

IIT-Gn designs new barricades for cops

As part of a project for Raksha Shakti University, IIT-Gn faculty members create lightweight and cheap barricades designed specifically to control crowd

Niyati.Rana
@timesgroup.com

Tweets @NiyatiRana1

The Indian Institute of Technology, Gandhinagar has designed a barricade for the police that is 'physically strong, visually intimidating and functionally simple'. The barricades that can be used during protests to control mobs and bring discipline to traffic on the road has been designed as part of a project for Raksha Shakti University.

Created by Dean Amit Prashant and faculty members Gaurav Srivastav and Bhaskar Bhatt, the trendy-looking barricades can be easily stored and transported. The product includes two easily deployable, stackable units with the capacity to sustain being pushed or pulled by 12 persons. It does not require manual support to stabilize it against adverse force. It is resistant to sliding and overturning as it has a platform facing the crowd.

Deputy Director General (RSU) Vikas Sahay said, "We have conducted this research with IIT-Gn so that we can use barricades meant for crowd control. Currently, the police department uses ones designed to handle



The new design makes it impossible for crowd to cross line or lift the barricades

traffic on road. This prompted us to use technology and come up with a new design that specifically targets

crowd control."

The new design makes it impossible for crowd to cross line or lift the bar-

FINAL DESIGN

- » Two easily deployable and stackable units (base and front)
- » Weighs just 57 kg
- » Capacity to sustain push/pull of 12 persons
- » Inherent resistance to sliding and overturning
- » Metal net allows clear view of crowd
- » Height of 5'ft allows use of force, if necessary
- » Total cost of approximately Rs 10,000 per unit

ricades, he said.

Prof Prashant said that the biggest advantage of the new design is reduction in weight. "Current barricades weigh more than 250 kg. By using steel net, we brought down the weight of new barricades to 57 kg per piece. This includes 22 kg of base frame, 24 kg of front frame and 10 kg of metal net. This will make it easier for policemen to bring down production cost by 50 per cent," he said, adding, "The design is 5-foot tall and allows using force, if required to control mob."

The product was developed after a series of consultation with officials at RSU. "IIT-Gn and RSU discussed additional features desired by police officials like structural strength and stability so that it is not necessary for a police official to manually support the barricade against an aggressive crowd. They sought less maintenance demand—both in terms of money and manpower, durability, quick and easy deployment, and moderate resistance to fire," Prof Prashant revealed.

Sahay said, "The new design has a net to allow cops to talk to and calm down an angry crowd. It also interlocks to enable it to be lined up against a mob."

To give students exposure, the institute initially ran a contest for B.Tech students and sought their suggestions. Based on the suggestions, the three faculty members modified the design to come up with the final product.

IIT-Gn has completed the project and submitted the design. RSU officials plan to implement the new design after seeking nod of higher-ups in the state government. The proposal will be submitted to the Director General of Police for approval of mass-production.