Major Project Report

on

Design and Development of a Solar-Assisted Fluidized Bed Dryer Using Solar Collector

for the partial fulfilment of the Degree of

Bachelor of Technology in Mechanical Engineering

Submitted by

Ujjwal Kumar (21039161) Pranav Kumar (21039144) Rohit Kumar (21039173)

Guided by
Dr. Jasnita Poonam Ekka
Associate Professor



Department Of Mechanical Engineering School of Studies of Engineering and Technology Guru Ghasidas Vishwavidyalaya, Bilaspur

2021-25

DECLARATION

We, the undersigned solemnly declare that this report of the major project work, entitled "Study on Design of Eco-friendly Fluidized Bed Dryer Based on A Combination of Solar Collector " is Our own work, carried out during the course of Our study of final year in graduation under the guidance of Dr. Jasnita Poonam Ekka (Associate Professor), Department of Mechanical Engineering, School of Studies of Engineering and Technology, Guru Ghasidas Vishwavidyalaya. We assert that the statements made, and conclusions drawn are the outcome of Our work. We further declare that to the best of Our knowledge and belief this report does not contain any part of any work, which has been submitted for the award of any degree in this or any other University.

Pranav Kumar

Rohit Kumar

Ujjwal Kumar

(21039144)

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Certificate by the Examiners

This is to certify that the project work entitled "Design and Development of a Solar-Assisted Fluidized Bed Dryer Using Solar Collector"

Submitted by:

Name	Roll No.	Enrollment No.
Pranav Kumar	21039144	GGV/21/01744
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has been examined by the undersigned as a part of an examination of the B.Tech (Mechanical Engineering) 7th semester project at the Department of Mechanical Engineering, School of Studies of Engineering & Technology, Guru Ghasidas Vishwavidyalaya (A Central University) Bilaspur, (C.G)

Internal Examiner

Date: 9.05.2025

External Examiner

Date:

Head of Department



Department Of Mechanical Engineering School of Studies of Engineering and Technology

Guru Ghasidas Vishwavidyalaya, Bilaspur

CERTIFICATE

This is to certify that the project entitled, "Study on Design of Eco-friendly Fluidized Bed Dryer Based on A Combination of Solar Collector" submitted by PRANAV KUMAR (21039144). ROHIT KUMAR(21039173) and UJJWAL KUMAR (21039161) in partial fulfilment for the requirement for the award of Bachelor of Technology Degree in Mechanical Engineering is a Bonafide record of the work carried out by them under my supervision and guidance.

Guide Dr. Jasnita Poonam Ekka Associate Professor Head, Mechanical Engineering Prof. Anbudayasankar S.P. Professor