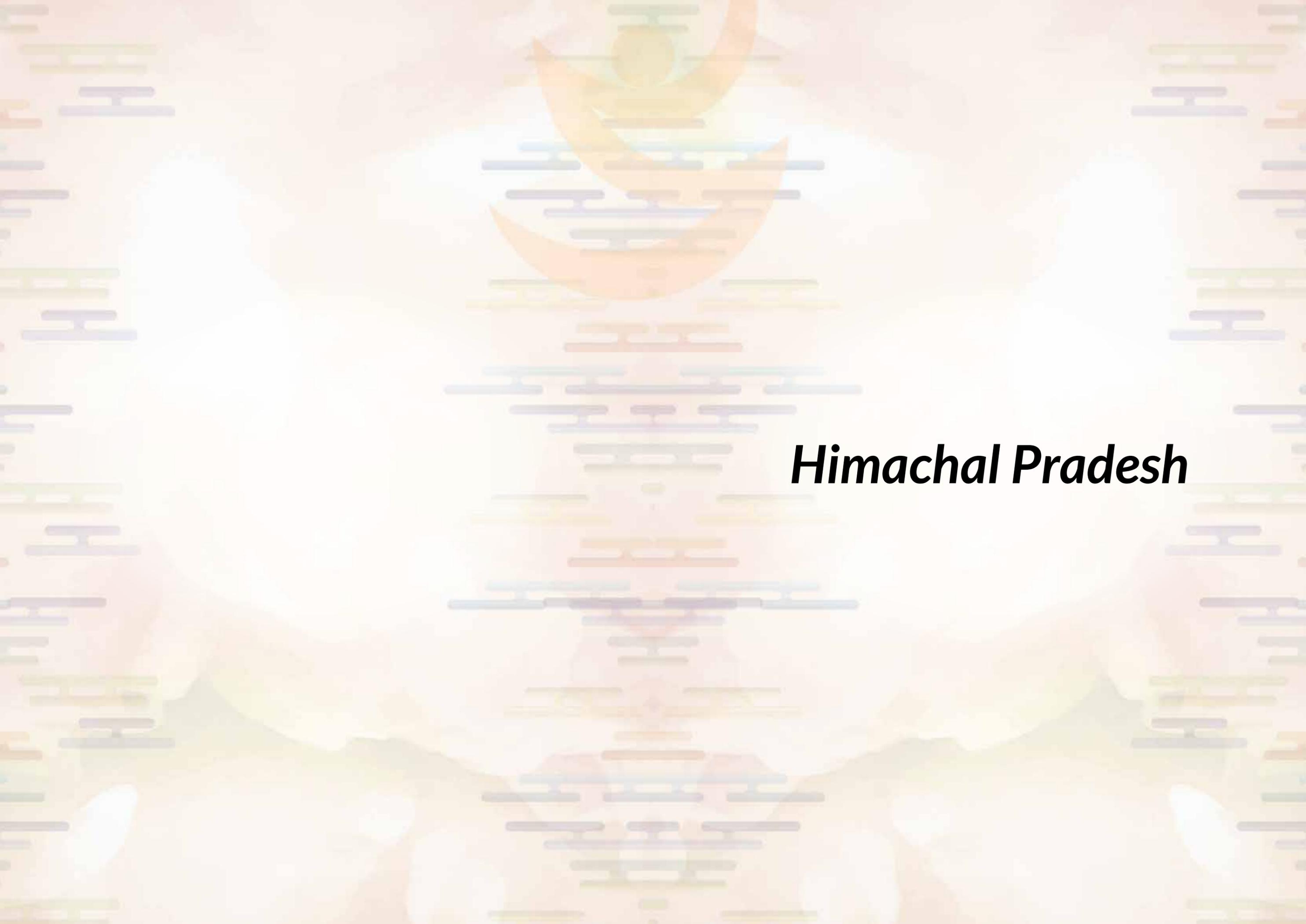
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Idea/Innovation : A Sensor Robotic Machine  
 Awardee : Nikita Garg  
 Reference No. : 18HR1447732  
 Class : 9th  
 School Name & Address : Haryana Public School  
 District & State : Mahendragarh, Haryana  
 Guide Teacher : Davinder



Nikita's idea is to develop a sensor robotic machine that can detect and follow a line drawn on the floor. The path of this machine is predefined and can be visible like a black line on a white surface with a high contrasted color. She got this idea after seeing various reports on robotic machine and its multipurpose uses. It follows a definite path and works in a defined area, and stops itself at a safe distance upon detecting obstacles or reaching the end (when both line sensors detect a black line). The machine has 3 motors, 4 sensors and also an EV3 screen in which all the programmes are installed. It can be connected and controlled with an Android phone. Nikita is an avid thinker and loves to build things to solve problems. Her biggest inspiration is her mother.





# ***Himachal Pradesh***



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Idea/Innovation : Innovative Hygienic Toilet Seat  
 Awardee : Atharv Sharma  
 Reference No. : 18HP1416023  
 Class : 8th  
 School Name & Address : Our Lady Snows School, Kullu  
 District & State : Kullu, Himachal Pradesh  
 Guide Teacher : Shashikant Pathania



Atharv observed over time that the students in his school did not really care about the hygiene of toilets in school. Males, while urinating, would not lift the seat cover and this would make the toilet seat dirty and unhygienic. Atharv came up with an innovative idea of a toilet seat that one could raise using a foot-operated pedal. Atharv aspires to become an astronaut and a space researcher.



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Idea/Innovation : Energy from Temple and Park Gates  
 Awardee : Baibhav Kumar Guleria  
 Reference No. : 18HP1415972  
 Class : 10th  
 School Name & Address : Viveka Foundations School  
 District & State : Kangra, Himachal Pradesh  
 Guide Teacher : Dinesh Rana



Baibhav came up with this innovative idea while he used to observe the enormous crowd at temples and parks. He proposes to use dynamos and piezoelectric material in the revolving gates and revolving swings to generate electricity using these massive crowds. Besides, he also proposes to use the see-saw to pump underground water. Baibhav has a keen interest in remixing music. He loves to explore electronic devices like computers, mobile phones etc.





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Idea/Innovation : Multipurpose Bicycle Road Cleaner  
 Awardee : Deepak Chandel  
 Reference No. : 18HP1415563  
 Class : 7th  
 School Name & Address : GSSS Jhandutta  
 District & State : Bilaspur, Himachal Pradesh  
 Guide Teacher : Rakesh Chand



Inspired by the Swachh Bharat Abhiyan and concerned about the litter scattered in his school, Deepak came up with an innovative idea. This bicycle consists of a shaft which will rotate upon moving the rear tyre of the cycle, facilitating the conversion of mechanical energy into electrical energy to eventually charge the battery connected. This bicycle also has a device which separates unwanted particles from food grains. Deepak takes a keen interest in playing cricket.



# inspire awards - manak

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Idea/Innovation : Innovative Multipurpose Stove  
 Awardee : Diksha  
 Reference No. : 18HP1416008  
 Class : 10th  
 School Name & Address : Govt. Model Sr. Sec. School Bajaura  
 District & State : Kullu, Himachal Pradesh  
 Guide Teacher : Pankaj Verma



Diksha belongs to a rural area in Kullu and there she observed that almost everyone in her neighbourhood uses a chulha to cook food. This motivated her to come up with a chulha which has three parts – fireplace, insulated layers and a cooking place. The fireplace has a copper wire through which hot water can be continuously obtained; and the insulating layers serve the purpose of insulation so that the temperature difference does not affect the chulha. It also contains a smoke pipe- the smoke passed through which will be treated. Diksha is interested in reading and learning new things. She is also a state-level winner in NCSC.





# inspire awards - manak

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Idea/Innovation : User Friendly Underground Dustbin  
 Awardee : Govind Kaushal  
 Reference No. : 18HP1416364  
 Class : 7th  
 School Name & Address : Scholars Unified - The School of Excellence  
 District & State : Una, Himachal Pradesh  
 Guide Teacher : Pooja Sharma



Govind earnestly believes in the saying 'Cleanliness next to Godliness', and hence came up with an innovative idea of an underground dustbin. Waste will be collected and stored underneath the ground; the oldest waste being stored in the bottom most part of ground and will be compacted by its own weight and this will create 20% more space. This dustbin uses the principle of hydraulic pressure and has a vacuum cleaner attached. It also has a segregation unit which separates all kinds of garbage which could be utilized in different ways in the future.



Govind has a keen interest in making scientific models and aspires to become an engineer.



# inspire awards - manak

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Idea/Innovation : Traffic Signal to Prevent Accidents  
 Awardee : Meenakshi Kumari  
 Reference No. : 18HP1415760  
 Class : 6th  
 School Name & Address : Govt. High School, Lohakhar  
 District & State : Hamirpur, Himachal Pradesh  
 Guide Teacher : Rajni Kumari



Troubled by the increasing number of road accidents, Meenakshi came up with an innovative idea of alerting vehicles approaching each other in the same lane at a turn. In this project, she proposes to use pressure sensors (to be installed on the road), and solar panels (to provide power to the LEDs installed beneath them). Whenever vehicles would approach each other at a turn, the pressure sensor would detect this movement and the LEDs would alert the vehicles, hence preventing an accident to occur. Meenakshi is a keen listener and is equally passionate about studies and extracurricular activities.





# inspire awards - manak

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Idea/Innovation : VIP (Vendor's Innovation Paradise)  
 Awardee : Mrigesh Thakur  
 Reference No. : 18HP1416012  
 Class : 8th  
 School Name & Address : Cambridge International School,  
 Mohal  
 District & State : Kullu, Himachal Pradesh  
 Guide Teacher : Raina Verma



Mrigesh came across the trodden condition of roadside vendors. Natural resources are being depleted, and also the economic condition of roadside vendors is worsening. His innovation consists of three chambers: 1. Main chamber - The burning chamber is the place where heating takes place as the chulha is placed here. 2. Sand chamber - For baking potatoes etc. 3. Steam chamber - to cook food. He has also come up with a cooking fuel made of coal, teak leaves, sawdust and cow dung, which is a viable alternative to LPG.



Mrigesh is a state-level cricket player and has a liking towards physics.



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Idea/Innovation : Innovative Multi-Cooker  
 Awardee : Navneet Deshta  
 Reference No. : 18HP1416166  
 Class : 9th  
 School Name & Address : Spring Dale School, Rampur  
 District & State : Shimla, Himachal Pradesh  
 Guide Teacher : Raina Verma



Navneet observed that LPG is being overly consumed for cooking, and hence came up with this project which has four detachable chambers to be used for cooking four food items at the same time. It also has insulated layers to prevent heat dissipation. One of the chambers is used to produce steam for cooking. This project is both time-efficient and cost-effective. Navneet loves to play outdoor games like volleyball, basketball etc. He also loves to listen to music.





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Idea/Innovation : Hydraulic Underground Dustbin  
 Awardee : Palak  
 Reference No. : 18HP1415619  
 Class : 6th  
 School Name & Address : Modern Public Sr. Sec. School  
 Swarghat, Bilaspur HP  
 District & State : Bilaspur, Himachal Pradesh  
 Guide Teacher : Gaurav



Palak has been motivated by the Swachh Bharat Abhiyan and wishes to keep our surroundings neat and clean, which inspired her to innovate a hydraulic underground dustbin. Its components include cylinder, injections, pipes etc. The idea is to store and recycle garbage underground as this would prevent us from the sight and odour of the garbage and save some space on the ground as well. Palak's parents and teachers helped her in the development of this idea.



She is an avid reader, an enthusiastic traveller, and also a great student.



# inspire awards - manak

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Idea/Innovation : Innovative Multi Steamer  
 Awardee : Poonam Devi  
 Reference No. : 18HP1416009  
 Class : 10th  
 School Name & Address : Govt. Sr. Sec. School Bajaura  
 District & State : Kullu, Himachal Pradesh  
 Guide Teacher : Pankaj Verma



Poonam observed the difficulties faced while making food items that required steam in traditional utensils and came up with this innovative idea of a multi-purpose steamer. When powered, the water chamber will produce steam which will reach the different containers having food items through the steam pipe, and this will easily cook the food. Her project is both cost-effective and time-efficient. Poonam is inclined towards her studies and indulges in extracurricular activities like sports.





# inspire awards - manak

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Idea/Innovation : Floating Houses for Flood affected Areas  
 Awardee : Ravi Kumar  
 Reference No. : 18HP1415569  
 Class : 9th  
 School Name & Address : G.S.S.S. Gharan  
 District & State : Bilaspur, Himachal Pradesh  
 Guide Teacher : Amit Kumar



Ravi, a resident of an area near the Govind Sagar Lake, was troubled by the fluctuating levels of water during the rainy season, and otherwise. He also came to know that floods are one of the major causes of destruction of houses in India and hence came up with this innovative idea of floating houses. This project is implementable at flood prone areas. It uses four rigid pillars (to provide rigidity to the house), PVC pipes and wooden boards.

Ravi has a keen interest in studies and loves playing cricket. He aspires to join the Indian Army in the future.



# inspire awards - manak

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Idea/Innovation : Fuel from Pine (Cheed) Tree Leaves  
 Awardee : Riya  
 Reference No. : 18HP1415775  
 Class : 7th  
 School Name & Address : GSSS, Nalti  
 District & State : Hamirpur, Himachal Pradesh  
 Guide Teacher : Sanjeev Kumar



Himachal Pradesh forest is rich in pine trees. These pine needles can cause lot of damage to the biodiversity and environment due to highly inflammable nature. The use of wood, crop residue or cow dung for cooking is widespread in the state. The increasing rate of L.P.G and electricity also make the condition worse. So, to find a way of addressing both the issues a modified chulla was developed by Riya which can be used to make the char of pine needle biomass. In this modified chullas, there is empty box made up of iron surrounded the fuel burning section of chullas. This empty box is tightly filled with the dry pine needles. On one time we can fill about 5 to 6 kg of pine needles. These pine needles can be converted into a char in about 2 hours cooking. There are very small holes between this box and burning section of chulla. Then with the help of this char we can make smoke free briquette by adding 10% red soil or starch of rice as a binder. In this way we can save the forest from fire and also give the rural poor the alternate renewable and very economic energy source.





# inspire awards - manak

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Idea/Innovation : Earthquake Resistant Bed  
 Awardee : Sahil  
 Reference No. : 18HP1415636  
 Class : 8th  
 School Name & Address : Govt. Senior Sec. School  
 Parchhore  
 District & State : Chamba, Himachal Pradesh  
 Guide Teacher : Neetu Singh



This innovative bed has flaps attached to it inclined at an acute angle, which begin to close upon sensing any serious vibrations. The shape of these flaps also prevents the debris to fall upon the person sleeping on the bed. Besides this, he has also made a safety room which would have all the items of necessity like torch, radio, warm clothes, gas cylinder etc., required in case of any natural calamity. Sahil loves playing cricket and wishes to join the Indian army in the future.



# inspire awards - manak

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Idea/Innovation : Accelerometer Based Wheelchair  
 Awardee : Shama Khan  
 Reference No. : 18HP1415512  
 Class : 9th  
 School Name & Address : Thomson Public School Ghumaiwin  
 District & State : Bilaspur, Himachal Pradesh  
 Guide Teacher : Rajnish Kumar



Shama drew motivation from a specially-abled girl who lives in her colony, and is wheelchair-ridden. She observed that the girl is immobile even on the wheelchair unless she gets any external help. Shama has designed a wheelchair which uses the accelerometer for movement, and which could be easily operated by anyone using their hands. She has used various electronic components like Arduino UNO, DC Motors, Accelerometer etc. The wheelchair can move in all directions in a two-dimensional plane. Shama aspires to become a teacher and impart knowledge to children.





# inspire awards - manak

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Idea/Innovation : Automatic Dipper  
 Awardee : Suryansh  
 Reference No. : 18HP1415767  
 Class : 9th  
 School Name & Address : Him Academy Public School Vikas Nagar P.O. Daruhi Teh  
 District & State : Hamirpur, Himachal Pradesh  
 Guide Teacher : Sudhir



The continuous rise in the number of road accidents, especially at night, prompted Suryansh of developing an automatic dipper. This project uses light sensors, LDRs, IC 555, etc. The sensors used will detect approaching vehicles and spark on the dipper automatically hence reducing any human effort. Suryansh is interested in finding unique and innovative solutions to problems.



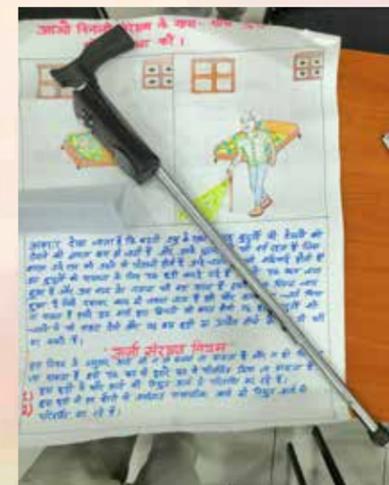
# inspire awards - manak

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Idea/Innovation : Solar Walking Stick  
 Awardee : Vaishali Dogra  
 Reference No. : 16HP1392661  
 Class : 6th  
 School Name & Address : Govt. Sr. Sec. School Behin  
 District & State : Kangra, Himachal Pradesh  
 Guide Teacher : Vijay Paul Singh



Vaishali has a soft corner for the elderly, especially those physically challenged, and wishes to work towards the problems faced by this section of society. Her project includes a solar walking stick and a torch. It also includes 4 LEDs and a solar panel which charges the battery attached to it. Vaishali's biggest inspiration are her teachers. She is an avid reader and is also interested in sports.





# inspire awards - manak

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Idea/Innovation : Innovative Dustbin  
 Awardee : Vinayak Rana  
 Reference No. : 18HP1416298  
 Class : 6th  
 School Name & Address : Kutlehar Public School  
 District & State : Una, Himachal Pradesh Brief  
 Guide Teacher : Paramjeet



This idea of a Dustbin with a sound alert struck Vinayak when he saw people littering around at a bus stand despite having a dustbin kept in the vicinity. Inspired by our Prime Minister Mr. Narendra Modi's take on hygiene, and the various initiatives he took at school level for the same, Vinayak came up with this idea of a dustbin with have a lid that will open for the junk, and once junk is put inside, it will let out a sound alert saying 'Thank you!'. According to him, this acknowledgement will inculcate a sense of awareness in the young ones. Vinayak also takes interest in quizzing and playing cricket.



# inspire awards - manak

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Idea/Innovation : Pre Indication of Ending Saline  
 Awardee : Shivansh Raj  
 Reference No. : 18HP1448684  
 Class : 8th  
 School Name & Address : Govt. Middle School, Grahna  
 District & State : Kullu Himachal Pradesh  
 Guide Teacher : Jai Singh



Intravenous therapy (IV) commonly referred to as drips, is used to inject or infuse liquid substances directly into a vein. The intravenous route is the fastest way to instill medication and fluid replacement throughout the body. But one needs to constantly keep an eye on the solution level of the bottle which is a pretty hectic job. To eliminate this drudgery, Shivansh has designed a pre-indication system which beeps in advance when the solution is about to exhaust so that the drip be replaced or closed on time to prevent blood loss. He likes to read and play cricket.





