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Implementation of 5S in Infinity Management and Engineering College, Sagar

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Abstract: ***This paper is made on the implementation of 5s in college to improve efficiency and make a continuous improvement in our society and our environments. In this paper we share our idea which we have used to carry out the 5S in college which can help you. The 5S is implemented in infinity management and engineering college, sagar. It has to be observed that it has a more change in college for staff and students such as efficiency, safety, security, quality, improvement of the machines. need for the implementation of '5S' in the association came into reality due to unorganized work-stations, uncomfortable working environment and the excessive wastes in the institute. Hence to get rid-off of the above factors, there was an urgent need for the successive implementation of '5S' in the association.***

The effective following on '5S' in the organization by the various official staff and workman's strengthens the work ethic between them resulting in the motivation towards teamwork. Method is analysed in the workplace and established the 5s sustaining cleaned and well-organized to all thing which is there in college. And other departments of the college are divided into many steps to keep up continuous improvement in college.

Keywords: Lean manufacturing, 5S Audit, 5s method, Workplace Management.

I. INTRODUCTION

Lean thinking represents a set of principles and skills for the identification and elimination of waste in manufacturing and executive processes. 5S is a technique originated from Japan and it was first developed by Hiroyuki Hirano in 1980s. It includes five Japanese words Seiri(Sort), Seiton(Set in order), Seiso(Shine), Seiketsu(Standardize) and Shitsuke(Sustain). The 5S philosophy focuses on simplification of the work environment, effective workplace organization, and reduction of waste while improving safety and quality

Sr.No	5S	JAPAN WORD	ENGLISH WORDS
1	S1	SEIRI	SORT
2	S2	SEITON	SET IN ORDER
3	S3	SEISO	SHINE
4	S4	SEIKETSU	STANDARDIZE
5	S5	SHITSUKE	SUSTAIN

II. ORGANIZATION INTRODUCTION

Infinity Management and Engineering College is run by Evolution Education Society, Sagar, registered in 2007. The group consists of individuals from the field of education, entrepreneurs, businessmen, managers and engineers. IMEC is dedicated to the overall socio- economic growth and development of the region and to impart quality education to aspiring engineers.

III. PROBLEM STATEMENT

There were many problems before applying for 5S in college

1) Improve the storage capacity of raw material
2) Waste of time due to lots of student documents
3) Low productivity due to the environment of the floor
4) Present unwanted material
5) No well define a place for the instrument in workshop
6) No well defined space for storing the unwanted or rejected material
7) Dusty workplace

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IV. METHODOLOGY

The following method was adopted to implement '5S':

To create awareness among the students, teaching staff, non-teaching staff who working in workshop/lab for the implementation of 5S', various awareness programs and presentations were undertaken by the various professionals in the organization.

A. S1 SEIRI(SORT)

When first S applies than in college, we focus on the objects and workplaces in colleges as shown in the table: 2 for more planning, we have to create a section map which tells everything about the lab and classroom It helps to focus and plan a stage.

Sr.no	Department	Lab
1	Mechanical engineering	
2	Civil engineering	
3	Electronics and communication engineering	
4	Computer science engineering	

Before implementation, we have made 2 types of tag

1. Needed Tag
2. Un need Tag

Need Tag: This tag is us to identify the needed material which we will go to use in the current months. Needed tag used green color

	Needed Material	
Name		check
File Name		
Section		
year		
Department		
sign of checker		

Un needs Tag: This tag is used to un need things that are in the office.

This tag is divided into 2 parts Yellow tag& Red tag

Yellow tag -This tag is given to thing which we will need after some time

Red tag: This tag is given to things which are unwanted to college or department

	OUT OF SERVICE			UNWANTED	
Name		check	Name		check
File Name			File Name		
Section			Section		
year			year		
Department			Department		
sign of checker			sign of checke		

Implement OF S1

- Identify the record according to teg.
- Identify the tags and where to use and for what to use
- Put the thing in the giving box s and put a tag in the given box
- Forward the box to the checker and he will verify the thing which is in the box and sign the tag
- Maintain the record of all things which are in green, yellow, red tags because it will help in the upcoming to find it

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- Keep the yellow tag boxes in the storeroom
- Throw the needless items which cannot fit in the red tag also and keep the red tag containers in red tag area and put the list of all things previously entering in the red tagarea which will help the somebody to find the things

