GSM TEST & GSM NETWORK TIME SYNCHRONIZATION
FIXED BY SHAMIM

```
#include <SoftwareSerial.h>
//Create software serial object to communicate with SIM800L
SoftwareSerial mySerial(10, 11); //SIM800L Tx & Rx is connected to Arduino #3 & #2

void setup()
{
  //Begin serial communication with Arduino and Arduino IDE (Serial Monitor)
  Serial.begin(9600);

  //Begin serial communication with Arduino and SIM800L
  mySerial.begin(9600);

  Serial.println("Initializing...");
  delay(1000);

  mySerial.println("AT"); //Once the handshake test is successful, it will back to OK
  updateSerial();
```

```
  mySerial.println("AT+CSQ"); //Signal quality test, value range is 0-31 , 31 is the best
  updateSerial();
  mySerial.println("AT+CCID"); //Read SIM information to confirm whether the SIM is plugged
  updateSerial();
  mySerial.println("AT+CREG?"); //Check whether it has registered in the network
  mySerial.println("AT+CCLK?"); //Once the handshake test is successful, it will back to OK
  updateSerial();
  mySerial.println("AT+CLTS=1"); //Once the handshake test is successful, it will back to OK
  updateSerial();
  mySerial.println("AT+CLTS?");
  updateSerial();
  mySerial.println("AT&W");
  updateSerial();
  mySerial.println("AT+CCLK?");
  updateSerial();
  Serial.println("Please Power OFF the System Once...");
  delay(10000);
}
```

```
void loop()
{
  delay(29000);
  mySerial.println("AT+CCLK?");
  updateSerial();
}

void updateSerial()
{
  delay(1000);
  while (Serial.available())
  {
    mySerial.write(Serial.read());//Forward what Serial received to Software Serial Port
  }
  while(mySerial.available())
  {
    Serial.write(mySerial.read());//Forward what Software Serial received to Serial Port
  }
}
```