# inspire awards - manak

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Idea/Innovation : Modified Wheelchair  
 Awardee : Nivedita Negi  
 Reference No. : 18HP1448674  
 Class : 8th  
 School Name & Address : Himalayan Public School Reckong Peo  
 District & State : Kinnaur, Himachal Pradesh



Wheelchairs & clutches are very commonly used at hospitals, airports, railway stations, shopping malls etc. Nivedita has developed a screw-based folding wheelchair which can be manually converted into crutches/walker as and when required. It eliminates the risk and insecurity associated with the regular wheelchair on uneven surfaces and slopes. This wheelchair can be used on flat surfaces & crutches are apt for use on stairs or uneven surfaces.



She wants to become a full-time innovator, spending her time on developing new gadgets.



# inspire awards - manak

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Idea/Innovation : Rolling Barrier System  
 Awardee : Uday Prakash  
 Reference No. : 18HP1449056  
 Class : 9th  
 School Name & Address : G.S.S.S Gumma (Basantpur)  
 District & State : Shimla, Himachal Pradesh  
 Guide Teacher : Hira Singh Thakur



Uday has come up with a rolling road barrier system suitable for mountainous and hilly terrains, in order to prevent accidents. The barrier is made up of plastic cylinders that spin upon receiving an impact, thereby absorbing the shock and stabilizing the vehicle. This reduces its speed and chances of the vehicle from plunging into deep gorges or getting out of control and causing a pile-up. Uday is fond of dancing, reading and observing things around to get ideas for innovation.





# inspire awards - manak

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Idea/Innovation : Wheelchair Converts into Crutches  
 Awardee : Khushboo Sharma  
 Reference No. : 18HP1448806  
 Class : 10th  
 School Name & Address : Root Model Public Sr. Sec. School  
 Karsog  
 District & State : Mandi, Himachal Pradesh



The regular wheelchair usually fails when specially-abled people need to stand up and walk or when they are required to ascend or descend the stairs. To overcome this problem, Khushboo has designed a modified wheelchair which can be converted into crutches to assist in mobility. This version consists of a simple wheelchair to which crutches are attached in such a way that the person using this gadget can convert it easily into any of the two as per requirement. Khushboo loves to travel, explore new things and help the needy.



# inspire awards - manak

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Idea/Innovation : To Make an Instrument for  
 Plantation and keeps Equidistance  
 between them  
 Awardee : Neha Sharma  
 Reference No. : 18HP1448474  
 Class : 10th  
 School Name & Address : BKR Govt. Senior Secondary  
 School, Dada Siba  
 District & State : Kangra, Himachal Pradesh  
 Guide Teacher : Sukhvinder Singh



Manual transplantation of saplings is a time-consuming, laborious and hectic process. To save time, labour and cost involved in the transplantation process, Neha has come up with a simple transplanting device which is used for transplanting seedlings in the field. She likes to read science magazines, dance and surf the internet for science-related videos during her spare time.





# inspire awards - manak

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Idea/Innovation : Reversible Benches Cum Table  
Cum chair in public place

Awardee : Shiva Sharma

Reference No. : 18HP1449322

Class : 9th

School Name & Address : Gitanjali Smart School Nalagarh

District & State : Solan, Himachal Pradesh

Guide Teacher : Dinesh kumar Sharma



Shiva has come up with an idea of developing a chair with inbuilt table for studying and dining purposes since the sitting chairs and benches at public places occupy a lot of space. She thought of modifying these waiting benches and chairs into modified reversible benches which can assist waiting for passengers, students etc. to read and dine while waiting for their conveyance. Shiva loves to read books and newspapers, sing songs, and listen to music.



# inspire awards - manak

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Idea/Innovation : Toilet Cleaning Machine for School

Awardee : Kartik Dhiman

Reference No. : 18HP1448529

Class : 7th

School Name & Address : Govt. Senior Sec School, Gahlian

District & State : Kangra, Himachal Pradesh

Guide Teacher : Rakesh Walia



Kartik noticed that the school bathrooms remain dirty because students are not made aware enough about flushing after use. Sometimes it could also be due to irregular cleaning. This inspired him to develop a system that can clean the urinals automatically after use. It also wipes the surface with brushes incorporated in it. This system works with solar energy and prevents excessive use of water and labour. His hobbies include reading, gardening and indulging in science-related projects.





# inspire awards - manak

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Idea/Innovation : Dead Tyre Inflator  
 Awardee : Aayush Chaudhary  
 Reference No. : 18HP1448727  
 Class : 10th  
 School Name & Address : Bharat Bharti Sec. School Kullu  
 District & State : Kullu, Himachal Pradesh  
 Guide Teacher : Abhilasha



Aayush belongs to a place where car servicing stations are not very easily accessible. Owing to his father's work hours, his family had to more often than not travel during late evenings and have faced the problem of a flat tyre. Due to the limited service facility, they always had to change the tyre. This encouraged him to develop a low cost, portable, compact aid to inflate tyres of the vehicle, so as to fix the problem on the spot and enable the rider to reach the destination. This gadget makes the arduous task of lifting a car off the ground far less painful simply by letting the car's own exhaust do the work. His hobbies include photography, dance and surfing the internet.



# inspire awards - manak

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Idea/Innovation : One Solution for Four Problems  
 Awardee : Abhishek Kumar  
 Reference No. : 8HP1448991  
 Class : 10th  
 School Name & Address : Govt. Senior Sec School, Narain  
 District & State : Kullu, Himachal Pradesh  
 Guide Teacher : Ajay Kumar



Our environment suffers due to improper waste management. Also, numerous cases of fire take place in garbage dumps, isolated locations and mountains, where fire service cover may not be easily available. This inspired Abhishek to develop a "One solution for four problems" device. This device can extinguish the fire, collect garbage, climb hills and can also be used for irrigation purposes. Abhishek likes working on ideas that can solve social problems.





# inspire awards - manak

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Idea/Innovation : Sea Saw Water pump  
 Awardee : Manoj Chauhan  
 Reference No. : 18HP1449106  
 Class : 9th  
 School Name & Address : Govt. Senior Sec School, Dadahu  
 District & State : Sirmour, Himachal Pradesh



Manual threshing of corn for the harvesting of kernels is a labour-intensive and time-consuming process. Threshing is usually carried out manually especially in mountainous regions where maize is considered as a staple food. To eliminate this drudgery, Manoj has developed a "Unique Corn Peeling Machine" which saves both time and labour and enhances efficiency and productivity. This machine is easy to use and can be transported from one place to another. He likes to play cricket, listen to music and perform various scientific experiments.



# inspire awards - manak

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Idea/Innovation : Floating Wheelchair  
 Awardee : Aritri Sharma  
 Reference No. : 18HP1448987  
 Class : 7th  
 School Name & Address : Spring Dale School Khaneri  
 District & State : Shimla, Himachal Pradesh  
 Guide Teacher : Priyanka



To aid the movement and evacuation process during natural calamities for specially-abled people, who are otherwise left vulnerable, Aritri has developed an amphibious wheelchair in which airbags have been fitted onto the ventral side of the chair which inflates during an emergency and helps wheelchair to float on water, thus saving lives. The recent Kerala floods inspired her to develop such a gadget. Aritri loves to play basketball and read scientific journals. She has also participated in various science quiz competitions.





# inspire awards - manak

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Idea/Innovation : Incubator to hatch eggs  
 Awardee : Areeva Khan  
 Reference No. : 18HP1447957  
 Class : 10th  
 School Name & Address : Bright Future Public School  
 Kandraur  
 District & State : Bilaspur, Himachal Pradesh  
 Guide Teacher : Sanjeev Kumar



Areeva has designed and fabricated an automatic, electrically-powered egg incubator suitable for hatching fowl (chicken) eggs using the available local materials to achieve efficient performance. The need to embark on this project arose as an effort to contribute to the production of more chicks for poultry farms. With a hatching capacity of 36 eggs (two crates of eggs) at a time, the incubator is inbuilt with optimum temperature and moisture monitoring devices. Areeva loves to play games and learn new things.



# inspire awards - manak

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Idea/Innovation : Coin separating machine  
 Awardee : Anurag Chauhan  
 Reference No. : 18HP1449201  
 Class : 9th  
 School Name & Address : Nav Jyoti Century School Kharuni  
 District & State : Solan, Himachal Pradesh



In banks, temples, supermarkets etc. coins are collected in a huge quantity, but all denominations are mixed. It is a tedious and monotonous job to count and separate them manually. To make the process easy, Anurag has developed a Coin Sorting and Counting Machine which separates coins of different values as well as different sizes. Innovation lies in the concept of counting those coins. Anurag is fond of playing games, making working models of new innovative ideas and trying new dishes. He aspires to become a scientist.





***Jammu and Kashmir***



# inspire awards - manak

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Idea/Innovation : Blind Glasses  
 Awardee : Koushal Sharma  
 Reference No. : 18JK1417282  
 Class: 10th  
 School Name & Address : K.V.No.1 Udhampur  
 District & State : Udhampur, Jammu And Kashmir  
 Guide Teacher : Vikramaditya



Koushal gets inspired by his father's work who is a part of committee which help to run a handicap ashram where there are many handicaps living their life. Student observed that the people with visual impairment face various problems in their daily life in order to overcome this problem he came up with the idea of blind spectacles which work on the principle of echolocation image processing.

The operational principle for such glasses is intercepting the outside world and tell the user about its surrounding with the help of headphone.



# inspire awards - manak

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Idea/Innovation : Steering Eye Sensor  
 Awardee : Harsh Vasu Paroch  
 Reference No. : 18JK1417014  
 Class : 9th  
 School Name & Address : St. Xavier's Convent School, Kathua  
 District & State : Kathua, Jammu And Kashmir  
 Guide Teacher : Brij Mohini



Harsh Vasu Paroch came up an innovative of Steering Eye Sensor to certify better security, safety and insures for good life on road by helping the drivers in terms of avoiding drowsiness, laziness and unconsciousness, the idea of students is to have system in vehicles based on sensors which will keep the person awaken while driving, the eye censor is IR based, the variation across the eye will vary as eye blink, if the eye is closed means that output is high otherwise low, the output is to given logic circuit to indicate alarm. This can be used to control accidents due to unconsciousness.





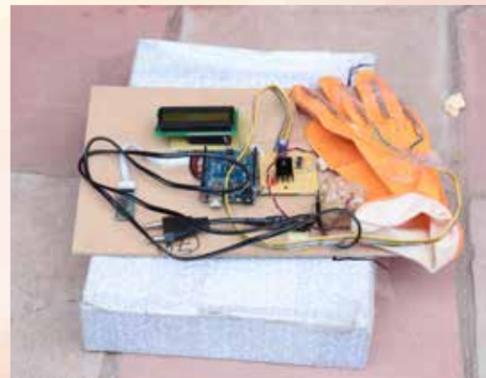
# inspire awards - manak

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Idea/Innovation : Sign Gesture System (Using Hand Glove)  
 Awardee : Jaspreet Kour  
 Reference No. : 18JK1449964  
 Class : 10th  
 School Name & Address : The Seminary High school, Chatha  
 District & State : Jammu, Jammu and Kashmir  
 Guide Teacher : Tanpreet Singh



There are people who don't have ability to speak, they find it difficult to express their thoughts and to convey their message to other people. She gave an idea of assisting those people who are suffering with this problem by innovating a Sign Gesture System using Hand glove. A flex sensor generates the signal which is synchronized in an audio which acts as a brain. Corresponding to input signal an output in the form of text is generated and is displayed in an LCD and also a voice modulator is connected for voice.



She likes reading books and playing badminton.



# inspire awards - manak

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Idea/Innovation : Bicycle powered fan used for winnowing  
 Awardee : Nancy Kundal  
 Reference No. : 18JK1450480  
 Class : 6th  
 School Name & Address : Govt. Middle School Chak Bakhan  
 District & State : Samba, Jammu and Kashmir  
 Guide Teacher : Punita Attari



Nancy lives in a rural area, she has often seen her mother waiting for wind to blow, for separating grains from the chaff which is a very crucial and time consuming process in the cultivation of crops. To overcome this problem, she innovated a bicycle powered fan used for Winnowing. The machine has a fan which can be rotated by pedalling and the velocity of the wind generated can be controlled by the speed of pedalling. This will further help people to separate quality grains from Chaff and will eventually save time.



She likes to play Kho-Kho and Kabaddi and wants to be a social worker.



# inspire awards - manak

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Idea/Innovation : Automatic Security System in ATM  
 Awardee : Pratishtha Sharma  
 Reference No. : 18JK1449756  
 Class : 10th  
 School Name & Address : Govt. Higher Secondary School Dhaknar  
 District & State : Jammu, Jammu and Kashmir  
 Guide Teacher : Joginder Kumar



Keeping in view day-to-day looting of ATMs at certain places by unlocking and breaking by the thieves. Student has developed a security system by which ATMs can be protected from robbing by having an inbuilt alarm. If any person will try to unlock or break the ATM from any other unused side it will start beeping and can be saved from any type of loss. By installing this type of security system in ATMs anyone can come to know nearby that someone is trying to damage the machine.



# inspire awards - manak

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Idea/Innovation : Sensor in the stick of blind person  
 Awardee : Deepshikha Gupta  
 Reference No. : 18JK1449982  
 Class : 9th  
 School Name & Address : Indira Public Higher Secondary School  
 District & State : Jammu, Jammu and Kashmir  
 Guide Teacher : Ajay Kumar Abrol



Ms. Deepshikha has come up with a unique idea to help disabled persons having weak eyesight by developing a sensor base stick. During traveling it will indicate them that any object is ahead so that they can be saved from striking with that object. Usually these people are using simple sticks which needs some further care. So this stick will be very beneficial for them. It also has a water sensor which will aware them about mud and wet roads forward to save them from slipping.





# inspire awards - manak

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Idea/Innovation : High Sensor Tech At the Unman Level Crossing  
 Awardee : Vinayak Sharma  
 Reference No. : 18JK1449796  
 Class : 8th  
 School Name & Address : Play Way Modern Academy Gharattal  
 District & State : Jammu, Jammu and Kashmir  
 Guide Teacher : Sahil Sharma



As we are facing, the problem of accidents due to railways which cause many casualties so, in order to minimize such accidents, he suggested a High Tech. Senior technique at unman level crossing which will help in making the journey save and secure. He gave the idea of tracking railways with high level sensors. As the train will arrive on the first server, it will detect the arrival of the train and the barrier of other side of the unman level crossing will automatically be closed. Simultaneously the speaker and rod light will also be on. This will help the vehicles that are on the side to approach and then it will eventually stop. Then the second sensor will automatically open and green light will be on, which will indicate the vehicles of the other side about the train and they will safely cross the crossing and the journey will be safe and secure. His hobby is playing cricket and to participate in different competitions.



# inspire awards - manak

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Idea/Innovation : Generation of electricity from pressure  
 Awardee : Nitish Sharma  
 Reference No. : 18JK1449798  
 Class : 8th  
 School Name & Address : Govt. Middle School Platan  
 District & State : Jammu, Jammu and Kashmir  
 Guide Teacher : Anadi Sharma



Electricity is important because it is versatile, controlled easily and is used in everyone's daily life. He innovated an idea of generating electricity from pressure. Such crystals in which charge is developed on the surface when we put pressure on them. Such crystals are known as piezoelectric crystals. This charge can be stored in battery and can be used later. Such type of crystals are used in front of mall lifts and in other crowded places.



Nitish Sharma likes reading books, and interacting with new people.



# inspire awards - manak

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Idea/Innovation : Solar House  
Awardee : Sonam Chosdol  
Reference No. : 18JK1450440  
Class : 10th  
School Name & Address : Govt. High School Hemis  
Shukpachan  
District & State : Leh, Jammu and Kashmir  
Guide Teacher : Disket Dolma Master



As Ladakh faces harsh winters, and it becomes very difficult for people to survive and perform daily activities. Keeping in mind the problem, she thought of innovating a passive solar house which will help in retaining heat. The house will use solar energy to heat the rooms. The house is to be built in south direction and it should be well insulated in the north direction. The doors are air locked so that the heat is retained and there is no chance of escaping heat from the room.



She loves to play ice-hockey, reads books and she likes travelling.

## Jharkhand



# inspire awards - manak

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Idea/Innovation : Cleaning Robot  
 Awardee : Gaurav Kumar Singh  
 Reference No. : 18JH1418220  
 Class : 10th  
 School Name & Address : Jamshedpur Public School  
 District & State : East Singhbhum, Jharkhand  
 Guide Teacher : Nisha Srivastava



Being concerned about the terrified environmental pollution, Gaurav has come with his simple but innovative solution of Cleaning Robot, it also contributes to the dream of PM Modi's "Swachh Bharat Abhiyan". This is basically a simple and cheap way of cleaning House, office, trains whatever we wish just via a smartphone. This multi- tasking robot is very helpful for the handicapped people and it also arranges for entertainment like music playing etc., it is boosted with solar panel charger, power bank, vacuum and automated light system.



Gaurav has keen interest in Robotics.



# inspire awards - manak

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Idea/Innovation : Air Pollution Controller  
 Awardee : Hemant Kumar Paswan  
 Reference No. : 18JH1418300  
 Class : 9th  
 School Name & Address : High School Saunda  
 District & State : Ramgarh, Jharkhand  
 Guide Teacher : Arti Sahu



Being concerned with the present status of environmental pollution, Hemant has come with a simple solution of Air Pollution Controller made up of a motor, a synthetic thread, a stainless steel net and a filter paper to filter and exhale the polluted air.



Hemant is very much attached to machines, and is fond of the process of making something new, something inventive.



# inspire awards - manak

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Idea/Innovation : Grinder cum Body Warmer  
 Awardee : Jyoti Kumari  
 Reference No. : 18JH1418329  
 Class : 6th  
 School Name & Address : Govt. Middle School, Koyaritola, Ramgar.  
 District & State : Ramgarh, Jharkhand  
 Guide Teacher : Gyani Kumari



Seeing her mother grinding wheat with her hands, Jyoti has come with such a grinder in which we do not have to use our hands and as well as it is operated by pedals, it leads us to some exercise and also gives us home-made fresh flour.

Jyoti wants to be someone who can really serve for the people, for the nation.



# inspire awards - manak

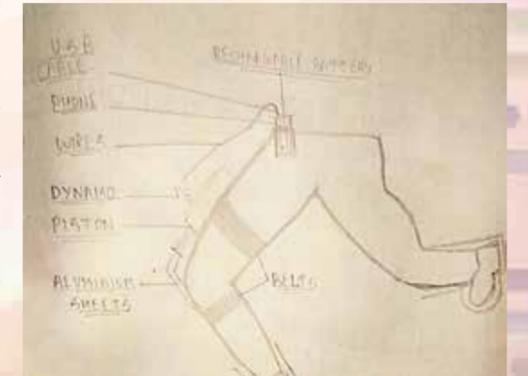
million minds augmenting national aspiration and knowledge

Idea/Innovation : Dynamic Power Bank  
 Awardee : K. Sai Kamal Kumar  
 Reference No. : 18JH1418219  
 Class : 10th  
 School Name & Address : Jamshedpur Public School  
 District & State : East Singhbhum, Jharkhand  
 Guide Teacher : Nisha Srivastava



Student has come with an innovative idea of Dynamic Power Bank, there will basically be a piston connected to our thigh, the piston will be attached to a dynamo which will convert mechanical energy into electrical energy for charging the rechargeable batteries.