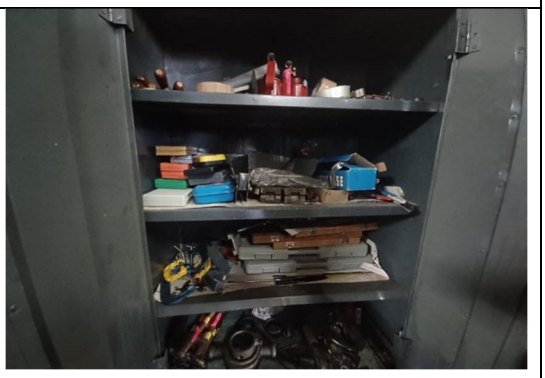
B. S2 SEITON (SET IN ORDER)

This is second process of 5S in this method we have examination the store things form the department and put given box as we see in the 4.1. In this process every staff has given a training and motivated them due this process**.**

- Mark the place Make a fix box or line where the we have to put the object like locker, and etc.
- Do not keep the item like rack and shelf together

This process is used to keep the things in its place in a given order in which the management team is decided there we have divided the thing into 3 parts

- The green tag box go to the specific department
- Yellow tag box go to the storeroom
- Red tag box go-to red tag area

Before(Instrument Not Placed Well)	After(Instrument Placed Well)
	
Before(Shelf Contents Not Placed Well)	After(Shelf Contents Placed Well With Sr.No)
	
	

C. S3 SEISO (SHINE)

This possesses everything and the department and lab will clean and there will be no dirt due to this every tool will look clean. This process helps us to establish a good environment which led to an improvement in work This process is done by each staff member in the college which lead to well teamwork due to this process keeps contagious they make two types of thing

- 5S zone
- 5S Schedules

The 5S zone makes a list of people who are responsible for their workplace. In 5S schedules make a schedule on the day or time this process will happen.

Clean & green campus:-Earlier trees had to be watered one by one, but by making drains, Waste water is also being used and there is no need for any person, as well as regular water reaches the trees

Before	Work in progress	After
		

D. S4 Seiketsu (Standardize)

To strictly follow the first '3S' in the daily routine, the 4th'S' i.e. Standardize is used. Standardize aims for preparation of standard methods to continue to survey the first '3S'effectively in the institute. now how to apply this process in college we have to make some rules like day wise cleaning chart which is filled by the head of the department this chart help to keep cleaning in college and also keep the maintains in the department by this S4 process we have regular maintenance of machine as well as department daily needs by this process we can easily define the problems which will be going to come in the way

E. S5 Shitsuke(Sustain)

S5 is maintained due to the observing process.We will maintain this process in the college by the following steps

- Training the employees and make awareness
- about the 5S
- Making the routine of continual improvement
- Making team for monitoring the process

V. CONCLUSIONS

5S is successfully implemented in college workshop/lab and result shows systematic sorting all elements in workshop, and unwanted materials isgrouped together as in red tag zone. In this red tag zone elements is further sorted and discarded to scrape section. Therefore systematic storage of all mandatory material is done and which improves working normalisation. 5S is the most effective way to implement the standardization of college

REFERENCES

[1] Vikram Singh1, Pankaj Jain2, Aman Arora3 "Review Paper on Implementation of 5 S in Different Organizations "International Journal of Engineering Science Invention (IJESI) ISSN (Online): 2319 – 6734, ISSN (Print): 2319 – 6726 www.ijesi.org ||Volume 7 Issue 4 Ver. V|| April 2018

[2] ChiragKishor Kolambe1, Prof.SambhajiVyankatrao Sagare2, Dr. Priyanka Zawar3 Implementation of 5S in College(Shree Mahavir Education Society's Institute of Technology Polytechnic)International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056Volume: 07 Issue: 11 | Nov 2020 www.irjet.net

[3] Rajkumar Devkar1 and Niyati Raut2 Methodology for '5S' implementation in a small scalemanufacturing industry IJISET - International Journal of Innovative Science, Engineering & Technology, Vol. 4 Issue 3, March 2017 ISSN (Online) 2348 – 7968 | Impact Factor (2016) – 5.264 www.ijiset.com

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[4] Mr.Y.R. Chavan1, Mr.S.S.Jambhale2, Mr.R.K.Kambale3, Mr.S.V.Gharal4, Mr.M.G.Mulla5 Study and Implementation Of – First 'S' Of '5s' In College Workshop: A Case Study International Journal of Scientific & Engineering Research, Volume 8, Issue 4, April-2017 ISSN 2229-5518

