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of medical
nt, says Yogi

held under India International Science Festival at the Anil Bihari Vajpayee Scientific Convention Centre.

He also said first-aid lessons should be taught at primary schools so that the rush at the hospitals is reduced. "If students are taught first-aid lessons right from school there will be more awareness and for every little treatment, one won't need to rush to hospital. It will also reduce the burden on hospitals which will be able to provide quality health facilities," said the CM. Opening new hospitals is not the solution but making people health conscious is more important so that they fall ill less, he added.

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BY ATMOS SOUND

Smart stick for the blind, a roof that powers a house

At IISF, Students' Innovations Solve Everyday Problems

Aditi Singh | TNN

Lucknow: The massive smog menace in Delhi, which led to respiratory problems for several people, served as the trigger for 12-year-old Shivam Mukherjee to invent an eco-friendly mask and "filtering collar" that could potentially fight air pollution.

"The mask can be fitted over the nose and mouth with the help of straps. A filter section (collar), will be connected with the mask with two pipes to carry clean air. It comprises a UV layer, carbon filter cloth, aroma capsule for fresh smell and a sensor attached to a buzzer in case of any danger," he said.

Shivam's was one of the innovations patented by Intellectual Property India.

At India International Science Festival, competitors in the "Nav Bharat Nirman" segment presented their ideas for innovative solu-



Jaskaran & Siddharth with their 'smart stick' for the blind

Shivam Mukherjee with his mask and filter to fight pollution

tions to everyday problems. Organised at Indira Gandhi Pratishthan on Friday, 40 models were put up by students from across the country.

Using PVC pipes, an ultrasonic sensor, a motor and a buzzer, Siddharth and Jaska-

ran of Amity International School of Delhi have made a smart stick for the visually impaired.

"The basic cane used by the blind helps them know about their surroundings using physical interaction.

This stick eliminates the need for physical interaction and helps the blind person to sense surroundings without any touch. The sensor can sense anything from 50 metres away and will automatically buzz and vibrate to make them aware. This is also helpful for deaf people. It is cost-effective and durable," said Siddharth.

For Jaya Sagar, an engineering student of NIET, Shimla, long power cuts were the trigger for motivation. She has designed a piezoelectric sheet with a stabilizer that can be placed on the roof of a house to power it.

"This is basically for rural areas and hilly regions. When it snows and rains a lot, electricity supply is cut, sometimes for days and weeks. This sheet can be installed outside the house or on the roof. The required voltage is around 50 volts, which is more than enough for emergency lighting," said Jaya.

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Lucknow: They are recipients of several international awards and cited at prestigious institutions across the world. But, they consider their success incomplete without the satisfaction of giving back to their 'home'.

Non-resident Indian scientists Anil Gulati and Suresh K Bhargava have ideas for problems that their country has been facing and are more than eager to contribute with solutions.

TOI caught up with both scientists at the India International Science Festival, where they have arrived to participate and share knowledge.

Professor and associate dean at Midwestern University Illinois, US, Gulati gives credit for his research work to Lucknow.

Born in this city, Gulati studied at St Francis' College and did his MBBS in 1977 and MD in 1982 from RGMU before joining Central Drug Research Insti-