PRESIDENT’S MESSAGE
HAPPY NEW YEAR!

MEET THE BOARD
JAMES “JIM” KREBS,
PE CCP FAACE

BONUS CONTENT - TECHNICAL ARTICLE
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HOW TO MAKE HARD CHOICES

Outside the Box will be a standing column designed to introduce new ideas and concepts from other resources and professions that may help stimulate a new way of thinking about total cost management. The views and opinions expressed are those of the authors and do not necessarily reflect the official policy or position of AACE International. We invite Source readers to send suggestions on other sources to editor@aacei.org.

CLICK to watch Ruth Chang talk about “How to Make Hard Choices” presented by TED.

Here’s a talk that could literally change your life. Which career should I pursue? Should I break up — or get married?! Where should I live? Big decisions like these can be agonizingly difficult. But that’s because we think about them the wrong way, says philosopher Ruth Chang. She offers a powerful new framework for shaping who we truly are.

When Ruth Chang graduated from college, she was presented with a choice: Should she pursue a career in philosophy, or a career in law? Soon after finishing Harvard Law School and dipping her toe in the legal world, she regretted her decision and switched paths. She went off to Oxford University to study philosophy and has been a philosopher studying choice, freedom, value and action ever since.
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I wish you all a Happy New Year and I am looking forward to the changes that the coming new year will bring. Beginning in January, my term as AACE President is 50 percent complete. What a tremendous honor to serve as your President. I am grateful for the opportunity to be meeting fantastic individuals from around the world who are passionate in their service to AACE International. I am well on my way to meeting my objective of visiting each AACE region in the world.

The Calgary Section Board of Directors was gracious to host the AACE Fall Board of Directors meeting. It was wonderful to visit with the largest AACE section in the world.

My calendar for my first six months as AACE President has been busy. Here is a list of activities I have participated in from September to December:

- **Region 1**—Spoke to the AACE Conoco Philips Project Controls staff in Calgary, Canada.
- **Region 1**—Presented at the Calgary Section meeting.
- **Region 1**—Spoke at the University of Calgary, as part of efforts to revive the UC Student Section.
- **Region 1**—Successfully conducted the fall AACE Board meeting in Calgary, Canada.
- **Region 1**—Visited with Enbridge Project Controls staff, Edmonton, Canada.
- **Region 1**—Spoke at the Aurora Edmonton Section meeting.
- **Region 3**—Spoke at a North Florida Section event.
• Region 4—Attended the AACE Certification Board meeting in Morgantown, West Virginia.
• Region 6—Visited the Southern California Section.
• Region 6—Executed a cooperative agreement with the Dispute Review Board Foundation - San Francisco.
• Region 7—Met with the United Arab Emirates Section Board.
• Region 7—Spoke at the Society of Engineers Tunneling Conference in Dubai, UAE.
• Region 7—Spoke at Heriot Watt University, Dubai UAE, and launched a student section.
• Region 7—Spoke at an Arabian Gulf Coast Section event and honored Madhu Pillai as an AACE Fellow.
• Region 7—Spoke at the launch of the Doha, Qatar Section.
• Region 8—Spoke at an AACE Chennai India Section event.
• Region 8—Spoke at a PMI Chennai India Chapter event.
• Region 8—Executed a cooperative agreement with the Shanghai Construction Development Association.
• Region 8—Met with the Shanghai Airport and Metro executives, Shanghai, China.
• Region 8—Spoke at the Shanghai Young Professionals meeting.
• Region 10—Spoke at the Brazil Cost Management Conference in Sao Paulo.
• Region 10—Met with Petrobras executives, Rio De Janeiro, Brazil.

Amazing to accomplish 22 activities over six months! Wow! The next few months will involve focusing on regional meetings. I am passionate in my belief that regional meetings are the key to increased global recognition for AACE. I have been active most of the past decade in orchestrating regional events. These events represent new and innovative ways to further the goals of AACE International to augment the very successful Annual Meeting. Regional meetings provide a unique opportunity to network with key decision makers for local and major capital project delivery organizations within your respective region. As these meetings continue to grow, so does the value add of the association and its presence in the industry.

Regional meetings are generally modeled after AACE International’s highly successful Annual Meeting, but are planned and hosted by one or more AACE International sections as opposed to AACE International headquarters. Regional meetings are meant to provide a localized forum for learning, networking, and fun.

