

CFD Thermal analysis of SiO₂–TiO₂ - Ethylene Glycol hybrid cooling system for EV batteries.

A project/ thesis submitted in partial fulfilment of the requirements

for the degree of

Bachelor of Technology

(Mechanical Engineering)

Submitted

by

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Under the guidance of

Dr.TG Loganathan



Department of Mechanical Engineering
School of Studies Engineering and Technology
Guru Ghasidas Vishwavidyalaya
Bilaspur
Session 2021-2025



Department of Mechanical Engineering
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Guru Ghasidas Vishwavidyalaya, Bilaspur, (C.G)

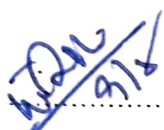
Certificate by the Examiners

This is to certify that the project work entitled “**CFD Thermal analysis of $\text{SiO}_2\text{-TiO}_2$ - Ethylene Glycol hybrid cooling system for EV batteries.**”

Submitted by:

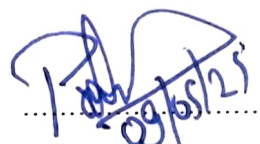
Name	Roll No.	Enrollment No.
AJAY KUMAR	21039105	GGV/21/01705
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has been examined by the undersigned as a part of an examination of the B.Tech (Mechanical Engineering) 8th semester project at the Department of Mechanical Engineering, School of Studies of Engineering & Technology, Guru Ghasidas Vishwavidyalaya (A Central University) Bilaspur. (C.G)


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Internal Examiner

Date:


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External Examiner

Date:


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Head of Department



Department of Mechanical Engineering
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CERTIFICATE

This is to certify that the work contained in this project entitled “**CFD Thermal analysis of SiO₂-TiO₂ - Ethylene Glycol hybrid cooling system for EV batteries**” by AJAY KUMAR (21039105), BODDETI ABHISHEK (21039114), DAISY PHUKAN (21039117), ISARAPU NITISH (21039128) are students of the Department of Mechanical Engineering, School of Studies of Engineering and Technology, Guru Ghasidas Vishwavidyalaya, for the award of degree of **Bachelor of Technology** has been carried out under my supervision and that this work has not been submitted elsewhere for any degree.

Prof./Mr./Dr. 

Department of Mechanical Engineering
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CANDIDATE'S DECLARATION

We hereby declare that the project entitled – “**CFD Thermal analysis of SiO₂-TiO₂ - Ethylene Glycol hybrid cooling system for EV batteries**” in partial fulfillment for the award of the degree of B.Tech submitted to the Department of Mechanical Engineering of Guru Ghasidas Vishwavidyalaya (A Central University), Bilaspur (C.G) is an authentic record of our genuine work done under the guidance of **Dr. TG LOGANATHAN**. We further declare that the work which has been done in this project has not been submitted either in part or in full, for the award of any other degree or diploma in this institute or university.

Name of Students

Ajay Kumar (21039105)

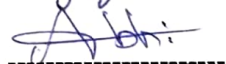
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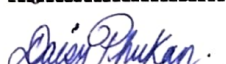
Daisy Phukan (21039117)

Isarapu Nitish (21039128)

Signature









This is to certify that the above statement made by the candidate is correct to the best of our knowledge.



Signature of the supervisor

Dr. T.G.LOGANATHAN

Acknowledgement

Completing this project, although was a challenge for us, would not have achieved without support, inspiration, encouragement and contribution of many people. First of all, we would like to express our deep sense of gratitude towards our supervisor “**Dr.TG Loganathan**”, Head of the Department **Dr. S.P. Anbudayasankar** and all faculty members of the Department of Mechanical Engineering School of Studies of Engineering and Technology, Guru Ghasidas Vishwavidyalaya, for their valuable guidance, constant encouragement and kind help at different stages for the execution of this dissertation work. Last but not the least we would also like to thank all of our friends for help co-operation and for being with us throughout the project work.

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