



Greater El Paso
Section
The Global Voice of Quality™

Amigo Quality

Volume 37 Number 4

Welcome to the January 2017 issue of the Newsletter, your local provider of information and learning opportunities related to quality professionals.

Membership Meeting

LOCATION:

Conference Room at the Holiday Inn Express – Downtown

409 E Missouri Ave, El Paso, TX 79901

SCHEDULED TIME: 6:30 P.M to 8:30 PM

DATE: Wednesday, January 18, 2017

Leadership Council

Immediately after speaker presentation

Program: Shingo Study Tour to Japan

Speaker: Armando Sanchez Castellanos

Bio: Director of Manufacturing at Dish Network
BS Aerospace Engineering 1984, United States Military Academy, West Point, NY
MS Systems Technology (Space Systems Operations)
1994, Naval Postgraduate School, Monterrey, CA 1994

Over 30 years of experience in ever-increasing positions of operational management responsibilities to include areas of manufacturing operations, supply chain management, project management, process analysis and quality management. SPC, PCA, DMAIC, TQM, DOE, Data Analysis, Metrology/CMMs, DMS, 5S, and Lean Manufacturing.

- General Manager, RR Donnelley
- Facility Analyst, Task Force Next, PAIO, Garrison Command at Fort Bliss, CAS, Inc.

- Director of Operations, MFI International
- Program Manager, Dynamic Sensors & Continuous Improvement group, Delphi Inc.
- Total Cost Manager, Dynamic Sensors, Delphi Inc.
- SRA Product Supervisor, Delphi Inc.
- SRA Engineering Manager, Delphi Inc.
- Sensor Group Process Tool Supervisor, Delphi Automotive Systems
- Project Manager, Delphi Automotive Systems
- Center of Expertise (COE) Supervisor, Delphi Automotive Systems
- MSA Engineer Supervisor, Delphi Automotive Systems
- Manufacturing Engineer, General Motors Corp.
- U.S. Army Officer, Captain, Air defense Artillery & Army Acquisition Corps, U.S. Army

Professor, University of Texas El Paso, Accelerated MBA Program. Selected as an instructor to teach/ facilitate at UTEP's College of Business Administration at the Graduate Business Center. Currently teaching Project Management for their Executive MBA program. Commended for performance within class for re-designing course curriculum to include guidelines established by the PMI and in accordance with the PMBOK standard.

THE CHAIR SPEAKS

Sergio R. Vega

Happy New Year dear colleagues!

I am excited to start a new chapter in my career of leading a group of Quality Professionals in the Greater El Paso section area and, with the help of the general membership, hoping that we will be able to contribute to our professional growth and be able to be of service to our local Quality community.

There are many plans to spark more interest in our monthly meetings by inviting Guest Speakers that we can all learn from. There is also the opportunity to visit other industries within the year and be able to

benchmark best in class practices that we can all take back to our place of employment.

Once again, I ask you to please promote our local ASQ chapter to as many people as possible by inviting co-workers, friends, relatives, etc. to our monthly meetings that we plan to always hold on the 3rd Wednesday of every month at the same location.

This month I am happy to announce that our Guest Speaker, Mr. Armando Sanchez Castellanos, will be sharing with us his Shingo Study Tour when he visited Japan late last year. I know that everyone will find this theme as interesting and eye opening as I did.

Hope to see you all at the meeting on Jan. 18!

Sincerely yours,

Sergio R. Vega

Chair, ASQ Greater El Paso Section 1401

AUTOMOTIVE SECTION

HECTOR LUGO

Thank you again to all members to participate in this section and the “winner” of the month is the following:

A boom in electric vehicles made by the likes of Tesla Motors Inc. and General Motors could erode as much as 10 percent of global gasoline demand by 2035, according to the oil industry consultant Wood Mackenzie.

While battery-powered cars and trucks today represent less than 1 percent of total vehicle sales, they are expected to take off after 2025 as governments move to tackle pollution and costs fall, the Houston-based analyst said.

By 2035 so-called EVs may remove 1 million to 2 million barrels a day of oil demand from the market -- in the range of the production cut

OPEC and its allies agreed to this week in order to end a three-year crude surplus.

See you at the meeting!

EDUCATION SECTION

KIM PRIES

We have looked at a couple of change models, Kotter and Fullan. Neither one really seems to deal with the concept of *fear*. People are often resistant to the “transformative” changes touted by consultants and on-line gurus. Over the years, I have suggested the 10,000 things as an alternative, based on the assumption we actually know what we are doing when we spout terms like *alignment*, *strategy*, and *process*. After being in the Education business for 7 years, I am not so sure about this. It is not just the Education business that presents problems, many of which are often based on simplistic remedies.

Look at the dismal science, economics. The late U.S. Secretary of the Treasury, William E. Simon used the example of King Canute ordering ocean waves to not come in as an example of the foolhardiness of “controlling” complex systems. Any time we strive for intervention, we shift the ownership of the problem from the real owner to the intervener. We see this in Education as well: until I personally took ownership of my own education, I was a mediocre student, wasting my time and my father’s money. It had nothing to do with teachers or my parents and everything to do with me. Every time my father intervened, he shifted ownership of my struggles to himself, a sequence of situations that was ultimately counter-productive. Once I had skin (money) in the game, I become a really good student.

