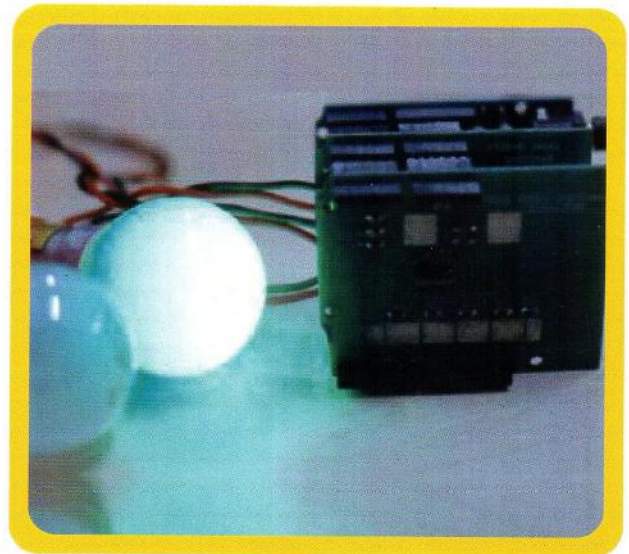## Capacitive Touch based Appliance Control

### Features

- ▲ Touch sensitive switches etched directly on shield

- ▲ Toggle operation of AC appliances using the switches

- ▲ Slider switch operation also possible with shield



### Hardware

- ▲ Arduino UNO board based on the 8-bit ATmega328 microcontroller working at 16 MHZ

- ▲ GRIET's Capacitive Touch shield based on ATMEL's AT42QT1070chip

- ▲ GRIET's Triac shield for switching AC appliances

- ▲ Interface between microcontroller and touch sensing chip :
  - \* Inter IC (I2C)

### Firmware

- ▲ Based on the Arduino programming language

- ▲ Uses the ATtouch library which provides function for detecting any key is pressed and the id of the actual key pressed

- ▲ ATtouch library uses the I2C library of Arduino- Wire.h

- ▲ Operation of opto-couplers using basic Arduino digital functions

A **GRIET-ECE** project