Being empathetic to the needy people Kamal wants to bring up some new technologies, which can be the elixir for the smile of those people.





# inspire awards - manak

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Idea/Innovation : Smart Bridges  
 Awardee : Kiran Kumari  
 Reference No. : 18JH1417951  
 Class : 8th  
 School Name & Address : Govt. Higher Secondary School,  
 Masmano  
 District & State : Lohardaga, Jharkhand  
 Guide Teacher : Ashok Kumar



Kiran thinks about a smart bridge having an alarm system which will ring whenever water is above the level to avoid accidents, to save people from being distressed. Kiran wants to serve for the people of rural area and she believes that new ideas are the only elixir of society's development.



# inspire awards - manak

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Idea/Innovation : Metallic Scrap Picker  
 Awardee : Raj Kumar Singh  
 Reference No. : 18JH1418235  
 Class : 7th  
 School Name & Address : U.P.G. M.S. Kurum  
 District & State : Ramgarh, Jharkhand  
 Guide Teacher : Satendra Kumar Singh



Raj has come with a different type of idea of metallic scrap picker machine that will scrap up all the metallic garbage from roads by an iron sheet having magnetic power, the collection process is easy and we can also reuse the collected metallic parts.

Raj accepts that he has recognised the above problem from his routine life, so we look forward for his next valuable observations and their remedies.





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Idea/Innovation : Biometric Voting Machine  
 Awardee : Ramesh Kumar  
 Reference No. : 18JH1417871  
 Class : 7th  
 School Name & Address : Upgraded Middle School, Murup, Latehar  
 District & State : Latehar, Jharkhand  
 Guide Teacher : Chandan Kumar



Ramesh had a different idea for corruption free India via Biometric Voting Machine, which is connected with Election Commission Electoral Roll Database seeded with UID no. and Mobile no. through Broadband or V- sat internet connection.



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Idea/Innovation : Advanced Restrain Hand Belt Model  
 Awardee : Roushni Parween  
 Reference No. : 18JH1418352  
 Class : 9th  
 School Name & Address : Govt Balkrishna High School  
 District & State : Ranchi, Jharkhand  
 Guide Teacher : Sri Jayanti Prasad Poddar



Being empathetic to handicapped people, Roushni came with the solution of an Advanced Restrain Hand Belt, which has a wheel chair for handicapped people controlled by a belt and remote control both so that by chance if the chair is wrongly being operated by the handicapped person, it can be corrected by the alternative device as the remote control would always be connected with Bluetooth and sensor.

Roushni wants to be a lawyer in future to serve the society.





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Idea/Innovation : Automated Deep Penetrating Light System in vehicles  
 Awardee : Shaurya Gupta  
 Reference No. : 18JH1417579  
 Class : 10th  
 School Name & Address : DAV Public School, Gumla  
 District & State : Gumla, Jharkhand  
 Guide Teacher : Jiwan Kumar Pandey



Student has recognised the issue of increased rate of road accidents and proposes a machine. This machine can control high intensity headlight of a vehicle by a microcontroller, when another vehicle is coming from the opposite side and speed will also be controlled as they face obstacles, intensity gets lessened by 50% and the Deep Penetrating Third Focus Light is switched on to enhance the visibility of the road. Shaurya loves to observe things and find something new from that.



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Idea/Innovation : System that will stop Robbery  
 Awardee : Shubham Chourasiya  
 Reference No. : 18JH1417717  
 Class : 10th  
 School Name & Address : Ananda High School  
 District & State : Hazaribag, Jharkhand  
 Guide Teacher : Goutam Saha



Subham has come with a solution of a very common problem of bank robbery, he will have a system where there will be a smart watch and a smartphone connected to each other; every bank employee will wear the watch and whenever an anonymous person tries to enter the bank, the watch will make them notify and the smartphone will send message to the nearest police station. Subham is a student who always wants to build a strong coordination between police and traffic to avoid road accidents.





# inspire awards - manak

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Idea/Innovation : Smart Bulb Fixer  
 Awardee : Sujal Kumar  
 Reference No. : 18JH1418328  
 Class : 7th  
 School Name & Address : Middle School Koyaritola  
 District & State : Ramgarh, Jharkhand  
 Guide Teacher : Rabindra Kumar Goswami



Sujal has noticed a very common problem and has come with a simple but efficient solution, a Smart Bulb Fixer, made up of some simple ingredients like a clutch, a liver and two pipes with which anyone even children and old age persons can easily open or fix bulbs.  
 Sujal is always so much curious about newly invented technologies.



# inspire awards - manak

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Idea/Innovation : Skid Protection Kit  
 Awardee : Aditya Saran  
 Reference No. : 18JH1452600  
 Class : 9th  
 School Name & Address : Jamshedpur Public School  
 District & State : East Singhbhum, Jharkhand  
 Guide Teacher : Nisha Srivastava



Aditya has observed the common problem of skidding of bike wheels in roads due to rainfall or other reasons, this kit will sense the proper tilting angle of the bike and the balloon will not let the bike be fallen down. His idea will really be helpful to avoid road accidents.





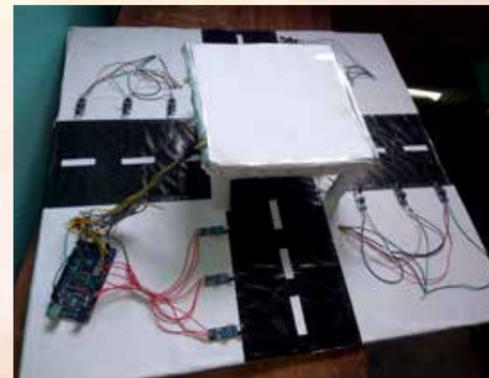
# inspire awards - manak

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Idea/Innovation : Intelligent Traffic Light  
 Awardee : Akshant Prakash  
 Reference No. : 18JH1452610  
 Class : 10th  
 School Name & Address : K.P.S., Burmamines Jamshedpur  
 District & State : East Singhbhum, Jharkhand  
 Guide Teacher : Namita Samanta



Akshant has identified a typical routine problem of traffic jam in cities and has come with a unique idea of "Intelligent Traffic Light" system, which would really be helpful, if implied. Typically, traffic signal shows red, yellow and green lights for each cross- road for 30 seconds and he thinks of such a system which would show the green signal for more time for that road where there is less or no traffic jam, so it would really be helpful for people.



# inspire awards - manak

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Idea/Innovation : Multipurpose Chulhas  
 Awardee : Ankita Singh  
 Reference No. : 18JH1450827  
 Class : 9th  
 School Name & Address : K.C. Girls' High School, Jharia, Dhanbad  
 District & State : Dhanbad, Jharkhand  
 Guide Teacher : Kumari Archana



Belonging to an interior rural area, Ankita has come with a solution to many problems associated with the traditional chulha used in rural areas. She has come with a multipurpose chulha, which can save us from the polluted smoke created by the traditional chulha and also can save the huge quantity of wood used by the chulha as it just uses a small amount of crop wastage, bushes etc. reducing the burden on the forest and reducing the time consumption for collection of fuel wood and also does not spread so much of polluted smoke. Besides all these, it has high efficiency within it having so many usages together like cooking food, getting hot water directly from the attached tap which is connected through a metal pipe and having distilled water also. This innovative thought of Ankita connects us with PM Modi's dream project of "Swachh Bharat Abhiyan" as it saves us from the polluted smoke.





# inspire awards - manak

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Idea/Innovation : Fog Mill  
 Awardee : Ayush Kumar  
 Reference No. : 18JH1452599  
 Class : 10th  
 School Name & Address : Jamshedpur Public School  
 District & State : East Singhbhum, Jharkhand  
 Guide Teacher : Nisha Srivastava



Ayush has come with the idea of a fog mill, which will convert fog into water by condensation and purify it for drinking and then supplying by pipes.



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Idea/Innovation : Paving Stone of 21st Century  
 Awardee : Ayush Kumar Karn  
 Reference No. : 18JH1451901  
 Class : 10th  
 School Name & Address : DAV Public School Jhumari  
 Talaiya  
 District & State : Koderma, Jharkhand  
 Guide Teacher : Neetika Singh



Ayush has come with a unique idea of new Paver Stone, these stones will have some features which will solve the problems which people face due to using normal paver stones like problem of drainage, problem of settling down etc. These will have vertical small holes to absorb water to avoid drainage problem and horizontal wholes to be connected by a thin iron rod to avoid the problem of settling down, these will be made of plastic, so it will be a way of plastic recycling and this will also be durable and cost effective than that of the normal pavers. The student has also thought of attaching piezoelectric sensor to the paver to produce electricity when someone passes over it.





# inspire awards - manak

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Idea/Innovation : Home-made Insecticides  
 Awardee : Bimla Kumari  
 Reference No. : 18JH1451602  
 Class : 9th  
 School Name & Address : Kasturba Gandhi Balika Vidyalyaya  
 District & State : Hazaribag, Jharkhand  
 Guide Teacher : Sunita Gupta



Bimla has come with a simple but useful idea of home-made insecticides where she has used easily available common things who don't have such a bad impact on the environment like the typical chemical insecticides. She has used Oil Spray, Soap Spray, Neem Leaves, Garlic Leaves and Tomato Leaves in her insecticides, which are really easily available, each has its significant impact and no side effects like the oily one destroys the small pests by suffocating them as it blocks the pores through which they breathe; the soapy one directly heals the infected surfaces; Neem can be used in oil form or being mixed with soap; Garlic can be used being mixed with water, soap and oil and sprayed on infested plants and Tomato leaves kill the insects by its prickly projections.



# inspire awards - manak

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Idea/Innovation : Muscle Fatigue  
 Awardee : Chanchla Kumari  
 Reference No. : 18JH1452124  
 Class : 7th  
 School Name & Address : UPG Middle School Karmali  
 District & State : Latehar, Jharkhand  
 Guide Teacher : Gauri Shankar Prasad



Chanchla has come with the project of Muscle Fatigue, which is simply a cycle which has two attachments i.e. a washing machine and a maize kernel decorticator. It has such a name because it is operated by mechanical energy. The dual functions of this machine will really be helpful for the common rural people as it can operate the washing machine without any electrical energy and also helps to decorticate the grains of corn, for which generally machines are not available in the market.





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Idea/Innovation : Multipurpose Wheelchair  
 Awardee : Jitesh Kumar  
 Reference No. : 18JH1452717  
 Class : 9th  
 School Name & Address : Nirmala Convent High School,  
 Edalhatu, Morabadi  
 District & State : Ranchi, Jharkhand  
 Guide Teacher : Binod Kumar Nishad



Student has come with a multipurpose wheelchair which is very useful for the handicapped people because it serves many needs like it is more balanced than the normal wheel chairs, it has a vacuum cleaner beneath the wheels to keep the house clean and the height can be adjusted like when one needs a thing from the upper shelf of the kitchen, he or she can uplift the chair, do the work and then can adjust it again.



# inspire awards - manak

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Idea/Innovation : Making of fertilizer with the help of  
 Human Hair and Bird Feather with  
 Gomutra  
 Awardee : Nirmal Kumar  
 Reference No. : 18JH1452063  
 Class : 10th  
 School Name & Address : Rajyakrit +2 Boys Hs Latehar  
 District & State : Latehar, Jharkhand  
 Guide Teacher : Tripti Bharti



Nirmal has come with an idea of making fertilizer from Human Hair, Bird Feather and Gomutra, generally organic fertilizers now-a-days are hugely available in the market, but the combination of human hair and bird feather is really rare. Gomutra generally has many importances, so can be used in fertilizer preparation and Nirmal tells about melting the human hair and bird feather into Gomutra in high temperature for long time. This would really be helpful in farming.





# inspire awards - manak

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Idea/Innovation : Garden Cleaner Cycle  
 Awardee : Prashant Kumar gupta  
 Reference No. : 18JH1451849  
 Class : 9th  
 School Name & Address : Lakshmi Narayan High School  
 Murhu, Khunti  
 District & State : Khunti, Jharkhand  
 Guide Teacher : Awadhesh Kumar



Prashant has come with a spiked drum which would be used as a weeder, can be attached to any kind of vehicle and which has a collector trolley made with metallic nets to collect the weeds and garbage. It also contributes to the dream of PM Modi's "Swachh Bharat Abhiyan".



# inspire awards - manak

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Idea/Innovation : Electricity Production by using  
 Turbine from Brick Vattah  
 Awardee : Premnath Mahto  
 Reference No. : 18JH1452691  
 Class : 10th  
 School Name & Address : S.S. +2 High School, Childag,  
 Anagara  
 District & State : Ranchi, Jharkhand  
 Guide Teacher : Tej Prakash Akhouri



Being from a brick yard congested area, Premnath has come with a useful idea of Electricity Production by using Turbine from Brick Vattah. According to him, the huge quantity of coal fuel being used in brick yard can produce a high amount of steam, if one circulates water through copper pipes and then we can rotate a turbine in the steam to produce electricity. This electricity can be used in the yard, in the local villages and by this we can get the dual use of the coal fuel, both for drying the bricks and for electricity production.



Being a class 10th student, Premnath has thought of such a useful idea and we expects more from him in the near future.



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Idea/Innovation : Raincoat in Cap  
 Awardee : Prince Sharma  
 Reference No. : 18JH1452759  
 Class : 10th  
 School Name & Address : Hinoo United High School  
 District & State : Ranchi, Jharkhand  
 Guide Teacher : A Rose Soren



Student has come with such a simple and unique idea of a cap which will contain a raincoat in it, so that people have not to carry umbrella and raincoat separately. The cap will protect the person from excess heat and whenever rainfall comes surprisingly, the person can unlock the chain of the cap and wear the raincoat, it can even be used as a soft pillow in the time of travelling



# inspire awards - manak

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Idea/Innovation : Electric Plough  
 Awardee : Rahul Kumar  
 Reference No. : 18JH1452730  
 Class : 10th  
 School Name & Address : Dr. B.R. Ambedkar Memorial High School, Piska- Nagri  
 District & State : Ranchi, Jharkhand  
 Guide Teacher : Gyan Raj



Rahul has come with a project which will really be helpful for the farmers. This is a farm implement which has many attachments that means a complete system having almost all the needed things of a farmer like Paddy Wheat Grass cutter, Electric Spade, Night Working Bulb, Mobile Connection, Solar Connection, Mobile Charging, Inverter usage, Horn System for Bird Escaping, Water Supplier and he also thinks of adding some features like Agricultural Garbage Collector, an Electric Plough, Pesticide and Insecticide Sprayer, Load Carrier and a sowing machine.





# inspire awards - manak

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Idea/Innovation : Separation of Wastes  
 Awardee : Rangita Kumari  
 Reference No. : 18JH1452194  
 Class : 9th  
 School Name & Address : Govt. Kasturba Girls' High School  
 Lohardaga  
 District & State : Lohardaga, Jharkhand  
 Guide Teacher : Anupama Kanchan



Rangita has come with a project of waste separation, she has a cart in her model, which has separating attachments to make wastes into threads and then she also thought about the waste management. It also contributes to the dream of PM Modi's "Swachh Bharat Abhiyan".



# inspire awards - manak

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Idea/Innovation : Traffic Spikes  
 Awardee : Shubha Shankar Sharma  
 Reference No. : 18JH1452452  
 Class : 10th  
 School Name & Address : A.I.W.C Academy of Excellence  
 District & State : East Singhbhum, Jharkhand  
 Guide Teacher : Jolly Choudhary



Shubha has come with a solution which is a remedy to the very common problem of breaking traffic rules. He has come with the idea of traffic spikes, which would be very relevant for the people who smartly disobeys traffic rules. This will be a whole system where the person breaking signal will firstly be warned by an alarm and then in spite of that when he breaks the traffic rule, his vehicle would be punctured by the spikes. So, he will not be able to run away from the traffic police and it would be a great lesson to the person.





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Idea/Innovation : Chironji Seed Crushing Machine  
 Awardee : Sneha Kumari  
 Reference No. : 18JH1452353  
 Class : 9th  
 School Name & Address : Kasidih High School  
 District & State : East Singhbhum, Jharkhand  
 Guide Teacher : Shashikala Kumari



Identifying a very common problem of her surroundings, Sneha has come with an easy and cheap solution. She belongs to rural Jharkhand and knows the economical, medical and commercial importance of Chironji, this is a seed, used as a cooking spice, after the hard shell is cracked, the stubby seed within is soft. Rural people sell them with the seed coat in so low price, and after being exported to urbans, the seed coat gets cracked and being sold on such a high price. So, Sneha has thought of a Chironji crusher machine, which can be operated both by manual, electric and solar system. She has thought like that because in rural Jharkhand in many areas there is no electricity, so she has designed such a machine which can be operated manually, as well as by solar panel also, so that rural people can crack the seeds themselves and directly sell them in the correct market price, which would help them truly to grow economically more prosperous.



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Idea/Innovation : Automatic Robot Guard for India Pakistan Border  
 Awardee : Sonu Kumar  
 Reference No. : 18JH1450644  
 Class : 10th  
 School Name & Address : R. Mitra Plus 2 School, Deoghar  
 District & State : Deoghar, Jharkhand  
 Guide Teacher : Gautam Kumar



Being empathetic to the soldiers who have faced simultaneous terrorist attacks in recent years, Sonu has come with an advanced Border Security System which has a Robot Guard, a Search Drone, a Control Room and a Fencing Light which would be a complete system for providing proper security in the border areas.





# inspire awards - manak

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Idea/Innovation : Solar Motor Cycle  
 Awardee : Suraj Kumar Saha  
 Reference No. : 18JH1452247  
 Class : 8th  
 School Name & Address : Upgraded High School, Kariadih,  
 Littipara  
 District & State : Pakur, Jharkhand  
 Guide Teacher : Nikhil Kumar Shill



Suraj has come with a model of a Solar Motor Cycle, which would be operated by a solar panel, it would not require any fuel, and the solar panel will harvest and store the energy from the sunlight. The battery can be charged by pedalling. It would be great from the environmental impact because it does not consume any kind of fossil fuel.



# inspire awards - manak

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Idea/Innovation : Arduino Based Fire Fighting Robot  
 Awardee : Tushar Indra  
 Reference No. : 18JH1452605  
 Class : 10th  
 School Name & Address : V. Bharati Chinmaya School,  
 Telco  
 District & State : East Singhbhum, Jharkhand  
 Guide Teacher : Sahana



Tushar has come with a machine which will sense the infra-red radiation of fire and will send the robot there to control the fire. Generally everything, which has a certain temperature that emits infra- red radiation, but the sensor will be set to such a level that will sense only high temperature of the fire caught areas.





