



ONE WEEK WORKSHOP ON STATISTICAL ANALYSIS AND DOE

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Introduction

Basic concepts and theoretical understanding of statistical analysis and DOE is the foundation of Modern Quality. The application of Statistical methods has the power of analyzing all kinds of variations. Variations cause extensive damage to all kinds of processes and quality of outputs as received by the customer.

The problems due to variation are hidden and most organizations resort to reactive measures at the customer end as well as within the organization. This leads to substantial wastages of all valuable resources, resulting in loss of opportunities and profitability which is generally untraceable and invisible.

Generally practicing engineers and managers abhor statistics. Most of the books and programmes on statistics are written for graduate or postgraduate students. These books deal in theory of statistics which is complicated by use of numerous Greek words and letters and concepts do not seem to have any relevance to practical situations in business.

We have developed this program for practitioners, to develop practical insights. The presentations have been prepared with several practical situations with application of statistical concepts. After this program, statistics will not remain Greek and Latin, but will become a common language for practicing managers. The program will be delivered in simple and easy to understand way with numerous examples from practical situations.

Participation:-

All engineers and managers from Quality, manufacturing product design & engineering, process engineering maintenance etc.

Contents: - Schedule enclosed

Schedule For The Programme

	Session 1	Session 2	Session 3	Session 4
Day 1	Samples and sampling Basic concepts of Probability & Application. Permutations & Combinations	Binomial & Poisson probability Distributions.	Normal Distributions Histogram Exercise	Exp. Value Central limit theorem
Day 2	Sampling distributions 'z' & 't' distributions.	Confidence interval Hypothesis test for means 'z' test	Quiz questions & tests 't' tests	'z' & 't' tests 'P' test for proportions
Day 3	Test for variances X^2 & F distributions confidence interval for variance.	X^2 & F test for hypothesis	Quiz questions & test ANOVA	Sources of Variation Multivari Studies
Day 4	Correlation & regression analysis	DOE	Quiz questions & test DOE	DOE
Day 5	Overview of advanced methods RSM, EVOP	Control Charts	Control Charts	Question – Answer & Closure