

## Solar Calculator

Shilpa Kanojiya<sup>1</sup>, Ishrat Sheikh<sup>2</sup>

<sup>1</sup>(Computer Science and Engineering, Jhulelal Institute of Technology/ RTMNU, India)

<sup>2</sup>(Computer Science and Engineering, Jhulelal Institute of Technology/ RTMNU, India)

Corresponding Author: Shilpa Kanojiya

---

**Abstract:** The greater of the consumption energy, The use of diverse energy sources cannot be avoided. Therefore, assessment of the various sources of energy. Technologies continue to be developed. Photovoltaic technologies that convert solar energy directly into electrical energy using semiconductor devices is called solar cells. Solar energy apart easily obtained from natural, environmentally friendly too which does not produce carbon dioxide emissions to become a mainstay in the world of technology. The problem is to know how much you have saved using solar panel installation( to track your savings by using solar panels “solar calculator” is purposed. This will calculate your monthly savings, usage of SNDL, usage of solar panel).

**Keywords :** Photovoltaic technologies, sources of energy, electrical energy ,solar panel, unbiased snapshot.

---

### I. Introduction

The problem is to know how much you have saved using solar panel installation( to track your savings by using solar panels “solar calculator” is purposed. This will calculate your monthly savings, usage of SNDL, usage of solar panel). The **Solar Calculator** is an online advanced tool developed to help you quickly determine the potential savings that you can make when you go solar. Using this online solar calculator is extremely simple. All you need to do is to input three basic details –your monthly unit on bill (SNDL), your cost per unit of SNDL and energy generated by solar panel. And the calculator will provide you with an unbiased snapshot of your savings.

Since each house is different, it can be difficult to know precisely how much you stand to save by switching to solar energy. The amount of electricity your home will be able to produce depends on a variety of factors, including the shape of your roof, the amount of sunshine that falls on it, and the presence of trees or other obstructions that can cast shadows. The more direct sunlight that your panels receive, the more energy your system will be able to produce, and the more money you’ll save each month.

The amount of money you’ll be able to save depends not only on your energy generation capabilities, but. also on the amount you’re currently paying for electricity and the availability of government incentives for your particular solar project. More incentives and higher local electricity rates will generally translate to more savings when you make the switch to solar.

### II. Indentations And Equations

1unit = 1kWh.

So Total kWh = 1000 Watts x 24 Hrs x 30 Days = 720000 watts/hour.

We want to convert it into Units, Where is 1unit = 1kWh.

So total Consumed units. 720000/1000..... (k=kilo=1000).

Total Units = 720.

Cost of per unit is 9.

So total Cost or Electricity bill= 720 x 9 = 6480. (In \$, £, €, INR ,Rs, DHR, Riyal etc). You have Done .

