Temperature Reduction of an Active Solar House by Using Chimney and Comparison of Room Temperature with the Conventional One. A Thesis Submitted to the

Department of Mechanical Engineering

SONARGAON UNIVERSITY (SU)

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DECLARATION OF AUTHORSHIP

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This is to certify that the thesis work entitled **"Temperature Reduction of an Active Solar House System by Using Chimney and Comparison of Room Temperature with the Conventional One"** has been carried out by Md. Toufiqur Rahman, Md. Nahid Hasan, Md. Abid Hasan and Mahmud Arefin in the department of Mechanical Engineering, Sonargaon University. We also declare that either this thesis work or any part of the paper has been submitted elsewhere for any degree.

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ABSTRACT

Solar Temperature reduce is another efficient use of renewable energy technology to help cool our homes and work places. The necessity for air-conditioning for our homes in hot areas around the world and the abundance of the sunshine within these areas has brought about a willingness to combine the two for the benefit of the people who live there. In contrast to other types of solar applications such as solar heating, the biggest demand for cooling occurs when the solar radiation is at its most intense, thereby making the marriage of solar thermal energy and solar cooling all the more attractive. Passive solar design, an idea within the growing trend of green building, is a creative way to use the sun to our advantage, both for heating and cooling, based on the design of buildings. Attempt has been made by engineers by increasing the thickness, changing the geometry of the outer wall and also tried several building materials to reduce temperature fluctuations for indoor environment in both summer and winter. The installation of heating and air conditioning to seek comfort in homes, offices and public places has created high energy consumption and consequently, increased the environmental pollution. One of the painters of sustainability in architecture is the use of natural energy and fossil energy consumption and minimum natural environmental conditions and climate so solar building designs which is a step towards its achieving. In this paper, has been expressed the important factors in solar buildings design. These factors are included external factors and internal factors.

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