

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**  
**Jnana Sangama, Belagavi – 590018**



**A Project Report on**  
**“SOLAR CAP WITH MOBILE CHARGING”**

Submitted in partial fulfilment of the requirement for the award of degree of

**BACHELOR OF ENGINEERING**  
**IN**  
**ELECTRICAL AND ELECTRONICS ENGINEERING**

Submitted by

**BHUMIKA K. RAMESH**

**(1RR21EE004)**

**VISHAL G**

**(1RR21EE013)**

Under the guidance of

**Prof. KIRUTHIKA K**

**Assistant professor**

**Department of Electrical and Electronics Engineering**



**DEPT. OF ELECTRICAL AND ELECTRONICS ENGINEERING**  
**RAJARAJESWARI COLLEGE OF ENGINEERING**

[Accredited by NBA & NAAC, Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi]

#14, Ramohalli Cross, Mysore Road, Kumbalagodu, Bengaluru-74

2023-2024



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#14, Ramohalli Cross, Mysore Road, Kumbalagodu, Bengaluru-74

## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



### CERTIFICATE

This is to certify that the project work entitled - **“SOLAR CAP WITH MOBILE CHARGING”** is a bonafide work carried out by **BHUMIKA K. RAMESH [1RR21EE004]** and **VISHAL G [1RR21EE013]** of Rajarajeswari college of Engineering in partial fulfilment for the award of Bachelor of Engineering in ‘Electrical and Electronics Engineering’ of the Visvesvaraya Technological university, Belagavi during the year 2023- 2024. It is certified that all corrections / suggestions indicated for internal assessment have been incorporated in the report & deposited in the department library. The project report has been approved as it satisfies the academic requirement for the said degree.

Signature of the Guide

**Prof. Kiruthika K**

Signature of the HOD

**Dr. P Ebby Darney**

Signature of the Principal

**Dr. Balakrishna R**

Name of Examiners

1. \_\_\_\_\_

2. \_\_\_\_\_

Signature with Date

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## DECLARATION

We, **BHUMIKA K. RAMESH [1RR21EE004]** and **VISHAL G [1RR21EE013]**, students of fourth semester B.E, in the Department of Electrical and Electronics Engineering, **Rajarajeswari College of Engineering**, Bangalore, declare that the project work entitled **“SOLAR CAP WITH MOBILE CHARGING”** has been done under the guidance of **Prof. KIRUTHIKA K** and submitted in the partial fulfillment of the course requirements for the award of the degree of **Bachelor of Engineering in Electrical and Electronics Engineering** of **Visvesvaraya Technological University, Belagavi** during the academic year 2023-2024.

**DATE:**

**PLACE: BENGALURU**

Name of students

<b>BHUMIKA K. RAMESH</b>	<b>(1RR21EE004)</b>
<b>VISHAL G</b>	<b>(1RR21EE013)</b>

## ACKNOWLEDGEMENT

Any achievement, be it scholastic or otherwise does not depend solely on the individual efforts but on the guidance, encouragement and cooperation of intellectuals, elders and friends. A number of personalities in their own capacities have helped us in carrying out this project work. We would like to take an opportunity to thank them all.

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We would like to extend our profound gratitude to **Dr. P Ebby Darney**, Head of the Department of Electrical and Electronics Engineering, RajaRajeswari College of Engineering, Bengaluru for facilitating us to present the report.

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## ABSTRACT

*As the population is increasing, the need for fossil fuels or non-conventional energy sources are also increasing. But the fossil fuels require millions of years to form deep inside the earth. These non-conventional energy sources are depleting and can sustain only upto few decades. Hence use of alternative form of energy sources are essential in order to compensate non-conventional resources. Renewable source of energy such as solar energy, wind energy, hydro power, etc are abundant in nature and can generate enormous amount of power or energy which can used for various applications.*

*The reason behind the main focus on this is because it is very commonly used in summer and in sports game like golf, cricket, and badminton. Even the people who are working outdoors, tourists and those who are willing to climb mountain basically prefer a cap for preventing from huge sunshine. Particularly in summer to prevent from sunstroke solar cap is the best gift as it lowers the temperature and make facial condition sound. The novel design is also fun for kids and beneficial to all kind of ages. This type of solar cap with fan technology is an efficient & intelligent way to prevent face from high temperature. By the use of solar cap, one will get to meet the desire cooling to the face by the use of renewable energy.*

*Solar cap can also be used for charging various devices such as mobile phones, air-pods, etc. Each one us are dependent on technology and especially on mobile phones. Hence, this cap is useful in charging mobile phones with instant power supply generated with the help of the solar cap. This is helpful even in remote areas as it requires only sunlight. Thus, solar cap is quite reliable and cost effective many people who are travel enthusiast, people who live in remote areas and also to people who usually are into trekking and climbing.*

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