ASNE–Southern Indiana (ASNE-SI) Distinguished Lecture Series, Special Guest Speaker

CAPT JT Elder  
Commanding Officer NSWC, Crane  
“Vision for Crane, His Career and Introduction”

The American Society of Naval Engineers, Southern Indiana Section (ASNE-SI) Naval Surface Warfare Center, Crane Division (NSWC Crane) hosted a luncheon at the Club Lakeview in honor of CAPT JT Elder, the new Commanding Officer on Sept. 23, 2014. He was the guest speaker for the Distinguish Lecture Series. The program was attended by NSWC Crane’s TD and Deputy TD, Dr. Adam Razavian and Dr. Brett A. Seidle and all levels of management. CAPT Elder shared the story of his upbringing in St. Louis, his career, his journey to Crane and his vision for NSWC Crane.

He kept seeing Crane’s name come up over the course of his career and the more he heard about Crane, the more he knew he wanted to be a part of it. CAPT Elder said that his vision for Crane “is to stay the course, increase our education with the fleet and keep up the world-class support to the warfighter we provide on a daily basis here at Crane”. CAPT Elder continued, “I want to extend the reach of Crane, and never lose sight of the support we provide for the Warfighter because the work done here really makes a difference.”

NSWC Crane Technical Director Dr. Adam Razavian provided closing remarks saying that CAPT Elder brings a fresh perspective to everything that we do at Crane. “When I first looked at his career, it seems like everything he’s done has led up to this job,” said Dr. Razavian.
From left: Deputy Technical Director Dr. Brett Seidle, Technical Director Dr. Adam Razavian, NSWC Crane CO CAPT JT Elder, former Technical Director and ASNE-SI founder Dave Reece, ASNE-SI Chair Maroof Qurashi and NSWC Crane Chief of Staff Angie Lewis
The ASNE–SI technical exchange meeting took place on 25 September 2014 in B 3395 at NSWC, Crane. The meeting theme was “Innovation Across the Life Cycle”. The NSWC, Crane Technical Director Dr. Adam Razavian provided the opening remarks. He stressed the importance of these types of forums. The ASNE-SI Vice Chair Ms. Nova Carden served as the master of the ceremony. Speakers included: Dr. Michael Newman of “Launch Systems Design Branch (GXPR)”. He received a PhD in Engineering Mechanics from the University of Nebraska-Lincoln. Dr. Newman talked about “One Year Later: Results from “A New Algorithm Based on Parallel Transport Theory for the Simulation of Rigid Body Motion”.

Mr. William A. Vance, Jr of the “Munitions Acquisition Branch (JXRT)” presented a paper on “Radio Firing Device (RFD) System Shelf Life Improvement”. Mr. Vance received Aeronautical & Mechanical Engineering degrees from Purdue University, and has experience in Production, Logistics and Maintenance Engineering Support. Mr. Glenn Benninger of the “Tactical Systems Section (GXMTM)” provided an account of the “GIDEP Reports on Counterfeit Electronic Parts”. He graduated from the University of Louisville with a BSEE in 1981. Mr. Benninger supports MDA Quality and Safety in high-reliability parts and materials as a member of the MDA PMAG (Parts and Materials Advisory Group).

Mr. Fred Schipp, an electrical engineer supporting the Missile Defense Agency and NSWC Crane in the leading edge anti-counterfeit policies at MDA, discussed the assessment of over 50 electronic part distributors, and audit of over 20 defense contractors for anti-counterfeit processes. NSWC, Crane Command Chief Engineer Mr. Zahid Din was invited to provide the closing remarks. Mr. Din appreciated the Southern Indiana Section of ASNE hosting the technical exchange meetings and bringing all the Crane talents to this forum. ASNE Southern Indiana Section Chair Mr. Maroof Qurashi emphasized the importance of supporting the 125 year history of ASNE by becoming a member.
ASNE – Southern Indiana (ASNE-SI)

Invitation
Technical Exchange Meeting
“Innovation Across the Life Cycle”