## inspire awards - manak

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Idea/Innovation : Easy seat for Co-rider in bike/  
scooter  
Awardee : Umanand Mishra  
Reference No. : 18JH1452762  
Class : 9th  
School Name & Address : Gauri Dutt Mandeliya High School,  
Ratu Road  
District & State : Ranchi, Jharkhand  
Guide Teacher : Ajay Kumar and Supriya Das



Umanand has observed a very common problem of our daily life, which we don't recognise generally. Now-a-days most of us use bikes but when the co-rider is an aged or handicapped person, he/ she gets trouble to ride, so for them Umanand has come with an easy solution. He has made a seat which we can descend when needed and then can uplift and the whole system will be attached to the bike maintaining the balance of the vehicle.



# Karnataka



# inspire awards - manak

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Idea/Innovation : Speed Governor for Vehicles  
 Awardee : Aditya P Kulkarni  
 Reference No. : 18KA1510996  
 Class : 9th  
 School Name & Address : Bhuvanendra Res School,  
 Karakal  
 District & State : Udupi, Karnataka  
 Guide Teacher : Prameela H



Speed has been identified as a key risk factor in road traffic injuries, influencing both the risk of road traffic crashes and the severity of the injuries that result from them. Many crashes at intersections are often caused by over speeding. This motivated the student to develop "Speed Governor Device". The primary function of this device is to limit the speed of vehicle. Traffic police can use this device to slow down the vehicles. If there are many vehicles on the road, the speed governor has the options to select the car violating speed norms, and bring it under the control of the traffic police. This low cost device prevent accidents and save many lives.



Aditya loves singing and playing cricket and volleyball. He has participated in many science competitions and sports tournaments. He aspires to become a scientist and serve the society.



# inspire awards - manak

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Idea/Innovation : Purification of Sewage water by  
 corn cob  
 Awardee : Simran Mainuddin Mulla  
 Reference No. : 18KA1419519  
 Class : 9th  
 School Name & Address : Presentation Girls HS Dharwad  
 District & State : Dharwad, Karnataka  
 Guide Teacher : Savita S



Simran's idea is to filter and purify sewage water to make it re-usable. Using corn cobs and some other material, she could remove contaminants and other impurities present in the water making it re-usable. In future, she wants to experiment this method in industries and individual households.





# inspire awards - manak

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Idea/Innovation : Air Filling During Travel  
 Awardee : Affan Pathan  
 Reference No. : 18KA1510487  
 Class : 8th  
 School Name & Address : Sacred Heart High School, SS Puram  
 District & State : Tumkur, Karnataka  
 Guide Teacher : Manjunatha



While travelling with his brother once, Affan's vehicle had a flat tyre stranding them without help in a remote region. This incident inspired student to develop a low cost, portable, compact aid to inflate tyres of vehicle. This device uses vehicles' own exhaust to fill air inside the tyres. This device can be safely used without affecting the functional aspects of the vehicle.

Affan's hobbies include playing chess, reading biographies and visiting new places. His biggest inspiration is Dr A.P.J. Abdul Kalam.



# inspire awards - manak

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Idea/Innovation : Bio Weedicide Prepared From Kokum Fruit Extract and Soap Nut  
 Awardee : Amogha Narayana  
 Reference No. : 18KA1506912  
 Class : 9th.  
 School Name & Address : Alvas English Medium High School  
 District & State : Dakshina Kannada, Karnataka  
 Guide Teacher : Sowmya B



Herbicides, likewise generally known as weedicides, are substances used to control undesirable plants. Frequent exposure to the chemical and inorganic weedicides is harming people and nature. In order to protect the environment and humans from herbicidal toxicity; student has developed an organic, eco-friendly, post emergent and non-selective weedicide prepared from Kokum fruit (*Garcinia indica*) and soap nut (*Sappindus mucorassi*) extract. It is an alternate to all other chemical hazardous weedicides and is also cost effective.

Amogha, who is a nature lover and also a poet, aspires to become a scientist.





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Idea/Innovation : Eco Friendly Agricultural Tools  
 Awardee : Anushri N  
 Reference No. : 18KA1508673  
 Class : 7th  
 School Name & Address : GHPS Dodda Bompalli  
 District & State : Kolar, Karnataka  
 Guide Teacher : Kavitha



Agriculture plays a significant role in overall socio-economic development. With decreasing labour force in agriculture, increasing yield or productivity is the key to growth. Shortage of labour and finding solutions thereof should become a major focus. To meet the requirements of small farmers, Anushri has developed a "multi-purpose farm tool". The tool is used for ploughing and levelling of land. It is also used for removing weeds before transplantation and in path ways.

Anushri's hobbies include reading books, playing games and dancing.



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Idea/Innovation : A Novel Product by Saloon Waste (Hair) To Increase Soil Fertility  
 Awardee : Anvith N  
 Reference No. : 18KA1506932  
 Class : 6th  
 School Name & Address : Vivekananda English Medium School  
 Guide Teacher : Sharadha Shetty  
 District & State : Dakshina Kannada, Karnataka



Human hair is considered a waste material in most parts of the world and its accumulation in waste streams causes many environmental problems. To overcome this issue, Anvith scientifically analyzed and designed a new compost made from hair, which can increase the fertility of soil. He collected hair waste from saloons, mixed it with buttermilk, soil, cow urine and cow dung and kept it for 45 to 50 days. The resulting compost was found to enrich soil nutrient. Since hair comprises keratin, major structural protein, which contains many cysteine residues, it is one of the major sites for accumulation of arsenic. Arsenic will help in digesting metals like magnesium from soil, which will prevent yellow leaf disease in plants.

Anvith's hobbies includes reading books and listening to music. He loves to participate in Olympiad and science related competitions. His biggest inspiration is Dr A.P.J Abdul Kalam. He aspires to become a scientist.





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Idea/Innovation : Turbo Gasifier Stove  
 Awardee : Ashlesh D M  
 Reference No. : 18KA1506803  
 Class : 9th  
 School Name & Address : Sri Satya Sai Loka Seva HS, Alike  
 District & State : Dakshina Kannada, Karnataka.  
 Guide Teacher : Guru Prasad



India is the largest producer and processor of cashews in the world. Many cashew nut processing factories after processing burn the cashew nut shells (an agro waste). Huge amount of heat is produced during burning. Ashlesh decided to experiment with this source of heat. He developed a "Turbo Gasify Stove". He uses cashew nut shell cake which contains organic compounds of larger molecules, which are decomposed into smaller molecules by heat, the smaller molecules then make combustion a very easy process. Due to high temperature blue flame is obtained. The cooking becomes less expensive with high efficiency.



Ashlesh is a trained bharatanatyam dancer. His hobbies are reading science magazines and making science models.



# inspire awards - manak

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Idea/Innovation : Eco Friendly Combo Bricks  
 Awardee : Ashlesha T  
 Reference No. : 18KA1506934  
 Class : 9th.  
 School Name & Address : Priyadarshini UPS, Bettampady  
 District & State : Dakshina Kannada, Karnataka.  
 Guide Teacher : Prajna N



Disposal of large quantity of plastic and glasses have emerged as an important environmental challenge, and their recycling is a big problem due to their non-degradable nature. This motivated student to develop eco-friendly combo bricks. These bricks are made up by adding light plastic and crushed glass waste. The properties of Eco-friendly bricks were tested for compressive stress, density and water proof nature. The project shows the unique features in the reuse of glass debris and light weight plastics and also controlling the toxicity produced from their melting.



Ashlesha hobbies include drawing and gardening. His extracurricular activities include Yakshagana, debate, and karate. He aspires to work in the scientific field.



# inspire awards - manak

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Idea/Innovation : Snake Guard  
 Awardee : Asmi  
 Reference No. : 18KA1506872  
 Class : 8th.  
 School Name & Address : St. Philomena Aided High School  
 District & State : Dakshina Kannada, Karnataka.  
 Guide Teacher : Clement Pinto



In India, snake bites take a heavy toll of human lives especially in tropical and subtropical areas, and this therefore needs urgent attention. Student has developed a device "Snake Guard" to take care of this problem. This device is planted in ground. This device emits a pulsating vibration (ultrasonic) into the surrounding soil. When the snake perceives the vibration as a source of danger, it chooses to avoid confrontation. The theory is that snakes find this vibration intolerable and immediately slither off to somewhere more comfortable. This idea will not only protect the lives of the farmers from fatal reptile encounters but also avoid the gory killings of snakes by the rural community.



Asmi likes to swim and wants to work in the scientific field.



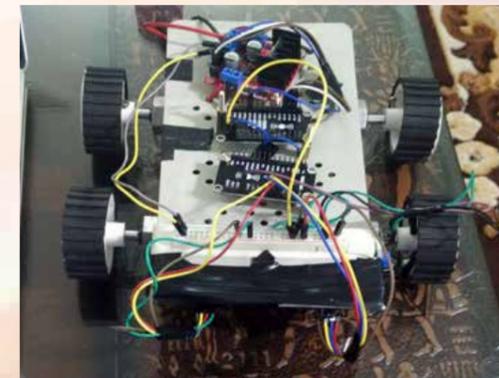
# inspire awards - manak

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Idea/Innovation : Pothole Scanner  
 Awardee : C V Balaji  
 Reference No. : 18KA1504414  
 Class : 8th.  
 School Name & Address : Sri Rama Vidyalaya School  
 District & State : Bangalore Urban, Karnataka.  
 Guide Teacher : Pampanna M Juchani



Aging roads and poor road-maintenance results in a large number of potholes, whose numbers increase overtime. Potholes can generate damage such as flat tyre and wheel damage, impact and damage of low height vehicle, vehicle collision, accidents, etc. To address the problems associated with potholes, the locations and size of potholes must be determined quickly. The day to day problems associated with potholes and exact requirement of construction material inspired student to develop "Pothole detection scanner system". This proposed system detects potholes over a wide area and also provides estimation of material quantity required for filling them. It can also report the data to government. This technology will also allow government to plan ahead better and in more efficient ways.



Balaji is interested in circuit designing and programming.



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Idea/Innovation : Power Generation Using Speed Breakers  
 Awardee : Bhargavi  
 Reference No. : 18KA1507827  
 Class : 9th.  
 School Name & Address : Sri Chennakeshava Swamy Girls HS  
 District & State : Hassan, Karnataka  
 Guide Teacher : Prasanna H T



In a fast moving world, population is increasing day by day and the conventional sources of energy are reducing. The extensive usage of energy has resulted in an energy crisis over the last few years. Therefore to overcome this problem the student has developed a technique that utilizes the energy when vehicles pass over a speed breaker. The student has tapped the energy generated and produced power using the speed breaker as power generating unit.



Bhargavi is interested in science experiments and projects. Her hobbies include dancing, doing yoga and listening to music.



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Idea/Innovation : Aquaponics  
 Awardee : Chaithanya G.K.  
 Reference No. : 18KA1509138  
 Class : 9th.  
 School Name & Address : J.J. Public School  
 District & State : Mandya, Karnataka.  
 Guide Teacher : Kendagannaswamy



Aquaponics is a method of food production, growing fish and vegetables in a recirculating aquaculture system. It is considered more sustainable as more plants can be grown per square meter compared to normal agriculture. In order to reduce the spatial requirement for plants, the student designed a column based vertical farming system. In this system ecological symbiosis process takes place simultaneously between plant system and aquatic system. Water is effectively utilized by both systems where ammonia from fish waste is nitrified to nitrites (NO<sub>2</sub>) and nitrates (NO<sub>3</sub>) by plant system (as a bio fertilizer) which enhances plants nutrition compare to traditional methods. This method uses less space and manpower requirement. Crops, fishes, and prawns developed in this system are free from pest, virus, antibiotics and artificial hormones.



Chaithanya's hobbies include dancing and drawing.



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Idea/Innovation : Smart Helmet  
 Awardee : Rahul B R  
 Reference No. : 18KA1507818  
 Class : 7th.  
 School Name & Address : PODAR HPS  
 District & State : Hassan, Karnataka.  
 Guide Teacher : Avinash K V



While there are laws preventing a two wheeler driver to ride without a helmet, yet the same is not followed properly. A lot of deaths in road accidents occur due to this. This inspired student to develop a "Smart Helmet". This helmet is used as an ignition switch to start a two wheeler. This device automatically checks whether the person is wearing the helmet and has non-alcoholic breath while driving. GSM & GPS technology and also different sensors, like alcohol sensor and LDR sensor, are used.



# inspire awards - manak

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Idea/Innovation : Change Bulbs or Tube-Lights without a Ladder  
 Awardee : Ranjan U G  
 Reference No. : 18KA1510928  
 Class : 7th.  
 School Name & Address : Murarji Desai Brahmavara  
 District & State : Udupi, Karnataka.  
 Guide Teacher : Ganesh



Changing faulty light bulbs gets difficult sometimes because of the height of the bulb sockets. One has to climb a ladder or take a stool to replace the faulty one. The student's mother faced this problem, which inspired him to make a bulb and tube light change rod. It is a multipurpose home appliance tool and can also be used for other purpose like removing coconut and other fruits from tree, to clean cobwebs from ceilings, to paint tall walls also. The equipment is very useful for handicaps and household women. The equipment is cost effective and user friendly.



Ranjan's hobbies include reading books, playing guitar and painting. He enjoys playing volleyball and has participated in many competitions.



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Idea/Innovation : Automatic Garbage Disposal System  
 Awardee : D Sandhya  
 Reference No. : 18KA1508675  
 Class : 6th.  
 School Name & Address : Sree Mahaveer Jain School  
 District & State : Kolar, Karnataka.  
 Guide Teacher : R Keshavan



Waste poses a threat to public health and the environment if it is not stored, collected, and disposed properly. Observing her surroundings, the student found that people do not dispose kitchen waste properly. They just throw it on the road or scatter them near the dumping place. This inspired her to make an "Automatic Garbage Disposal System and Waste Management". In this two methods for collecting kitchen waste are used. First one uses See-Saw bucket collection system for single house and the second one uses Persian wheel bucket collection system for high rise building. In waste management, above mentioned waste is segregated. Certain wastes such as flowers from temple can be used to manufacture agarbattis and incenses. Sandhya's hobbies include playing badminton and reading fiction novels.



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Idea/Innovation : Power Saving Chair  
 Awardee : Sangeetha T G  
 Reference No. : 18KA1509131  
 Class : 8th.  
 School Name & Address : Govt. Junior College, Talagavadi  
 District & State : Mandya, Karnataka.  
 Guide Teacher : Srinivas



India faces acute power shortage. At some places it is in excess and is often misused; while at other places like rural areas, people even today struggle to get their share of electricity. This inspired student to develop a "Power Saving Chair". This chair uses IR transmitter, IR receiver and relay board. When you sit on this chair, power will be generated. This power generated is used to switch on fans and lights. When you get up, the circuit will cut off supply to instruments thereby saving energy. There is no need to switch on and off manually.



Sangeetha's hobbies include drawing, gardening and listening to music.



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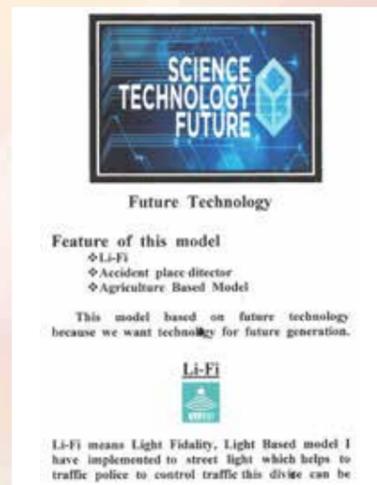
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Idea/Innovation : Future Technology  
 Awardee : Sannidi K S  
 Reference No. : 18KA1510087  
 Class : 9th.  
 School Name & Address : Prajna Bharathi English Medium School Chittebail  
 District & State : Shivamogga, Karnataka.  
 Guide Teacher : Mamatha B M



Rising traffic congestion inspired student to develop a project called "Future Technology". This device uses an emerging technology Li-Fi, or light fidelity. This is a bidirectional and fully networked wireless communications medium, which uses solar street lights to transmit data to traffic police and vehicle drivers. The aim of designing this system is to reduce road accidents and manage traffic more accurately.

Sannidi likes to participate in various science exhibitions, quizzes and sports.



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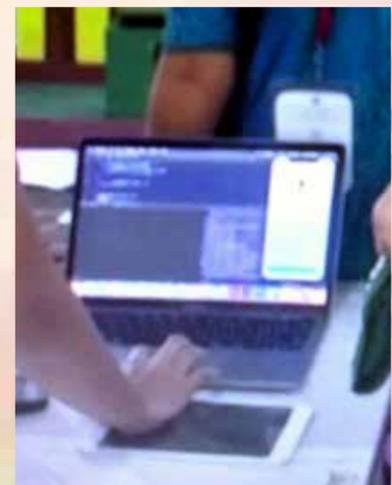
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Idea/Innovation : Document Classifier Software  
 Awardee : Krish Pandey  
 Reference No. : 18KA1510930  
 Class : 8th.  
 School Name & Address : Little Rock Eng Uhps Brahmavara  
 District & State : Udupi, Karnataka.  
 Guide Teacher : Jenevi D Silva



In today's volatile economic environment, forged documentation and faked identities, both have increased. A recent article in newspaper about the same inspired student to develop a "Document Classifier Software". This software is used for storing documents online and preventing frauds. It works in a stepwise manner. In the First step, institution will upload the basic details of document holder. Then for verification a Unique ID and then basic details are typed. If the data matches to the one in the cloud then 1st part of the verification is completed.

Now the document uploaded is shown for automatic and manual verification. In the automatic verification part, scanning of the soft copy takes place with a Machine Learning model which is trained with examples of fake & real documents. This step will prove if the document is forged or real. This software will be used by authorized people only. Krish loves programming and has keen interest in graphic designing.





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Idea/Innovation : Automatic Medicine Dispenser  
 Awardee : Kunal K  
 Reference No. : 18KA1504174  
 Class : 9th  
 School Name & Address : V V S Saradar Patel School  
 District & State : Bangalore Urban, Karnataka.  
 Guide Teacher : Vanishree Deshpande



With the increase in chronic diseases, non-adherence to medication is a serious health issue. To improve patient adherence, student developed an "Automatic Medicine Dispenser". This dispenser is powered by microcontroller and dispenses medicine according to predetermined schedule. This dispenser will especially help those patients who end up taking wrong dose of medicine or at a wrong time. Student was inspired to make this dispenser when he had to travel for a day, leaving his grandmother alone at home who was suffering from diabetes and hyper tension.



Kunal likes playing badminton, chess and cricket. He has keen interest in microcontrollers.



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Idea/Innovation : Personnel Monitoring System Based On Artificial Intelligence  
 Awardee : Deva Nanda Nair  
 Reference No. : 18KA1504560  
 Class : 9th.  
 School Name & Address : Deva Matha Central School Banaswadi  
 District & State : Bangalore Urban, Karnataka  
 Guide Teacher : Jayashree Mohan



The involvement of drunk drivers in road accidents has been on the rise. Many people die and many are left with permanent injuries. Laws have been made to control drunken driving but have not been successful in curtailing this. This has motivated student to develop "Personnel Monitoring System based on Artificial Intelligence". An alcohol sensor is attached to the dashboard of the automobile, which is further connected to the engine. The driver has to blow onto the dashboard before starting the vehicle. If the alcohol content in his/her breath is above the legal limit, the car does not start. This device will help in completely stopping drink and drive practice.



