

## **Hybrid bevel bike**

### **Project summary**

In our nation where health and environment are at stake due to exponentially increasing air pollution, the challenge is to build a sustainable and affordable mode of transportation and promote the use of health mobility to reduce carbon footprints making travel safe and healthy.

Air quality has a real and measurable effect on the health of human being and mobility using fuel powered vehicles is one of the major reasons degrading the air quality and resulting harmful effect on our health. Thus, the utility of smart health mobility can potentially overcome this problem.

A transformation in a transport system is being observed, and a lot of them are enabled by an emerging health mobility using an e-bike technology. We are a team at IIT Madras building a smart e-bike with an in-house electric control system for efficient electric power management. This e-bike can become a larger fleet of transport technology going forward, improving the health, saving people time and the environment altogether.

This smart bicycle with performance monitoring can be effectively used for daily travel, endurance training and weight reduction programmes for the betterment of health. Going green seems like an expensive endeavour but e-bike is certainly an exception. Our e-bike is capable to run in a straddle with a motorbike/ a car with lesser initial and operating cost. Though the utility of these vehicles is entirely different, our e-bike can be a better alternative for these vehicles.

Our vision is to come up with a smart bicycle using technological advancement whose sole purpose is to reduce human effort and reduce their carbon footprints by commuting with an electric power and improve health because health is good for the environment and good for the economy as well.