03 December, 2014 in B 3395 Main Conference Room
11:00 to 12:30 PM

The American Society of Naval Engineers, Southern Indiana Section (ASNE-SI) cordially invites employees to the next Technical Exchange Meeting to be held on Wednesday, 03 December, 11 AM in B 3395 Main Conference Room. There will be several Command Officers attending this event. There will be three technical papers presented at this meeting. The papers include a broad range of interests, including and pertaining to the technology areas of work at Crane. It may contain some improvement proposals, cost avoidance, research, quality system, or just awareness to employees about the other areas of Crane. This is an unique style of exchange meeting. It provides a platform for all the technical and professional presenters to polish their talents and present ideas in an open forum. Members of command and departmental management can review what is being presented within the boundaries of Crane. This technical forum provides an opportunity for awareness, network, broaden the horizon, and know more about other areas of interest at Crane. Employees can take one hour of DAWIA training credit for attending this meeting. Be sure to mark your calendar for 03 December, come out to B 3395 and enjoy pizza and soft drinks.

Please join us on Wednesday, 03 December, at 11 AM, B 3395 Main Conference room. Any Questions can be directed to Mr. Maroof Qurashi maroof.qurashi@navy.mil at ex-4230, Ms. Nova Carden nova.carden@navy.mil at ex-1422.
ASNE – Southern Indiana (ASNE-SI)
Quarterly Technical Exchange Meeting – Call for Papers

Abstracts are invited for the Quarterly Technical Exchange Meeting/Forum to be held each March, June, September and December. The broad areas of interest include and pertain to your technology areas of work. This is an unique innovation/style of technical meeting to accommodate and provide a platform for the technical and professional presenters to polish their talents and get feed back. This technical forum provides an opportunity to network, broaden the horizon, and know more about other areas of interest at Crane. Employees can take one hour of DAWIA training credit for attending this meeting. The meeting will start with the opening remarks from a member of Command/Management. The paper presentation is for a 15-20 minute timeslot. Please send a short abstract of 100-120 words to maroof.qurashi@navy.mil.

Announcement
Membership to ASNE Southern Indiana Section

Please contact any of the listed ASNE-SI Officers to find out more about the benefits of joining the world’s largest and oldest Naval Engineers Society. The following pages contain membership & payroll deduction forms.
MEMBERSHIP APPLICATION FORM
American Society of Naval Engineers
1452 Duke Street, Alexandria, Virginia 22314-3458
(703) 836-6727 FAX (703) 836-7491

Date ____________________
I hereby apply for...
☐ Member
☐ Age 30 and over $145
☐ Under 30 $70
☐ Spouse Member $35
☐ Student Member $35

Graduation Date (Mo/Yr) __________/__________

CHECK METHOD OF PAYMENT
☐ CHECK ☐ M/C ☐ VISA ☐ AmEx ☐ DISC
☐ Pay Roll Deduction (Recommended)

Credit Card Number __________________________________________
Expiration Date _____________________________________________

Contributions: Sustaining Member __________________ General Fund __________________
(at least $100 above dues fee) (suggested contribution $50)
Scholarship Fund __________________ Information Technology Fund __________________
(suggested contribution $35) (suggested contribution $75)

Total Payment ______

PLEASE PRINT

NAME: ____________________________ (Last) ____________________________ (First)
______________________________ (Middle)

MILITARY ONLY: _______ _______ Rank __________ Service _______ ☐ Active ☐ Retired

HOME ADDRESS:

(Street) ________________________________________________________
(City) ____________________________ (State) ____________ (Zip) ______

(Home Phone) ____________________________

(Home Fax) ____________________________

Spouse’s Name: ____________________________ (Optional)

BIRTH DATE: _______ _______ ________ (Month) (Day) (Year)

EDUCATION:

(Degree) ____________________________ Institution ____________________________ Grad Year ______

(Degree) ____________________________ Institution ____________________________ Grad Year ______

Engineering Speciality: ____________________________

Naval Engineering Experience: ____________________________

Recommending Member’s Signature ____________________________
Recommending Member (Print Name) ____________________________
(Rev3, 07/31/2013)

Applicant’s Signature ____________________________
Section Credit: ____________________________
(If applicable) Name of Section ____________________________
# Request and Authorization for Voluntary Allotment of Compensation for Payment of Employee Organization Dues