Deva love reading books and listening to classical music. She also write poems and stories.



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Idea/Innovation : Automated Firefighting Robot  
 Awardee : Kishan Kariyappa K D  
 Reference No. : 18KA1509258  
 Class : 10th.  
 School Name & Address : Mandavya Excellence English Medium High School  
 District & State : Mandya, Karnataka.  
 Guide Teacher : Shashikumar H K



Fire fighters try their best to fight and extinguish fire whenever required. But at the household level, if the fire can be extinguished at an early stage, many major accidents can be averted. A firefighter got seriously injured in a dangerous fire accident in student's neighborhood. This inspired student to develop "Automated Firefighting Robot". The aim is to build a fire extinguishing robot that can help in-case fire breaks out. This type of firefighting robot will sooner or later work with firefighters, thus greatly reducing the danger of injury to victims. Kishan is interested in robotics and has participated in many quiz competitions. His hobbies include reading books and playing football.



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Idea/Innovation : Fish Catching Machine  
 Awardee : Koushik  
 Reference No. : 18KA1506815  
 Class : 10th  
 School Name & Address : Govt. P.U. College High School Section, Maninalkur  
 District & State : Dakshina Kannada, Karnataka  
 Guide Teacher : Vanitha



Fishing is an important occupation of people living in coastal areas and on islands. Student from coastal regions often go for fishing, which the student finds it difficult to. This inspired him to develop a "Fish Catching machine" using aluminum rods, battery, inverter and wires. When the device is switched on during fishing, electricity flows from aluminum rod to water. Fishes within the radius of 1 meter, get unconscious for about 3 minutes. This instrument not only helps in catching fishes in less time but also helps in preventing killings in large numbers. Koushik likes playing volleyball, reading books and singing.





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Idea/Innovation : Digital Village  
 Awardee : Pavan Kumar  
 Reference No. : 18KA1504989  
 Class : 10th  
 School Name & Address : Govt High School, Bhashettihalli  
 District & State : Bangalore Rural, Karnataka  
 Guide Teacher : Roopa



For the development of the country it is important to develop the basic structure at grassroots level. Around 70% Indian population lives in villages and rural areas. In order to develop the country the development at village and rural areas is very important. The student came with an idea to digitalize the villages in smart way. Pavan Kumar read in newspaper about a farmer who died due to electric shock while starting the motor during the night. This motivated him to provide the solution for the problem. He through his project has displayed how to digitalize the villages in smart way for overall development of the country.



Dr. A.P.J Abdul Kalam is the inspiration for Pavan. His hobbies include Sports, News paper reading and Literature



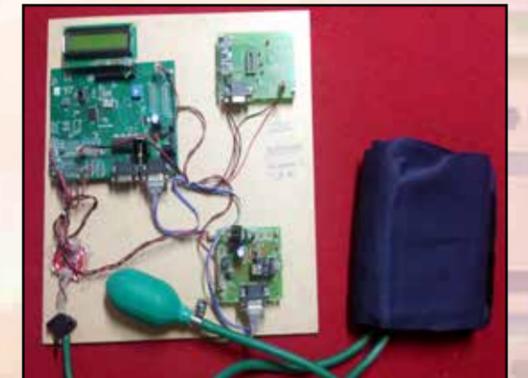
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Idea/Innovation : Wifi Health Care Monitoring Using Biomedical Wireless Sensor on Android  
 Awardee : Poojashree S  
 Reference No. : 18KA1504446  
 Class : 9th  
 School Name & Address : Vidhya Jyothi English High School  
 District & State : Bangalore Urban, Karnataka.  
 Guide Teacher : Varundas J H



When a patient is admitted in a hospital for treatment especially when they are shifted to ICU Ward, the attendants are unable to know the real condition of the patient. This made her think about the technology using for monitoring the real condition of the patient. The objective of this project is complete monitoring system of the patient. The real time patient's health condition will be sent to their attender, i.e. Blood Pressure (B.P), Pulse, temperature. This project is using Zigbee technology which is a low cost, low power, wireless communication device.





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Idea/Innovation : School Safety System  
 Awardee : Poornachandra B.U  
 Reference No. : 18KA1510193  
 Class : 9th  
 School Name & Address : GPUC High School Section,  
 Amruthur  
 District & State : Tumkur, Karnataka  
 Guide Teacher : Ajjaiah S



In today's world it is hard to look after children as parents remain busy. So it is very difficult for them to be up to date about their children when they are in the school. The student has come up with the idea of a school security system for the wards. In this system the parents will be updated about their children while they are in the school. A GPS system is attached to the student that will keep a track of location of the student, attendance, Pre-Leaves can be given, keep track of examination marks on just a click of cell phone app.



The live School Bus tracking on standard map Schools transport facilities will be given live to the parents. If the school bus is over speeding, the system will send alert message to the school authorities Geo-fence preferred/ restricted areas - to make sure the vehicle is off / in the selected Geographical limits. The implementation of School Security System (SSS) via RFID will reduce crime, illegal activates by students and lessen worries of parents.



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Idea/Innovation : Sensitive Dryer  
 Awardee : Pradyumna. K. P.  
 Reference No. : 18KA1506546  
 Class : 8th  
 School Name & Address : Government Junior College, Koppa.  
 District & State : Chikmagalur - Karnataka  
 Guide Teacher : Palaksha T S



The student's family has faced problems of drying the areca nuts. This is a general problem of farmers of the region who struggle to dry the areca nuts after harvesting. The student thought about the problem and came with an idea to develop dryers for areca nuts. Sensitive dryer is a machine that protects areca nuts from rain while drying under the sunlight. This dryer can be used to dry other grains or cereals. This saves time and labour of the farmer while drying the areca nuts. The dryer is suitable for farmers growing areca nuts.



Pradyumna want to become a scientist and likes to listen music and singing.



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Idea/Innovation : Water Ram Pump  
 Awardee : Pradyumna. M  
 Reference No. : 18KA1504422  
 Class : 9th  
 School Name & Address : Auden Public School  
 District & State : Bangalore Urban, Karnataka  
 Guide Teacher : Sudha



People in rural areas struggle to transport water from streams and rivers to their houses. There are two major reasons for this arduous struggle. Firstly, sufficient electricity is not available in these remote regions. Thus, electric water pumps cannot be installed. Secondly, water distribution without using pumps is difficult in regions at a level higher than that of the water body. Observing the problem the student has developed hydraulic ram pump to provide the solution to these problems. Many countries have attempted to use this water pump to benefit their citizens. This water pump can solve many problems prevalent in our country e.g. energy crisis (electricity), water distribution problems, etc.



A water ram pump works by using the potential energy of water at a higher level than the pump. The water flows down a pipe to the pump, and its kinetic energy is used to pump a fraction of that water volume to a height that can be several times the height of the original water source. In compliance of the law of conservation of energy, the mass of water pumped is lesser than the original mass of water. The water not pumped upward is let out through an outlet and is called hammered water. This water pump can be installed for different purposes. The number of rams and its size varies with the purpose of installation.

Pradyumna is inspired by Dr. A.P.J Abdul Kalam and Shri Narendra Modi.



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Idea/Innovation : Smart Segregation of Waste  
 Awardee : Pranav V Kashyap  
 Reference No. : 18KA1509475  
 Class : 8th  
 School Name & Address : Vijaya Vittala Vidyashala,  
 Saraswathipuram.  
 District & State : Mysore, Karnataka  
 Guide Teacher : Veenmurthy H S



The student has developed a smart segregator to segregate different types of waste thrown in the dustbin. This is a persistent problem in most of the areas as people throw all waste bio-degradable and non-biodegradable in the dustbin and it becomes difficult to segregate the same for further process. The model Smart Segregator of waste has three compartments A, B, and C. A can hold Wet waste, B can hold Dry waste and C can hold Non-Biodegradable. Non-Biodegradable means mainly "plastics". When we put plastics into this compartment, when the bag carrying the plastics is filled automatically a message will go to the corporation. While as dry waste is collected in separate compartment and bio waste is collected in another compartment and is subsequently used for different purposes.



Pranav likes playing badminton, Cricket, Chess, Swimming and other outdoor games.



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Idea/Innovation : Innovative Method to Save Life from Railway Accidents  
 Awardee : Praneeth. P  
 Reference No. : 18KA1506490  
 Class : 8th  
 School Name & Address : Highway English School, Kadur  
 District & State : Chikmagalur, Karnataka  
 Guide Teacher : Haseen Taj



A number of train accidents occur due to unmanned railway crossing or unfenced railway tracks. Also fencing a huge network of railway tracks is not possible. Considering all the factors mentioned above, the student has designed a model with an intention to prevent such accidents in a cost-effective, innovative way and save lives of people and animals. The student has used an acrylic sheet as the base platform having three parts.



The Arduino, Ultra sonic sensor and the Motor driver. Arduino is the brain, which controls the ultra-sonic sensor and the motor driver. When the train is moving, the Arduino is programmed in such a way that the ultra-sonic sensor continuously sends out the ultra-sonic waves and keeps listening for any echo reply which might come if there is an obstacle in its path. In this model, when a model is near a LED light starts to blink and the buzzer makes a beeping sound. And when the obstacle gets closer, the buzzer makes sound continuously and the motor driver stops the moving train.

Praneeth likes gardening, new scientific experiments etc.



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Idea/Innovation : Production of Thermal Energy without Coal  
 Awardee : Pratheek A .C  
 Reference No. : 18KA1506548  
 Class : 10th  
 School Name & Address : Jawahar Navodaya Vidyalaya, Balehonnur.  
 District & State : Chikmagalur, Karnataka  
 Guide Teacher : Ravi A



Due to oil spilling lot of problems are created for aquatic life. It directly affects the life of the ocean. The oil layer blocks the sunrays and decreases the oxygen level. Oil spills lead to destruction of aquatic biodiversity. The project developed by Pratheek works on the principle of adsorption. It uses the solar energy for functioning. The oil sticks to the surface of the CD, when the CD rotates, it rubs against the rubbers fixed to the channel and the oil only flows through the channel and gets collected in the tank.





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Idea/Innovation : Arduino Based Vehicle Accident Alert System  
 Awardee : Shambhulinge Gowda  
 Reference No. : 18KA1507776  
 Class : 6th  
 School Name & Address : GHPS, Kembalu  
 District & State : Hassan, Karnataka  
 Guide Teacher : L B Rajashekar



Many people die in road accidents while life of many can be saved if timely help reaches them. Observing this problem the student conceived the idea to develop the project of smart highways that can save the life of the people when such accidents occur in the remote areas. The system sends message to ambulance, police station and person's home for necessary help. The project also saves electricity of street lights. The sensors installed in the project sense the movement of the vehicle and can glow automatically. When there is no movement of the road the street lights will turn off automatically.



Shambhulinge's biggest inspiration are Dr. A.P.J Abdul Kalam, M Vishweshwaraiah and Dr. C.N.R Rao.



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Idea/Innovation : Plastic with Fly Ash  
 Awardee : Shashwath N Shastry  
 Reference No. : 18KA1504260  
 Class : 7th  
 School Name & Address : MES Kishora Kendra High School  
 District & State : Bangalore Urban, Karnataka  
 Guide Teacher : Shailaja H L



We all are aware that plastic/polythene is a problem across the world. There is no way out to decompose it. It has given rise serious environmental threats as it leaves agriculture land useless and increases the infertility level. The student came with a unique to create wealth from waste. Everyday tons of plastic and fly ash is produced. The project is about to create a commercially viable product out of this waste material. The student has combined fly ash and plastic to make useful products out of it. He made bricks, pavement tiles, roof tiles and floor tiles using plastic and fly ash. The end product is eco-friendly. It is 100% water resistant, fire proof and unbreakable.





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Idea/Innovation : Wallet Protection from Thief  
 Awardee : Sujan J  
 Reference No. : 18KA1510046  
 Class : 7th  
 School Name & Address : Shree Swami Vivekananda English Medium Hr Pr School  
 District & State : Shivamogga, Karnataka  
 Guide Teacher : Veda C



It is common problem in crowded places where wallets are stolen by thieves and one is unable to get the information that wallet is stolen. Sujan has conceived the idea to resolve the problem. To prevent the chances of theft of wallets he has attached cloth strips to the wallet to lock it with the strips in such a way that nobody can steal the wallet in the crowd.



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Idea/Innovation : Automatic Medicine Dispenser  
 Awardee : Suryanarayan Renjith  
 Reference No. : 18KA1504157  
 Class : 8th  
 School Name & Address : Vibgyor High, Horamavu  
 District & State : Bangalore Urban, Karnataka  
 Guide Teacher : Nagesh A S



Now a days in our society, elderly people are staying alone in their homes. Due to fading memory or age they usually forget to take medicines at proper time while the younger people remain busy with work. The student has developed an automatic medicine dispenser for this problem wherein we can set the timing also. The device dispenses medicine according to the time and interval preset and triggers alarm at set timing. The alarm will turn off once the medicine has been taken out of the medicine box. The product has an innovative feature to let the care takers know via email and sms if the patient fails to take a medicine any course of the day.





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Idea/Innovation : Umbrella on Road  
 Awardee : Syeda Iqra Urooj  
 Reference No. : 18KA1509235  
 Class : 8th  
 School Name & Address : St. Joseph Convent Girls High School.  
 District & State : Mandya, Karnataka  
 Guide Teacher : Divya J



The student has developed an umbrella with an inbuilt fan, which works on the solar energy using a solar panel at the top. The idea was conceived by student after she observed the miserable condition of hawkers and vendors in the market during summers. This type of umbrella can be used in the extreme temperature. Such umbrellas would not only provide shade but also pleasant air from the fan. These umbrellas come handy in hot regions such as Rajasthan, Maharashtra, and Andhra Pradesh etc. These are also useful for the common people during summer season. An LDR sensor is pre-installed which detect the sunlight and force the umbrella to be open automatically. By using the solar power fans and lights will start working. A separate Solar panel is also attached to charge the mobile phones.



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Idea/Innovation : Multipurpose Agriculture Equipment  
 Awardee : Varshithkumar A R  
 Reference No. : 18KA1508622  
 Class : 8th  
 School Name & Address : Aruna High School, Cherambane  
 District & State : Mandya, Karnataka  
 Guide Teacher : Lokesh



Farmers are the backbone of our country and have to purchase different agriculture tools from the market, which sometimes are costly. Observing this problem the student has developed multi-purpose tool for agriculture purpose to ease the life of farmers. The equipment has an attachment, which can be used to carry out different agriculture works. It is used for harvesting of fruits, spraying, and pruning and plucking of fruits etc. Varshith's biggest inspiration is Dr. A. P. J. Abdul Kalam whose hard work, simplicity and strong determination in achieving his goals inspired him. His hobbies include drawing, coloring, creative writing, clay modelling, singing and yoga etc.





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Idea/Innovation : Hybrid Technology Bicycle  
 Awardee : Vinyas V Shetty  
 Reference No. : 18KA1510936  
 Class : 8th  
 School Name & Address : Sandeepan English Medium School, Khambadakone  
 District & State : Udupi, Karnataka  
 Guide Teacher : Dharmendra Halematt



The student has conceived the idea of developing a hybrid bicycle to save energy while riding for long distances. It works on solar energy and can also be driven manually. The reason behind the idea is that Vinayas's school is quite far and much energy is consumed to reach the school. His model is based on Fleming's Right hand rule and Left hand rule. It is pollution free, fuel free vehicle which is economically feasible.



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Innovation/Idea : Unique Blind Stick "Blind Pal".  
 Awardee : Gokul Aditya S.  
 Reference No. : 18KA1504428.  
 Class : 8th.  
 School Name & Address : Rashtrottana Vidya Kendra, Banashankari.  
 District & State : Bangalore Urban, Karnataka.  
 Guide Teacher : Rashmi B



Aditya has developed unique blind stick "Blind Pal". This Smart stick has an ultrasonic sensor to sense distance from any obstacle, LDR to sense lighting conditions and RF remote using which blind man could remotely locate his stick. All the feedback will be given to the blind man through a Buzzer. Aditya was inspired to develop same after observing the problems faced by visually impaired persons in their day to day lives.



His hobbies include playing musical instruments like table and piano.



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Innovation/Idea : Bio-Toilet for Community.  
 Awardee : Nayana S Pujar  
 Reference No. : 18KA1510006.  
 Class : 7th.  
 School Name & Address : Jain Public School, Nidige.  
 District & State : Shivamogga, Karnataka.  
 Guide Teacher : Shwetha M.S.



Nayana has given the concept of "Bio-toilet for Community" for human waste management. It disintegrates and decomposes the human waste into water and biogas. The decomposition is carried out by bacteria in the Bio-digestion tank. Bio-toilets are environment-friendly, reduce the sewage problem and water consumption in the toilets. Standard toilets require 3-6 liter of water for flushing, but for bio-toilets, we need only .5 to 1 litre.



His hobbies include painting, dancing and to perform innovative scientific experiments.



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Innovation/Idea : Metro Seat Assistant  
 Awardee : Chaithanya.K.S.  
 Reference No. : 18KA1504426.  
 Class : 6th.  
 School Name & Address : Rashtrottana Vidhya Kendra, Banashankari.  
 District & State : Bangalore Urban, Karnataka.  
 Guide Teacher : Divyashree Chetan



Metro Rail is becoming an important means of urban transportation as it reduces the travel time. However, during peak hours it gets very crowded posing problems to the elderly, pregnant, and the differently abled people. To make their travel easy during peak hours Chaithanya has developed a project entitled "Metro Seat Assistant for Needy People" where passengers will be provided a RFID readable smart cards. The smart card once scanned at scanner installed in train will provide seat location to passenger where he/she can go and easily take seat. She is fond of reading books, listening music and playing outdoor games.





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Innovation/Idea : Robotics for Precision Agriculture.  
 Awardee : N. Suriya  
 Reference No. : 18KA1504588.  
 Class : 8th.  
 School Name & Address : New Horizon Gurukul Bellandur.  
 District & State : Tumkur, Karnataka.  
 Guide Teacher : Vishwa V.



Suriya is of opinion to incorporate robotics for precision agriculture and crop farming, to autonomously navigate and perform actions at set locations, for example, picking a fruit, spraying a pesticide, planting a seed, imaging a plant, or making a measurement.

Autonomous robots have already been demonstrated in many agricultural activities. Conventional tasks such as tilling, sowing, harvesting of grains, can be performed using autonomous robots with the accuracy provided by the vehicle itself.

He like robotics, playing keyboard, gardening, riding bicycle and Yoga.



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Innovation/Idea : Synthesis of Paint from Exhaust Soot.  
 Awardee : Mohith T. A.  
 Reference No. : 18KA1504540.  
 Class : 9th.  
 School Name & Address : Shishu Mandir Education Centre Bengaluru.  
 District & State : Bangalore Urban, Karnataka.  
 Guide Teacher : Gunavathi



An automobile exhaust system is usually piping used to guide reaction exhaust gases away from a controlled combustion inside an engine . The entire system conveys burnt gases from the engine and includes one or more exhaust pipes. During the exhaust process layer of carbon soot is deposited on inner side of piping. This project is aimed to collect the waste carbon soot and recycle it into paint by adding water, shampoo and vinegar in different proportions.

