

IIT-Gn's spark of innovation

Students of Indian Institute of Technology Gandhinagar display their ingenious inventions in the second edition of Ignite 2.0

METHOD TO DECONSTRUCT PROTEINS

INNOVATOR: DEEKSHI ANGIRA, NALINI NATRAJAN, SIDDHANT BHOIR
PhD STUDENTS



Proteins are at the root of all diseases. Realising this, these students created a method to deconstruct the proteins in a disease through x-ray diffraction, which can aid in creation of preventive drugs. Deekshi, explaining the importance of x-ray diffraction, said, "All major diseases like cancer and Alzheimer have proteins. In order to make preventive drugs, we need to know the type of proteins in diseases, which can be learnt only through x-ray diffraction. We were guided by our PhD guide Dr Vijay Thiruvengadam."

ALL WEATHER BICYCLE

INNOVATOR: ABHINAV SINGH
IIT GN MECHANICAL ENGINEERING (4TH YEAR)

PICS: JIGNESH VORA



As the name suggests, Abhinav Singh's improved cycle is suitable for all types of weather. It is aimed especially for senior citizens. The fourth year engineering student said, "The idea for the cycle struck when I saw an old man riding a cycle during summer. My innovation has a detachable shade attached to the cycle. The shade can be mounted on an aluminum frame, thus allowing the rider the luxury of riding in shade even under scorching sun or in rain. The cycle also is equipped with a side-wheel which makes it easier for senior citizen to mount and get off the cycle without the fear of losing balance. It took me a year to build the cycle."

SMOKELESS CHULHA

INNOVATOR: CHITRANSHU KUMAR
IIT GN MECHANICAL ENGINEERING



Chitranshu aims at creating a smokeless environment to Rural India by introducing his smokeless chulha. He said, "There are two chambers in the chulha, one in which wood will be burnt and the other in which wood will only be heated. It works exactly like a chimney in houses. But the unburnt wood will absorb the smoke created while burning the wood and thus creating a smokeless chulha."

PHONE CALLER ASSIST

GLOVE FOR BLIND

INNOVATOR: SUBHRAMANYA TEJA, NAGA SINDHU
IIT GN ELECTRICAL ENGINEERING



Subhramanya Teja was quite moved when he saw a visually impaired person requesting someone to help him dial a number on his cellphone. This got him thinking. He along with fellow student Naga Sindhu, a 3rd year student, created a glove that could assist in making phone calls. Teja said, "The glove is connected to the phone via bluetooth. The dialing pad is incorporated in the glove. The visually impaired can wear the glove and dial numbers using the thumb."

COOL FLAME VAPORISER

INNOVATOR: MARM DIXIT, VIKAS SHARMA, MANJEET ANAND, SAI MANI
IIT-GN JUNIOR RESEARCH FELLOWS



Marm and his team has created a technology which will let submarines sail in the sea without emitting smoke. He said, "Diesel is consumed in the machine which passes through the funnel, thereby creating hydrogen and carbon monoxide. The engine will run on the hydrogen created and will also be able to generate electricity for the submarine."