AACE Peru held their 3rd Regional Cost Symposium in Lima Peru at El Pardo Doubletree Hotel in October 2015. Almost 200 professionals from across the country attended the regional event with six technical speakers from five different countries. AACE Brazil held their 3rd Regional Cost Symposium at the Cultural Ciragran in Sao Paulo in November 2015. The international event attracted professionals from multiple states across Brazil and offered two days of technical presentations by cost engineering industry experts. I was especially pleased the event also offered a construction site tour of Sao Paulo metro subway. Event timing was especially crucial given the economy where an increased transparency into capital program costs is necessary.

A regional meeting best practice guide was created in 2013, as means to encourage regional meetings around the world. The guide covers planning and execution of activities for those interested in planning and hosting a regional meeting. The practice guide is based on the experience of individuals responsible for planning and hosting AACE International regional meetings from the San Francisco and Southern California sections. If you are interested in learning more about regional meetings, please contact John Haynes at vpregions-na@aacei.org.

The Western Winter Workshop is an annual event that began in 1961 (when AACE International was in its 6th year as an association) and is organized by the San Francisco Bay Area and Southern California Sections of AACE International. The upcoming 2016 WWW event is planned March 3-6, 2016, in Indian Wells near Palm Springs, California. The event offers an innovation collaboration forum, three days and four tracks of the latest in cost engineering, scheduling, estimating, earned value, and forensic claims analysis papers. In addition to the robust
technical program, the event includes a capital management program track where key decision makers from a variety of public agencies on the West Coast discuss their upcoming capital programs, challenges, successes, management philosophies, and needs. New this year, the BMW Performance Center social event is added to the mix, elevating social and business networking like never before! This half day event allows you to experience 425 turbocharged horsepower engines and the legendary BMW M car series. There will be handling in several driving events, capped with an exhilarating Hot Lap with a BMW pro at the wheel! Looking forward to my first time in a race car! For information, refer to www.westernwinterworkshop.com.

The AACE 3rd Annual Northeast Total Cost Management Symposium is scheduled March 24-25, 2016, at the Double Tree Hotel in Valley Forge, Pennsylvania. The event offers two days of technical presentations with the latest in project controls, tools and technologies. There is an innovation collaboration forum panel discussion where industry professionals discuss evolving technologies in BIM, 4D, 5D, 6D, 7D, drones, and more. The event also offers a unique opportunity to network with key decision makers and professionals in the Region.

If you would like to contact our current president with questions or comments about The President's Message please address your e-mail to president@aacei.org. To engage in other discussions, check out AACE International’s Online Forums at www.aacei.org/forums.
ACE Vice President-Administration, James “Jim” Krebs, PE CCP FAACE, believes the main challenge facing AACE is, “finding the most effective way to expand the reach and impact of the association.”

He believes there is a need for AACE to accomplish this challenge because he sees the most critical problem within the total cost management industry as being, “the shortage of properly skilled and trained people.” He says, “AACE has the right technical tools, educational material, and certification program to address this problem. The challenge continues to be finding the most effective way to expand the reach and impact of AACE.”

Krebs became an AACE member in 1986. He says, “I was introduced by my management and supervisors when I first started work. When he says management and supervisors, this includes recent AACE Award of Merit and Lifetime Achievement recipients Tony Werderitsch and Clive Francis. While Krebs is a Professional Engineer, he also sought the Certified Cost Professional (CCP) certification from AACE. He explains, “The first reason I sought certification was encouragement from my management and supervisors, but a close second was to challenge myself to set and accomplish the goal of becoming certified.” Krebs has also been honored by AACE by being awarded the membership grade of being an AACE Fellow.

Recalling his volunteer and elected service with AACE, Krebs notes, “I am very active in the Great Lakes Section, served as Director of Region 4, and now as VP-Administration, to do my small part to help maintain and grow the association.” He adds, “As a consultant, with the opportunity to meet with a wide range of clients, I look for every opportunity to promote AACE International and most specifically the exceptional body of technical and educational material.” He further adds, “As a supervision, I challenge and support ACM staff involvement in AACE activities, technical materials, and certifications.”

