SECRET CODE ENABLED SECURE COMMUNICATION USING RF TECHNOLOGY

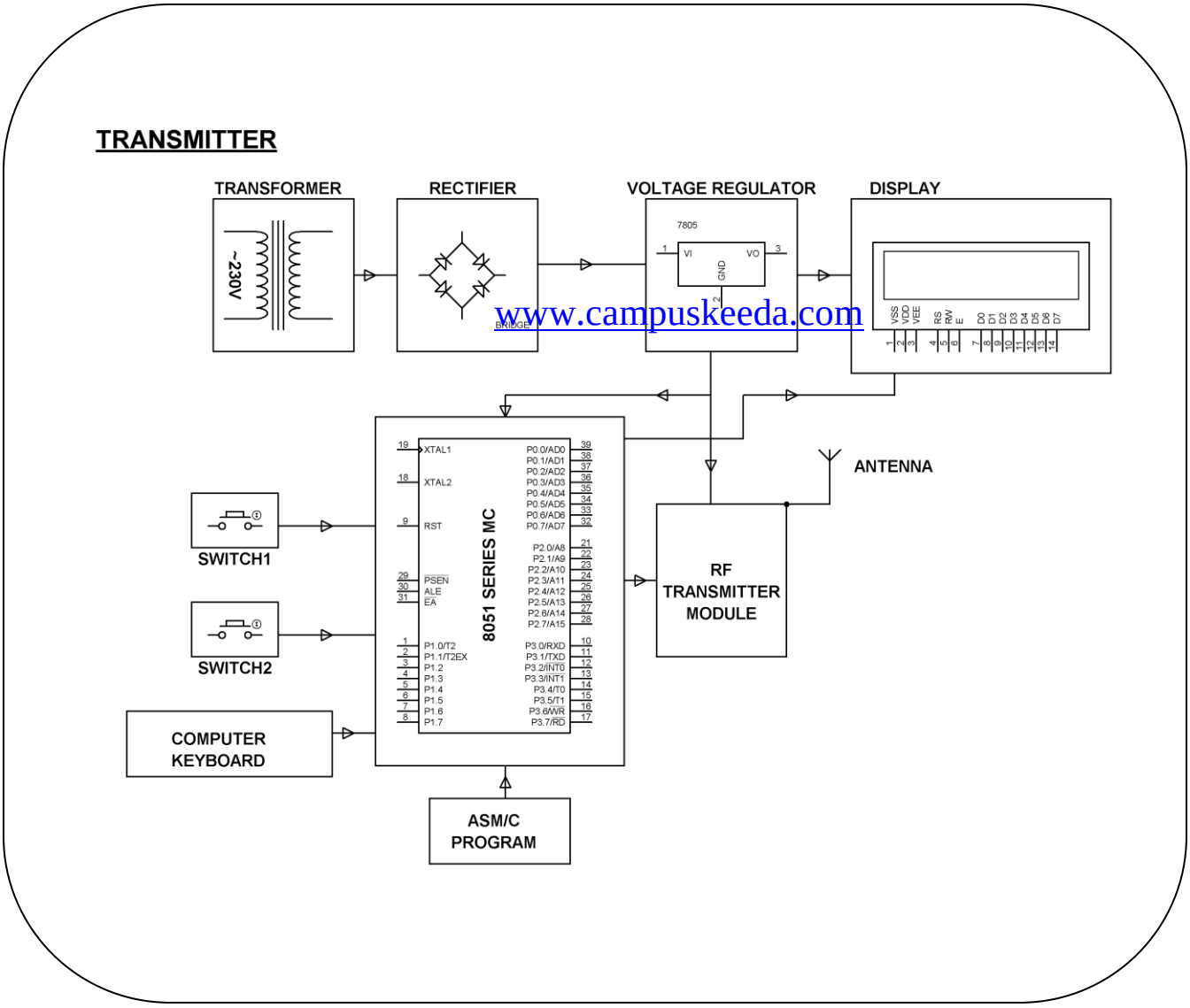
ABSTRACT

The project is designed to send secured message by using a secret code from a computer keyboard connected to the transmitting unit via RF technology. The message is retrieved at the receiver end only upon entering the secret code used by the transmitter. Thus, complete secrecy is maintained in this communication process.

For example in military operations, secrecy is of paramount importance. So when there is a need for sending any secret message, one can type the message through a computer keyboard interfaced with the system comprising of a 8051 family microcontroller and a RF transmitting module. This project has a unique feature of tagging the message with a secret code as selected by the sender. The message is then transmitted through the RF transmitting module. At the receiver end the signal is received by the RF receiver module. The message is then retrieved only if the secret code is known to the receiving personnel. Once the secret code is entered, then message is displayed on the receiving unit on the LCD display.

