



Mahatma Gandhi Missions College
of Engineering & Technology

KINEMATIC DESIGN AND DEVELOPMENT OF AUTOMATIC PAPER STAMPING MACHINE BY USING CAM & FOLLOWER MECHANISM

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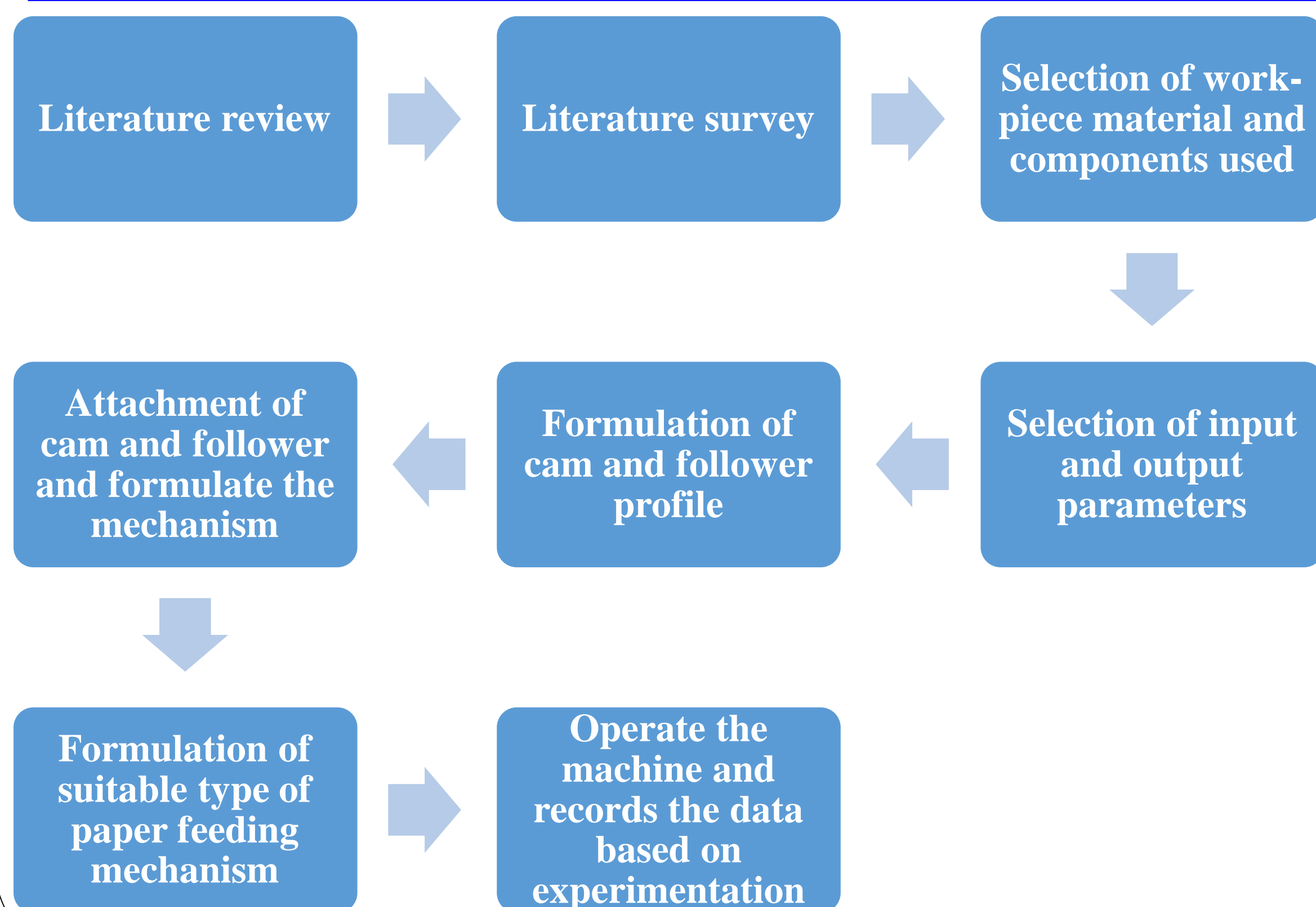
Introduction

This project is basically an automation based control system. The project is done by integrating cam and follower driven stamping machine. This machine will run on several steps of process that is paper feeding, and stamping. The purpose of this project is to generate the correct sequence of events for a stamping machine by designing the cam and follower and by controlling the motions of cam, conveyor and printer which is used for paper feeding with the help of some circuit mechanisms such as relays, electronic timers etc.

Project Objectives

This project will focus only on one goal that is to design a stamping machine for the purpose of automatic Stamping Operation. And to overcome the lack of time and manual work. This may help to stamp in a quicker time and reduce waste of time.

Methodology



Results and Discussion

RESULT

- Automatic paper stamping machine has been fabricated successfully.
- This machine can stamp 4-5 paper in a minute.
- Machine takes 3 times more time as compared to man.
- Cost of Stamping 1000 papers by this machine is 0.50 rupees only.

DISCUSSION

The cost of stamping paper by the machine is very less as compare to the man. Time taken by the machine to stamp is more as compare to man. Our machine can stamp only A4 sheet (It depend upon printer) but man can stamp any size of paper. Machine can work for long hours without break but man needs break. Speed of machine to stamp is constant but the speed of man is decrease with time. Our machine required electricity to operate while man doesn't. Our machine can stamp only at specified position but man is flexible, so it can Stamp any position.

IMAGES



Conclusions

This stamping machine which we made is very easy to use and it have high efficiency. We have attached the stamp in the follower and its operation is automatic. We have used DC motors to run the cam and conveyor. And the electronic circuit timer makes the process an easy task. At last, we have successfully made the “automatic paper stamping machine using cam and follower mechanism”. On this machine we can stamp on A4 size papers continuously and this is the big advantage of this machine over manual stamping by hand.

References

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