<table>
<thead>
<tr>
<th>Field</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Employee (Last Name, First, Middle)</td>
<td></td>
</tr>
<tr>
<td>Social Security No.</td>
<td></td>
</tr>
<tr>
<td>Home Address (Street) (City and State)</td>
<td>(Zip Code)</td>
</tr>
<tr>
<td>Agency</td>
<td>NAV SURFWARCENDIV CRANE</td>
</tr>
<tr>
<td>Code</td>
<td>300 Hwy 361</td>
</tr>
<tr>
<td>Building No.</td>
<td>5001</td>
</tr>
<tr>
<td>City</td>
<td>Crane, IN 47522-5001</td>
</tr>
<tr>
<td>Name of Employee Organization</td>
<td>AMERICAN SOCIETY OF NAVAL ENGINEERS (ASNE), SOUTHERN INDIANA SECTION</td>
</tr>
<tr>
<td>I hereby certify that the regular annual dues of this organization for the above named member is currently established at Option A = $145.00 at $5.58 per biweekly pay period deduction or Option B = $70.00 at $2.70 per biweekly pay period deduction.</td>
<td></td>
</tr>
<tr>
<td>Signature and Title of Authorized Official (PAYROLL)</td>
<td>Date</td>
</tr>
<tr>
<td>I CHOOSE BY INITIALING ONE OF THE FOLLOWING OPTIONS BELOW:</td>
<td>Initials</td>
</tr>
<tr>
<td>OPTION A: (for members age 30 &amp; over) annual dues of $145.00 deducted at $5.58 per pay period.</td>
<td></td>
</tr>
<tr>
<td>OPTION E: (for members age 29 &amp; under) annual dues of $70.00 deducted at $2.70 per pay period.</td>
<td></td>
</tr>
<tr>
<td>I hereby authorize the above named agency to deduct from my pay each pay period the amount certified above as the biweekly dues deduction of the ASNE SOUTHERN INDIANA SECTION and to remit such amounts to that employee organization in accordance with its arrangements with my employing agency. I further authorize any change in the amount to be deducted which is certified by the above named employee organization as a uniform change in its dues structure.</td>
<td></td>
</tr>
<tr>
<td>I understand that this authorization, for a biweekly deduction, will become effective the pay period following receipt in the payroll office of my employing agency. I further understand that revocation forms, Standard Form No. 1188, Revocation of Voluntary Authorization for allotments of Compensation for Payment of Employee Organization Dues, are available from my employing agency. I may revoke this authorization on my anniversary date by filling such revocation form or the written revocation request with the payroll office of my employing agency. I agree to notify the ASNE SOUTHERN INDIANA SECTION of such revocation and to remit the remaining balance of unpaid annual dues.</td>
<td></td>
</tr>
<tr>
<td>Signature of Employee</td>
<td>Date</td>
</tr>
</tbody>
</table>

(PAYROLL DEDUCTION FORM, Rev2, 7/31/2013)
ASNE–Southern Indiana (ASNE-SI) Distinguished Lecture Series

“Radio Frequency Research Overview at Ohio State with a Focus on Small and Conformal Ultra Wideband Antennas”

By

Chope Chair Professor: Dr. John L. Volakis
Director, Electro Science Laboratory at Ohio State University (OSU)