Further this project can be enhanced by adding a feature of bidirectional communication also incorporating encrypting and decrypting the message for higher degree of security.

BLOCK DIAGRAM



HARDWARE REQUIREMENTS:

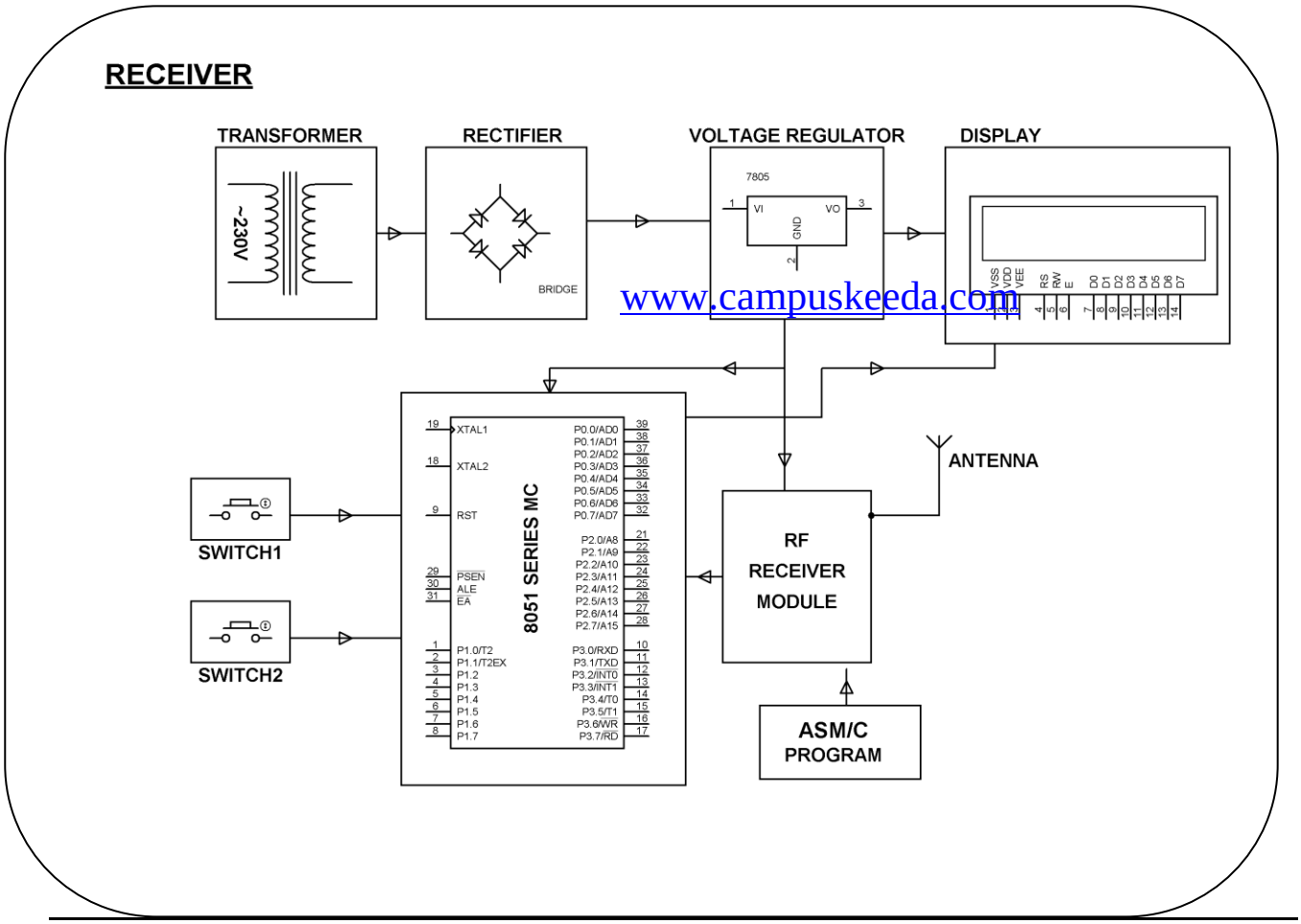
8051 series Microcontroller, RF Module, LCD, Resistors, Capacitors, Diodes, Transformer, Voltage Regulator, Push Buttons.

SOFTWARE REQUIREMENTS:

Keil compiler

Language: Embedded C or Assembly.

BLOCK DIAGRAM



HARDWARE REQUIREMENTS:

8051 series Microcontroller, RF Module, LCD, Computer keyboard, Resistors, Capacitors, Diodes, Transformer, Voltage Regulator, Push Buttons.

SOFTWARE REQUIREMENTS:

Keil compiler

Language: Embedded C or Assembly.