[5] Shraddha P. Deshpande1, Vipul V. Damle2, Merang L. Patel3, Akshay B. Kholamkar4 IMPLEMENTATION OF '5S' TECHNIQUE IN A MANUFACTURING ORGANIZATION: A CASE STUDY IJRET: International Journal of Research in Engineering and Technology eISSN: 2319-1163 | pISSN: 2321-7308 Volume: 04 Issue: 01 | Jan-2015,

AUTHOR BIBLIOGRAPHY



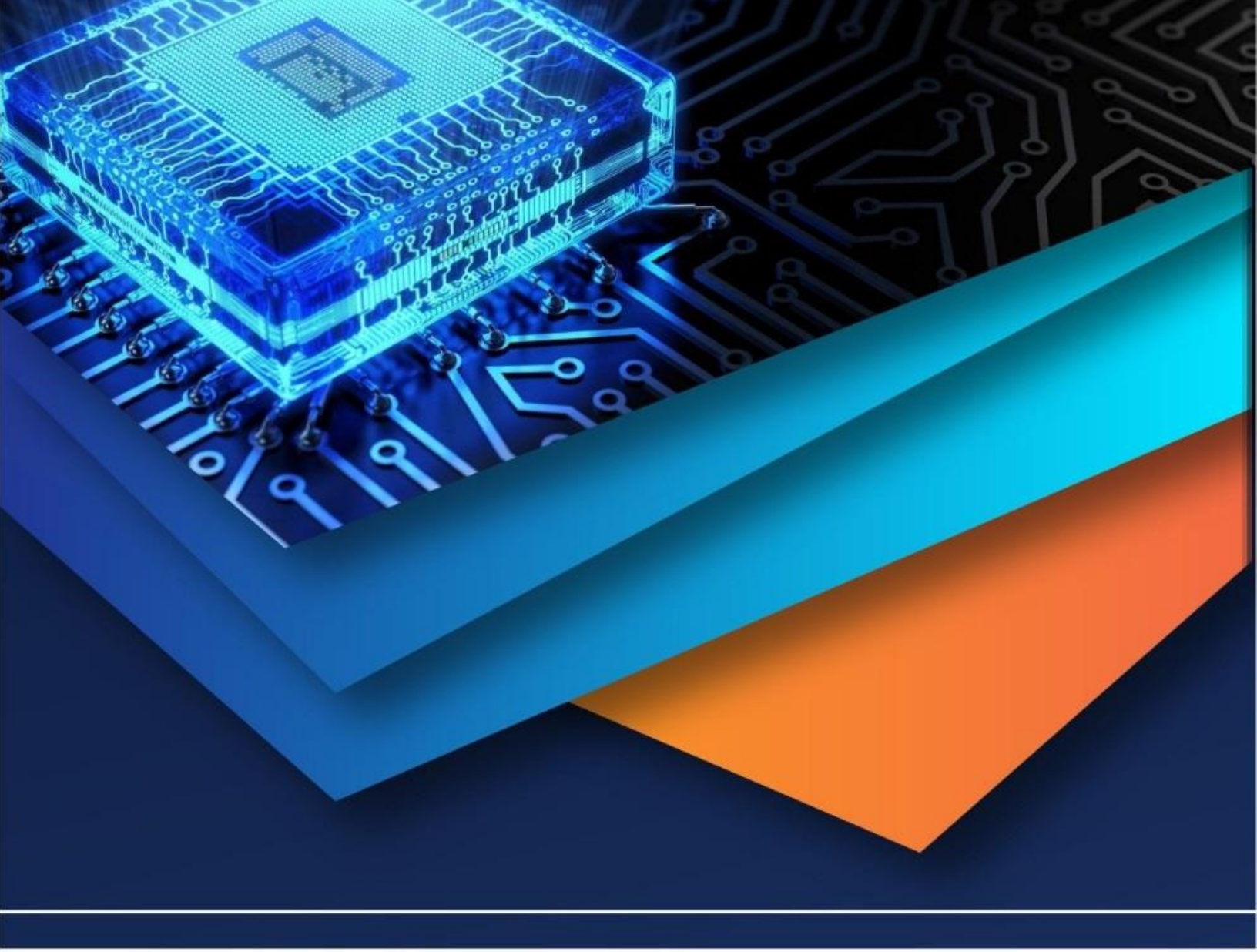
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