III. Figures And Tables

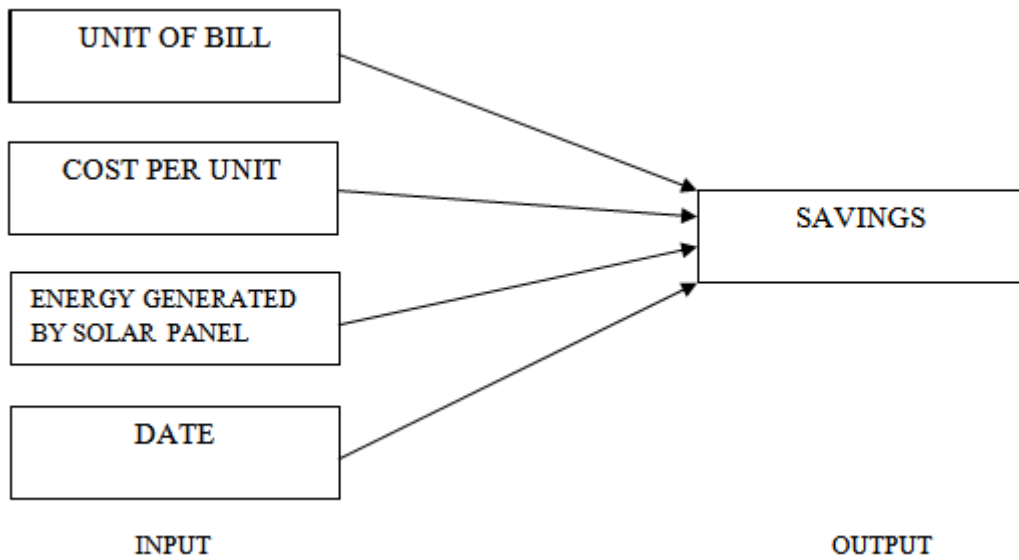


Fig. input output streams

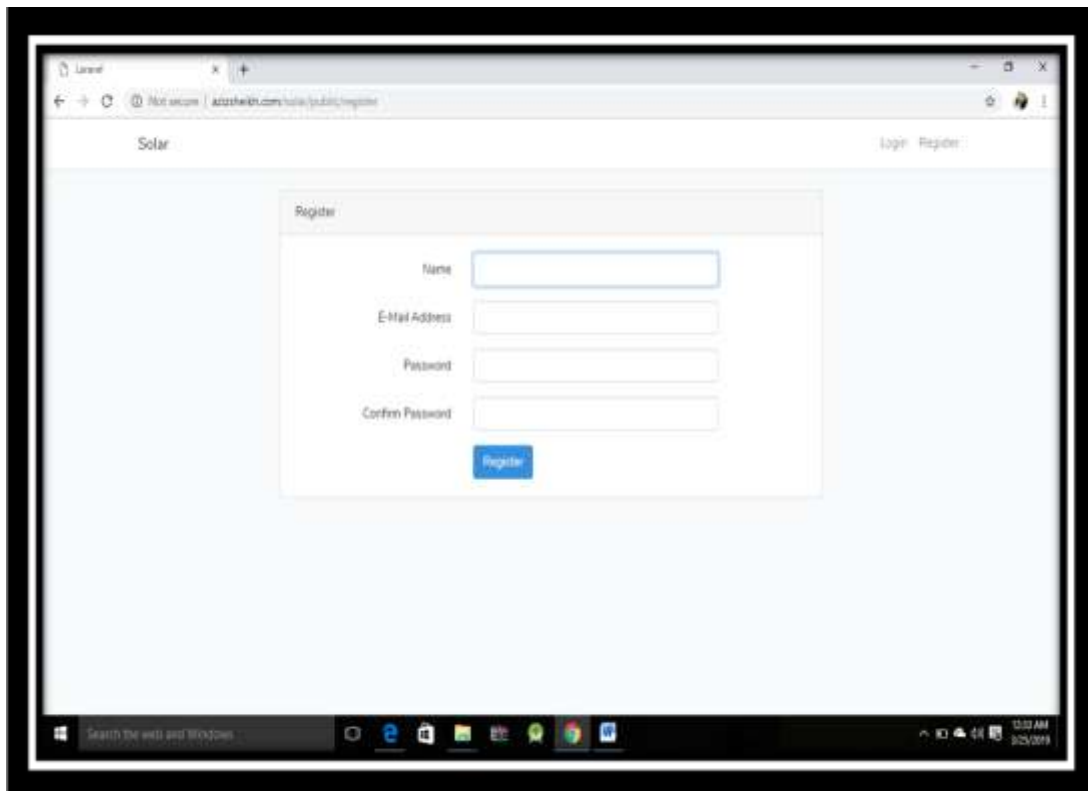