The American Society of Naval Engineers, Southern Indiana Section (ASNE-SI) cordially invites all employees to a Distinguished Lecture by Dr. John L. Volakis, currently the Chope Chair Professor at The Ohio State University, Electrical and Computer Engineering Dept. (2003 to Present). He also serves as the Director of the Electro-Science Laboratory with $10M in external research funding. He was on the faculty of the University of Michigan-Ann Arbor from 1984 to 2003, and served as the Director of the Radiation Laboratory from 1998 to 2000. His research covers all aspects of electromagnetics, and includes antennas and wireless communications, electromagnetic compatibility and interference, propagation, design optimization, RF materials and meta-materials, multi-physics engineering, bio-electromagnetics, mm-wave front ends for GB communications, THz, radar scattering, and computational methods. His team has developed mainstream computational methods and antennas that have been transitioned to the market. More recently, his work focused on miniaturizing antennas and sensors, and his team introduced novel meta-material and meta-structures that transitioned to industry. His publications include 8 widely used books (Approximate Boundary Conditions in Electromagnetics, 1995; Finite Element Methods for Electromagnetics, 1998; the classic 4th ed. Antenna Engineering Handbook, 2007 and Small Antennas, 2010; Integral Equations for EM, 2011), 340 journal papers and over 650 conference papers. He has mentored nearly 80 doctoral students/post-docs, with 26 of them having received awards at international conferences. His service to Professional Societies include: 2004 President of the IEEE Antennas and Propagation Society, twice the General Chair of the IEEE Antennas and Propagation Symposium, IEEE APS Distinguished Lecturer, IEEE APS Fellows Committee Chair, IEEE-wide Fellows committee member & Associate Editor of several journals. He is a Fellow of IEEE and ACES. Among his awards are: The Univ. of Michigan College of Engineering Research Excellence Award (1993), Scott Award from The Ohio State Univ. College of Engineering for Outstanding Academic Achievement (2011), IEEE Tai Teaching Excellence Award (2011), IEEE Henning Mentoring Award (2013), and the IEEE APS Distinguished Achievement award (2014).

Please join us on Wednesday, 22 October, at 1100, at the “Bridge” in Building 5. Pizza and soft drinks will be served outside the Bridge in break room areas (strictly not allowed inside). Any enquiries, contact Mr. Maroof Qurashi at maroof.qurashi@navy.mil or Ext.4230.
Crane News

Indiana Legislative Representatives Visit Crane on Aug 28, 2014: Naval Surface Warfare Center, Crane Division (NSWC Crane) hosted a visit of a group of Indiana State Legislative Representatives which also included a Focus Area tour. The visit was a part of NSWC Crane’s efforts to familiarize state governmental bodies with the technical capabilities and innovation that occurs here in support of the Warfighter. The legislative group included Rep. Mark Messmer (District 63), Rep. Matt Pierce (District 61), Rep. Ben Smaltz (District 52), and Rep. Peggy Mayfield (District 60).

On Thursday, September 4 Naval Support Activity Crane completed the Change of Command at which CDR Timothy A. Craddock relieved CDR James "Jimmy" Stew-art as Commanding Officer. This ceremony also served as a retirement for CDR Stewart after 22 years of service in the US Navy.

Thursday, Sept. 11 there was a POW/MIA commemoration ceremony at the Club Lake-view Conference Center. Leadership in attendance included Army Col. Robert Dixon, commanding officer of Crane Army Ammunition Activity, NSWC Crane Division Commanding Officer CAPT JT Elder, Technical Director Dr. Adam Razavian and Chief of Staff Angie Lewis, NSA Crane Commanding Officer, CDR Timothy Craddock and Executive Officer LCDR Patrick Wiegleb and CDR David Laramie, NAVSUP Fleet Logistics Center (FLC) Norfolk-Crane Site Director. Former NSWC Crane Commanding Officer CAPT Charles LaSota (USN, retired) was the guest speaker.

On Sept. 22, 2014 Naval Surface Warfare Center, Crane Division (NSWC Crane) hosted a visit of James Thomsen (SES) Principal Civilian Deputy Assistant Secretary of the Navy (ASN), Research, Development & Acquisition (RDA). Commanding Officer CAPT JT Elder and Technical Director Dr. Adam Razavian and other members of the Executive Leadership Team (ELT) will escort Thomsen throughout his visit. The visit is an opportunity for Thomsen to lay out ASN RDA priorities to NSWC Crane leadership and for the ELT to brief him on NSWC Crane’s Focus Areas.

Naval Surface Warfare Center, Crane Division (NSWC Crane) hosted the in-augural Invention and Technology Showcase on Wednesday, September 24, 2014 at West-Gate Academy and Training Center. NSWC Crane displayed over 100 patents developed by their employees and support contractors over the past three years. Over 50 inventors were recognized for their contribution to NSWC Crane’s Intellectual Property (IP) portfolio which currently consists of 414 pieces of IP. State of Indiana Lt. Gov. Sue Ellspermann was the featured keynote speaker addressing Crane’s inventors, employees and several Indiana business partners. Ellspermann noted that Crane’s Innovation Discovery Events have be-come a national model for disclosing and identifying IP across the DoD.

