



Name: Sasiranga De Silva

Age: 32

Nationality: Sri Lankan

Category: Mobility

Project: Electrifying tuk tuks

What is the problem you are trying to solve?

The Sri Lankan government has banned the import of two-stroke tuk tuks due to their low efficiency and high greenhouse gas emissions. Yet there remain 300,000 on the roads, and many families rely on the income they provide as taxis. We need to stop the pollution from two-stroke engines without affecting the livelihood of the tuk tuk drivers.

How does your idea help solve the problem?

The government of Sri Lanka is offering low-interest loans in order to stimulate tuk tuk drivers to convert their vehicles to electric. By converting to an electric powertrain, the tuk tuk will operate just like any other electric vehicle with zero tailpipe emissions. There are few options for conversion, however, so we are developing an affordable conversion unit that will provide a 100 kilometre range.

What inspired you to do this?

Climate change is a global threat that can only be overcome with collective effort. In Asia, we experience the impacts of climate change not just as a rise in average temperature but also through severe natural disasters and ecological damage. As engineers, we are obliged to do our part to ensure a sustainable and a healthier future for the generations to come. By decarbonizing the transport sector, we can make a major impact.

Bio

Sasiranga De Silva is a lecturer at the Department of Mechanical Engineering at the University of Motratuwa Sri Lanka. His research interests include renewable energy, sustainable transportation to autonomous vehicles. He has held positions in government and private organizations in developing regulations and standardizing the transport sector. Sasiranga is also an automotive engineering consultant with his advice in demand both in Sri Lanka and internationally.

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