



Auto rickshaw suitable for lower limb physically challenged

K.S. Sudheer
Thrissur, Kerala

K. S. Sudheer (52), an auto rickshaw driver from Thrissur, has come up with an auto rickshaw for physically challenged.

Sudheer was born in a farming family and had seven siblings. Their childhood was spent fighting poverty and making ends meet. As a result he could not study beyond secondary level. But he always had this strong inclination towards electronics and automobiles since childhood and he regularly used to participate in science fairs. All toys he played with were made by him using scrap. When he grew up, he tried to make a career out of photography at Mumbai where his sister was based. But not being able to adjust to the place, he came back to Kerala and bought an auto rickshaw. He also opened a small workshop at his home. He got married and has two grown up sons, who are studying. The workshop gave him an opportunity to hone his mechanical skills and he kept on experimenting with one thing or the other.

Genesis of the idea

Once during an auto strike in the city, Sudheer noticed a couple facing problems in taking their physically challenged son to the hospital. He thought of the boy had an option, his parents would not have had to face so much problem and he would also have been self-dependent. Sudheer also recalled discussions with a physically challenged friend of his, who lost his lower limbs in an accident and had desired for a device or a system, which could make him independent. This gave him an idea to modify the existing auto rickshaws so that lower limb physically challenged persons can also drive them.

He started actively thinking about the same in 2009 but did not have much clue to begin with. Due to his schedule, he could only spend time on Sundays. Not being able to get any breakthrough for over seven months, he stopped all work in frustration. However, the local handicapped association egged him up and

he restarted his work. After a lot of hit and trial and moments of anxiousness, he was finally able to come up with a working model in 2010.

The Modified Auto rickshaw

Sudheer has modified the auto rickshaw by attaching the brake assembly to the steering bar through a hydraulic cylinder. The lower limb physically challenged driver only has to press the steering downwards to apply the brakes.

While in certain cars, hand operated clutch, brake and accelerator systems are available but in auto rickshaws such systems are not available. Incorporation of this system provides mobility to the physically challenged and also gives him another livelihood option.

Sudheer launched the modified auto rickshaw in 2011 in a function organized by the Handicapped Association, Thrissur and the District Social Welfare Department. He received positive feedback from many present on the occasion. Sudheer since then has been using this modified assembly in his rickshaw. Seeing the potential of the device, NIF filed patent in the name of innovator (1123/CHE/2011). Sudheer already has received many orders but is waiting for the patent to be granted. Efforts are also on to get it tested and certified by regulatory authorities.

Other ideas and the way ahead

Sudheer is a social innovator and all his innovations try to address one or the other problem of the society. Earlier, he had developed the side stand gear lock system for two wheeler for which he was appreciated in NIF's fourth national award function in 2007. This gear lock system is a retrofittable kit consisting of a clamp, which restricts the engagement of gears when the side-stand is not removed. He also developed a coconut husker and a modified chimney.

Much has been written about his work in local news papers, apart from some national ones like The Hindu.



He has participated in a number of engineering exhibitions as well in Kerala and neighbouring states.

Sudheer wishes to start an enterprise based on his innovations. Perhaps, then he believes he may have more to concentrate on his innovations than now, as he has to drive auto during the weekdays. He is also waiting for his sons to settle down before starting out with his own venture as financial risk is involved in it. Sudheer is a determined man of many talents who has not lost his smile after many years of hardship. A self made man, he faced all challenges with tremendous grit and determination.