NSWC Crane personnel completed Air Defense / Electronic Warfare (EW) Systems Detect-to-Engage testing to verify installed systems functionality and capability of the EW suite to defend Littoral Combat Ships from Radio Frequency emitting anti-ship cruise missiles (ASCM) in support of PMS 501. The tests successfully demonstrated the interoperability and capability of the ES-3601 Electronic Support Measures system, Combat System and ALEX Decoy Launching System to detect, identify, track simulated threat ASCMs and deploy countermeasures against incoming ASCMs.
NSWC Crane Specialized Munitions personnel successfully tested the NULKA-X Decoy round and certified two new NULKA-X rounds that were issued to the Fleet in a four-day turnaround time. This NULKA program effort is of high priority for the CNO and the active expendable decoy system is highly effective in defending ships against Anti-Ship Cruise Missiles.

NSWC Crane Maritime Electronic Warfare (EW) personnel successfully completed the installation and System Operational Verification Tests for the Surveillance Electronic Warfare Improvement Program (SEWIP) Electronic Surveillance Enhancement 6.0 and two MK-53 DLS ORDALTs on USS GRAVELY (DDG 107). The SEWIP ESE 6.0 and the MK-53 ORDALTs provide enhanced situational awareness and EW capability to U.S. Naval Forces while conducting a variety of operations.

Source: NSWC Crane, Public Affairs Office Bulletin, NAVSEA All Hands
Risk Management: Creating Organizational Self-Defense

By John Kamensky

Why don’t agency top leaders know about significant management problems in their organizations before it is too late? Scandals seem to be more prevalent these days, ranging from seemingly dishonest reporting of telework hours at the Patent Office or veterans hospital access wait times, to the safety of CDC labs, to lavish conferences at the General Services Administration.

Wouldn’t it have been better if agency leaders had learned about brewing issues before they became problems? Tom Stanton and Doug Webster, in their new book, Managing Risk and Performance, say there are two key challenges to being able to head off problems in advance:

First, important information in large agencies often is located at the front line and with middle managers, and bad news tends not to filter upward. So how does trustworthy information flow in an organization, and how do you get the right information to flow to decision-makers without flooding them with unimportant data?

And second, sometimes leaders just make bad decisions. Effective leaders need to create an environment for “constructive dialogue,” in which the decision-making process brings important information to the fore before action is taken on a decision.

Given that these two challenges are endemic, how can a good leader put in place some form of organizational self-defense?

Stanton, Webster and others share insights on how public sector leaders can do this. They note that these self-defense mechanisms exist in the private sector, and are most mature in the finance and insurance industries. They say the 2008 financial crisis was largely triggered by companies that systematically ignored their risk management experts.

Largely since the 2008 financial crisis, there has been a recent flurry of articles, books and seminars around the importance of creating “enterprise risk management” initiatives, especially in areas beyond finance and insurance.

For example, a number of federal agencies have designated “chief risk officers” to advise agency leadership on the potential impact of risks across their portfolio of programs—including the traditional approach of examining risks within each individual program or function. The designation of chief risk officers has grown organically in agencies over the past few years at both the departmental and bureau levels. The pioneer was the Education Department’s Federal Student Aid Office.

The Office of Management and Budget recently charged agencies with being responsible for managing risks, stating that agencies “should identify measure and assess challenges related to mission delivery, to the extent possible.” Its guidance describes the role of chief risk officers to “champion agency wide efforts to manage risk within the agency and advise senior leaders on the strategically aligned portfolio
view of risks at the agency.” However, OMB notes that it is not requiring agencies to designate CROs.

In the next few weeks I’ll share insights from the Stanton and Webster book, along with other resources, addressing issues such as:

- Why does government place itself in risky situations in the first place?
- How agencies develop a risk-responsive strategy to deal with the uncertainty of external risks, such as financial crises, cyber-attacks and natural disasters.
- How agencies address internal risks, such as scandals that affect their reputations.
- How does a pioneering agency institutionalize risk management functions into its culture?

Source: Gov. Exec, Exec in Gov.
Defining Your Role
As a quality professional, who are you and what do you do?

