

 <p>Greater El Paso Section The Global Voice of Quality™</p>	<p><i>Amigo</i> <i>Quality</i> Volume 39 Number 4</p>
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Welcome to the January 2019 issue of the Newsletter, your local provider of information and learning opportunities related to quality professionals.

Notice: The section is actively looking for volunteers willing to serve on the leadership committee. If you are willing to volunteer, please send an email letting us know your willingness to serve to Officers@asq1401.org with a subject of **“Willing to serve on the leadership committee.”**

Membership Meeting

DATE: Wednesday, January 16, 2019

SCHEDULED TIME: 6:30 PM to 8:00 PM

LOCATION: Hilton Garden Inn at University Ave – Miner room

Speaker	Darren Cone, Executive Director - Center for the Advancement of Space Safety and Mission Assurance Research
Topic	Learning from Tragedy - Research on Artifacts from the Space Shuttle Columbia Accident and the Design of Future Spacecraft - There will also be a tour of the Columbia Research Briefing Room on campus where some of the artifacts of the Columbia are displayed.

Next Leadership Council Meeting

Saturday, February 9, 2019, from 9:00 am to noon

(Good Coffee Restaurant, 6099 Montana) **NOTE LOCATION!**

THE CHAIR SPEAKS
EVARISTO CAMPOS-TORRES

Happy New Year Fellow Quality Professionals!

I hope everyone has enjoyed this holiday season in the company of family and friends.

I am proud and honored that you have given me the opportunity to serve as the Chair of ASQ 1401 El Paso Chapter. I welcome your comments and advice. Your input, and even more importantly, your involvement are necessary in making our ASQ Section a great resource for quality professionals in our area. Please contact your leadership committee officers with your ideas, suggestions and needs. I'd like to know about your expectations and how we can fulfill them.

I want to thank our outgoing chairman, Sergio R. Vega, and past officers for their leadership and dedicated service during the last two years. During that period we had the opportunity of visiting very interesting facilities from different industry sectors. We also had excellent speakers, from different fields as well, who talked about topics directly or indirectly related to quality. All of them were fascinating, which by the way, are free for members and nonmembers. Those were learning experiences enjoyed by all of us who had the opportunity of attending.

I also wish to thank our current officers for their support in taking on responsibilities. We will need the continued assistance of dedicated individuals to fulfill our goals.

I hope to see you at the meeting on January 16!

Best regards,

Evaristo Campos Torres

Chair, ASQ Greater El Paso Section 1401

AUTOMOTIVE SECTION

HECTOR LUGO

Thank you to all members for the contribution to this exciting filed, and the winner is: Comfort and convenience features in a car will continue to evolve over time. Incremental additions or changes to body electronics control modules not only have the advantage of lower overall development costs but also minimize impact on the existing board.

Adding semiconductor technology on the circuit board can help realize new features in body electronics systems. For example, the addition of anti-pinch technology to sunroof control modules necessitates the addition of current monitors using op amps or instrument amplifiers. These amplifiers implement circuits to detect motor motion by counting DC motor ripple, or detect motor stall using current measurements that indicate obstacles in the path of a moving sunroof. Still, the addition of op amps to a sunroof control module that already includes power management, communication interfaces and motor driver devices is only an incremental change.

See you at the meeting!

EDUCATION SECTION

KIM PRIES

Last month, I introduced our membership to the KWHL (know, want to know, how to know, learned) tabular tool. I find many of the tools we use function in multiple environments.

We who have manufacturing history use tools such as the Ishikawa diagram, affinity diagrams, force fields, storyboards (storyboardthat.com), and process control plans in the classroom. In the other direction, we use Venn diagrams, Frayer models, and more.

What is a Frayer model? The diagram looks like this:

Type Heading Here

Type Heading Here

Type Heading Here

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www.storyboardthat.com

StoryboardThat

We use the Frayer model to focus thinking on what something is. Usually, in the classroom, we ask students to define it, supply characteristics of what it is, characteristics that don't apply, and an image. We could just as well apply the Kepner-Tregoe type problem-solving approach by defining a problem, defining what is the problem, defining where and when the problem isn't, and providing an image is that makes sense.

I would expect the best of our tools to have more than one use, and when we open our brains, we can see how we can take control of our decision-making and problem-solving approaches.

Check it out!