Mohith loves Dance (Dollu Kunitha), painting and playing guitar.





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Innovation/Idea : Jatropha Based Bio Pesticide.  
 Awardee : Medha Vidyanand  
 Reference No. : 18KA1506913.  
 Class : 7th.  
 School Name & Address : Alva's English Medium School  
 Moodbidri  
 District & State : Dakshina Kannada, Karnataka.  
 Guide Teacher : Vidhya.



After observing the damage caused by pests to juvenile coconut trees and other plants Medha thought of developing bio-pesticide to eradicate the pests and save plants and environment. She prepared bio-pesticide by mixing and fermenting equal quantities of Jatropha seeds and groundnut cakes in ten litres of water for fifteen days. Fermentate thus formed are used as herbal pesticide for elimination and treatment of pests in agricultural fields and plant farms thereby saving plants, money and environment.

She is fond of singing and dancing and wants to become doctor.



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Innovation/Idea : Rocket Stove.  
 Awardee : Madhu .D  
 Reference No. : 18KA1510196.  
 Class : 9th.  
 School Name & Address : G.H.S Santhemavathur, Kunigal.  
 District & State : Tumkur, Karnataka.  
 Guide Teacher : Mohamad Giyas Pash.



Student has developed "Rocket Stove" a modified version of domestic stove used for cooking purpose with an inbuilt water heating wiring system. Rocket stove relies on the application of direct heat for the cooking process and is heated by burning wood as fuel. It is fuel efficient stove and emits minimal amount of oxides of carbon thereby saving environment and human health. Along with preparation of food etc. water present in pipes (coiled around stove body) also becomes hot and can later be used for drinking and other purposes.

He loves to perform scientific experiments and wants to become scientist.



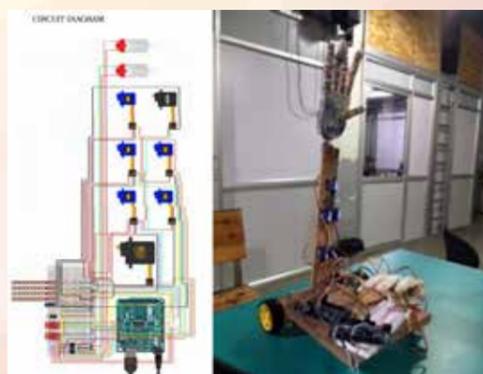


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Innovation/Idea : Gestured Controlled Robotic Arm- Pinocchio.  
 Awardee : Arjun. M.  
 Reference No. : 18KA1504503.  
 Class : 8th.  
 School Name & Address : Poorna Prajna Education Centre, Indiranagar.  
 District & State : Bangalore Urban, Karnataka.  
 Guide Teacher : Manjula S A.

The robotic arm – “Pinocchio” has been designed to sense the movements of human arm and imitate the same. To sense the movements of the fingers flex sensors have been used. For the wrist movement accelerometer has been used. The robotic arm has been programmed using Arduino. The robot has been mainly made from wood scrap. The parts have been attached using hinges. The model can be used in areas where human intervention is harmful. It can find use in many areas like mining, manual scavenging etc.



His hobbies include painting, reading novels, making robots, games etc.



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Innovation/Idea : Herbal Fruit Preservative.  
 Awardee : Lokapaavani I D  
 Reference No. : 18KA1509040.  
 Class : 9th.  
 School Name & Address : Jawahar Navodaya Vidyalaya Shivaragudda.  
 District & State : Mandya, Karnataka.  
 Guide Teacher : Shalini G R



Food preservation is one of the oldest technologies used by humans to prevent its spoilage. Synthetic preservatives enhance shelf life of fruits for longer period of time, but these preservatives can cause many health issues like asthma, allergic reactions and even cancer. Hence there is a great demand for natural food preservatives. Keeping in view the hazardous nature of synthetic preservatives. Lokapaavani has developed herbal preservative from aloe vera herb which increases shelf life of fruits without any variation in taste and colour.



She is fond of reading books and wants to become an IAS officer.



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Innovation/Idea : Smokeless Stove  
 Awardee : Rutuja Satapa Chougale  
 Reference No. : 18KA1505408  
 Class : 9th  
 School Name & Address : Siddheshwar Vidyalaya, Kurli.  
 District & State : Belgaum, Karnataka  
 Guide Teacher : S.S Chougale



Rutuja observed that the smoke is the smoke is the problem in most of the stoves used in rural areas. The student came up with the idea of developing the Smokeless Stove. The stove uses the bio-mass fuel viz. fire wood, coconut husk etc. The stove is designed so as to provide maximum air ventilation to the fuel chamber ensuring 100% burning of fuel without causing smoke, which pollutes the environment. The stove is eco-friendly and has intensity better than that of LPG gas. The gadget is suitable for rural areas of the country.



Dr A.P.J Abdul Kalam is the inspiration of Rutuja. She likes to play chess, reading biographies, essay writing on science etc.



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Innovation/Idea : Multipurpose Farm Tool  
 Awardee : Manikantha Siddanna  
 Reference No. : 18KA1511184  
 Class : 10th  
 School Name & Address : Govt. High School Bachimatti, Shorapur  
 District & State : Yadgir, Karnataka  
 Guide Teacher : Sachin Gunaki



Cleaning and ploughing is a hectic process which consumes energy and time of farmers in rural areas. While assisting his father in agriculture fields Manikantha saw his father struggling to clean weeds. He came up with the idea of developing a gadget that will reduce the drudgery of the famers. After conceiving the idea he worked to develop the prototype with the help of the guide teacher. This tool is multi-functional and can be used for weeding, as tiller to prepare the land for seed sowing or plantation of saplings and covering of seeds after sowing etc.



Manikantha's inspiration is his father whose struggle in the agriculture field motivated him to find the solution for the problem.



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Innovation/Idea : Rescue Boat with Graupner  
 Awardee : Gagandeep L Patgar  
 Reference No. : 18KA1510678  
 Class : 10th  
 School Name & Address : Gibb English Medium High School, Kumta.  
 District & State : Uttara Kannada, Karnataka  
 Guide Teacher : Jyoti Patgar



Many people die due to drowning and most of the times it is difficult to locate and fish out the human body from the water. If the dead body is left in the water it pollutes the water and subsequently it gives rise the water borne diseases and other serious health conditions. Student came up with the idea to develop a rescue boat with graupner that helps the locating the dead body easily. Gagandeep's father motivated him to develop such boat as he saw his father struggling while searching for the dead body in the water. The rescue boat consists of two cameras and a display. One camera helps to detect the dead body and the other camera is attached to the boat in such a way that it helps in lifting the body on to the boat and keeps displaying the whole operation.



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Innovation/Idea : Multipurpose Use of Muscular Energy  
 Awardee : Samarth Kalal  
 Reference No. : 18KA1505373  
 Class : 7th  
 School Name & Address : Kuvempu Vidyalaya M.K. Hubli  
 District & State : Belgaum, Karnataka.  
 Guide Teacher : Vinay Pattar.



Exercise plays an important role in maintaining health. In today's world people prefer to use machines either electricity operated or using some source of energy but very less attention is given to maintain good health. Sedentary lifestyle has given rise to many health problems viz. diabetes, blood pressure, heart problems. In order to use the muscular energy the student came up with the idea to develop a pump using air pressure for lifting the water from the pit or drain for irrigation purpose. To cycle operated pump has multiple functions. It involves muscular energy to execute the functions. The gadget according to student can be used for sharpening of knives, lifting water for agriculture fields etc. He was motivated to develop the gadget to overcome the problems faced by farmers of the area. Samarath want to become a scientist.





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Innovation/Idea : Hidden Area Buster  
 Awardee : Prathamesh Yadav  
 Reference No. : 18KA1505409  
 Class : 8th  
 School Name & Address : Siddeshwar Vidyalaya Kurli  
 District & State : Belgaum, Karnataka  
 Guide Teacher : S.S Chougale



While taking turns on the roads during driving of a bike or car it becomes difficult to see the vehicles coming in the opposite direction, left or right side. This increases the chances of accidents. The side mirrors according to the student covers up to 30 degree area which is a problem while driving the vehicle in zigzag road. The student has developed a hidden area buster mirror which covers the area up to 150 degree that minimizes the chance of accidents. It improves the visibility of driver manifolds and the driver becomes more confident while taking the turns while driving.



Prathamesh likes to play cricket, volley ball, reading stories etc. Dr A.P J Abdul Kalam is his biggest inspiration.



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Innovation/Idea : Mouse Keyboard for Disabled Person  
 Awardee : Anurag Kumar Singh  
 Reference No. : 18KV1482125  
 Class : 10th  
 School Name & Address : Kendriya Vidyalaya No.1 Belagavi Cantt  
 District & State : Belgaum, Karnataka.  
 Guide Teacher : S.P Kittur



Anurag has developed a mouse and a key board for the differently abled people. Usually it is difficult for a physically disabled person to use computer using mouse and keyboard. The student has modified the keyboard and mouse to help the physically disabled person to use the computer with ease. The keyboard is operated using different pressure points of the feet by using the combination of right and left feet. The mouse is a slipper having optical sensor attached at the bottom. In order to operate this the person is required to move the slipper like a normal mouse used for the computer.



Getting inspired from Elon Musk who developed a game at the age of 12, Anurag started learning programming. Anurag loves to design electronic gadgets like designing of circuits on notebooks in free time at school.



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Innovation/Idea : Automatic Dim Dip of Car Head Light  
 Awardee : Prasanna Shirahatti  
 Reference No. : 18KA1505175  
 Class : 9th  
 School Name & Address : Karnatak Law Society's English Medium High School.  
 District & State : Belgaum, Karnataka.  
 Guide Teacher : Rashmi Raghashetty



Driving during night becomes difficult as most of the vehicles coming from the opposite direction use high headlight beam causing glare in the eyes of the driver. As a result of which a number of accidents occur at night. This motivated the student to develop the automatic Dim Dip of Headlight for vehicles. It is a simple electronic circuit which dims or dips the headlight depending upon need thereby reducing the chances of accidents. Prasanna has interest in innovations and book reading and other co-curricular activities.



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Innovation/Idea : Life Saver Net  
 Awardee : Pramatha Devangad  
 Reference No. : 18KA1508357  
 Class : 8th  
 School Name & Address : Aditya Birla HS Kumarpatnam  
 District & State : Haveri, Karnataka  
 Guide Teacher : Santosh Karki



After watching a news about a child falling off an apartment storey, the student came up with an idea to develop the Life Saver, for babies alone at home. The project is about a net that spreads in such situations to save the life of the child. In this concept when a baby crosses the balcony, it falls on the wires tied to the bars of the balcony, which pulls the bars at the ends and unlocks the poles of the net. In fraction of second the net spreads and allows the baby to fall on it and subsequently it triggers the alarm which attracts the attention of parents to save the baby. Pramatha likes reading books, watching discovery programs on TV.





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Innovation/Idea : Maintaining Garden by Cycling Process  
 Awardee : Krishna  
 Reference No. : 118KA1505668  
 Class : 6th  
 School Name & Address : Sharada Higher primary school  
 Bhalki  
 District & State : Bidar, Karnataka  
 Guide Teacher : Vaishali P Rjole



The student has developed a cycle based water lifter for maintaining the garden, washing vehicles etc. The cycle is connected to a pressure pump to push the water into the pipe for maintaining the garden and watering of plants. The water is pumped through a pipe while pedaling the cycle, and is used for watering the garden at home.



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Innovation/Idea : Stair Climber Trolley  
 Awardee : Kusuma  
 Reference No. : 18KA1511200  
 Class : 8th  
 School Name & Address : Govt Higher Primary School,  
 Ningapur  
 District & State : Yadgir, Karnataka  
 Guide Teacher : Nagendrappa



The student has developed an innovative stair climbing trolley that allows one to lift heavy objects and luggage upstairs. The legs are designed in such a way that they adjust according to the height of the step. When the trolley is pulled a set of legs touches the stairs and the spinning legs moves thus reaching the next step.





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Innovation/Idea : Empowering Farmer Woman  
 Awardee : Vijay Pattanashetti  
 Reference No. : 18KA1504921  
 Class : 9th  
 School Name & Address : K.L.E S.C.P Junior College High School Section Mahalin  
 Guide Teacher : S S Anigol  
 District & State : Bagalkot, Karnataka



In order to irrigate agriculture field's one should have a sound knowledge about operating the motor. The student saw his mother struggling to start the water motor for irrigation of agriculture fields in absence of her father. The student came with an idea for easy handling of irrigation with a remote operated irrigation pump.



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Innovation/Idea : Coin Based Mobile Charger  
 Awardee : Sheela Shrishail Ullegaddi  
 Reference No. : 18KA150928  
 Class : 9th  
 School Name & Address : Govt.High School Madabhavi  
 District & State : Bagalkot, Karnataka  
 Guide Teacher : S B Kumbar



The student has developed coin based mobile charger which helps the traveller to charge the mobile when there is no electricity available. This makes the power available at any time and place. The mobile charging is an issue for a traveller especially when there is no electricity available in far off places. This is an ideal tool to address the problem.

Sheela likes dancing, reading and research.





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Innovation/Idea : Capture C 6 Car Burn Ink  
 Awardee : Siri Nidhi S.  
 Reference No. : 18KA1505494  
 Class : 9th  
 School Name & Address : Dream World HS Parvathi NGR (W)  
 District & State : Bellary, Karnataka  
 Guide Teacher : Adam Syed



To overcome the problem of air pollution in mining area of Bellary, the student has developed a machine named "Capture C6". The purpose is to find out the solution for air pollution. Solid carbon particulate is one of the major components of the polluted air. The student through this project has made an effort to capture the solid carbon particulate special "Car Burn Ink" out of it.

Siri Nidhi likes interacting with people and exploring new ideas and new places to gain more knowledge. She also likes horse riding, reading, music etc.



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Innovation/Idea : E-Funnel  
 Awardee : Pruthviraj Mallikarjun Goli  
 Reference No. : 18KA1507217  
 Class : 8th  
 School Name & Address : Rastrothana Vidya Kendra, Niralkatti  
 District & State : Dharwad, Karnataka  
 Guide Teacher : Girish V Joshi



Student has made an E Funnel to measure the quantity of fuel filled in the fuel tank of vehicle to prevent cheating by fuel stations. Most of the fuel stations cheat the customers while filling the fuel tank. The E Funnel is a solution for the problem. The E Funnel has to be fixed at the inlet of the fuel tank so that it can give the exact quantity of the fuel filled in the tank. Pruthviraj likes playing games, making of new innovations for existing problems.





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Innovation/Idea : Homemade Sun Screen Lotion  
 Awardee : Vinay A H  
 Reference No. : 18KA1482098  
 Class : 8th  
 School Name & Address : Kendriya Vidyalaya Dharwad  
 District & State : Dharwad, Karnataka  
 Guide Teacher : Rajat Saini



Student has prepared a home-made screen lotion using his traditional knowledge. The lotions in the market use chemicals, which damage the skin. He used zinc oxide, Aloe vera and coconut oil to prepare the sun screen lotion. The lotion contains antioxidants like beta Carotene, Vitamin C, Vitamin E, it reduces the skin damage caused by sun and prevents from UV rays.

Vinay likes gardening and is fond of plants.



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Innovation/Idea : Coconut and Areca Tree Climbing Machine  
 Awardee : Deepit Sudheer Nayak  
 Reference No. : 18KA1510538  
 Class : 9th  
 School Name & Address : Peoples Multipurpose High School  
 District & State : Uttara Kannada, Karnataka  
 Guide Teacher : G S Naik



Student has developed a solar operated climbing tree machine. The student has identified the problem of the farmer who struggles to harvest the coconut during summer season. This is a solar operated machine which helps to climb the tree with ease. The gadget is designed in such a way that even ladies can use it to climb the trees. It is also useful to spray the pesticides over coconut and areca trees.

Deepit loves reading and photography.

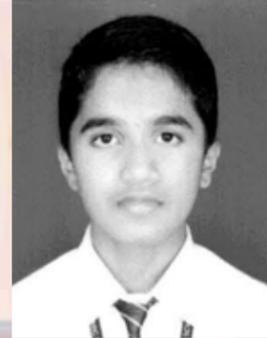




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Innovation/Idea : Drivers Sleep Detection System  
 Awardee : Prashant J. Kumar  
 Reference No. : 18KA1510649  
 Class : 10th  
 School Name & Address : Atomic Energy Central School,  
 Karwar  
 District & State : Uttara Kannada, Karnataka  
 Guide Teacher : Debendra Mehar



Many accidents occur due to sleep deficit or simply drowsy driving. Student has observed the problem and conceived the idea to overcome this problem. In order to reduce the number of accidents he thought of a device to minimize the accidents. Prashant's father's friend had an accident because he was sleepy while driving. The device detects the head movement of the driver. An accelerometer sensor is used in the device. The fall of head on either of the directions will be sensed by the device and it will trigger buzzer to alert the driver.



Prashant's hobbies include building electronic toys.



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Innovation/Idea : Beach Cleaning Machine  
 Awardee : Pritam Gajanan Baddekar  
 Reference No. : 18KA1510634  
 Class : 7th  
 School Name & Address : Government Higher Primary  
 School, Gotegali  
 District & State : Uttara Kannada, Karnataka  
 Guide Teacher : Sachin Naik



Student has developed a beach cleaning machine which is used to remove the rubbish and other material from the beach. They are manually self-pulled vehicles or run on a motor. Sea side cities use beach cleaning machines to combat the problems of litter left by the platform. The student thought that cleaning machines are available for roads and other places so he thought of making a low cost and eco-friendly machine to clean beach.



Pritam loves book reading and his inspiration is Prime Minister of India Shri Narendra Modi.



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Innovation/Idea : Solution for Headlight Problem  
 Awardee : Naman  
 Reference No. : 18KA1510801  
 Class : 9th  
 School Name & Address : Shree Sharadamba English  
 Medium High School, Bhairu  
 District & State : Uttara Kannada, Karnataka  
 Guide Teacher : Vasant Hegde



Driving during night becomes difficult due to the high beam headlight of vehicles coming in the opposite direction. This problem is the cause of accidents during the night. The student had an idea while he was in the vehicle with his father. His father was unable to concentrate on the road and see the road properly. The headlights will dim automatically during the night when vehicle comes in the opposite direction.



Naman likes reading, playing chess and table tennis.



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Innovation/Idea : Reducing the Carbon Foot Print  
 through Innovative Cooking Vessels  
 Awardee : Vibha K Bhat  
 Reference No. : 18KA1510789  
 Class : 7th  
 School Name & Address : Shriniketana School, Sirsi  
 District & State : Uttara Kannada, Karnataka  
 Guide Teacher : K L Bhat

Nowadays the demand for fuel is very high especially for LPG Gas. The LPG is a non-renewable source and is bound to exhaust if not used judiciously. The heat of the gas stove is wasted as it covers cooking vessel area and its surroundings. The loss of heat surrounding the cooking vessel is a problem and nothing can be done to save or utilise that heat for any other purpose. To overcome this problem Vibha has developed a cooking vessel that utilizes maximum amount of heat to cook the food in the shortest time. The innovative vessel developed by her, cooks food faster than existing vessels saving fuel and time.



