

Design of Experiments (DOE)

Industries carry out experiments aimed at improving quality of products and processes, including shorter development cycles, more robust process, variability reduction, higher Cpk's, cost reduction, and others. But these experiments must be accomplished with certainty of results and cost pinned down to minimum.

This seminar on Design of Experiments (DOE) imparts the theory and approach for conducting designed experiments which are both economical and conclusive. DOE systematically applies statistics to the experimental process that allows evaluation of multiple variables and interactions among them with respect to the responses (quality characteristics). The strength of DOE is that it is capable of eliminating experimental "noises" and minimizing the number of runs to find the right answer making it cost effective.

Objectives: At the end of the seminar, the participant would have acquired the following:

1. Knowledge and techniques for resolving chronic issues and quality problems in development and manufacture of products.
2. Understand the fundamentals of experiments.
3. Systematic methods of evaluating the impact of changes in the input variables on the target outcomes.
4. Plan and conduct statistically designed experiments that make efficient use of resources
5. Cost effective approach for finding solutions to complicated production & design problems.
6. Ability to analyze experimental data to make valid and objective conclusions.
7. Utilize the conclusions in subsequent planning and decision making.

Agenda:

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| ➤ SPC review | ➤ Paired Comparison |
| ➤ Rule of Experimental Design in Process Improvement | ➤ Component Search |
| ➤ <i>Approaches to Finding Answers</i> | ➤ Variables Search |
| ➤ <i>Multi-Vari Charts</i> | ➤ Full Factorials |
| | ➤ B vs. C Test |

Who should attend: R & D people, Process Engineers, Quality Managers/Engineers, Production Managers, Supervisors and Engineers

Seminar Fee: P15,904 (VAT-inclusive)

Webinar sessions: 4

Facilitator: Juanito S. Chan / Rene Estember

Dates: Apr 18-21 '23, Jun 5-8 '23,

Aug 1-4'23, Oct 23-26'23; Jan 9-12'24; Mar 5-8'24 (Note 8:30 am-12:00 nn daily via Zoom)