By J.P. Russell

If you tell people you are a quality professional, in my experience, they assume you are some kind of quality control inspector. If you tell them you are a quality auditor, first they may think you work for the Internal Revenue Service, in which case they take a step back from you or start a conversation with someone else. It appears quality professionals have an identity crisis with the people we want to help—the customers.

With titles such as quality engineer, technician, auditor, quality manager, supply quality engineer, Black Belt, software quality engineer, quality management consultant and reliability engineer, quality professionals’ roles within organizations are generally invisible to those on the outside. Being inspectors is probably the most visible aspect of what we do. One reason our jobs seem invisible could be because we cannot explain what we do in 20 words or less.

If your friends and family cannot explain what you do, how do you expect anyone else to understand? You need a simple and understandable message, similar to descriptions for other professionals. For example, attorneys deal with law, teachers educate students, dentists care for teeth, and nurses care for patients as they bring them back to health.

Technical professionals are getting some recognition lately due to a renewed focus on science, technology, engineering and math (STEM) in today’s culture. Suddenly, professionals in STEM fields have a positive label, thanks in part to TV shows such as CBS’s "The Big Bang Theory." In fact, you can now tell people you have a STEM-related job, and they will link it to technical work.

Identifying two or three core competencies of a quality professional can serve as a starting point for explaining who we are and what we do. I asked some peers in the quality field to help me with this task. These individuals are authors, trainers, consultants, auditors and managers who have worked in the field for many years.

Competencies, characteristics
To begin, I asked: What should every quality professional know and understand? What are some characteristics of a competent quality professional? The ideas presented in the responses could help shape a simple description of what a quality professional does.

The first thought expressed was that quality professionals should know and understand Joseph M. Juran’s quality trilogy—meaning quality professionals must know how to plan, control and improve processes. Juran’s trilogy is simple, but it applies to the technical side of the profession.

Another observation was that quality professionals can look through the bodies of knowledge (BoK) for ASQ certifications and see what components consistently show up for most certifications. This, however, could end up turning into a long list of geeky-sounding subjects.
A third idea was that quality professionals should know basic business processes, such as production, marketing, sales, shipping and accounting, as well as quality management system approaches, such as the ISO 9001 standard. Additionally, they should know the seven basic quality tools. Because businesses and organizations are customers of quality professionals, it would be important to know business basics.

The Chartered Quality Institute\textsuperscript{2} has a competency framework that stresses context, governance, improvement, assurance and leadership. It provides a fairly detailed description of a competent quality professional, but it’s probably not something I could pass along during a dinner-party conversation.

Another colleague said quality professionals should be ethical, open-minded, perceptive, observant, decisive and persistent, and be good communicators. Quality professionals are certainly expected to be ethical, but it may not be a core competency that is distinguishable from other professions. I think all professionals should be ethical.

One point was that quality professionals should have the ability to integrate effective systems to meet customer requirements. They should be highly skilled in process-based design, development, implementation and control. To me, flexibility and ability to assess situations is important.

Certainly, quality professionals are expected to know and understand standards related to quality, and they must be able to measure and monitor conformance to requirements and improve processes. Some believe character traits such as bravery, tenacity and good communication skills are a must.

It’s true that quality professionals can often be on their own when it comes to ensuring organizations conform to requirements, and that requires bravery. Sometimes, we are akin to umpires at sporting events—a part of the process but not on anyone’s team.

Walter Shewhart’s three core competencies for quality professionals are understanding variance, presenting data and applying basic laws of control. This may work well for quality of manufactured products, but not as well for the service sector. To me, understanding variation is at the root of effective control. Presenting data is an interesting take on a core competency because if you cannot communicate your ideas or conclusions, they will never be used by anyone.

Three other spins on core competencies for a quality professional include:
1. A quality professional should know everything about some aspect of quality.
2. A quality professional’s knowledge should be recognized by peers.
3. A quality professional must understand users’ needs well enough to be paid for it.

While these three points are excellent, they would be true for any highly respected and effective professional.

Another aspect is that a quality professional must be an expert at change. To improve, processes and systems must be changed. Plus, quality professionals should achieve an expert level of acumen regarding the quality BoK in the area in which they work. Making improvements requires the ability to lead change in an organization.

