## DISTRIBUTION CHANNEL IDENTIFICATION

No matter how good a start-up’s product is, unless and until there is an efficient and full-proof method of distributing and delivering the products, the start-up cannot succeed. Its importance cannot be understated because without it we will not have customers and it will negatively affect the start-up.

Since in our bicycle rental services, we will be providing bicycles on rent at a minute wise rate, this creates a lot of different technical and manpower related issues. Since the entire NITK campus will have three different stops for the bicycles to be picked and kept, keeping the bicycle distribution system will burden us with various manpower related issues. This will only increase the expenses that we will have to bear additionally.

Therefore to cut down our investment costs and also to streamline our services, we have decided to completely go digital. Our entire bicycle delivery system will function automatically based on Radio Frequency Identification tags (RFID), Database management systems, Microcontroller programming and Android app development. All of these concepts will be utilized in creating the best bicycle delivery system that caters to the needs of the customer and faces zero issues and crashes.

In brief the distribution system can be explained as follows:  
Each user will be given a personal account with, user-ID and password. The user will then login to his/her account through the app. Each of these accounts will be a pre-paid account, where payment will be made through an online payment portal.   
Now whenever the user wishes to avail the service he has to scan the QR code on the bicycle key vending system to receive a confirmation on getting a bicycle key. The system will then provide the user with bicycle key. Both the bicycle and its key will be connected to the local server using RFID technology. The user can then use the bicycle for whatever time he/she wishes to. When the user wishes to return the bicycle, all one has to do is lock the cycle at a fixed stop and then insert the key back inside the vending machine. The internal scanners will read the tags on the key and send a notification to the user ending his ride time.   
This is a small abstract of the tech report. A detailed explanation will be given in the tech report in the following pages.

Using this distribution system we can effectively and efficiently transfer cycles to the user and receive them back with minimal efforts from our end. This will help in reducing manual labor and make it a more technology driven start-up.