MANAGEMENT SYSTEMS

ALFONSO ENRIQUEZ

A 2 levels 3 factors (2^3) full factorial design of experiment (DOE).

We want to find if the three factors affect the crook characteristic in a beaded non-woven plastic extrusion product.

We selected the temperature of the glue extruder, the tightness of the rollers that join the bead with the non-woven fabric, and the speed of a puller (which pulls the non-woven fabric). We typed this information in Minitab, and the software gave us the order of the 8 runs to experiment:

StdOrder	RunOrder	PtType	Blocks	Temp	Rollers	double pu	Crook
3	1	1	1	520	4	59.6	24.5
3	1	1	1	520	4	59.6	29
3	1	1	1	520	4	59.6	22

We performed the experiment, measured 7 pieces from each run, and inputted the data in Minitab, the ANOVA below indicates that the interaction among the three factors is significant:

Factorial Regression: Crook versus Temp, Rollers, double puller						
Analysis of Variance						
Source	DF	Adj SS	Adj MS	F-Value	P-Value	
Model	7	2756.86	393.84	103.79	0.000	
Linear	3	2088.36	696.12	183.45	0.000	
Temp	1	565.79	565.79	149.10	0.000	
Rollers	1	0.00	0.00	0.00	1.000	
double puller	1	1522.57	1522.57	401.24	0.000	
2-Way Interactions	3	633.93	211.31	55.69	0.000	
Temp*Rollers	1	617.79	617.79	162.80	0.000	
Temp*double puller	1	16.07	16.07	4.24	0.045	
Rollers*double puller	1	0.07	0.07	0.02	0.891	
3-Way Interactions	1	34.57	34.57	9.11	0.004	
Temp*Rollers*double puller	1	34.57	34.57	9.11	0.004	
Error	48	182.14	3.79			
Total	55	2939.00				

The p value of the 3way interaction is less than 0.05. The residuals showed normality. Among the output is also the explained variation:

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
1.94798	93.80%	92.90%	91.56%

These three factors are explaining most of the variation in the product.

Projected Events					
2019	Month	Date	Day	Event	Location
	Jan	16	Wednesday	General Membership Meeting	Hilton Garden Inn - UTEP University Ave – Miner room
	Feb	9	Saturday	Leadership Committee Meeting	Good Coffee Restaurant 6099 Montana Ave.
	Feb	20	Wednesday	General Membership Meeting	Hilton Garden Inn - UTEP
	Mar	9	Saturday	Leadership Committee Meeting	Good Coffee Restaurant 6099 Montana Ave.
	Mar	20	Wednesday	General Membership Meeting	Hilton Garden Inn - UTEP

2019 Officers/Committee Chairs

<p>Chair: Evaristo Campos Torres Cell Phone: (915) 929-3142 e-Mail: Evaristo.Campostorre@dish.com</p>	<p>Vice Chair – Auditing Chair: Mark Aldred Phone: (575)343-2182 e-Mail: AldredAerospace@gmail.com</p>
<p>Treasurer: Rebecca Diaz Mobile Phone: (915) 321-0279 e-Mail: rbkgomez@yahoo.com</p>	<p>Internet Liaison: Jack Vaughn Home Phone: (915) 594-6662 Cell Phone: (915) 549-2014 e-Mail: jvaughn@utep.edu</p>
<p>Secretary: Keith Fong Home Phone: (915) 351-7535 Work Phone: (915) 612-7147 e-Mail: fongk@asme.org</p>	<p>Newsletter: Kim Pries Home: (915) 525-1724 e-Mail: jpries1@elp.rr.com or khpries@gmail.com</p>
<p>Immediate Past Chair: Nominations Chair Sergio R. Vega Work Phone: (915) 860-6257 Cell Phone: (915) 276-1130 e-Mail: sergio.vega@dish.com</p>	<p>Refresher Classes/Workshops Chair: Hector Lugo Phone: (915) 208-2502 Home Phone: (915) 581-8091 e-Mail: h7teter@hotmail.com</p>
<p>Membership Chair: Vacant Cell Phone: e-Mail:</p>	<p>Business Student Section: Vacant Cell Phone: e-Mail:</p>
<p>Publicity Chair: Morris Hendricks Phone: (419) 769-0121 e-Mail: Morrishe@aol.com</p>	<p>Partners In Education: Vacant Cell Phone: e-Mail:</p>
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