

## Indian Innovator **Mirza Rizwan** Bags Prestigious US National Award; Shares His Key Projects

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Mirza Rizwan, a 48-year-old Indian innovator, has been selected to receive the George Washington Honor Medal, a US National Award to be given by the Freedoms Foundation at a ceremony in Dallas on November 8, 2021. Rizwan has been selected for this award for his efforts to turn young students in the age group between 10-18 years into innovators and to establish a school to help students succeed.

The Freedom Foundations, in its letter to Mirza Rizwan, has acknowledged his contribution in "revolutionizing education in the United States by designing and delivering course modules to mentor kids to innovate STEM solutions to real-world problems". To date, Rizwan's organisation Discover STEM-USA has filed for 320 patents, out of which USPTO is evaluating five innovations, which is of significance for the United States security agencies. While speaking to Republic TV, Rizwan named some of the important innovations undertaken by his students at DiscoverSTEM-USA.

### 1. Relay Launch System - A system to launch satellites without 1st stage rockets, by using multiple platforms. (Patent Pending)

This innovation is the Winner of the 1st prize at NASA Ames Space Settlement Challenge-2018. This innovation is currently being evaluated by US Federal Agencies as an 'Innovation of National Security Importance'.

### 2. A plastic bottle that disintegrates within weeks. (Patent Pending)

On a day-to-day basis, 1.5 billion plastic bottles are used and just 10% are recycled, and the rest of the 90% are polluting the environment. This innovation is going to solve the issues related to climate. This innovation was 'Alternate Finalist' at Conrad Spirit of Innovation Challenge - 2018 held at NASA Kennedy Space Center.

### 3. Smart gun to prevent mass shootings (Patent Pending)

This innovation was 'Global Finalist' at Conrad Spirit of Innovation Challenge-2018 held at NASA Kennedy Space Center. This innovation uses an Artificial Intelligent image processing algorithm to decide when is it safe for the gun to fire. If the gun is in sensitive locations like schools, places of worship, etc, it locks itself

### 4. A smart traffic light system to automatically create a 'Green Corridor' for ambulances. (Patent Pending)

This smart traffic light system communicates with an ambulance to receive its route and then create a Green Corridor for a non-stop ride to the hospital.

### 5. A system to predict and prevent the possibility of drug abuse among teenagers. (Patent Pending)

This system detects molecules of narcotics in the environment and sends alerts to parents in case their child is near somewhere narcotics are available or consumed.

The young innovators at DiscoverSTEM-USA are between 10-18 years of age, who work on various domains related to aerospace, global climate, pollution control, renewable energy. The students work at four high-end laboratories named after Ramanujan and Aryabhata. Fifty percent of the students are of Indian Diaspora in the US, who are selected to Ivy League universities with full scholarships.

### India's Giant Leap on Global Innovation Index

Rizwan, while expressing his gratitude towards the government of India, said "It's a matter of great pride for Indians that Narendra Modi govt since 2014 has dramatically moved to build India as an innovation-based economy. If you check the global innovation index, India has climbed from 81st to 42nd Rank, which is a huge achievement. India is going to be the hub of innovation sooner or



"In terms of a long-term plan, we intend to develop the innovation culture in the community at the global level, and at the same time, we wish to address one global issue and bring up some innovation, which is going to impact humanity. Make in India is not going to be possible if we don't develop an innovation culture in India and that is going to be right from school time."

Mirza Rizwan is an accomplished Indian academician and well-recognised researcher in the field of innovation, entrepreneurship, competitiveness, sustainability, and education. He is a graduate in Economics, with a management degree from Bangalore University and Advanced MBA from IIM-Bangalore and HEC-Paris. He is presently completing his Ph.D. in Innovation & Sustainability.

Rizwan is well known in the global research & development fraternity and he has been invited to serve as a judge for the 'R&D100 Award' (known as 'Oscars of Invention') for the last five years and the 'Hult Prize', (known as the Nobel Prize of the students). He has evaluated research outcomes of various NASA & US Department of Energy Labs. He is currently working as Chief Innovation Officer at Si2 Microsystems, a large multinational technology corporation, where he leads the charge to develop and execute their global innovation strategies.

