

Project Report On

ENGINE POWERD WHEEL BARROW

Submitted to partial fulfillment of the Requirements

for the award of the Diploma Under

STATE BOARD OF TECHNICAL EDUCATION, KERALA

In

Mechanical Engineering

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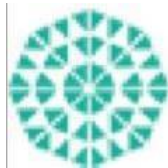


**DEPARTMENT OF MECHANICAL ENGINEERING KMCT
POLYTECHNIC COLLEGE, KUTTIPPURAM**

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KMCT POLYTECHNIC COLLEGE, KUTTIPPURAM

DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that bonafide record of the project report **ENGINE POWERD WHEEL BARROW** presented by **GROUP 5** of final year Mechanical Engineering students (2020 Admission) of K.M.C.T Polytechnic College, Kuttippuram in partial fulfillment of the requirement for the award of Diploma certificate of Board of Technical Education, Government of Kerala.

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ACKNOWLEDGEMENT

First of all, we would like to Thanks GOD THE ALMIGHTY for the divine grace bestowed to us to complete this project successfully in time.

We wish to convey our gratefulness to **Mr. P.H SUBAIR**, Principal KMCT PTC, Kuttippuram for his strong support and motivation towards a great level of success in our career.

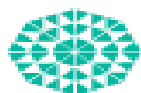
We express our sincere thanks to **Mr. VINEETH C.**, Head of the department of Mechanical engineering, for his kind cooperation, encouragement and help.

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GROUP 5



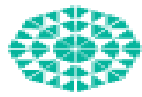
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Institute Vision

Be a premier technical institution of academic excellence by imparting value based professional education with social responsibility.

Institute Mission

- *To produce self-motivated, skilled professionals of academic excellence.*
- *To provide value oriented quality technical education through innovative teaching learning process.*
- *To equip students to be Responsible Professionals for the betterment.*



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Department Vision

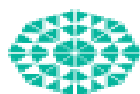
To achieve excellence in mechanical engineering by imparting technical and professional skills to meet industrial and social needs

Department Mission

M1: - To impart sound foundations in mechanical engineering and its related fields to excel in academics and career

M2: - To develop students as competent professionals with strong emphasis on social and ethical values

M3: - To cultivate technical and productive skills for creating young professionals to meet industrial and social challenges



Program Outcomes (POs)

PO1: Basic and Discipline specific knowledge: Apply knowledge of basic mathematics, science and engineering fundamentals and engineering specialization to solve the engineering problems.

PO2: Problem analysis: Identify and analyse well-defined engineering problems using codified standard methods.

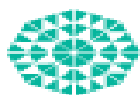
PO3: Design/ development of solutions: Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs.

PO4: Engineering Tools, Experimentation and Testing: Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.

PO5: Engineering practices for society, sustainability and environment: Apply appropriate technology in context of society, sustainability, environment and ethical practices.

PO6: Project Management: Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.

PO7: Life-long learning: Ability to analyze individual needs and engage in updating in the context of technological changes.



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Program specific outcomes (PSOs):

PSO1: Apply the principles of mechanical engineering to design and develop innovative products useful for the safe and sustainable development of industry and society without deviating the quality of environment.

PSO2: Apply the knowledge and principles of engineering by emphasizing human values to excel in career and entrepreneurship.

TABLE OF CONTENTS

Sl No.	Title	Page No.
	LIST OF FIGURES	IX
	ABSTRACT	X
1	INTRODUCTION	1
1.1	BACKGROUND STUDY	1
1.2	REASERCH OBJECTIVES	2
2	LITERATURE SURVEY	3
2.1	BACKGROUND HISTORY OF CRANE EVALUTION	3
2.2	ERGONOMICS AND USER EXPERIENCE OFWHEEL BARROW	3
2.3	TECHNOLOGICAL ADVANCEMENTS OF WHEEL BARROW	4
3	HISTORY	5
4	SMALL SCALE INDUSTRIES	6
5	GOVERNMENT ACT	14
6	FACTORY ACT	15
7	CONCEPT OF PROJECT WORK	25
8	MARKET SURVEY AND ANALYSIS	26
9	SITE SELECTION	27
10	PROJECT PLANNING	31
11	METHODOLOGY	33
11.1	DESIGN WORK	33
11.2	FABRICATION	37
11.3	ENGINE INTEGRATION	38
11.4	PERFORMANCE EVALUATION	39
11.5	LODING CAPACITY	39
11.6	MATERIAL SELECTION	40
12	COMPONENTS	41
13	ADVANTAGES AND LIMITATIONES	45
14	FUTURE RECOMMENDATIONS	47
15	RESULTS	48
16	CONCLUSION	49
17	BIBLIOGRAPHY	50

TABLE OF FIGURES

Sl No.	Title	Page No.
1	HISTORY OF WHEEL BARROW	5
2	SITE LAYOUT	27
3	DESIGN WORK	33
4	MATERIAL	40
5	FRAME	41
6	ENGINE	42
7	FUEL SYSTEM	42
8	BRAKE	43
9	THROTTLE-HANDLE-GRIPS	43
10	WHEELS AND TIRES	44
11	FINAL OUTPUT	48

ABSTRACT

The Engine-Powered Wheelbarrow Project aimed to design and develop a novel wheelbarrow concept powered by an engine for improved efficiency and ease of use. The project focused on integrating a small-displacement engine, such as a 110cc engine, into the wheelbarrow while ensuring optimal performance and functionality. Through extensive research, design iterations, fabrication, and testing, the project sought to evaluate the feasibility and advantages of an engine-powered wheelbarrow. It highlights the successful integration of the engine into the wheelbarrow frame, resulting in increased power output and load-carrying capacity. The project encompassed performance evaluations, including speed, acceleration, maneuverability, and fuel efficiency. Safety measures were also implemented to ensure operator protection during operation.

The engine-powered wheelbarrow project demonstrated significant advantages over traditional manual wheelbarrows. It showcased enhanced productivity, reduced physical strain on the operator, and improved maneuverability in various terrains. The increased load capacity and ease of operation make it a valuable tool for tasks involving heavy material transportation. This abstract presents a concise overview of the project's objectives, methodologies, and outcomes, emphasizing the innovation and potential applications of an engine-powered wheelbarrow. The findings contribute to the body of knowledge in wheelbarrow design and provide a foundation for further research and development in the field.