



Name: Mohammed Saquib

Age: 25

Nationality: Pakistani

Category: Energy

Project: Energy efficient modular homes for displaced people

What is the problem you are trying to solve?

Millions of people around the world are currently displaced due to natural disasters, climate change, terrorism and war. One of the consequences of this large influx of displaced people is a significant housing shortage. As a result, displaced people are forced to live in shelters and camps in dreadful

conditions, exposing them to social and health problems.

How does your idea help solve the problem?

My business, Modulus Tech, manufactures low-cost, flat-packed houses and structures that can be assembled in as little as three hours. The flat-pack nature minimizes transport costs, while the modular construction allows for customization and other applications. They also come with integrated electrics and plumbing, so the structures are ready for use as soon as they are assembled. Once set up, the houses offer privacy and hygienic living standards.

Additionally, we use building materials such as Fibre Cement Composites and Wood Plastic Composites that have a lifespan of 30 years and are recyclable. The materials have a carbon footprint 52 times lower than traditional concrete homes, and offer superior insulation characteristics that save energy.

What inspired you to do this?

In 2016, one of the worst refugee crises in the world reached its peak due to the civil war in Syria. The crisis saw over 4 million refugees become homeless, with governments and agencies unable to house large numbers of them due to high cost and complicated logistics. Many were left exposed to extreme climate and social problems in makeshift camps and shelters.

My team and I felt we could use our engineering knowledge to help. We realized an affordable, quick-to-assemble flat-pack shelter could greatly improve the lot of those displaced.

Bio

Mohammed Saquib is the Chief Technical Officer of Modulus Tech, with a background in civil engineering and a specialization in Construction Management. He is the structural and architectural designer of the company's flat-pack house. With expertise in Autocad Revit, Robot

Structural Analysis and BIM (Building Information Modeling), he is responsible for product improvement and performance simulation.

Links

<http://www.modulus-tech.com/>

<https://vimeo.com/210900782>