Major Project Report

On

"EFFECT OF PCM (PHASE CHANGING MATERIAL) AND NANO PARTICLES ON THE PERFORMANCE SOLAR EVACUATED TUBE COLLECTOR"

Submitted to

DEPARTMENT OF MECHANICAL ENGINEERING

GURU GHASIDAS VISHWAVIDYALAYA (A CENTRAL UNIVERSITY)
BILASPUR, CHATTISGARH

For

COMPLETION OF B. TECH DEGREE

Submitted by

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Raushan Kumar

Manish Kumar

Abhishek Kumar

(BACHELOR OF TECHNOLOGY)

(Mechanical Engineering)

Under the Guidance of

Manish Bhaskar



Department of Mechanical Engineering School of Studies of Engineering and Technology Guru Ghasidas Vishwavidyalaya (A Central University), Bilaspur, (C.G) - 495009 2021-2025

<u>DEPARTMENT OF MECHANICAL ENGINEERING</u> SCHOOL OF STUDIES IN ENGINEERING AND TECHNOLOGY

GURU GHASIDAS VISHWAVIDYALAYA, BILASPUR (C.G)

Certificate by the Examiners

This is to certify that the project work entitled "Effect of PCM (phase change Material) and Nanoparticles on the Performance of Solar Evacuated tube collector".

Submitted by:

Name	Roll no.	Enrollment no.
Pranshu Soni	21039145	GGV/21/01745
Raushan Kumar	21039149	GGV/21/01749
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has been examined and undersigned as a part of an examination of the B.Tech (Mechanical Engineering) 8th Semester project at the Department of Mechanical Engineering, School of Studies in Engineering & Technology, Guru Ghasidas Vishwavidyalaya (A Central University) Bilaspur, (C.G)

Mrs 19

External Examiner

Internal Examiner

Date: (9) (5)

Date:

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Certificate of Supervisor



This is to certify that the work incorporated in the project "Effect of PCM (phase change Material) and Nanoparticles on the Performance of Solar Evacuated tube collector" is a record of work carried out by Pranshu soni, Raushan Kumar, Manish Kumar, and Abhishek Kumar bearing Enrollment No. GGV/21/01745, GGV/21/01749, GGV/21/01732, and GGV/21/01704 respectively, under my guidance and supervision at the Department of Mechanical Engineering, Guru Ghasidas Vishwavidyalaya (A Central University) Bilaspur, (C.G) India. The Information provided above is correct to the best of my knowledge and belief.

- Embodies the work of the candidate.
- Has duly been completed.
- Is up to the desired standard both in respect of contents and language for being referred to the examiners.

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