CS 203

PROJECT

BY

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**TITLE**

IMPLEMENTING SMART HOME USING RTL

**OVERALL OBJECTIVE**

To design a home automation system with the help of Verilog hardware descriptive language. Our project is capable of providing security, appropriate temperature, lighting, controlling doors, fire alert and detect presence of

humans.

**IMPLEMENTATION**

The implementation is with the help of RTL (Register Transfer Logic).

**FUNCTIONALITY**

As we are moving ahead in the realm of technology and automation, we want to control our surrounding and reduce our physical labour. Due to ongoing pandemic, we are spending much of our time in our home then we used to. But we have to do our work, including studies or job/work from home. So, there arises a need for an automated home system, which helps us in doing small chores so that one can save his/her time.

Hence, our project is on an automated home system. The project uses Verilog HDL as programming language.

In this project, we will control lights, air conditioner according to the time, temperature and presence of human in the rooms. The smart lock system unlocks the door by entering PIN. Also, it can trigger fire alarm when smoke is detected in smoke detector.

Git Repository:

<https://github.com/KartikayIITRpr/CS203_project.git>