While AACE has a wealth of technical material and content that is available to members and new additions are being added frequently, Krebs says, “The Recommended Practices and the Annual Meeting are the two AACE standout products to me.” Explaining this, he says, “The quality of the Recommended Practices, the credentials and experience of the contributors, and the accessibility are unequaled in my experience.” Commenting on AACE’s Annual Meeting, he says, “The Annual Meeting; which provides networking opportunities, training opportunities, diverse experiences, and the chance the build professional relationships, has been a great value to me over the years.”

Krebs is employed with Administrative Controls Management, Inc., where he is a Senior Vice President. He says he was attracted to employment with ACM and has remained because, “The opportunity to work on a variety of projects in a wide range of industries.” He says this is what, “attracted me and continues to interest me.” Krebs educational background includes holding a Bachelor’s degree in Mechanical Engineering from the University of Michigan, and he is a registered Professional Engineer in the state of Michigan.

“The most rewarding part of my job is the opportunity to work with a wide range of people, in many industries, at many levels. Over my career, I was able to work with and learn from skilled trades people, from front line supervisory people, project management people, and company management and executives. Each project
AACE gave me the opportunity to reacquaint with a cousin I had never known. You just don’t know what the next new experience will be with AACE.”

Jim Krebs is shown presenting a technical paper at an AACE Annual Meeting. Krebs has been a frequent presenter at Annual Meetings, as well as an exhibitor with Administrative Controls Management, Inc.

New Direction for Hatch Mott MacDonald

Hatch and Mott MacDonald have announced that the Hatch Mott MacDonald (HMM) joint venture will be separated into two distinct businesses. HMM’s Canada business will become part of Hatch, while HMM’s US business will become part of Mott MacDonald. HMM’s Pipelines business, which operates in both Canada and the US, will also join Mott MacDonald.

Hatch Mott MacDonald was created 20 years ago as a joint venture providing engineering and professional services to the North American infrastructure market. HMM currently serves the transportation, water/wastewater, tunneling, and oil and gas pipelines markets. HMM has grown into a major engineering and infrastructure business, with 3,000 staff and 77 offices throughout the US and Canada.

In addition to the HMM joint venture, both Mott MacDonald and Hatch provide services in various North American sectors outside of HMM’s infrastructure markets. With the joint venture having more than fulfilled its original intent, Mott MacDonald and Hatch agree that the route to achieving their respective global growth ambitions is that they should now move forward as two separate businesses across North America.

Mott MacDonald and Hatch will continue to operate in all sectors throughout North America. The change will enable both companies to focus on all markets and services, offer more expertise to more clients, and provide their staff with greater opportunities. Keith Howells and John Bianchini, the CEOs of Mott MacDonald and Hatch, made the following comment: “At a time of significant renewal in North American infrastructure, this change allows Hatch and Mott MacDonald and the staff of HMM to build and invest in new ways.”

Nick DeNichilo, Hatch Mott MacDonald’s CEO, will continue to lead the Hatch Mott MacDonald business until the company separation is concluded. At that point, DeNichilo will become President and CEO of Mott MacDonald in North America following the separation of Hatch Mott MacDonald into two distinct businesses. Hatch Infrastructure in North America will be led by Michael Schatz, Managing Director of Infrastructure.

These arrangements are expected to be finalized by early 2016.
PEACE
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Celebrating Sixty Years of AACE
Network with your peers!
Including here is the slate of candidates for the 2016 election. Guidelines allow candidates to have posted up to one column of biography and goals/objectives for their respective offices. Annual AACE International elections are conducted electronically from Feb. 1 through 4 p.m. on March 15.

Adding Candidates by Petition
The AACE Bylaws provide the membership the option to petition to add candidates. The Bylaws, Article II, Section 4, reads: “Other nominations for the office of Director, or the office of an Officer of the Association, except for the position of Vice President Technical Board, Vice President Education Board and Vice President Certification Board, may be made by petition signed by at least 20 members in good standing. The petitioner(s) shall be responsible for (a) obtaining in writing the agreement of the nominee to serve if elected, (b) securing the biographical data of the nominee, (c) submitting the petitions, the agreement, and the biographical data to be received by the Vice President-Administration no later than December 15th of each year. Each candidate’s name and biographical data shall be made available to the membership no later than December 31st of each year.”

