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Semi-Automated Roller Painting Machine

Akash N[1], Mohammed Zohaib[2], Ravi Ranjan Kumar[3], Sri Chethan A S[4]
[1, 2, 3, 4]*Department of Mechanical Engineering, East Point College of Engineering and Technology, Bengaluru, India*

Abstract: Building and construction is one of the major industries around the world. In this fast moving life construction industry is also growing rapidly. But the labours in the construction industry are not sufficient. This insufficient labour in the construction industry is because of the difficulty in the work. In construction industry, during the work in the sites where there is more risk situation like interior area in the city. There are some other reasons for the insufficient labour which may be because of the improvement the education level which cause the people to think that these types of work, is not as prestigious as the other jobs.

Keywords: Growing rapidly, construction industry, risky, education level, labours insufficient

I. INTRODUCTION

The advances in the machine and automation in the construction industry has grown rapidly. Although the advances in the machine and its wide spreading applications, painting is also considered to be the difficult process as it also has to paint the whole building. To make this work easier and safer and also to reduce the number of labours automation in painting was introduced. The automation for painting the exterior wall in buildings has been proposed.

II. MATERIALS USED

A. DC motor
B. Ropes and Pulley Castor wheels
C. Roller brush
D. Sheet metal
E. Hollow pipes and seamless pipes
F. L angle rod
G. Switches
H. Circuit board

III. METHODOLOGY

A. Observation and analysis of the conventional methods used to paint walls for better understanding and development of model
B. Market survey about any existing tools equipment and machineries to get an idea to improve and refine model using modern methods under less cost
C. Analysis about the existing methodology to understand indepth about existing methods used for the process.
D. To improve existing methods to increase safety of labours and making it easy to do a job.
E. Methods to tackle the disadvantages in the current methods and implement new ideas in developing the machine.
F. Fabrication of the designed model as to the best of ideas gathered and implementing new technology.

IV. DESIGN OF SEMI AUTOMATED ROLLER PAINTING MACHINE

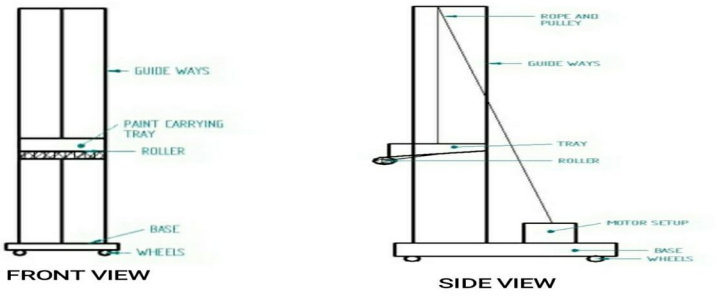


Figure.1 Conceptual Design

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V. WORKING MODEL



Figure.2 painting machine

VI. ADVANTAGES

A. Reduce risk and ensures safety of labours
B. Perfect finish than manually done
C. Low cost investment
D. REDUCES TIME
E. Saves labour cost

VII. RESULTS

By using the semiautomatic roller painting machine, it is clear that the human efforts are reduces as well as the cost of labour also reduces. Semi-automatic roller Painting machine can also paint the huge building easily and safely without any hazards to human being and labour's.

VIII. CONCLUSION

A method has been developed for semi-automatic roller painting of unknown parts. This machine is very useful for painting of interior and exterior walls with very less time period. Accuracy of this machine is more as compared to manually painting. also saves the labour cost and the total cost of painting. The methods of painting and intends to enlighten readers and artists alike with knowledge of modern art techniques as well as forgotten techniques of the painting technology. By using the semiautomatic roller painting machine, it is clear that the human efforts are reduces as well as the cost of labour also reduces. Semi-automatic roller Painting machine can also paint the huge building easily and safely without any hazards to human being and labour's.

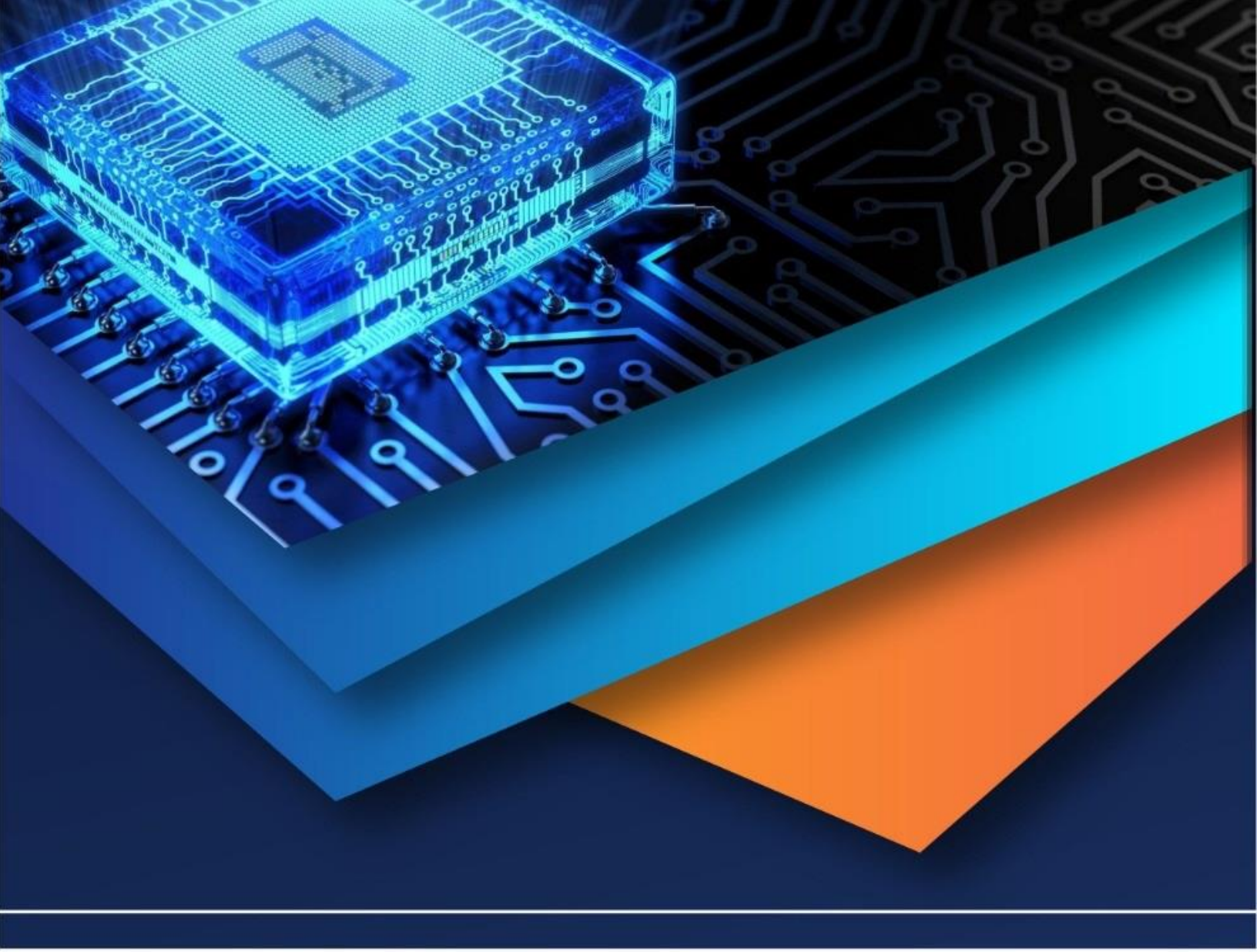
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