

MBizM™ Lean Six Sigma Statistical Analysis Tools in Six Sigma (SATSS)



INTRODUCTION

- ◆ This programme is designed by Six Sigma Practitioners who found the most appropriate Statistical Tools to be used for Process Improvement Projects.
- ◆ This programme draws case studies and examples from all business sectors ranging from transactional to manufacturing.
- ◆ This programme is aimed at participants who are working on improvement projects to analyse data using the most useful statistical tools, that are quantitative and intense, necessary for those determined to minimize corporate waste and maximise operational efficiency.
- ◆ This programme would help participants in describing data both graphically and numerically, whilst focusing on concepts, applications and interpretations of the tools used during the DMAIC stages.

Duration = 3 Days

COURSE CONTENT / CURRICULUM

DAY 1: CONTINUOUS DATA TOOLS

- ◆ Type 1 & Type 2 error
- ◆ Degree of Freedom
- ◆ Power and Sample Size
- ◆ 1 Sample t-Test
- ◆ 2 Sample t-Test
- ◆ Paired t-Test
- ◆ One way ANOVA
- ◆ Two way ANOVA
- ◆ Test of Equal Variance (TOEV) Tables

DAY 2: CONTINUOUS DATA TOOLS

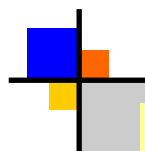
- ◆ Correlation Analysis
- ◆ Simple Linear Regression
- ◆ Multiple Regression
- ◆ Best Subset Regression
- ◆ General Liner Model (GLM)
- ◆ Binary Logistics Regression
- ◆ Ordinal Logistics Regression
- ◆ Nominal Logistics Regression

DAY 3: ATTRIBUTE DATA TOOLS & NON-PARAMETRIC TESTS

- ◆ 1 Proportion Test
- ◆ 2 Proportion Test
- ◆ Chi-Square Test
- ◆ 1 Sample-Wilcoxon Test
- ◆ Mann-Whitney Test
- ◆ Kruskal-Wallis Test

Additional Curriculum: (Over 3 Days)

- ◆ *Hypothesis Testing*
- ◆ *Sigma Value / Z-Bench*
- ◆ *Graphical Tools for Statistics*
 - ◆ *Pareto Charts*
 - ◆ *Box Plots*
 - ◆ *Run Charts*
 - ◆ *Dot Plots*
 - ◆ *Scatter Plots*
 - ◆ *Matrix Plots*
 - ◆ *Histograms*
 - ◆ *Time Series Plots*



Presented By:



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TRAINERS & CONSULTANTS PROFILE



Dr. Satnam Singh—Experienced LSS Deployment in Europe and India

Dr. Satnam Singh graduated from Liverpool John Moores University (UK) with a Bachelor Degree in Mechanical Engineering. He then furthered his studies at Coventry University in UK and was awarded with a Masters Degree of Science in Engineering and Manufacturing Management.

Dr. Satnam then continued to study for his doctorate and was awarded with a PhD in Engineering and Manufacturing Management.

Dr. Satnam has been actively involved in the field of Continual Improvement activities since the beginning of his tertiary education. While accomplishing his Master Degree in the United Kingdom, he had been extensively trained for Lean Systems and Six Sigma whilst working as a Project Manager for a Multi National Corporation (MNC) in the UK for 14 years. During his stay with the MNC in the UK, Dr. Satnam was tasked with the responsibility of promoting and implementing Lean and



Mr. Harbans –Experienced LSS Deployment in Samsung & Asia Pacific

Mr. Harbans Singh, is a graduate of University of East London and holds a Bachelors Degree (Hons) in Information Technology majoring in Software Engineering. He is certified as a Six Sigma Black Belt trained by Juran Institute (USA & Korea) under the supervision of Samsung Electronics Asia Pacific.

Mr. Harbans has gained over 12 years of working experience both in manufacturing and service industries.

Mr. Harbans has an extensive experience in performing statistical analysis by using statistical software (MINITAB) and various quality tools. Harbans is also involved in Innovating Supplier processes using QDC (Quality, Delivery & Cost) improvement and Improving Supplier Processes by utilising OEE and Lean concepts. Harbans major achievements would include the development of Six Sigma Green Belts and Six Sigma Black Belts within Samsung Electronics Asia Pacific Region. Furthermore Harbans mentored Six Sigma Yellow Belt, Green Belt and Black Belt projects that contributed to total cost savings about USD\$ 15 million during the past 6 years. Harbans also has an extensive experience in developing and conducting Six Sigma Champions Training, Black Belt, Green Belt and Yellow Belt training programs for Private Companies, major Government Linked Companies (GLCs) in Malaysia and many other