Code For GSM SIM300 based Electronic Notice Board:

```
#include<reg51.h>

sbit rs = P2^5;
sbit rw = P2^7;
sbit e = P2^6;

void delay(int time)
{
    int i, j;
    for(i = 0; i < time; i++)
    for(j = 0; j < 1275; j++);
}

void cmnd(unsigned char g)
{
    P2 = g;
    rs = 0;
    e = 1;
    delay(1);
    e = 0;
    return;
}

void show(unsigned char g)
{
    P2 = g;
    rs = 1;
    e = 1;
    delay(1);
    e = 0;
    return;
}

void string(unsigned char *s)
{
    while(*s != '$')
    {
```

```
        show(*s);
        s++;
    }
}

void init()
{
    cmnd(0x38);
    cmnd(0x01);
    cmnd(0x0C);
    cmnd(0x06);
    cmnd(0x80);
}

void display(void)
{
    cmnd(0x01);
    cmnd(0x80);
    string("SMS Controlled..");

    cmnd(0xC0);
    string("Notice Board");
}

unsigned char Rxmsg()
{
    unsigned char i = 0, ret = 0;
    unsigned int j = 0;
    unsigned char p[90];

    for(i = 0; i < 90; i++)
    p[i] = 0x00;
    i = 0;

    SBUF = 'a';
    while(TI == 0);
    TI = 0;

    SBUF = 't';
    while(TI == 0);
    TI = 0;
```

```
SBUF = '+';
while(TI == 0);
TI = 0;

SBUF = 'c';
while(TI == 0);
TI = 0;

SBUF = 'm';
while(TI == 0);
TI = 0;

SBUF = 'g';
while(TI == 0);
TI = 0;

SBUF = 'r';
while(TI == 0);
TI = 0;

SBUF = '=';
while(TI == 0);
TI = 0;

SBUF = '1';
while(TI == 0);
TI = 0;

SBUF = 0x0D;
while(TI == 0);
TI = 0;

for(i = 0; i < 90; i++)
{
    j = 0;
    while(RI == 0)
    {
        if(j >= 1000)
        delay(1);
        j++;
    }
```

```
        p[i] = SBUF;
        RI = 0;
        show(p[i]);
        cmnd(0x18);
    }
    return ret;
}

void InitModem(void)
{
    unsigned int j = 0;
    unsigned char i = 0;
    unsigned char a[] = {"at+cmgf = 1"};
    unsigned char c[] = {"at+cmgd = 1"};
    unsigned char d[6];

    ReInit:
    cmnd(0x01);
    for(i = 0; i < 6; i++)
    d[i]=0x00;

    i = 0;
    while(a[i] != '\0')
    {
        SBUF = a[i];
        while(TI == 0);
        TI = 0;
        show(a[i]);
        i++;
    }

    show(' ');
    SBUF = 0x0D;
    while(TI == 0);
    TI = 0;

    for(i = 0; i < 4; i++)
    {
        j = 0;
        while(RI == 0)
        {
            if(j >= 1000)
```

```
            goto ReInit;
            delay(1);
            j++;
        }

        d[i] = SBUF;
        RI = 0;
        show(d[i]);
}

delay(100);

for(i = 0; i < 4; i++)
{
    if((d[i] == 'E') || (d[i] == 'R'))
    goto ReInit;
    if((d[i] == 'O') || (d[i] == 'K'))
    goto delete;
}


delete:
delay(50);
cmnd(0x01);
for(i = 0; i < 6; i++)
d[i] = 0x00;

i = 0;
while(c[i] != '\0')
{
    SBUF = c[i];
    while(TI == 0);
    TI = 0;
    show(c[i]);
    i++;
}

show(' ');
SBUF = 0x0D;
while(TI == 0);
TI = 0;
```

```
    for(i = 0; i < 4; i++)
    {
        j = 0;
        while(RI == 0)
        {
            if(j >= 1000)
            goto ReInit;
            delay(1);
            j++;
        }

        d[i] = SBUF;
        RI = 0;
        show(d[i]);
    }

    delay(1000);

    for(i = 0; i < 4; i++)
    {
        if((d[i] == 'E') || (d[i] == 'R'))
        goto delete;
    }
}

void main()
{
    int x = 0;
    int i = 0;
    unsigned char msg[24] = {"Welcome to eNotice Bo
ard"};
    rw = 0;
    TMOD = 0x20;
    TH1 = 0XFD;
    SCON = 0X50;
    TR1 = 1;

    init();
    display();
    delay(1000);
    InitModem();
```

```
    while(msg[i] != '\0')
    {
        show(msg[i]);
        cmnd(0x18);
        delay(50);
    }

    for(i = 0; i < 16; i++)
    {
        show(' ');
        cmnd(0x18);
        delay(50);
    }

    Rxmsg();
    while(1);
}
```