

# 4 Days Short Course on Process Improvement Through Advanced Industrial Statistic

01

How to Control Variation and Correlates Process Parameter

Measurement System Analysis (MSA) and Gauge R&R  
ANOVA (Analysis of Variance)  
Measurement of Dispersion and Variation  
Power and Sample Size  
Single and Multiple  
Regression Correlation Analysis  
Hypothesis Testing

02

Experimental Design & Factorial Analysis

Full Factorial  
Fractional Factorial  
Screening Design  
Plackett-Burman  
General Linear Model

03

How to Optimize Your Process Structuredly

Design of Experiments (DOE)  
Split-Plot Designs for Hard-to-Change Variables  
Response Surface Methodology (RSM)  
Model and Terms  
Planning and Implementation



04

Assuring Process Robustness

Taguchi Method of Robust Design  
Parameter Design  
Static and Dynamic Signal-to-Noise Ratio  
Planning and Implementation  
F-N-C-O : Function-Noise-Control-Optimize Ladder  
DOE vs. Taguchi Planning and Implementation