



SWAMI VIVEKANAND
SUBHARTI
UNIVERSITY
Meerut

UGC Approved

Where Education is a Passion ...



VALUE ADDED COURSE

ON

LEAN SIX SIGMA

By



DEPARTMENT OF
ELECTRONICS &
COMMUNICATION
ENGINEERING

2020-21

COORDINATOR:

DR. PRIYANKA SAINI

CONTACT : 7906737875

LEAN

6σ



FILL UP REGISTRATION FORM FOR
ENROLLING IN THE COURSE


Registrar
Swami Vivekanand
Subharti University
MEERUT

SUBHARTI INSTITUTE OF TECHNOLOGY
AND ENGINEERING, SWAMI VIVEKANAND
SUBHARTI UNIVERSITY

NH-58, Delhi-Haridwar Bypass Road
Subhartipuram, Meerut, Uttar Pradesh, 250005



VALUE ADDED COURSE ON LEAN SIX
SIGMA

Organized By

Department of Electronics & Communication
Engineering

10th October 2020-26th October 2020

REGISTRATION FORM

1. Name of Participant: _____

2. Department: _____

3. Year & Sem: _____

4. Phone Number: _____

5. Email: _____

I undertake to abide by the rules and
regulations of the course imposed
by the organizing Department and will
participate with utmost discipline for
the same.

Date:

Signature of Applicant


Registrar
Swami Vivekanand
Subharti University
MEERUT



Subharti Institute of Technology and Engineering
Swami Vivekanand Subharti University, Meerut
(Approved by AICTE)

Subhartipuram, NH-58 Delhi-Haridwar Bypass Road, Meerut-250005 (U.P.)
Ph.: 0121-2439157, Ext. 2222, 2221, Fax: 0121-2439108

E-mail: principal.site@gmail.com, principal.engg@gmail.com, Website: www.subharti.org



VALUE ADDED COURSES

SESSION : 2020-21

COURSE NAME: LEAN SIX SIGMA

COURSE CODE: ECE/VAC/01

LIST OF STUDENTS:

S. NO.	STUDENT NAME
1	SHUBHAM
2	SUSHANTAM
3	RAJKAMAL
4	ABDUL
5	RISHABH
6	KRISHNAKANT
7	SURAJ
8	ZUBAIR
9	MAHEHSWAR
10	LALRIN FELLA
11	RAHUL
12	MANOJ KAUMAR

M. K. Singh

Contents

Course Curriculum

1. Title Name: Lean Six Sigma
2. Contact Hours: 23

COURSE OBJECTIVES:

1. Understand the scope and breadth of a Lean Six Sigma initiative.
2. Gain an understanding of what waste is and how to identify it so that it can be reduced.
3. Become aware of variation and techniques to reduce it.
4. Become familiar with the DMAIC team project model.
5. Be aware of the infrastructure needed to support a Lean Six Sigma effort.

Module	Particulars	Contact Hours
1	Evaluation & Introduction :- <ul style="list-style-type: none">• History & Evolution of Six Sigma• Six Sigma & Lean Definition• COPQ• Variation• DMAIC Phases• Six Sigma Roles & Responsibilities	3
2	Define:- <ul style="list-style-type: none">• Project Charter• Project Charter Contents• Process Mapping• SIPOC• Identifying Customers & VOC• Establishing VOC to CTQ• KANO Model• RACI Model	3
3	Measure:- <ul style="list-style-type: none">• What is Data?• Data Classification & Type• Data collection plan• Sampling & Sampling Strategies• Mean• Median• Mode• Range• Variance• Standard Deviation	4

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REPORT ON LEAN SIX SIGMA

The first concept of Lean Six Sigma was created in 2001 by a book titled *Leaning into Six Sigma: The Path to Integration of Lean Enterprise and Six Sigma*. It was developed as a guide for managers of manufacturing plants on how to combine lean manufacturing and Six Sigma to improve quality and cycle time in the plant.

In the early 2000s Six Sigma principles expanded into other sectors of the economy, such as healthcare, finance, and supply chains.

Agenda

- What is Six Sigma
- Six Sigma Approach
- How Six Sigma helps
- Objectives of Six Sigma
- Lean Operations
- Case Studies

What is Six Sigma:

- Lean Six Sigma is a method that relies on a collaborative team effort to improve performance by systematically removing waste and reducing variation. It combines lean manufacturing/lean enterprise and Six Sigma to eliminate the eight kinds of waste (Muda): Defects, Over-Production, Waiting, Non-Utilized Talent, Transportation, Inventory, Motion, and Extra-Processing.
- Lean Six Sigma not only reduces process defects and waste, but also provides a framework for overall organizational culture change. By introducing Lean Six Sigma, the mindset of employees and managers change to one that focuses on growth and continuous improvement through process optimization. This change in culture and the mindset of an organization maximizes efficiency and increases profitability.
- In order to successfully implement Lean Six Sigma, a combination of tools from both lean manufacturing and Six Sigma must be used. Some of these tools include kaizen, value-stream mapping, line balancing, and visual management.

Six Sigma Approach:

There are two major methodologies used within Six Sigma, both of which are composed of five sections,

DMAIC: The DMAIC method is used primarily for improving existing business processes. The letters stand for:

- **D**efine the problem and the project goals
- **M**easure in detail the various aspects of the current process
- **A**nalyse data to, among other things, find the root defects in a process
- **I**mprove the process
- **C**ontrol how the process is done in the future

DMADV: The DMADV method is typically used to create new processes and new products or services. The letters stand for:

- **D**efine the project goals
- **M**easure critical components of the process and the product capabilities
- **A**nalyse the data and develop various designs for the process, eventually picking the best one
- **D**esign and test details of the process
- **V**erify the design by running simulations and a pilot program, and then handing over the process to the client

How Six Sigma helps:

Objectives of Six Sigma:

The goal of Six Sigma is to increase profits by eliminating variability, defects and waste that undermine customer loyalty. Six Sigma can be understood/perceived at three levels: Metric: 3.4 Defects Per Million Opportunities.

Lean Operations:

End Note:

It was a great experience for students learning Six Sigma. Students enjoyed and learnt a lot from the session about the processes and the methods that are being used to improve the efficiency of processes.

VAC: Lean Six Sigma




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1.





Certificate



NH-58, Delhi-Haridwar Bypass Road Subhartipuram, Meerut, Uttar Pradesh 250005

SVSU/SITE/ECE/NAAC/01

Subharti Institute of Technology and Engineering

CERTIFICATE OF PARTICIPATION

This is to certify that Subham of B.Tech ECE 2nd year has attended the value added course on LEAN SIX SIGMA from 10th October 2020 to 26th October 2020 organised by Department of Electronics and Communication Engineering (SITE), Swami Vivekanand Subharti University (SVSU) Meerut.

A handwritten signature in black ink on a light-colored background.

Er. Amit Chaudhary
HOD (ECE)

A handwritten signature in black ink on a light-colored background.

Er. Priyanka Saini
Course Co-ordinator (ECE)