**Project Idea Submission Form**

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| **Student Ids (In ascending order)** |
| 1505069  1505085 |
| **Project Name** |
| Metrorail Ticketing |
| **Brief Project Description** (We expect you to discuss here a very top level overview of your project, e.g., what sensor/environment values you are reading, which sensor(s) you are using to do that, what do you plan to do with these sensor/input readings, what processing/algorithm you run on these inputs, what actuators/output devices you are using, what the actuator(s)/output do/mean, etc.  Do not discuss the motivation of the project if it is obvious!) |
| In this project we are going to build a ticketing system for Metrorail in our country. Every traveler should have an RFID card. This unique id card will determine the balance and information of the owner. He/ She can refill the balance whenever they want (may be via Bkash or Rocket).    We maintain travelers’ information in a database. Every Metrorail have a microcontroller-based RFID checking system. When a traveler comes and shows his RFID card, it checks via WIFI module if he has balance or not. If there is enough balance, he can enter the train. If there is not enough balance, he cannot enter the train before refilling. We send massage via GSM module after every action and anyone can know the position of the train by GPS module. |
| **List of sensors/input devices used** (With specific name, model number, etc. You must provide the link from any BD online-shop and check their availability. You can omit the model name and number in case of rudimentary items e.g., buttons) |
| 1. RFID Card (125KHz) :<https://www.techshopbd.com/product-categories/miscellaneous-98724/41/rfid-tag-125khz-techshop-bangladesh>2. 125Khz RFID Module - UART(Low price edition) : <https://www.techshopbd.com/product-categories/rf/2402/125khz-rfid-module-uart-low-price-edition-techshop-bangladesh>3. ESP8266 ESP-01 Wifi Module : <https://www.techshopbd.com/product-categories/wifi/2583/esp8266-esp-01-wifi-module-techshop-bangladesh>4. UART GPS NEO-6M : <https://www.techshopbd.com/product-categories/modules/2984/uart-gps-neo-6m-techshop-bangladesh> **5. SIM900A kit :** [**https://www.techshopbd.com/product-categories/eval-board/2041/sim900a-kit-techshop-bangladesh**](https://www.techshopbd.com/product-categories/eval-board/2041/sim900a-kit-techshop-bangladesh) |
| **List of Actuators/output devices used** (With specific name, model number, etc. You must provide the link from any BD online-shop and check their availability. You can omit the model name and number in case of rudimentary items e.g., LEDs) |
| 1. LCD Display  2. SMS IN MOBILE |
| **Miscellaneous & Discussion (If Any)** |
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