



Instant Campus Biking Solution

Motivation

Replace automobiles

- Environment Friendly
- Manage Traffic Space

Potential uses

- Feeder to METRO
- Intra Campus Biking

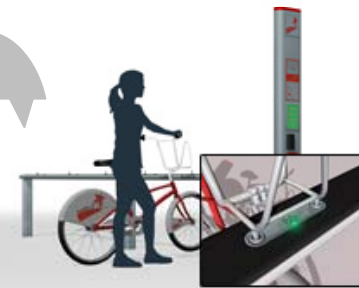


ISSUE

- ❖ Insert Smart Card
- ❖ Bicycle unlocked
- ❖ Smartcard updated
- ❖ Central Server updated



Ride to your destination



RETURN

- ❖ Insert Smart Card
- ❖ Bicycle locked
- ❖ Defect (if any), reported
- ❖ Smartcard updated

USP

Innovative Lock

- 2-level locking
- Robust & ergonomic
- "Offline" Communication
- Delay tolerant
- Quick transactions

Administration

- ❖ Database of users, stands
- ❖ Transaction logs
- ❖ Tracking (bicycles and stands)
- ❖ Communication with stands
- ❖ Statistics generation

Central Server

Administrator

Database



GSM Modem

Stand Controller



Custom PCB

User Interface

Smart Card

GSM Modem

Parking Slot

Bicycle

Tag Reader

Lock

RFID Tag



Maintenance

Bicycles:

- Repair defective bicycles
- Replacement

Stands:

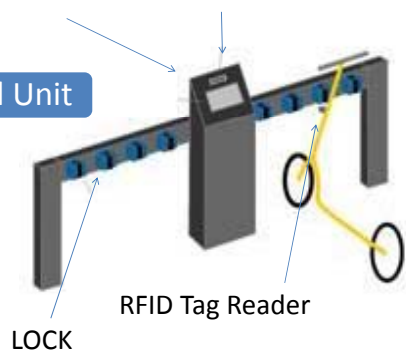
- Balancing over-used and underutilised stands

Achievements

- ❖ Won Intra IITD Business Plan Contest
- ❖ Representation at Global IIT Alumni Meet
- ❖ Design and fabrication of PCB
- ❖ Successful demonstration of electronics part
- ❖ Administration software for server

LCD + KEYPAD STAND CONTROLLER

Stand Unit



LOCK

RFID Tag Reader