

# IIT-Gn students develop noise-free electric auto

A group of 12 students from IIT-Gn has developed a prototype of battery-operated autorickshaw; some of them are in the US to study the viability of recharge stations

Tanushree.Bhatia  
@timesgroup.com

**A** group of students from Indian Institute of Technology, Gandhinagar, has developed a noise-free, battery-operated autorickshaw for Indian roads. The students had participated in a research contest organised by Underwriters Laboratory (UL), Northbrook, USA and IIT-Gn with an aim to provide a better understanding of safety challenges in electric vehicles in India.

The students bought a second-hand autorickshaw, cancelled its registration and took permission from the RTO to test-drive it.

They then bought the required equipment and materials from different places in the state. This process took about two months and finally the batteries were installed.

Says Akash Keshav Singh, one of the students who developed the prototype, "The battery-operated rickshaw will be very effective for Gujarat as there are no power cuts here.

"It will also be cost-effective. Some of our students are currently in the US to study the viability of recharge stations. If batteries have to be installed in the existing autorickshaws, there will be a need for recharge stations."

He added, "A 60 km-run requires the vehicle to be recharged for nearly seven hours. This system will be 30 per cent more cost-effective than the existing CNG model. The USP of the vehicle is that it will make no noise. We carried out a test-run on our campus."

"The biggest challenge for us was to use a particular type of battery. Lithium batteries are good but



Students with the prototype of the battery-operated rickshaw

**The institute believes in creating engineers who understand the needs and challenges of the society**

**SUDHIR JAIN  
DIRECTOR, IIT GANDHINAGAR**

product which should cost around Rs 60,000 from our end."

The students are now focusing on developing efficient battery charging stations for such vehicles. While a team of students is working on the vehicle at IIT-Gn campus, two teams of students have flown to Chicago to meet the experts and

infrastructure Project, Mukesh Bhandari, founder, Electotherm, Chetan Maini, chief of Strategy and Technology, Reva-Mahindra, and Dr Pravinray Gandhi, director of Corporate Research, UL, selected the winning teams.

The students working on the project are Madan Taldevkar, Vaibhav Gandhi, Kimaya Kale, Pratham Bhat, Kishan Suthar, Shubham Gupta, Varun Gupta, Shreyas Vaidya, Akash Keshav Singh, Preet Shah, Rounak Mehta and Harsh Gupta.

Says Sudhir Jain, director, IIT-Gn, "The institute believes in creating engineers who understand the needs and challenges of the society. The kind of work our students are taking up and the enthusiasm they

they heat up fast. They are quite successful in Japan. Hence we had to develop a cooling system for the vehicle. It will take another year before we come up with the final

visit UL facilities.

An external review committee of EV industry experts comprising Vikram Gulati, director, National Automotive Testing and R&D In-

have shown towards the projects underline the fact that the institute has been successful in inculcating these human values and attitudes in them."

