# SLIDING FLOOR MACHINE

Mr.Aniket Avhad, Mr.Shivam Palwade, Mr.Nischal Palghadmal, Mr.Satyam Ghodekar
S.R. Nimbalkar

*[1].Student, Mechanical Engineering, Pravara Rural Engineering College Loni, Maharashtra, India*
*2.Student, Mechanical Engineering, Pravara Rural Engineering College Loni, Maharashtra, India*
*3.Student, Mechanical Engineering, Pravara Rural Engineering College Loni, Maharashtra, India 4.Student, Mechanical Engineering, Pravara Rural Engineering College Loni, Maharashtra, India*

## ABSTRACT

*The applications of conveyer are increasing day by day in the manufacturing & transport industries due to its flexibility and accuracy in material handling. Industries like transport, packaging and processing uses conveyer for the rapid production and material handling. If transport industry wants to loading or unloading the materials form truck or trailer, it required minimum two labors for handling. One Worker is outside the truck and one inside the truck. Worker is outside the trucks is continuously set and lift the material from ground, due to this back pain done to worker. Worker is inside the truck is come to collect the material at end of truck then go inside the truck after picking the material, this cause work fatigue for both workers. In given system we can overcome the problems in material handling & do the Design & fabrication of truck loading conveyer used in the transportation system in industries material handling.*

**Keyword : -** *transport, chain conveyer, loading-unloading materials. ....*
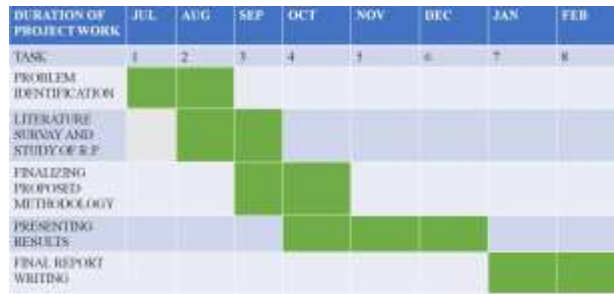
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**SLIDING FLOOR MACHINE**

A conveyor system is a common piece of mechanical handling equipment that moves materials from one location to another. Conveyor systems are commonly used in many industries, including the automotive, agricultural, computer, electronic, food processing, aerospace, pharmaceutical, chemical, bottling and canning, print finishing and packaging. Although a wide variety of materials can be conveyed, some of the most common include food items such as beans and nuts, bottles and cans, automotive components, scrap metal, pills and powders, wood and furniture and grain and animal feed. Many factors are important in the accurate selection of a conveyor system. It is important to know how the conveyor system will be used beforehand.

S.S. Gaikwad ,in this paper, an attempt is made to reduction in weight of existing roller conveyor by optimizing the critical parts of (e.g. Roller,) conveyor without hampering its structural strength. The existing Roller conveyor designed is considered for this project work. The dimensions being 2200 mm length, 30 inch above ground and inclined at 2 to 4 degree with the ground and the weight to be carried by the conveyor - 280Kg (350 kg with added factor of safety). This is the weight of the largest component to be transported over the conveyor.
D.K. Nannaware, in this paper we studied existing conveyor system and optimized critical parts of roller conveyor system like Roller, C-channels for chassis and support, to minimize the overall weight of assembly and material & cost saving. Paper contains geometrical modeling and finite element modeling of existing design and optimized design. Geometrical modeling is done using CATIA V5 and finite modeling was done with the help of ANSYS software

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| DURATION OF PROJECT WORK | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB |
|---|---|---|---|---|---|---|---|---|
| TASK | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| PROBLEM IDENTIFICATION | | | | | | | | |
| LITERATURE SURVAY AND STUDY OF R.P | | | | | | | | |
| FINALIZING PROPOSED METHODOLOGY | | | | | | | | |
| PRESENTING RESULTS | | | | | | | | |
| FINAL REPORT WRITING | | | | | | | | |

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**Fig -1** "Sliding Floor Machine"

The applications of conveyer are increasing day by day in the manufacturing & transport industries due to its flexibility and accuracy in material handling. Industries like transport, packaging and processing uses conveyer for the rapid production and material handling. If transport industry wants to loading or unloading the materials form truck or trailer, it required minimum two labors for handling. One Worker is outside the truck and one inside the truck. Worker is outside the trucks is continuously set and lift the material from ground, due to this back pain done to worker. Worker is inside the truck is come to collect the material at end of truck then go inside the truck after picking the material, this cause work fatigue for both workers.

**Table -1**

| Col Name | Col Name | Col Name | Col Name | Col Name |
|---|---|---|---|---|
| Pravara Rural Engineering College Loni | Pravara Rural Engineering College Loni | Pravara Rural Engineering College Loni | Pravara Rural Engineering College Loni | Pravara Rural Engineering College Loni |
| | | | | |

The system is assembled with a pair of existing wheels that rotates with the help of a shaft. The shaft and wheels are joined together. The wheels provide power to the gear through the chain mechanism, and the bevel gears are connected perpendicularly. The help of bevel gear rotates the brush. The revolutions start to move when we exert forces on this machine manually.

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 **CONCLUSIONS**

While concluding this report, we feel quite fulfill in having completed the project assignment well on time, we had enormous practical experience on fulfillment of the manufacturing schedules of the working project model. We are therefore, happy to state that the in calculation of mechanical aptitude proved to be a very useful purpose.

Although the design criterions imposed challenging problems which, however were overcome by us due to availability of good reference books. The selection of choice raw materials helped us in machining of the various components to very close tolerance and thereby minimizing the level of balancing problem. Needless to emphasis here that we had lift no stone unturned in our potential efforts during machining, fabrication and assembly work of the project model to our entire satisfaction.

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