



Team Velociracers from College of Engineering Pune won the Silver Prize for their innovative project E-Trike in the 2nd Edition of KPIT SPARKLE 2016 competition jointly organized by KPIT Technologies and COEP.

The team members- Swapnil Yeutkar, Sanket Munde, Tushar Wankhede, Rahul Bhumkar & Pooja Bhongale under the guidance of Dr. P. R. Dhamangaonkar, took efforts along with their team to accomplish this project. The team won a prize money of ₹ 1 Lakh for their project.

This year's competition had received over 1700 ideas from 10,000 plus participants from 500 plus colleges; out of which only Top 54 projects were exhibited on 30th January, 2016. A panel of 20 judges had the crucial task of evaluating these innovative projects and declare the winners.

The innovative project E-Trike designed and fabricated by the members of Team Velociracers is a three wheeled hybrid vehicle, which can be mechanically driven by pedalling of drivers as well as electrically driven by means of 48 V 35 Amp-Hr Lithium-Polymer battery operated 400 Watt BLDC motor. On testing the vehicle attained a maximum speed of 42Kmph with both drives. The vehicle is capable of 120 km run in one charge and charging cycle is 3 hours. There is innovative Push-Pull type steering and Reverse Pedalling Braking system for safe and comfortable ride. The vehicle provides an economical ride at just 25 Paise per Km.

The origin of making a hybrid vehicle came in the minds of students back a year ago to solve the problem of increasing pollution and global warming. So to come up with a sustainable solution, the team designed a compact, economical and zero emission design which will not create a hole in your pocket nor in the sky.

The team started with the design phase where they plotted the layout of our vehicle and divided into various subsystems- Rollcage, Transmission, Steering, Suspension, Electricals, Brakes. We did the calculations, developed CAD models and optimized them using FEM Analysis. In phase 2, the team made the prototype of various subsystems to check the practicability of our vehicle. In phase 3, the team fabricated the parts of vehicle and assembled them as a single unit by using in-house fabrication.

The scope of this vehicle is for vegetable & icecream vendors , internal transportation within industries and large educational campuses along with areas like bird sanctuaries.

E-Trike.....The one that you can drive.



Photo of Team members along with Dr. Raghunath Mashelkar, Eminent Scientist & Mr. Ravi Pandit, CEO, KPIT