Dr. A.P.J Abdul Kalam is inspiration for her.



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Innovation/Idea : Safety Bathroom  
 Awardee : Saraswati Halakatti  
 Reference No. : 18KA1504697  
 Class : 6th  
 School Name & Address : Govt Higher Primary School Malagi  
 District & State : Bagalkot, Karnataka  
 Guide Teacher : Chabdrashekhar S Arasikeri



Sometimes in case of patients or the elderly, an accidental fall in the bathroom has proved to be fatal as in such situations there is no help. In order to avoid such situations, student has developed a device using micro controller which gives buzzer sound after every 4 seconds, the person using the bathroom press the switch, which does not allow the emergency alarm to raise for alerting people to save the person using the washroom.



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Innovation/Idea : Automatic Building Corner Cleaning Device  
 Awardee : Sushant Lamani  
 Reference No. : 18KA1504650  
 Class : 9th  
 School Name & Address : Shri R T Desai Govt. High School  
 District & State : Bagalkot, Karnataka  
 Guide Teacher : M S Gujjar



The student has developed an automatic monitoring device for building corners to detect that someone is spitting in the corner and not in the washbasin. The motion sensor is used to detect the movement of the person who comes to spit in the wash basin. It automatically triggers flush to clean the spit. Moisture sensor is used to detect if somebody is spitting in the corner and it triggers an alarm. The idea is to keep the corners clean and auto flush of wash basin. It is very useful to maintain cleanliness in Government buildings, Offices, Parking etc.



The person can be identified by the camera and can be punished if he/she is caught spitting in the corner etc.



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Innovation/Idea : Tri Vision Board  
 Awardee : Shivaprakash R Kachatteyavar  
 Reference No. : 18KA1504771  
 Class : 10th  
 School Name & Address : SVM Eng Med High School Ilkal  
 District & State : Bagalkot, Karnataka  
 Guide Teacher : S. S. Neeralakeri



The student has developed a tri vision board that displays three messages at the same time. Tri vision boards are like bulletins, with two additional features: They "Move" and they carry more than one message. The outdoor design is divided into vertical strips, which rotate on an eight second schedule to display three messages on one Billboard. A tri vision, also called three message sign, is a billboard / sign that consist of triangular prisms placed inside a frame. The prisms rotate, each showing a new message of information/a kind of knowledge teaching. Three individual images or messages, can be displayed on a Tri-Vision. The Tri-Vision project is used in the teaching field for primary and High school teaching in colleges and even also in professional courses etc. Shiva wants to become a scientist to solve the problems of the society.



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Innovation/Idea : OTP Based Safety Locker  
 Awardee : Laxmi Karadigudda  
 Reference No. : 18KA1504698  
 Class : 7th  
 School Name & Address : Govt Higher Primary School Malagi  
 District & State : Bagalkot, Karnataka  
 Guide Teacher : Chabdrashekhar S Arasikeri



The locker in the banks is usually provided with locks for the safety of the things kept inside it. The person having a locker in the bank has to inform the bank manager to access his/her locker. After which the manager brings the key and unlocks the locker and then the locker user has to insert his/her key to open the locker. But to enhance the safety of the locker, save time and energy, the student has developed an OTP based locker system in the banks. Initially the two digit code is encoded by the concerned bank officer and the code is disclosed to the user to use before inserting the key to unlock the locker .The person using the locker has to enter OTP given by the bank manager and then insert his key inside the key hole to unlock the locker, In case the user enters the wrong OTP the siren triggers on to alert the bank staff and security.





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Innovation/Idea : Saline Monitoring and Intimation System  
 Awardee : Simran Mulla  
 Reference No. : 18KA1507197  
 Class : 10th  
 School Name & Address : Prabhudev Girls HS, Dharwad  
 District & State : Dharwad, Karnataka  
 Guide Teacher : R H Doddamani



Everybody knows that saline is used in the hospitals for the recovery of the patient. It is a type of fluid, which is kept in the bottle and delivers the saline solution through blood stream drop by drop. During daytime the patient, attendant and nurse can check the bottle and replace it with a new one when it is about to be empty. During the night, however, it is difficult to manage watching and calling the nurse to change it. To avoid such situation the student has designed a device which monitors the saline level in the bottle and alerts the nearby person to change the saline bottle in time.



Dr.A P J Abdul Kalam is inspiration of Simran. She likes singing, painting, acting in drama, and reading.



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Innovation/Idea : Avoiding Waste Drainage and Gutter Stucks Using Solar Energy  
 Awardee : Laxmi J Itagi  
 Reference No. : 18KA1507222  
 Class : 8th  
 School Name & Address : Smt.Nirmala K Thakkar English Medium High School, Hubballi.  
 District & State : Dharwad, Karnataka  
 Guide Teacher : Bharti G Irkal



During rainy season the waste material blocks the drains, which creates flood like situation in many areas. In order to avoid such situations the student has come up with a project to install mesh at a certain distance in the drainage system, which can allow only water to flow whereas the waste material and garbage gets collected in the iron net and lifted by machine to avoid the stagnation of material in the gutters.



Laxmi likes playing outdoor and indoor games, dancing, travelling etc.



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Innovation/Idea : Generate Electricity Using Sun Tracker  
 Awardee : Jyoti Shibargatti  
 Reference No. : 18KA1507180  
 Class : 10th  
 School Name & Address : KNK Girls High School  
 District & State : Dharwad, Karnataka  
 Guide Teacher : Sadguna Nesarikar



Usually solar panels installed at certain places to get the sunlight but they lose 70% of energy when the direction of sun changes. The student has developed the solar/sun tracker that moves as per the direction of the sun to get 99% energy to generate electricity. The rotating panels have been attached to capture the sun radiations throughout the day as it follows the direction of the sun.



Swami Vivekananda is the inspiration for Jyoti. She likes to play games and reading.



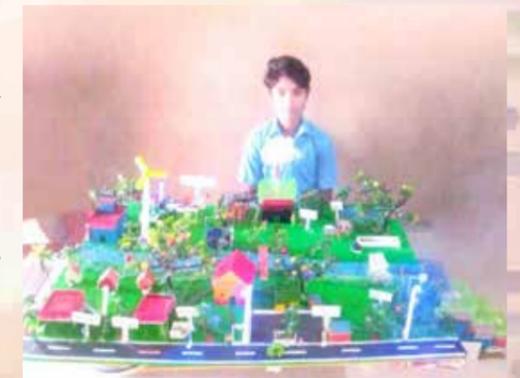
# inspire awards - manak

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Innovation/Idea : E- Waste Management and Water Conservation  
 Awardee : Manoj D Rottigavad  
 Reference No. : 18KA1507297  
 Class : 10th  
 School Name & Address : Government High School Tarlaghatta  
 District & State : Dharwad, Karnataka  
 Guide Teacher : D H Kotigoudra



Manoj came with the idea of E-waste management which is a problem across the world. In India the electronic waste management assumes greater significance. The wastes from cities and villages are collected in a vehicle waste segregation is done to recycle dry waste easily and to use wet waste as compost. To perform this activity Garbage disposal unit is used for segregation. Ex: Paper, Iron pieces, cans, steel, plastic bottles, glass materials etc. The robot prepared from e-waste can be used to dispose the other wastes. Water problem is a global issue that needs to be taken seriously. To overcome the problem rain water harvesting stem should be in vogue to avoid water scarcity. One more major problem in cities as well as village is sewage and waste water. The sewage water treatment is done as it is a process of removing contaminants from waste water and household sewages .Like this we can conservation of energy to some extent.





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Innovation/Idea : Production of Electricity Using Animal Waste  
 Awardee : Revanashiddayya Hiremath  
 Reference No. : 18KA1507238  
 Class : 7th  
 School Name & Address : Government High School Tarlaghatta  
 District & State : Dharwad, Karnataka  
 Guide Teacher : K Girish



For healthy environment and sustainable economic growth, we need clean and efficient electric power generation system. The alkaline nature of fresh cow urine acts as a good electrolyte liquid. In this project the electrodes made from zinc and copper respectively which acts as a battery cell. Connecting wires to the electrodes we found low voltage from urine after a while. We also connected two metal pins to the solution as cow's urine so that electron can flow from zinc plate to copper plates as a close loop system. The fresh urine might provide much more voltage as 1-volt cases.



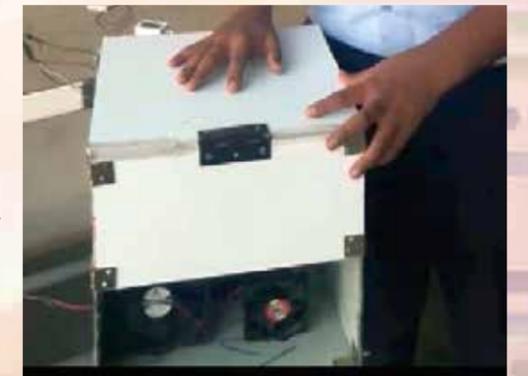
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Innovation/Idea : Thermo Electric Climate Box  
 Awardee : Vineet Honnutagi  
 Reference No. : 18KA1505787  
 Class : 10th  
 School Name & Address : Prerana Public School, Vijayapur  
 District & State : Vijayapura, Karnataka  
 Guide Teacher : Sanjeev Kumar K



Student has developed thermoelectric climate box which uses Peltier effect. The device has two sides, and when a DC electric current flows through the device, it brings heat from one side to the other, so that one side gets cooler while the other gets hotter. We used cool side as cooler and hot side as heater. If we wanted heater just reverse the back panel and after some time we will get hot air. Peltier effect says that when an electrical current would produce heating or cooling at the junction of two dissimilar metals. We can use this thermoelectric climate box in place of ACs and heaters. Vineet likes playing chess, listening songs and watching movies etc.





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Innovation/Idea : Eco Friendly All Stain Remover from Momordica Cymbellaria

Awardee : Jettappa

Reference No. : 18KA1505903

Class : 8th

School Name & Address : Government High School

District & State : Vijayapura, Karnataka

Guide Teacher : R S Zalaki



Jettappa has developed a natural stain remover using the plant momordica cymbalaria. The roots of the plant are crushed to form the paste. Some amount of paste is mixed with the water and clothes are washed. Efficiency of these solutions were tested on different types of stains such as mud, tea, ink etc. on different surfaces cloth, glass, wood, metal etc.



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Innovation/Idea : Bio Soap

Awardee : Veeresh Basappa Hattarakihala

Reference No. : 18KA1505999

Class : 7th

School Name & Address : Govt HPS Nimbal RS

District & State : Vijayapura, Karnataka

Guide Teacher : Rajashekhar Naik



In villages people use roots of plants to wash the clothes. The student came with an idea to develop bio soap for washing the clothes. The Bio soap is prepared from waste vegetable material. The bio waste is put in a bottle for thirty days. After thirty days it is liquid to wash clothes etc. This is an innovative use of waste material of vegetables and other plant wastes.

Veeresh's hobbies include fruit collection, vegetables varieties.





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Innovation/Idea : The Garden Tower Project  
 Awardee : Nagappa Godi  
 Reference No. : 18KA1507405  
 Class : 10th  
 School Name & Address : Govt High School, Baradur  
 District & State : Gadag, Karnataka  
 Guide Teacher : Mallika Nayak



In order to use the kitchen waste the student has developed a garden tower, an imposter based on principle of turning kitchen scraps into useful organic manure. It grows 50 plants in 4 square feet area. A 200 litre of water is used to make pits on it at equal distances. The idea is to make use of kitchen waste to keep environment neat and clean.

Nagappa likes gardening, reading books, drawings and cycling. He also likes participating in competitions.



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Innovation/Idea : Paper Made From Waste Banana Plant  
 Awardee : Shivakumar Bandi  
 Reference No. : 18KA1507404  
 Class : 8th  
 School Name & Address : Govt High School, Baradur  
 District & State : Gadag, Karnataka  
 Guide Teacher : Mallika Nayak



Cutting down trees in making of the paper is a problem. Student has come with an idea to convert waste banana plants into papers through a process so that there is no need to cut the trees to make the paper. Preparing single layer cellulose from banana plant and jowar sheath which is produced when lignin acid in banana plant reacts with base like calcium hydroxide. Cut the waste banana plants stem and jowar sheaths in to small pieces and boil it with calcium hydroxide or sodium hydroxide solution. After cooling wash the stem and sheath cutting with fresh water and add calcium carbonate according to quantity of stem .Paste it using blender add required quantity of water and spread it on window mesh/net plate. The preparation is sundried for around 3 hours to get thick paper.





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Innovation/Idea : Manual Electricity Generation  
 Awardee : Aishwarya H. R.  
 Reference No. : 18KA1420357  
 Class : 6th  
 School Name & Address : Carmel Convent High School,  
 Mandya  
 District & State : Mandya, Karnataka  
 Guide Teacher : Ramya B K



Realizing that the natural resources- which are used for the production of electricity- will be depleted in some time, Aishwarya thought of coming up with an innovation that would use alternative methods to produce electricity. His project consists of a spring whose cyclic rotation results in the production of electricity which could be used in both domestic and commercial purposes. The amount of electricity produced will depend on the number of rotations of the spring- for example, if the spring is rotated 18 times, the electricity would be produced that would help light around 5 electric bulbs.



Aishwarya's biggest inspiration is Sri. M. Vishweshwariah, and her parents. She is interested in drawing, singing, and studying, and is also inclined towards the development of the rural sector of India.



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Innovation/Idea : Sugarcane Planting Machine  
 Awardee : Ashwini Anyagol  
 Reference No. : 18KA1418643  
 Class : 8th  
 School Name & Address : Govt. Kannad Girls Higher Primary  
 School Chimmad  
 District & State : Bagalkot, Karnataka  
 Guide Teacher : V N Narayanakar



As Ashwini belongs to a poor family, it had been difficult for them to hire labour to sow sugarcane seeds. This made her come up with an innovative idea of a sugarcane planting machine. This machine consists of a rectangular iron chariot with an inclined metal box, fitted with two iron wheels. The seeding is controlled by moving belts which is connected to the centre of the wheel. There is also a provision of side bottles that contain chemicals and fertilizers. The seeds are sowed at regular gaps, along with the fertilizers and chemicals. This machine will help save the time and effort of the labourers; it is also cost-effective and pollution free.



Ashwini's biggest inspiration is her parents and the poor farmers. She is interested in reading books, newspapers, and participating in debates and oratory competitions.



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Innovation/Idea : Swing Operated Water Pump  
 Awardee : Bhimashankar Talakeri  
 Reference No. : 18KA1418673  
 Class : 10th  
 School Name & Address : Govt. High School Kunchnur  
 District & State : Bagalkot, Karnataka  
 Guide Teacher : Ashok K Magi



Bhimashankar's father works in the fields and had been using mechanical pumps for irrigation since a long time, hence Bhimashankar came up with a project that has a swing frame which consists of seven rigid links which convert the oscillation movement to the reciprocating piston movement. There is a reciprocating pump which is closely fitted with a cylinder or a plunger which executes a reciprocating motion.



Bhimashankar is motivated towards serving the society especially the rural sector of India. He is also interested in reading, watching Discovery Channel, and playing sports.



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Innovation/Idea : Rotating Bridge  
 Awardee : Diya S Shah  
 Reference No. : 18KA1419436  
 Class : 6th  
 School Name & Address : Shri B.M.E.T Jain Vidyalaya  
 District & State : Davangere, Karnataka  
 Guide Teacher : Shilpa B M



The rapidly increasing traffic in the cities worried Diya and hence she came up with an innovative idea of a rotating bridge. Her project is a movable bridge that has a vertically located pin ring near its centre of gravity, about which the turning span can pivot horizontally. It is a unique structure designed for its particular location so that it can cater to the traffic needs. When it is closed, a swing bridge carrying road or railway over a river or canal allows traffic to cross. The typical swing bridge will rotate approximately 90o or one quarter turn however a bridge which intersects the navigation channel at an oblique angle may be built to rotate only 45 degrees, or one-eighth turn, in order to clear the channel.



This is a highly cost-effective project as it links three modes of transport at a time.



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Innovation/Idea : Carbon Capture and Storage  
 Awardee : Lohith K L  
 Reference No. : 16KA1394700  
 Class : 7th  
 School Name & Address : HPS Sharada Vidyasamste  
 Santhebennuru  
 District & State : Davangere, Karnataka  
 Guide Teacher : Manjula



Carbon dioxide and monoxide are the two major pollutants released by the large scale industries and vehicles and these emissions have become a menace all over the world. In this project, carbon emissions will be captured and sent underground through a pipeline to the rock formations to be stored permanently in the pores of the rocks. This will limit the carbon emissions and protect the environment from deterioration.



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Innovation/Idea : Railway Track Pedestrian Crossing  
 without Using Staircase  
 Awardee : Spoorthi K P  
 Reference No. : 18KA1419442  
 Class : 10th  
 School Name & Address : Maganur Basappa High School  
 District & State : Davangere, Karnataka  
 Guide Teacher : Shruthi N H



Spoorthi realised that it is difficult for the elderly and the physically challenged to cross the railway bridges, hence she came up with this innovative idea. In this project, sensors are placed on both sides of the tracks. If the train arrives, the mobile platform will automatically close and allow the train to pass and when the train passes the second sensor, the mobile platform will automatically open the bridging platforms. This will help people move their heavy luggage easily from one platform to another and will hence save their time.



Spoorthi's biggest inspiration is Dr. APJ Abdul Kalam. She is interested in playing badminton, basketball, chess and listening to music.



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Innovation/Idea : Smart Car Parking System  
 Awardee : Syed Imran  
 Reference No. : 18KA1419433  
 Class : 7th  
 School Name & Address : GHPS GGMS Devanagere North  
 District & State : Davangere, Karnataka  
 Guide Teacher : Pushpavathi



Syed realized that the traditional car parking system has a lot of loopholes and disadvantages in terms of space consumption; it is also time-consuming and lacks safety. To solve this problem, Syed developed an intelligent, user friendly automated car parking system which reduced manpower and traffic congestion. This project consists of a lift stand which has a moving slide. This lift stand lifts the car and takes it into a specific space; and returns back to the starting point- the lift comes downwards for the car. This project ensures an easy and a quick automated parking and easy retrieval of vehicles. It is suitable for parking at airports, hospitals, shopping complexes etc.



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Innovation/Idea : Solar Powered Knapsack Sprayer  
 Awardee : Ajwin D Souza  
 Reference No. : 16KA1394677  
 Class : 8th  
 School Name & Address : Infant Jesus English School,  
 Modankapu  
 District & State : Dakshina Kannada, Karnataka  
 Guide Teacher : Veena Lobo



Ajwin's uncles used to use a knapsack sprayer for agricultural purposes which was cumbersome and time consuming to use. He realised this and came up with an innovative solar powered alternative. This sprayer efficiently sprays with two beams at a time. And as it uses solar energy, it is sustainable and cost effective in the long term. It also has an inbuilt mobile charging facility. Ajwin is interested in Ardiuno programming and PCB designing. He also likes to collect currencies, read, and listen to music. His biggest inspiration is his uncle.