Does that mean intervention is a waste and we should never “help?” No. However, I would recommend the use of a critical eye and a strong conviction to look for potential side effects.

Check it out!

MANAGEMENT SYSTEMS

ALFONSO ENRIQUEZ

On Sphericity

Consider two process variables: length and width for example. If there is no correlation among these two variables and these have a normal distribution and the variances are equal, then the scatter diagram of length and width will have the points within a circle. However, if the variables have different variances the points will be inside of an ellipse.

If we take three process variables: length, width, height for example. If there is no correlation among the three variables and these have a normal distribution then the scatter diagram of length, width and height would be in three dimensions, and the points would be within a sphere (soccer ball). However if the variables have different variances we could have an ellipsoid (American Football).



The American football might be horizontal or vertical when the variables are not correlated, but when the variables are correlated the orientation of the ball has an angle different than 0 or 90



There is a test to prove the hypothesis that the shape is spherical or not, the test statistic was first developed by one of the two inventors of the ENIAC computer: Mauchly. Authors of articles on multivariate control charts sometimes make reference to this sphericity test, see for example Li et al(1). I first learned about sphericity while watching a Youtube video from Dr.Maiti (2).

Montgomery(3) refers to the statistic $t = (x_1\bar{x} - x_2\bar{x} - (\mu_1 - \mu_2)) / \sqrt{((s_1^2/n_1) + (s_2^2/n_2))}$ for independent variables with different variances, and the $t = d\bar{x} / (sd / \sqrt{n})$ for dependent paired variables with equal variance. However no mention is made for the dependent variables statistic: $t = (x_1\bar{x} - x_2\bar{x}) / \sqrt{((s_1^2/n) + (s_2^2/n) - (2cov_{12}/n))}$, this last statistic is included on the video on YouTube by how2stats (4) on sphericity. And there is an explanation also by Laerd (5).

- 1) Zhongua L., Changliang Z., Zhaohun W., A Multivariate Sign Chart for Monitoring Process Shape Parameters, Journal of Quality Technology, April 2013
- 2) Maiti J. <https://www.youtube.com/watch?v=RtTfFhKOWE0>, NPTEL lecture 20 Applied Multivariate Statistical Modeling, IIT Kharagpur
- 3) Montgomery D.C., Introduction to Statistical Quality Control, Wiley, 2009
- 4) How2stats.net <https://www.youtube.com/watch?v=8BvIRJeClAM>
- 5) Laerd, <https://statistics.laerd.com/statistical-guides/sphericity-statistical-guide-2.php>

RE-CERTIFYING AND ASQ CERTIFICATIONS

STEVEN SCHAFER

Out of a total of 5 member(s) whose certifications expired December 2015, 1 lost their certifications.

Out of a total of 12 member(s) whose certifications expired June 2016, 6 will lose their certifications if they do not re-certify by the end of December 2016, 0 member(s) re-certifications are being processed and 6 member(s) completed their re-certifications.

Out of a total of 6 member(s) whose certifications will expire December 2016, 6 will lose their certifications if they do not re-certify by the end of June 2017, 0 member(s) re-certifications are being processed and 0 member(s) completed their re-certifications.

Members can re-certify early! As long as you have enough points you can re-certify as early as six months before your certification expires. Your Certifications will be extended 3 years beyond the certification expiration date you currently have for your certification, so you don't lose anything by re-certifying early. Remember, you can only claim points that you have accumulated up to the time you submit and these points need to be collected during your 3

year certification period. Out of a total of 8 member(s) whose certifications will expire June 2017, 8 will lose their certifications if they do not re-certify by the end of December 2017, 0 member(s) re-certifications are being processed and 0 member(s) completed their re-certifications.

If anyone has questions on how to re-certify to extend their ASQ Certifications and/or how to synchronize them if they have more than one, please let me know. Re-certifying by exam costs more and is a lot more difficult than re-certifying through the accumulation of RU points. You can reach me, the Re-Certification Chair, at 915-241-4780 or (501) 615-8170. Please leave a message on the answering machine if no one answers and I will call back you as soon as I can. You can also reach me via the Internet at spikeguate@sbcglobal.net. I am ready to help with any questions you might have about Re-Certifying or about any ASQ Certifications you might have, call me. The Re-Certification Journal is at the following link and will guide you in the re-certification process

<http://asq.org/cert/recertification/rucredits/index>

When re-certifying, **always get the most recent Re-certification Journal information**. The latest Re-Certification Journal is November 2014. For ASQ members the fee for one certification is \$69.00 and for two or more \$89.00; for non-members the fee for one \$109.00 and for two or more \$109.00 each).

Members who **renew their membership early online** will receive a **coupon code: RCRT in which \$69.00 will be deducted off their recert fees**.

2017	Month	Date	Day	Topic – Speaker	Location
2017	Jan	18	Wednesday	Shingo Study Tour to Japan - Armando Sanchez Castellanos	Holiday Inn Express-Downtown 409 E Missouri Ave, El Paso, TX 79901
2017	Jan	18	Wednesday	Leadership Council Meeting – after General Meeting	Holiday Inn Express-Downtown 409 E Missouri Ave, El Paso, TX 79901

2017 Officers/Committee Chairs

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