Columbia Basin Section
ASQ Excellence Through Quality™

Invitation from
ASQ Palomar Section
August 9, 2023 Virtual Meeting

WE ACHIEVED HONORABLE MENTION IN 2020!
PERFORMANCE EXCELLENCE PROGRAM

DATE:

Wednesday,
August 9, 2023

This is a virtual/Zoom meeting

Time:

6:30 pm – 8:00 PDT
(opens for networking at 6:00 pm)

(check website to confirm times)

Cost: Free for ASQ members and non-members

Join Zoom Meeting:
https://us06web.zoom.us/j/81164297444

Meeting ID: 811 6429 7444

Any questions? Send an email.

Attendance at this meeting earns RUs toward ASQ recertification.

NOTE: Be sure to enter your name and email address in the chat when you join the meeting to receive the RUs.

For more information about Palomar ASQ Section 708, click here.

For more information about our local Columbia Basin ASQ section and future upcoming events: www.asq614.org/

Linear Regression and Multiple Regression Models: Theory and Applications

N.T. "Bala" Balakrishnan, MBA, CQE, CSSBB
Professor, Cal Poly Pomona

Managerial decisions are often based on intuitive reasoning of relationships between variables. For example, a marketing manager may use his experience in the business to predict sales based on product price and advertising expenditures. Or the Dean of an Engineering School may predict starting salaries of the graduating class based on student GPA and years of experience. In both examples there is rationality in the intuitive reasoning process.

The next step is to pose the question: Are there quantitative models that can institutionalize a rational approach that can validate (or invalidate) this reasoning process?

Regression models can use historic data to develop relationships for use in predicting sales (marketing manager example) and starting salaries (Engineering Dean's example). In regression terminology, sales and starting salaries are dependent variables, while price, advertising expenses and GPA and experience are independent variables.

In Quality Assurance, product life (dependent variable) may be related to process variables and material specifications.

This presentation combines Theory and Application of Linear and Multiple Regression and reports using Excel software. Also covered will be associative models that do not have cause/effect relationships.

About the speaker: Professor N.T. "Bala" Balakrishnan has over 40 years' experience in Industry and Academia, having held several positions as Quality Manager, Manufacturing Engineering Manager in companies including United Technologies, IBM, and 3M Standard Abrasives. He is currently a professor in the Technology & Operations Department, College of Business Administration, California State Polytechnic University, Pomona.

Bala has led Kaizen teams and implemented continuous improvement programs, used Design of Experiments to improve processes, conducted process capability studies, reduced cost of quality, and improved effectiveness of operations using Quality Management software.