



## **REVIEW ON STUDY AND IMPLEMENTATION OF FIRST ‘S’ OF ‘5S’ IN COLLEGE WORKSHOP**

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**ABSTRACT:-**The research work approved out to apply the 5S method of lean developed to solve the difficulty of WORKSHOP at JDCOEM with the aim of good space exploitation and exclusion of devastate in the workshop. The objectives of the project are organize the workplace , limitation of the time of seeking required things such as tools, equipment and stationery, safety development ,clean workplace. Also remove doubling of superfluous and unnecessary materials.

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### **INTRODUCTION**

5S is a technique originate from Japan and it was first developed by Hiroyuki Hirano in 1980s. It include 5 Japanese words Seiri (sort), Seiton(set in order), Seiso (shine) , Seiketsu(standardize) and shitsuke(sustain). The 5S philosophy focuses on overview of the work environment, effectual workplace association. The 5S technique is a planned program to methodically achieve total organization cleanliness and standardization in the workplace. The benefit of 5S technique is improvement in productivity, quality, health and safety. Through 5S methodology, the organization can produce an environment where quality work is comfortable, clean and safe in the organization and it can ensure the obedience to standards and will further promote continuous improvement.

### **LITERATURE REVIEW**

J. Michalska et.al.(2007) in this paper 5S implementation results in increasing of an efficiency, safety, quality and reduction of the industry pollution The proceedings to research clearly show that training of workers about the 5S rules is very essential I. Ravinder Kumar Panchal et.al.(2012) this paper focus on the methodology adopted in 5S and implementation of the same in the production industry. The 5S rules bring the great changes in the company, for example: process improvement by costs‘ reduction, increasing of effectiveness and efficiency in the processes, maintenance and improvement of the machines‘ efficiency, safety increasing and reduction of the industry pollution and waste.

### **SURVEY OF WORKPLACE**

The implementation of 5S is carried out in JDCOME located at WORKSHOP at Nagpur, Khandala. Workshop consist of Store room, Machine shop, Carpentry shop , Milling shop,Smithy shop, welding shop.

### **METHODOLOGY OF 5 ‘S’**

A method that use in every state to enlarge and increase the production of firm and industry or that can be use everyplace. It may be apply for increase of any firm and association. Usually it is used by a built-up company to realize safety, efficient work environment so as increase the production, superiority of the product, reduce cost and increase productivity of the product. 5S is an short form for the following Japanese terms:

1)SEIRI [Sort] , 2)SEITON [Set in order], 3)SIESO [Shine], 4)SEIKETSU [Standardize], 4)SHITSUKE [Sustain].

First ‘S’ states that: SEIRI (sorting and disposing the unnecessary items) Deals with sorting all the tools materials and other equipments in the workplace, important equipments is stored accordingly, which reduces the hazards at the workplace. 5s is workplace management to minimize the loss of time and unnecessary movements as well. it comprises 5 principle in making the organization highly efficient and effective . In Sieri we will have to sort. First of all categories required a non-record things related to workplace. Then give them red tag after putting that in right place remove the red tag . Put that all in proper place.

**PROBLEM STATEMENT**

The following problems occurred before implementation of ‘5S’ in the Workshop:

1. Rude utilization of storage space raw materials, bins and finished product.
2. Non-permanent place for storage of rare material.
3. No well-defined space for store the unnecessary or discarded material.
4. Work environment rude working condition due to unnecessary material, rude space utilization.
5. More time to search tools and equipment’s.

**ACTUAL IMPLIMENTATION OF SIERI IN THE SIMPLIFIED ZONE**

<b>JDCOEM WORKSHOP</b>	
Date :-	
Zone :-	
Department:-	Qty:-
<b>Reason</b>	
1.Scrap :- 2.Not in location:- 3.Defective:- 4.Unnecessary:-	
<b>Action</b>	



Fig-1: Red tag card

Fig-2: Material before sorting

Sorting aims for remove all the unnecessary materials from the workplace. After organization the discarded materials from the place of work, they are placed in the red tag area and the details of it are famous down on the red tag card (as shown in Fig -2). The equipment eminent down on the red tag card are then moved to scrap yard or situated correctly or rectify or segregate or returned to the seller based on the judgment of audit team and zone leader. Above figure show model print of the Red Tag which is used for sorting he material in workshop. Some photo which are captured during the sorting stage. in above photos it is plain that all materials (wanted and unwanted) are group mutually. With the help of First principal of S5 i.e. seiri we are stated sorting this resources in various category for generalization. Sorted material is group by wanted and unwanted resources and further unwanted materials classified in Red Tag zone by Burr section, Metal scarp and plastic scarp etc. below photos shows

**CONCLUSION**

This work shows, by use of easy Japanese Lean tool calculable improvements at shop floor. This work is going done at JDCOEM, Nagpur, college workshop to recover working equivalence, by eliminating non- value added behavior, wastages, etc. First ‘S’ i.e. Seiri will be productively implement in college workshop and result will show efficient sorting all elements in workshop, and unnecessary materials will group together as in red tag zone. In this red tag zone element will be further sorted and reject to scrape section. Therefore organized storage of all compulsory material will done. This will improve working consistency. After successful implementation of 5s in shop floor there will be severely changes in working environment , resource utilization than previous. In next paper, remain4s implementation, improvement and evaluation study of before condition & after condition of workshop will be done .

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