VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama" Belagavi – 590 010

PROJECT REPORT ON

"SOLAR PANEL IN PERIODIC FLOW CONTROL"

Submitted in partial fulfillment of the requirements for the award of degree

BACHELOR OF ENGINEERING
IN
ELECTRONICS & COMMUNICATION ENGINEERING

Submitted By

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(Affiliated to VTU, **BELAGAVI**)

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

CERTIFICATE

Certified that the project work entitled **"SOLAR PANEL IN PERIODIC FLOW CONTROL"** *is a bona fide work carried out by*

Harshitha M S	**4AL14EC039**
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in partial fulfillment for the award of BACHELOR OF ENGINEERING in **ELECTRONICS & COMMUNICATION ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2018–2019. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

Sahana	D.V.T 11.05.19	
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ABSTRACT

Solar panel has been a well-known method of generating clean, emission free electricity. It produces only Direct Current electricity (DC), which is not what normal appliances use. Solar Photovoltaic (PV) systems are often made of solar PV panels (modules) and inverter (changing DC to AC). Solar PV panels are mainly made of solar photovoltaic cells, which have no fundamental difference to the material for making computer chips. The process of producing solar PV cells (computer chips) is energy intensive and involves highly poisonous and environmental toxic chemicals. There are few solar PV manufacturing plants around the world producing PV modules with energy produced from PV. This measure greatly reduces the carbon footprint during the manufacturing process. Managing the chemicals used in the manufacturing process is subject to the factory's local laws and regulations.

The solar panel placed in the periodic flow control model will produce the wind with the maximum velocity, pressure density which can be used for different applications for example the obtained heat & electricity can be used in running the steam engines. The heat is generated inside the model from the dissipated energy from the solar panel. When the wind is allowed to pass through the solar panel its velocity, pressure and density will be changed. The other chemical liquids, gases can also be used in the simulation instead of the wind in the model but it takes long time for simulating so wind has been used for the simulation.