Fig. : Registration page

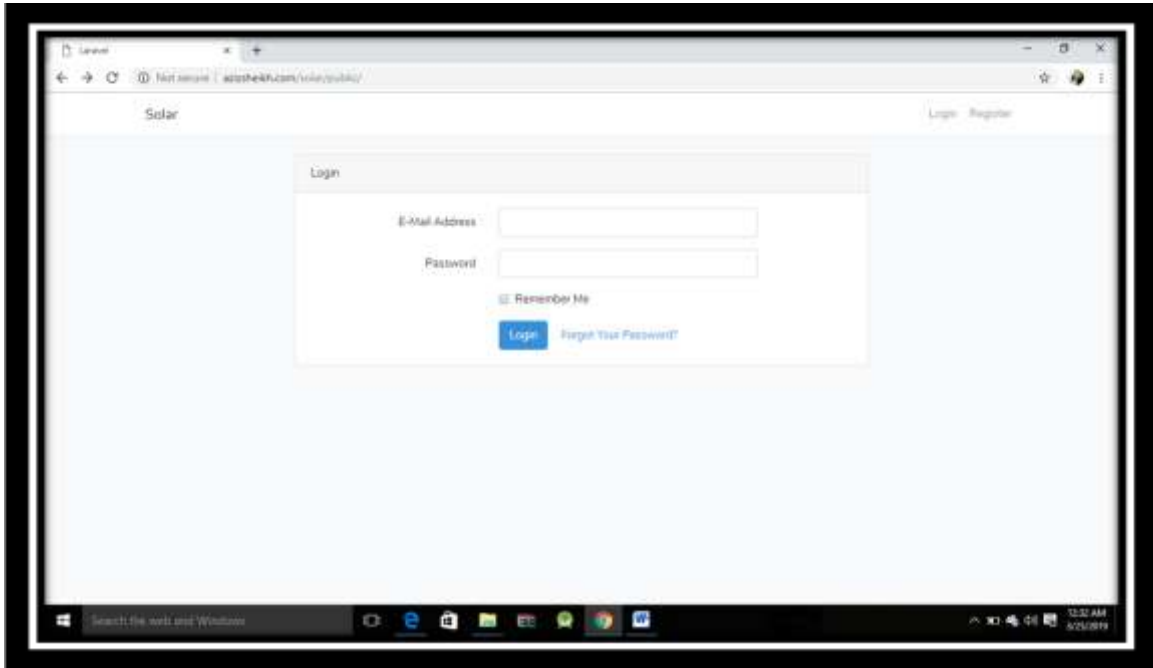


Fig.: Login page

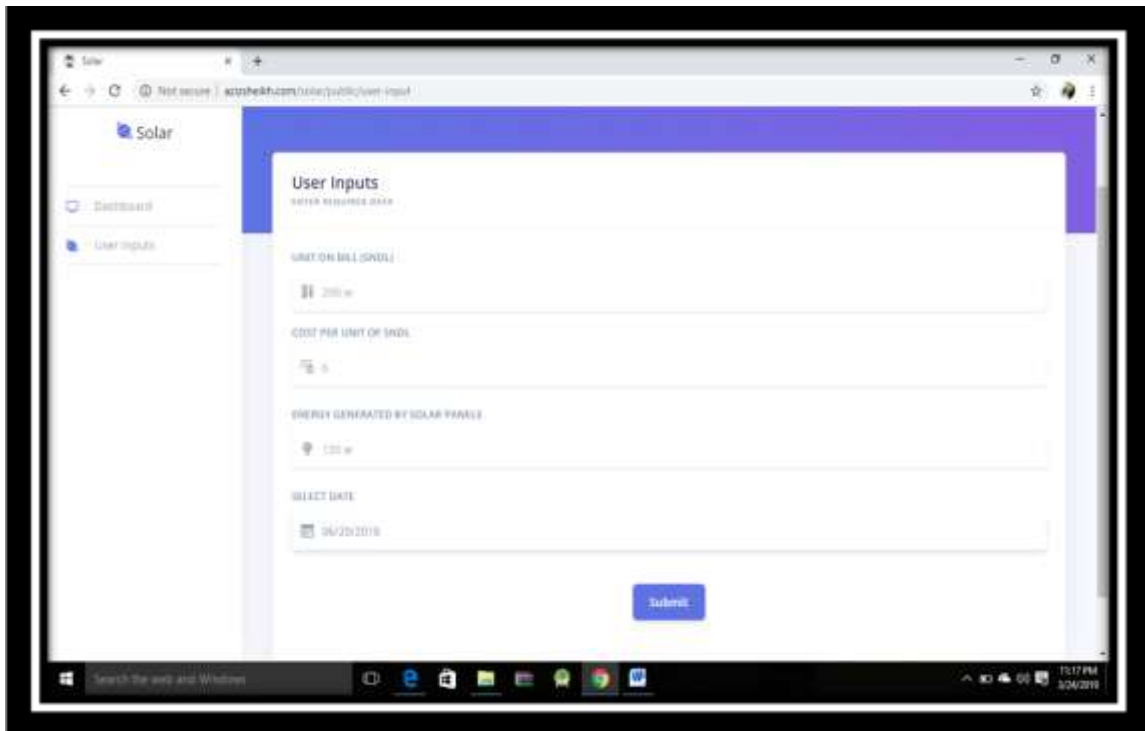


