



Consolation Award

Portable Room Heater (Bukhari)

Towseef Ali Malik
Kishtiwari, Jammu & Kashmir

Towseef (25), though a graduate is a daily wage earner, but with keen interest in exploring different solutions to everyday problems.

He observed and modified the traditional Bukhari, which is commonly used in every household of Kashmir to fight the chilly winters to increase its efficiency. It typically consists of a sheet metal cylindrical hollow space where wood is burnt to heat the room. The smoke generated in the chamber flows out through a sheet metal cylindrical duct well connected to the bukhari. Towseef used

logs made from gypsum and baked clay (powder of bricks) to retain heat for longer period.

The modified bukhari requires less than 1 kg/h of wood/coal, which is 3-4 kg/h in the traditional one. After complete combustion of fuel, it can retain heat for about 3-4 hours, while in conventional alternatives heat remains for half an hour only. The technology has been validated by NIT Srinagar and the design is being improved upon to increase the efficiency further.