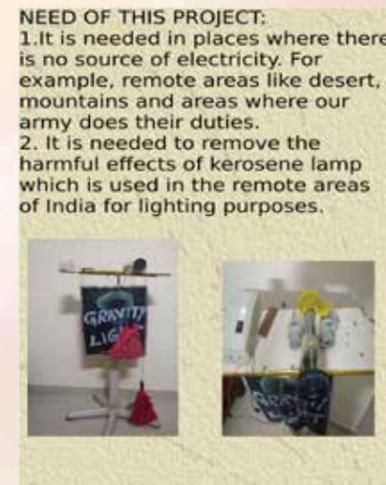
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Innovation/Idea : Gravity Light  
 Awardee : Harsha Narayana P  
 Reference No. : 18KA1418512  
 Class : 9th  
 School Name & Address : V.E.T School  
 District & State : Bangalore Urban, Karnataka  
 Guide Teacher : Shwetha V S



Gravity Light is an innovative device that generates light from the lift of a weight. It works by connecting an elevated weight – filled with rocks or sand – to a pulley system that slowly powers a generator as the weight falls to the ground. When heavy load is allowed to descend from a specific height from the pulley, it slowly rotates and turns the big gear. The small gear which is connected to the 100 RPM dynamo turns as the big pulley. As the dynamo runs due to electromagnetic induction, electricity is produced.



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Innovation/Idea : Oil Cleaner with Fuel-Less Boat  
 Awardee : Madhu Manjunath Naik  
 Reference No. : 18KA1420608  
 Class : 7th  
 School Name & Address : GHS Tenginagundi  
 District & State : Uttara Kannada, Karnataka  
 Guide Teacher : Anant Moger



The problem of fuel leakage from the ships has been prevalent and has polluted the rivers and oceans over the years. Hence Madhu has come up with a machine that runs without fuel and removes oil from the water bodies. This machine works on the law of floating objects and Newton's laws of motions. To make this boat float, two pairs of cans are connected to the iron rods with the help of rubber strips. Crank, pivots and chains are connected in such a way that the boat can move forward easily. A metal sheet is used to change the direction of the boat.

It can be used to collect the spilled oil from the water bodies and reuse it after recycling. It can also be used for fishing purposes, leisure activities etc.





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Innovation/Idea : Delivery Robo  
 Awardee : Suhas Adiga  
 Reference No. : 18KA1418554  
 Class : 9th  
 School Name & Address : Poornaprajna Education Centre  
 District & State : Bengaluru Urban, Karnaka.  
 Guide Teacher : Manjula



The student has designed a robot for delivery consignments without using manpower to execute the same. The project is aimed at delivering consignments, courier packages using an unmanned robot which runs with alternative source of energy reducing the pollution level in urban areas. According to a survey the causes of pollution are the increase in number of vehicles due to increase in online marketing as the orders are placed online and company uses vehicles and other transport to deliver the consignments at door step. The student observed this problem while reading an article in the newspaper about the main cause of increased traffic in Bangalore city. He designed the project to overcome this problem by using the services of Robot. The motive of this project is also to conserve the oils and move towards alternative source of energy. Suhas is inspired by Dr A.P.J Abdul Kalam and his quotes.



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Innovation/Idea : Multipurpose Bicycle  
 Awardee : Dhanvi D Suvarna  
 Reference No. : 18KA1420777  
 Class : 7th  
 School Name & Address : L.V.P Aided Hr. Primary School  
 Putlar  
 District & State : Udupi, karnataka  
 Guide Teacher : K Santhosh Kumar Shetty



To end the misery and drudgery of rural folk while lifting the water from well Dhanvi came with the idea of bicycle for pumping and lifting the water through paddling of bicycle. The problems of rural people motivated her to develop the prototype. The mechanism consists of single centrifugal pump which is attached to the rear wheel of the bicycle. The paddling for a few minutes is enough to lift 30 to 40 liters water to the height of 50 feet. The prototype is ideal for rural areas. It can be used for irrigation purpose, drawing of water from wells and other water bodies.





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Innovation/Idea : One-Way Traffic Signal  
 Awardee : Mahera Muskan  
 Reference No. : 18KA1419884  
 Class : 7th  
 School Name & Address : Shalini Vidya Shale  
 District & State : Hassan, Karnataka  
 Guide Teacher : Chidananda Swamy T M



On seeing the broken roads and accidents while travelling to her grandmother's home, Mehera realized that there was a dire need to curb the pollution caused by vehicles. This project is a solution to air pollution and fuel wastage.

Mahera is interested in science, mathematics and sports, and aspires to become either a scientist or a doctor.



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Innovation/Idea : Agri Robo Using Solar Power  
 Awardee : Prajwal Kumbhar H M  
 Reference No. : 18KA1419905  
 Class : 9th  
 School Name & Address : United High School  
 District & State : Hassan, Karnataka  
 Guide Teacher : Fouziya Khannum



Prajwal came up with an innovative idea of an agricultural robot upon observing other smart devices. He thought of using Bluetooth in a tractor so that a driverless car can be used for agricultural purposes as well. He also aims to reduce manpower and digitalize agricultural practices. His project is an automated agribusiness furrowing, seeding and grass cutting robot which utilized solar energy to help farmers harvest. It can be used for sowing seeds at particular distances, ploughing and cutting plants. It uses Bluetooth to communicate.

Prajwal's biggest inspirations are scientists and mathematicians. He likes playing games and coding.





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Innovation/Idea : Mechanical Arm  
 Awardee : Shashank C S  
 Reference No. : 18KA1420054  
 Class : 10th  
 School Name & Address : Jawahar Navodya Vidyalaya,  
 Mavinkere  
 District & State : Hassan, Karnataka  
 Guide Teacher : Shiva Kumar



Shashank is an avid newspaper reader and had been reading about the cases on struggles of fire fighters, people from the bomb detection squad etc. since a long time. Being empathetic, he came up with an innovative idea of a mechanical arm which is based on principles of robotics and performs all the basic functions just like a human hand does- it is made by using a thermos-flexible plastic; it imitates the movement of the user. There is a mechanical input through the human hand and these transport the signals to the mechanical arm receiver. Mathematical methods are used to transport impulses through strings. It also has a camera and a fire alarming device.



Shashank is interested in cosmology and the study of space. He also likes to be updated with new discoveries.



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Innovation/Idea : Automatic Parking Space  
 Awardee : Sakshi S Sakri  
 Reference No. : 18KA1420543  
 Class : 9th  
 School Name & Address : GPUC Girls Shikaripur  
 District & State : Shivamogga, Karnataka  
 Guide Teacher : Leelavathi T K



Sakshi thought about LDR (Light Dependent Resistor) while she was going for a shopping with her parents and they could not find any empty place to park the vehicle at the parking plot. She thought of making one device which can easily identify the available place at parking places. So the device works when the light falls on the LDR, the intensity of a light becomes high and the resistance will become low hence the light (LED) gets turned on, in a same way when the light will not fall on the LDR, its intensity will be low and resistivity will be high and LED will be turned off and this will also detects the empty slot available for parking.





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Innovation/Idea : Quadcopter or Drone  
 Awardee : Anush Antony Dsilva  
 Reference No. : 18KA1420176  
 Class : 9th  
 School Name & Address : Sainik School, Kodagu  
 District & State : Kodagu, Karnataka  
 Guide Teacher : Subbarangiah N



Anush's drone is unique as it has more than one features. This multipurpose drone can be used for crop monitoring with the help of camera feature, items carrying, spraying insecticides etc, its flying capacity is less than 300 meters, maintenance is such that it will last for 5 to 10years, the important thing that needs to maintain is the dust and Electronic Speed Controller.



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Innovation/Idea : Swachh Bharat Van  
 Awardee : Sahana S Vastrad  
 Reference No. : 18KA1418965  
 Class : 9th  
 School Name & Address : Unaided R M Shah High School  
 District & State : Vijayapura, Karnataka  
 Guide Teacher : Devendra S Kuri



Sahana created the Swachh Bharat Van to keep the surroundings clean and hygienic, to make the environment free from diseases and to increase the greenery wealth in the environment. It is the van she thought about, it has mopper at the back which mops the road, garbage collector is attached to collect the garbage, 360 degree camera on the top the vehicle, electro-magnet which attracts metal pieces from road, it also has first-aid box and suggestion box, a grinder inside the vehicle which grinds the wet waste which can easily mixed with the soil. She wishes govt. to manufacture such vehicles in future to maintain the cleanliness in the city.





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Innovation/Idea : Elephant Detector  
 Awardee : K Tamanna Appachu  
 Reference No. : 18KA1420184  
 Class : 9th  
 School Name & Address : Coorg Public High School, Atturu  
 District & State : Kodagu, Karnataka  
 Guide Teacher : Nisha P A



Tamanna's mother was attacked by the Elephant three years ago, she thought about an idea for detecting the elephant with the use of ultrasonic sensors. These sensors send and receive ultrasonic waves when the elephants enter the area where the sensors transmit ultrasonic waves, these waves get reflected and are received by the receiver and sends the received data to the microcontroller – which is programmed with the specifications of an average elephant, now this micro-controller sends the signal to the buzzer, LED and GSM board and if the specifications match, then the output are the loud sound buzzer, the bright LED light and message gets send to GSM to the forest department and then this way the owner gets to know and necessary actions can be taken.



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Innovation/Idea : Teeth Bite Hearing Machine  
 Awardee : Sujay M N  
 Reference No. : 18KA1420362  
 Class : 8th  
 School Name & Address : Chinmaya English High School  
 District & State : Mandya, Karnataka  
 Guide Teacher : Reena P



Sujay was trying to think upon a creative idea from past 3yrs and he got to think about this idea while his mother was interacting to his teachers regarding dumb and deaf people, the device contain wire, DC motor and a pin. The device can be connected directly to the mobiles, TV or laptop and after connecting the device to the connector (which can produce sound or any music instrument like TV, mobile phone, laptop) the sound of the connecting device warns the passers through wire and thus through DC motors with the help of their teeth and this way it travels to brains through nerves. The device is very useful for the people who are born with dumb and deaf and it is similar to the hear aid machine; however, the device is very low in cost, even poor can afford it and it is very light in weight to carry and the best thing is they can made this by their own.





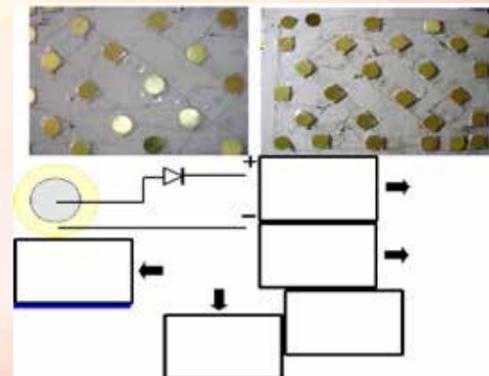
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Innovation/Idea : Generating Electricity by Walking  
 Awardee : Sayyam N B  
 Reference No. : 18KA1420753  
 Class : 6th  
 School Name & Address : Siddivinayaka Primary School,  
 Siddapura  
 District & State : Uttara Kannada, Karnataka  
 Guide Teacher : Asha H Naik



The principle of the idea is about energy as the energy is one of the most important issue in the world and renewable energy sources can be a great media to solve this energy crisis problem in India. Sayyam thought about harvesting micro energy by walking, so his idea about energy which generated from human body that is whenever we walk we waste our energy and his thinking is to collect and use this energy in the form of electricity hence he used piezoelectric property of certain crystals – with the help of these piezoelectric transducers power generates by walking.



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Innovation/Idea : Seed Ploughing Machine  
 Awardee : Vivekananda S Kenganal  
 Reference No. : 18KA1419303  
 Class : 9th  
 School Name & Address : Alva's English Medium High School  
 District & State : Dakshina Kannada, Karnataka  
 Guide Teacher : Soumya B



While observing farmers ploughing in the fields, Vivekananda thought of innovating a simple-to-use ploughing machine, and hence came up with this model which is made of scrap materials and can be manufactured in the small scale factory. This is a modernized machine which runs without any fuel and is easy to reassemble and carry from one place to another.

Vivekananda is interested in science and technology and his biggest inspiration is his father and farmers.





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Innovation/Idea : Multi-Purpose Agriculture Equipment  
 Awardee : Rakshitha S.  
 Reference No. : 18KA1420531  
 Class : 9th  
 School Name & Address : Government High School  
 Harisandra, Ramanagara  
 District & State : Ramanagara, Karnataka  
 Guide Teacher : Padmavathi



Since Rakshitha belongs to a farmer's family, she understands the problems faced by labourers and farmers who cannot afford tractors and other agricultural equipment, hence came up with this agricultural equipment. This project performs functions like ploughing, levelling, lining, sowing- it reduces the time and labour cost, as it incorporates technological advancements to make the tasks easier. This would result in more yield and good quality crops. Rakshitha's objective is to make animal powered equipment suitable for 1-3 acres of land. This equipment is user friendly and can be handled by women and adolescents with equal ease. Also, it does not require and energy source for its functionality.



Rakshitha loves reading books and science magazines, and her biggest inspirations is her teachers and parents.



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Innovation/Idea : Electricity Generation from Park  
 Awardee : Ramni Hangirekar  
 Reference No. : 16KA1394219  
 Class : 6th  
 School Name & Address : Divine Providance High School  
 Guide Teacher : Mary George  
 District & State : Belgaum, Karnataka



On observing that the mechanical energy of people at a park is getting wasted, Ramni thought of coming up with an innovation to utilize this energy. This project uses the mechanical energy of the merry-go-round, garden gate, swing, see-saw and converts them into electrical energy. This energy is stored and further supplied to the nearby villages and towns



Ramni is interested in public speaking, singing, dancing, playing chess and solving puzzles. Her biggest inspiration is our honourable PM Narendra Modi.



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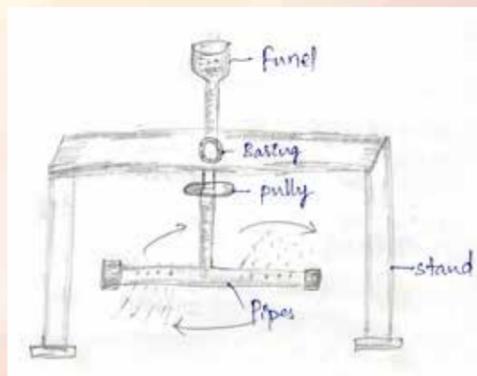
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Innovation/Idea : Power Generation by Canal Water  
 Awardee : Shanmukh Chakrasali  
 Reference No. : 16KA1394973  
 Class : 6th  
 School Name & Address : Government High School Santolli  
 District & State : Uttara Kannada, Karnataka  
 Guide Teacher : Girish T Valmiki



Shanmukh realized that canal water has a lot of potential of produce electricity, hence he decided to utilize this potential. In the model prepared by him, he has used low cost materials. The pipes used are set in a way that when water is poured, it rotates the pulley and hence the power is generated in the DC motor.

Shanmukh is interested in science and is motivated to become an innovator. His father and his teacher are his biggest inspiration.



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Innovation/Idea : Wind Trapper  
 Awardee : Srujan A R  
 Reference No. : 16KA1394736  
 Class : 9th  
 School Name & Address : Sri B.M.E.T Jain Vidyalaya  
 District & State : Davangere, Karnataka  
 Guide Teacher : Veena B



The idea is about generating energy from wind mill, the device has a pole and has frustums shaped head on it which contains 8 winged fan and a dynamo fixed to it, the pole is made in such a way that its height can be adjusted and the maximum height is approximately 4-5 feet, it generates electricity when the fans rotate. The benefit of frustum shape is that it lets more air to gush into it, which creates more pressure on fans and this increases the fans speed and the outcome is more the speed; more the electricity. The model is made very small and can be very useful in agriculture fields, top of a house or even on a car, can be used in charging mobile phone, lighting up the tube-lights in the house and many more.





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Innovation/Idea : Robot-Unman Patrolling Vehicle  
 Awardee : Subhajan V  
 Reference No. : 18KA1418527  
 Class : 8th  
 School Name & Address : Shree Bharti Vidyalaya  
 District & State : Bagalore Urban, Karnataka  
 Guide Teacher : Kavitha



The student has designed an unmanned for night patrolling without using the manpower for the purpose. The vehicle developed by Subhajan basically uses the principle of line-following robot. The line-following robot use IR sensors to follow only the black line. There are two IR sensors fitted in the front of the vehicle which works for 2 motors. The motors used are of 30 RPM and the voltage input is about 4 volts which comes from the power bank fitted on the rear side of the vehicle. A wireless camera is used records the video and emits it as radio waves. The receiver receives the radio waves and demodulates it to A/V signals and subsequently it is displayed on monitor. The vehicle has a night vision which is enabled by LED lights that fitted in the front of the vehicle.



The movement of the vehicle is enabled to capture the camera view as live stream in the controlling centre. All the operation is carried out without human intervention. It also is equipped with touch sensors fitted on the body which sends alert sirens to the control room when intruded. The machine is ideal for security of high alert zones, defence establishments, Nuclear power plants, Space research centres and industrial automation.



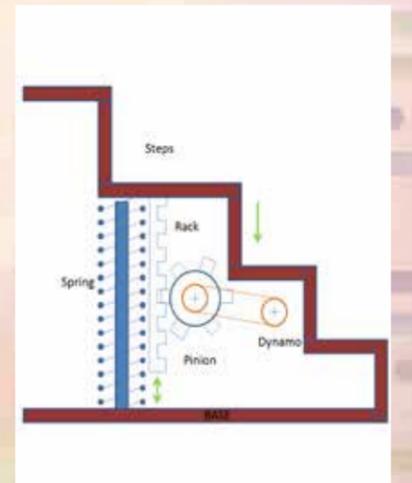
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Innovation/Idea : Electricity Generation from Foot Steps  
 Awardee : Nilkantha Jakanur  
 Reference No. : 18KA1418674  
 Class : 10th  
 School Name & Address : Govt High School Kunchnur (RC)  
 District & State : Bagalkot, Karnataka  
 Guide Teacher : Ashok K Mag



In order to utilize the man's walking energy the student has designed a project to use foot steps to generate electricity. The aim and objective of the project is to use the footsteps to generate electricity so that the movement of public in big cities can be utilized to create another source of energy. The walking on steps of more public will create more energy. As the movement of public on stairs will force to run the project mechanism and the mechanical energy will subsequently convert into electrical energy just like a generator which converts mechanical energy into electric energy. The designed project is suitable for high density public places.





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Innovation/Idea : Tsunami & Hurricane Warning System.  
Awardee : Adarsha G M  
Reference No. : 18KA1508989  
Class : 10th  
School Name & Address : Ashirvad English Medium School  
Theganahalli.  
District & State : Mandya, Karnataka.  
Guide Teacher : Hareesha M V



Adarsha has developed seawall barrier system with inbuilt forecasting and monitoring system for tsunamis and hurricanes to protect areas of human habitation, prevent loss of life and damage to property from the action of tsunamis and hurricanes.

He likes to play games like cricket and football and wants to become a cricketer.