Fig.: Dashboard page

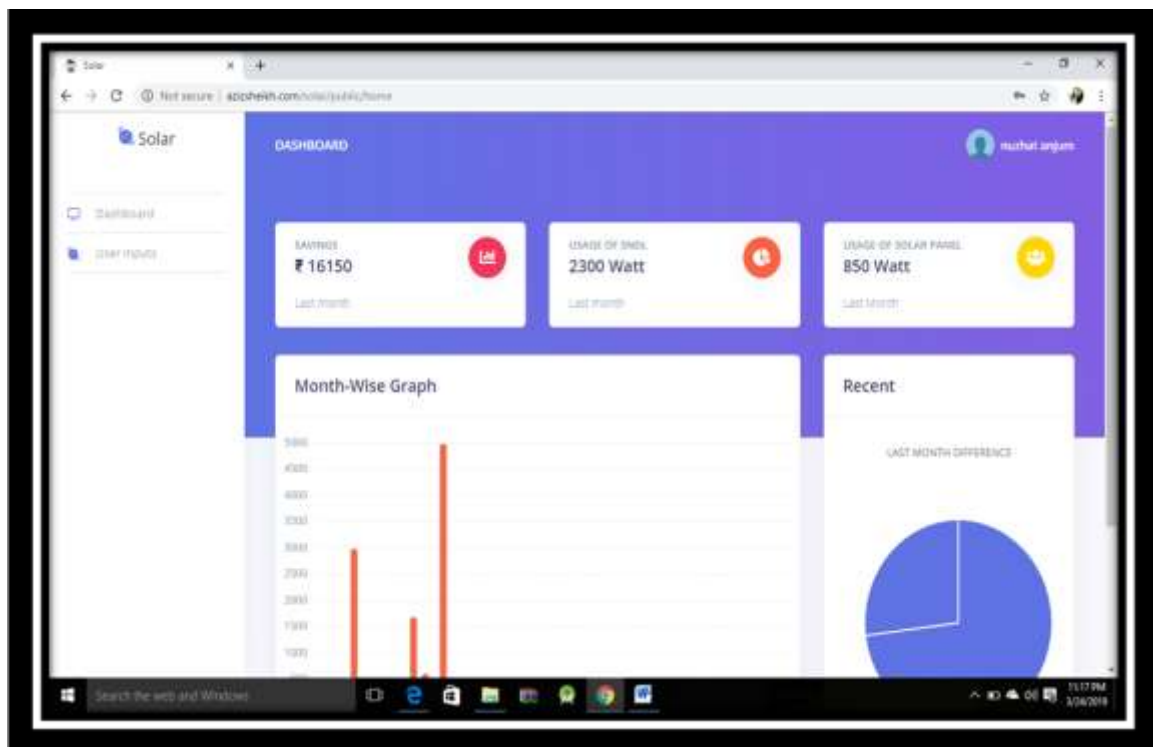
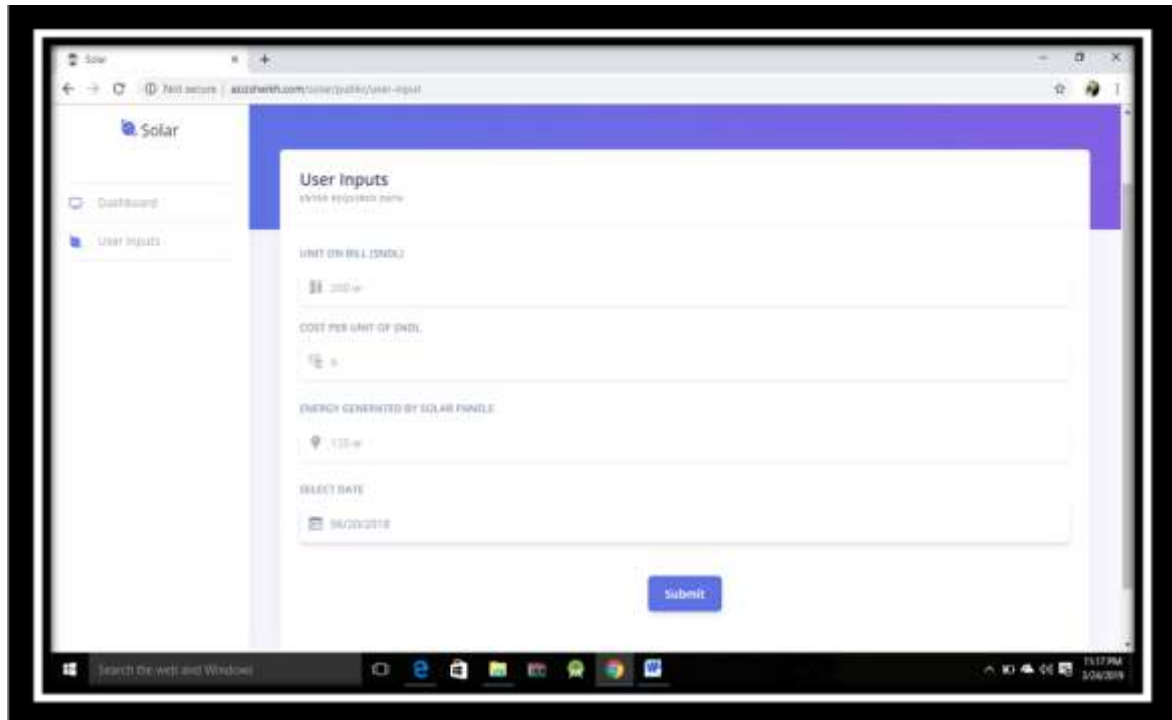


