

**Introduction to Quality Engineering
for Dr. Chang
Engineering Quality Control
College of Engineering
University of Missouri
April 6, 2015**

By John A. Conte, P.E.

Objectives

- Thank Dr. Chang
 - Allowing me to speak to you today
 - Inspiring me to create a professional website
 - Reminding me to bring my college textbook
- Share my excitement to be here!
 - Students, faculty, engineers
- Share my reflections on an engineering career
 - Centered on Quality Engineering
 - BSIE Graduate of Mizzou
 - Quality and Reliability engineering
 - Semi-retirement

How Did I Get Here?

- Graduated from Grandview HS, MO 1962
- Graduated from University of Missouri with BSIE in 1966
- Winner of IIE technical writing contest 1965
- Lived in Kansas City, Denver, Dallas
- Worked for AT&T Western Electric for 25 years
- Worked for DSC Communications for 10 years
- ASQ CQE and SSBB Exam Prep Instructor for past 15 years
- Met John Drage, campus pastor of the Rock in 2007 in Estes Park CO
- May 2008 responded to “my story” request upon 50th year of IE
- Inducted into the IMSE Hall of Fame 2011
- Developed and taught IMSE on-line 2014

Most valuable course

- The most valuable course during my four years here was “Quality Control and Industrial Statistics”
- Lead to my job with AT&T Western Electric
- Served me the first 15 years at AT&T
- The basis for 20 years of using Bayesian Statistics
- The focus for the courses I currently teach
 - ASQ CQE Exam Preparation
 - ASQ BB Quality Engineering Statistics
 - Villanova University Lean Six Sigma MBB (on-line)
 - IMSE 2110 Engineering Statistics

September 1962 Defoe Hall McNair House



Some differences then and now

- Cost of things
 - A year of college
 - Books
 - cars
- ROTC and the Draft
- Women in the College of Engineering
- Women on campus (dress code, hours, PDA)
- Grade points, negative hours, total hours, class times
- Slide rule, electronic calculator, software, apps



1966 Savitar – AIIE Student Chapter

In this photo of the AIIE chapter members taken in 1966 are 6 individuals that are currently inductees into the IMSE Hall of Fame including Steve Sherman, Stan Goldfader, Don Flora, Richard Wilding, Michael Williamson, and John Conte.



Row 1: S. Sherman, Treas.; L. Deatsch, Vice Pres.; L. Clemens, Pres.; J. Conte, Secy. Row 2: A. Beauchemie, S. Goldfader, M. Shiveley,

M. Williamson, R. Wilding. Row 3: D. Barkley, W. Pietrein, D. Flora, E. Kur.

First job out of college

- Landed in November 1965 for June 1966 start date
- Paid \$635 per month when average college graduate made \$400 per month
- Kansas City greeting card manufacture
- Eight hours per day of time studies
- Forty IEs in IE department, I was the only engineering college graduate
- After one year, started looking for another job
- Disappointed in use of job skills, culture conflict

Interesting Job Offer

- In an interview I was told “I am sorry but we do not have any current openings for an **industrial engineer** but we do have an opening for a **quality engineer**. I see from your college transcript that you have taken a course entitled **Engineering Quality Control**.”
- Would you like to work for us as a Quality Control Engineer?”
- Job pays \$850 per month (+34%)

35 Years in Quality Engineering

- AT&T Western Electric (25 years)
 - Shop Floor Statistical Process Control
 - AT&T Bell Labs QAC Information Systems Engineer
 - Nationwide Quality Information System (60 locations)
 - Unix based, reporting graphics, using networked computers
 - Bayesian Assessments
- DSC Communications (10 years)
 - Quality Information Systems Manager
 - Corporate Quality Information Systems
 - Bayesian Assessments
 - Reliability Reporting using Bayesian Assessments

Career Progression

- SPC Charts, Acceptance Sampling, Inspection Procedures
- Quality Audits, Quality Reports, Quality Information Systems (QIS)
- Graphics and Relational Databases that supported QIS
- Computational Algorithms for Bayesian Assessments
- Quality Information Systems that supported Product and Process Improvement including Reliability
- Teaching fundamentals of Quality Engineering

Semi-Retirement

- Courses Taught for the American Society for Quality
 - ASQ CQE Exam Preparation
 - Six Sigma Engineering Statistics
 - Statistical Process Control
 - Introduction to Quality Engineering
- Website www.contesolutions.com
 - Published Papers on Bayesian Metrics
- Teach on-line course SS MBB for Villanova University
- Development of IMSE 2110, Summer 2014 and 2015

In Summary

- Graduated in 1966 with BSIE
- Wanted be an Industrial Engineer
- Became a Quality Engineer
- Student Questions