

**FINITE ELEMENT ANALYSIS USING ANSYS OF THE
PHASE CHANGE MATERIAL (PCM) COOLING SYSTEMS
ON A 3V LIFEPO4 BATTERY CELL FOR BATTERY PACK
APPLICATION**

THESIS



**Submitted to Comply with Terms of Study Completion in Mechanical
Engineering Production and Maintenance Study Program
Mechanical Engineering Department**

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APPROVAL SHEET
**FINITE ELEMENT ANALYSIS USING ANSYS OF THE
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THESIS

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MOTTO AND DEDICATION

MOTTO

“O you who believe, make your patience and prayer your helper, indeed Allah is with those who are patient”

(Al-Baqarah: 153)

“Once you embark on a journey, never give up until you reach it. Be confident in your efforts and persevere. Success requires a long process. It's not just about wanting the end result and knowing it's done, but also about always keeping on progress. Even if there are many obstacles and you're often stressed, believe that there's no other way to achieve success than through the process.”. (Armeliani)

DEDICATION

This thesis is dedicated to my beloved parents, my father and mother, for their sincere and unceasing prayers and invaluable encouragement, and to my closest and dearest friends, and to my proud light blue almamater.

ACKNOWLEDGMENT

Praise the author goes to ALLAH SWT because of love and His grace, so that the author can complete this project. In carrying out the making of this project, from preparation to the process of preparing the report, the author received a lot of help from various parties, in the form of guidance, instructions, information and services. Therefore in this opportunity the author would like to express deepest gratitude to:

1. The author's parents, Ayah Samsudin Basri and Ibu Neva Yulizar who always give prayer and encouragement to the author during the project and thesis. Your support means the world for the author.
2. Sir Ir. Irawan Rusnadi, M.T., as Director of Mechanical Engineering at the Sriwijaya State Polytechnic.
3. Mrs. Ir. Fenoria Putri, S.T., M.T., as Head of the Mechanical Engineering Department of Sriwijaya State Polytechnic.
4. Bapak Ir. Adian Aristia Anas, S.T., M.Sc, as Secretary of the Mechanical Engineering Department of Sriwijaya State Polytechnic.
5. Mrs. Ir. Hj. Ella Sundari, S.T., M.T., as Coordinator of the D-IV Mechanical Engineering Production and Maintenance Study Program, Sriwijaya State Polytechnic Mechanical Engineering Department.
6. Sir Mohd Arif Fahmi as the Main Supervisor who has provided guidance and assisted the author in completing this thesis.
7. Dr. Ir. Baiti Hidayati, S.T., M.T., IPP as a Companion Supervisor who has guided and assisted in completing the writing of this thesis.
8. My friends, Auzinie, Bintang, Brian, Habib, Habibie, Rahmat. they are people who always provide support and as a place to exchange ideas in completing this research.
9. My best comrades in arms, class 8PPF who have struggled together while completing their D-IV studies in Mechanical Production and Maintenance Engineering.
10. Friends from the 2021 class of the D-IV Production and Maintenance Mechanical Engineering Study Program who have struggled together while completing their D-IV Production and Maintenance Mechanical Engineering studies.

The author realizes that there are still many shortcomings in this thesis. The author openly accepts criticism and suggestions from readers so that in the future the author can make better research reports.

Finally, the author would like to express his gratitude for the assistance that has been given by all parties, I hope that good deeds will become acts of worship and get ridha from Allah SWT, Amin... Yaa Rabbal'alam.

Palembang, Maret 2026
Author, Teyzar Shafatullah

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