# ABSTRACT

*We believe in the simplicity of day-to-day actions. We want to make what was once difficult to perform an easy task for the average individual. Now a day's the physical work is coming into an existence since, the technologies are advancing and many technologies have been developed for the automatic operation and it is being used in our day to day life such as self-parking cars that avoids accidents which provides the safety of the humans.*

*Here we aim to create a chair that parallel parks itself. In this **"Automatic Self-Parking Chair System"** we have shown the concept of an Automatic Chair Parking System. We have deployed a microcontroller used to sense the movement of chair and check whether there is a capacity for Chair to park, then decide to move or not. There are two sets of sensors: one is installed for RF sensing which gives the interrupt to the system and wheel encoder reminds the L293D motor driver for the movement of chair to its real position. If any obstacle comes between the chair and parking position IR sensor will detect the obstacle and the chair will rotate and change the direction. And the chair starts moving towards its parking position. The other one is ultrasonic sensor which collects real time distance measurements and record moments of sudden distance changes. The use of this chair in this modern world is to reduce human efforts and less manpower.*

**Key words:** Arduino Uno Microcontroller, IR sensor, Ultrasonic sensor, Metal detector sensor, L239D motor driver, RF Module, DC motors, 16*2 LCD Display.