

# Onsite and Sponsored Seminar

## Strategy for Simultaneous Evaluation of Multiple Objectives

This 1-day session will prepare attendees for data reduction with a technique that allows weighted scheme to satisfy multiple objectives. Attendees learn how to apply such a model to their own analytical and experimental studies. Attendees receive brief seminar presentation materials.



**WHERE?** At your facility (For larger group)

**DETAILS:** Please visit for information and registration.

[www.Nutek-us.com/wp-sem.html](http://www.Nutek-us.com/wp-sem.html) - onsite

### WHO SHOULD ATTEND?

- Product/Process Design Engineer
- R&D Scientists, or QA Personnel, Manufacturing. Manager, Director or Senior

### OVERVIEW

This seminar is intended for experienced experimenters interested in designing experiments to optimize multiple objectives simultaneously. When the performance of a product or process under study is evaluated by different criteria of evaluations, it is possible to combine them into a single index for analysis of overall performance. This session will show you a scheme of handling evaluations of multiple objectives together by combining it into a single number called the Overall Evaluation Criteria (OEC).

The need for simultaneous evaluation arises when there is more than one objective that a product or process is expected to satisfy.

When the performance of a product or process under study is evaluated by different criteria of evaluations, it is possible to combine them into a single index for analysis of overall performance. This session will show you a scheme of handling evaluations of multiple objectives together by combining it into a single number called the Overall Evaluation Criteria (OEC). The OEC capability of Qualitek-4 software is used to combine and calculate the single index before analyzing the results. You should consider attending this session, if your products or processes have multiple objectives and you are looking toward planning experiments to evaluate the results and determine design specifications based on the overall performance.

### COURSE CONTENT

- Introduction
- Situations and needs for simultaneous evaluations
- Technical difficulties and challenges in engineering practices
- Single index formulation – an overall evaluation criterion
- Example calculations
- Application areas
- References

### Learning Objectives:

- How to satisfy multiple objectives
- Formulate a single index to evaluate overall performance in quantitative terms.
- Determine optimum design that satisfy all objectives

### COURSE INSTRUCTOR

This seminar is led by Ranjit K. Roy, Ph.D., P.E., PMP, and Mechanical Engineer. Dr. Roy specializes in the Taguchi approach to quality improvement and engineering quality improvement topics.



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