A simpler description provided by one colleague was that quality professionals should know the right thing to do at the right time, and know how to prevent risks and undesirable situations. That’s short and to the point.

Quality professionals must have courage for their convictions. It is the role of the quality professional to tell it like it is—regardless of what management expects or wants. They also must be aware that their
initial perception of a situation may be inaccurate. Finally, they must focus on facts relative to the context of the situation to help engage others in what must be done.

**What next?**
These are all great ideas about the core competencies and character traits for a quality professional. Professionals, however, tend to make things more complicated than they need to be—maybe because they just want to make sure the information is accurate.

The education community has not recognized the fields of quality to the same extent as other professions have, such as accounting or math. If you search on Google for "quality manager" or "quality engineer bachelor or master's degree," you get a short list. You are unlikely to see large schools, such as Clemson University, the University of Southern California, New York University or Ohio State University on the list offering majors in the quality field.

Conversely, there are more than 1.1 million ISO 9001 certifications in the world. That means there is an army of quality managers and auditors in the field. According to the U.S. Bureau of Labor Statistics *Occupational Outlook Handbook* there were 258,100 mechanical engineering jobs in 2012 with an average salary of $80,580. All the other quality-related jobs are listed under other professions, such as industrial production managers, microbiologists, chemists and computer control analysts.

**Changing the mindset**
Quality professionals must know how to apply certain tools to control and improve things. Basically, we must retrain college graduates entering the workforce because they know little about quality principles, doing it right the first time or variation.

Based on the feedback provided by my colleagues regarding core competencies for quality professionals and on my experience, I have identified the three core competencies of a quality professional:

1. Knowledge and understanding of controls to manage processes effectively and efficiently. Controls include standards, statistical techniques such as statistical process control, metrology and audits.
2. Knowledge and the ability to improve organizations using the seven basic quality tools, management tools, lean, Six Sigma, corrective action, and analysis and presentation of data.
3. Knowledge of customer, end user or regulatory body needs and the ability to ensure those needs are met by the organization.

Controls are applied to lower the risk of not meeting product or service requirements and quality objectives. Quality professionals have the knowledge to enhance performance and add value to organizations.

There is a strong link between quality professionals and the customer or end user of a product or service. Regulatory bodies also have requirements that must be met by organizations. Many times, it is the quality professional who is responsible for ensuring conformance to requirements. This is one aspect of quality that everyone—including the public—expects, and it’s what makes the jobs of quality professionals unique.

For regulated industries, quality professionals ensure compliance to government rules related to product and service quality requirements. The government may not be a customer or end user, but it is part of the process to ensure customer safety.

Often, quality professionals find themselves at odds with other functions or groups within their organizations because they have a duty to ensure customers get the product or service they are expecting
and that it is safe. When it comes to controls, improvement or meeting output requirements, quality professionals are like ombudsmen for customers.

Quality professionals can become passionate about what they do because of the standard they bear to ensure things are done right. It’s not always the fastest or the cheapest way, but it’s the right way.

Simply quality
Considering the core competencies of a quality professional, I propose that the next time you are asked about what you do, you say: "I make sure things are done right, I improve organizations, and I am a customer advocate." That would be my description of what a quality professional does. Perhaps you can come up with your own 20-words-or-less description of what you do in simple everyday words.

Finally, because this is my final QP Standards Outlook column, I want to wish readers good luck on their quality journeys. Remember: "Quality for the customer is getting what you are expecting; quality for the supplier is getting it right the first time."

References and note
1. The author extends his thanks to the following quality professionals who were consulted for this article: Dennis Arter, Lance B. Coleman, Grace Duffy, Stephen Hacker, Craig Johnson, Akio Miura, Duke Oakes and Douglas C. Wood.

Source: ASQ, QP Magazine
Book Review
Does Your Culture Engine Need a Tune-up?

By Scott Eblin

In his new book, The Culture Engine, veteran leadership consultant Chris Edmonds makes the very valid point that many leaders focus far more on what their organizations do than how they actually do it. If you want results for the long run, the “how” matters – a lot.

