Digital IC Tester Project

ajay_bhargav, Sun Sep 22 2013, 06:56 pm

Digital IC Tester Project (with report)

The digital IC tester is implemented by using the 89C51 microcontroller board. The processing of the inputs and outputs is done by the microcontroller. The display part on the microcontroller board is modeled using LCD. After the successful testing of the IC, the result is displayed on the LCD.

The basic function of the digital IC tester is to test a digital IC for correct logical functioning as described in the truth table and/or function table. It can test digital ICs having a maximum of 24 pins. Since it is programmable, any number of ICs can be tested within the constraint of the memory available. This model applies the necessary signals to the inputs of the IC, monitoring the outputs at each stage and comparing them with the outputs in the truth table. Any discrepancy in the functioning of the IC results in a fail indication, displays the faulty and good gates on the LCD. The testing procedure is accomplished with the help of keys present on the main board.

This project has been tested with most commonly used digital IC's, mainly belonging to the 74TTL series. Digital IC tester tests various types of IC's like OR, XOR, NAND, AND, NOT, NOR, XNOR GATES and also FULL ADDER, MULTIPLEXER, SHIFT REGISTER.

A special thanks to **Sunil Raina, Piyush Sonawane and Parimal Sikchi** for sharing their work with us.

You can download this project from here: Digital IC Tester Project (with report)

If you have any doubts in project, please post in forum.