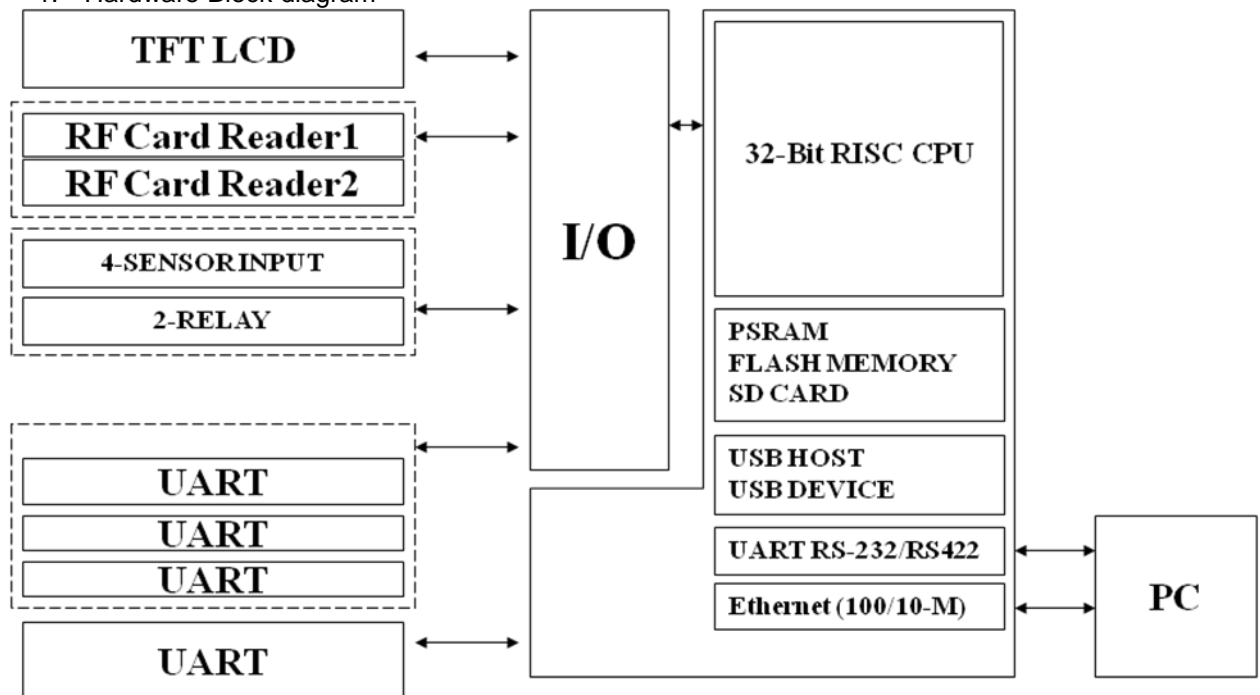# Operation Description for ISC-401

1. Hardware Block diagram

2. General

   It supports various functions as follows

   - User enrollment with user ID, RFID card and/or fingerprint
   - User deletion with user ID
   - User authentication using user ID and card
   - User identification using card
   - Configurable security modes
   - Custom user display name and custom standby display message
   - Standalone/Network communication via TCP/IP or RS-232
   - Onboard menu configurable 4 inputs and 2 Relay output
   - Various functions configurable with Key Pad and TFT LCD

3. Operation

   A. Card

   - CPU reads card ID via RF Card Controller
   - In Enroll process CPU write card ID to Flash Memory
   - In authentication/identification process, CPU reads new card ID and compares enrolled card ID
   - If authentication/ identification is successful, CPU display User ID on the LCD and drive the Relay

   B. Delete User

   - User can use the Key Pad, select Delete User function from the Program Menu
   - User can delete single user data by entering the User ID
   - User can delete all user data by select Delete All User function
   - Completion of user deletion by erasing the user data that on a Flash Memory

C. Communication
- CPU communicate using TCP/IP, UDP protocol with the PC via Ethernet Controller
- CPU can RS-232 communication with the PC via Serial Input / Output
- CPU makes exchange with the PC about information for the operation of ISC-401 and User

D. Sensor
- Periodically, CPU checks the state of Sensor Input, notify to the PC or write to Flash Memory
- Sensor Input connected to Exit Button, CPU drives the relay