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## **DESIGN OF EXPERIMENTS (DOE) TRAINING**

### **2 DAYS**

#### **Course Description**

Microelectronics is a very cost-competitive industry where product quality and yield determine market share and profitability. This course will show how to apply Design of Experiments (DOE) techniques to microelectronics design and manufacturing processes in order to reduce costs, speed throughput and optimize process yields. The course will cover basic DOE principals and practices plus several advanced techniques.

#### **Who should attend**

The course is important for process and quality engineers, technical managers, and technicians interested in learning how to apply DOE techniques in the microelectronics manufacturing industry.

#### **Course Outline**

##### **DAY 1**

DOE Introduction and Basic Ideas  
Orthogonal Arrays  
DOE a Step-by-Step Process  
DOE Case Study

##### **Hands-on Classroom Exercise (Statapult)**

- Set up experiment
- Collect data
- Analyze data
- Develop a prediction model
- Conduct a confirmation run

##### **DAY 2**

Review from previous day  
Basic statistics needed to analyze and understand DOE  
Classical vs. Taguchi Design selections  
Taguchi L18 Case Study

Review Case Studies from the Microelectronics Industry

Wire bonding

Die bonding

Plating

Thin Film deposition

Summary / Discussion

**Course Fee: \$1,295**