ABSTRACT

This project aims to prevent accident due to imbalance in two wheeler in roads. A gyroscopic bike that utilizes the principles of gyroscopic stability maintain balance and stability while in motion. The bike includes a gyroscope located within the front wheel, which provides an opposing force to any external upright torque applied to the wheel. This gyroscopic force helps to keep the bike even when the rider is not actively balancing. The concept of gyroscopic stability has been used in various forms of transportation, including aircraft and ships, but its application to bikes is relatively new. Gyroscopic bikes have the potential to revolutionize urban transporation by providing a safer and more efficient mode of transportation for commuters. Additionally, the use of a gyroscope can enhance the performance of the bike, making it easier to man ever and control. However there are also challenges to be addressed, including the cost and complexity of the gyroscope system, as well as the need for specialized to operate the bike.We attached the gyroscopic disc with motor to rotate the disc to stabilize the vehicle. The factors which affect balancing are the center of mass of the system, mass distribution, acceleration, steering of the vehicle towards left or right, and most importantly gyroscopic disc.The gyroscopic effect is used in stabilizing the systems for sectors like military's rocket guidance systems, aerospace, aeronautics industries, ships, etc.,

Keyword:Self balancing, Gyroscope, precession axis, Two Wheeler, Stabilization