Based on years of experience in working with leaders who have created strong cultures that get consistently excellent results for their stakeholders, Chris explains in his book how to create an organizational constitution that provides a framework for creating and sustaining a strong, healthy culture. With step by step guidance and lots of diagnostic tools and worksheets, The Culture Engine may be just the tune up your organization needs.

The Culture Engine: A Framework for Driving Results, Inspiring Your Employees, and Transforming Your Workplace

An organizational “North Star,” is codifying valued behaviors for optimal performance. The Culture Engine shows leaders how to create a high performing, values aligned culture through the creation of an organizational constitution. With practical step-by-step guidance, readers learn how to define their organization's culture, delineate the behaviors that contribute to greater performance and greater engagement, and draft a document that codifies those behaviors into a constitution that guides behavior towards an ideal: a safe, inspiring workplace. The discussion focuses on people, including who should be involved at the outset and how to engage employees from start to finish, while examples of effective constitutions provide guidance toward drafting a document that can actualize an organization's potential.

Culture drives everything that happens in an organization day to day, including focus, priorities, and the treatment of employees and customers. A great culture drives great performance, and can help attract and retain great talent. But a great culture isn't something that evolves naturally. The Culture Engine is a
guide to strategically planning a culture by compiling the company's guiding principles and behaviors into an organizational constitution.

Decide which behaviors and attitudes are desired in the organization. Secure leader commitment to planning, drafting, and implementing the document. Learn the most effective way to socialize the draft statement and get everyone on board. Model desired behaviors to boost employee engagement throughout the process. Organizational culture is not an amorphous thing – it comes down from the top, inspired and exemplified by the leadership. It can steer a company up or down, keep it on mission or force it off-course. For an organization to fulfill its potential, the culture must be on-point, truly reflecting the heart of the company from leaders to team members across the company. The Culture Engine helps leaders define the playing field, pushing performance to the next level.

Source: Gov. Exec, Exec Coach
Southern Indiana Section Officers and Committee Chairs for 2012-2014

Section Website: https://sharepoint.cran.nmci.navy.mil/org/nongov/asne/

Officers:
- Chair - Maroof Qurashi
- Vice Chair - Nova Carden
- Secretary - Tiffany Adams
- Treasurer - Dr. Courtney Boykin

Committee Co-Chairs:
- Programs: Beth Martin & Vernell Thomas
- Membership: Daniel Horstman & Nova Carden
- Publicity: Rachael Wiseman
- Scholarship: Lynn Connors-Smith & Tom Garner
- 2013 Symposium: Dr. Brian Olson & Raymon Smith
- Webmaster: Cindy Shirley
- Science Fair: Melissa Dyal
- Awards: Amy Fellers
- Regional Council Member: Brad Secrest

Why ASNE?

Finally, and perhaps most important, often we get asked the question, "What's in it for me?" when we ask employees to join ASNE. The historical answer has revolved around networking opportunities and the opportunity for technical interchange. While those are certainly true and good reasons for joining, they are not perhaps the most important. One of our members put it very succinctly recently when he said, "It's not about you, it's about Crane". What that means is that we as ASNE can do things for Crane that we as Crane cannot. Vibrant and active professional societies are important to the future of Crane. We are able to leverage our resources to get Crane visibility and recognition. Think of the symposium, the luncheons, the distinguished lecturers; we target individuals for those events who we want to visit Crane. We are continually working with Corporate Communications, Command, and the Departments to target individuals for symposium and luncheon speakers; our goal is to get those individuals who can influence our national advocacy in the Focus Areas here for a visit. We continually work to enhance the reputation of Crane in our outreach efforts to local communities. The next time you’re recruiting a new member and they ask why they should join, explain to them the importance of supporting the work we do.

The Purpose of ASNE is to:
- advance the knowledge and practice of naval engineering in public and private applications and operations,
- enhance the professionalism and well-being of members, and
- promote naval engineering as a career field.

NAVAL ENGINEERING includes all arts and sciences as applied in the research, development, design, construction, operation, maintenance and logistic support of surface and subsurface ships and marine craft, naval maritime auxiliaries, ship related aviation and space systems, combat systems, command control, electronics and ordnance systems, ocean structures and fixed and mobile shore facilities which are used by the naval and other military forces and civilian maritime organizations for the defense and well-being of the Nation.