Fig.: User input page

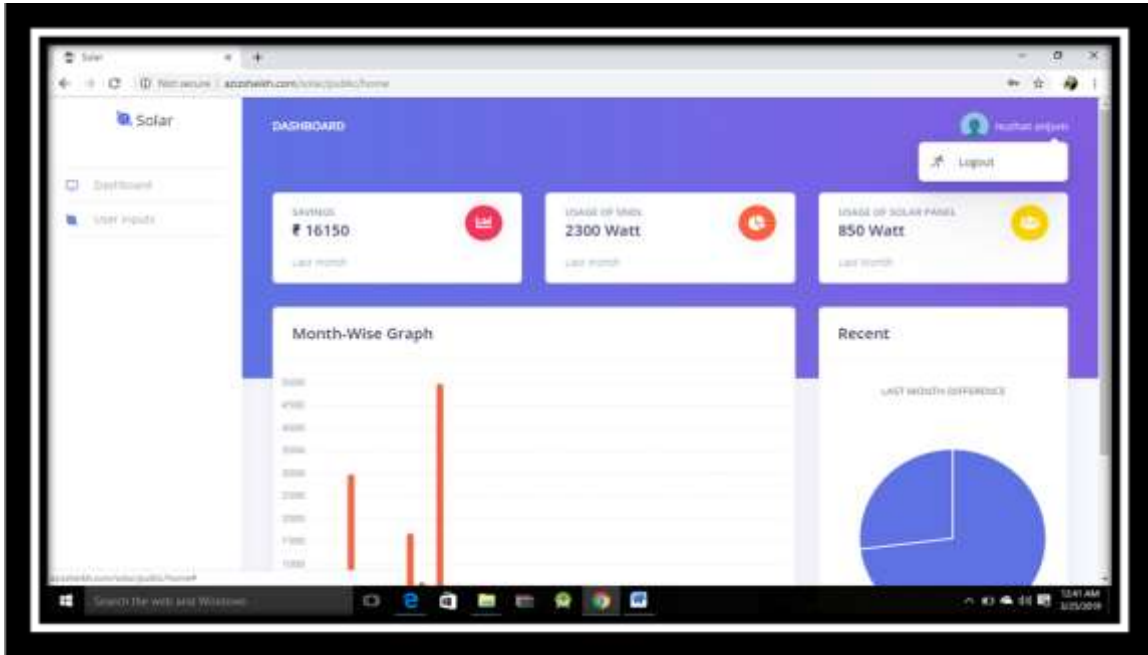


Fig.: Logout page

#### IV. Conclusion

Thus we have successfully implemented the solar calculator with the proposed methodology and it fruitfully gives the desired results.

#### Acknowledgements

We would like to take this opportunity to acknowledge our profound indebtedness and extend our deep sense of gratitude to our respected guide Ms. **Priyanka Dudhe** and also our respected guide **Prof. Priyanka Dudhe**, Department of Computer Science & Engg. For their valuable guidance, profound advice and encouragement that has led to the successful completion of this project.

We are grateful to our respected **HOD Prof. Mona Mulchandani**, Department of Computer Science & Engg for her full cooperation and help. We also thank the staff members of the CSE department.

Our sincere thanks to respected Dr. Narendra Bawane, Principal, JIT, for providing us the necessary facility to carry out the work.

We would like to thank all the people who have directly and indirectly help us in the completion of our project.

Finally we would like to express our deepest gratitude to our parents for encouraging through the progress in the work.

#### References

##### Books:

- [1]. Wertz, J., and Larson, W., Space Mission Analysis and Design, Third Edition. Torrance, CA: Microcosm Press, 1999.
- [2]. Ludwinski, J., et. al., "Mars Exploration Rover (MER) Project Mission Plan," DPasadena, CA: Jet Propulsion Laboratory, April 24, 2002, JPL-D19659.

##### Websites:

- [3]. <https://www.solartechnology.co.uk/support-centre/calculating-your-solar-requirements>
- [4]. <https://www.itsmysun.com/solar-calculator/>
- [5]. <http://www.mosdac.gov.in>