Campaigning is Prohibited
The Board of Directors recognizes that the professional reputation and experience of candidates for Association office are ample testimony to their qualifications and ability to serve. Further, it is believed that these credentials do not need amplification and that campaigning for office by, or on behalf of, candidates is unnecessary, undesirable, and unprofessional.

After nomination, campaigning is defined as organized oral or written solicitation of votes or support, either by a candidate, or by an individual member or section, on behalf of a candidate. A proven violation of this policy shall be considered as prejudicial to the best interests of the Association and a breach of professional ethics. Such conduct will be subject to disciplinary action as provided for in the Association Bylaws. Further, a proven violation(s) of this policy by an aspirant to office, after due hearing in accord with the Bylaws, shall disqualify said individual from holding Association office.

The AACE International Canons of Ethics also states that, "Members will not campaign, solicit support, or otherwise coerce other cost professionals to support their candidacy or the candidacy of a colleague for elective office in a technical association."

To Vote, Members Must Cast a Ballot Electronically On or Before 4 P.M. Eastern US Time on March 15
Election of officers and directors will be by use of an electronic ballot. The official election ballot for officers will be posted and available to each member and associate member on February 1, 2016.

Members will link to the voting site from the AACE website homepage. Once at the site, members will use their member ID and password to access the ballot and vote. A six digit ID is required. If your AACE ID number does not include six numbers, just add zeros in front of the ID to make it a six digit ID.

Each voter shall properly signify on the ballot the voter’s choice for the various officers. A security feature of the electronic voting system allows members and associate members to vote only once. A voter can print out a receipt that will include an individual verification number as proof of having voted.

For election of Directors-Region(s), these candidates will be listed as a continuing or additional page for members or associate members in the regions electing candidates during the 2016 election. Each voter shall properly signify on the ballot the voter’s choice for the director.

Any member or associate member with questions or other concerns is asked to contact Headquarters for assistance.

Voting will end as of 4 p.m. eastern US time on March 15, 2016. The electronic system will block any voter from casting a ballot after 4 p.m. on March 15, 2016. ◆
Charles E. Bolyard, Jr., CFCC
CCM PSP FAACE

**AACE International Activities:** Charlie joined AACE in 1991, and has remained active for more than 24 years. Twice Past-President of the National Capital Section and remains an active member of the NCS Board. Achieved PSP in 2004, CFCC in 2007, and became a Fellow of AACE in 2010, and he is a Fellow of CMAA. Served on the AACE Board of Directors as Director of Region 2. Active as trainer and certification examination proctor until the initiation of computer-based training. Member of the Certification Board since 2011, Chair of the CFCC committee with responsibility for coordination of graders. Actively participated in the development and approval of the revised Charter for the Certification Board. Promotes active participation in AACE at the section level, as well as international level. Avid proponent of the Certification Program and mentors both young and experienced professionals in the benefits and advantages of attaining certification through AACE. Returned to the BOD as Vice-President of Certification, beginning in 2014, active in Board initiatives: such as strategic planning, member value enhancement, and governance. BS Civil Engineering with over 40 years of experience working for owners, contractors, and consultants on national and international projects. Principal and Chief Executive of construction management consulting firms for over 30 years, providing project controls and expert testimony.

**Goals and Objectives:**
I have always believed in AACE International and in being an active participant at the section and association levels. For AACE to sustain its standing as the premier international association for TCM, that reaches across all major industries globally, we must promote and sustain growth in membership, as well as continue to expand the strength of our very successful technical materials, publications, education and training programs, and professional certifications that are all driven through the Associate Boards. I am committed to continued service to AACE International and, as President, will work to achieve common objectives for the benefit of all AACE members with emphasis on:

- Growth of a diverse membership and member retention.
- Continue the collaboration between Technical, Education and Certification Boards to expand the platforms of offerings to an increasingly internationally diverse membership and professional community.
- Continue the development and distribution of web-based educational and training opportunities.
- Continue the branding and marketing of AACE’s products and certifications to both members and non-members.
- Development of clearly defined objectives that will guide both young and experienced professionals along the path to achieve certifications and career enhancement.

John L. Haynes, PSP

**AACE International Activities:** John is a long time member of AACE having joined as a member and member of the Board of Directors for the San Francisco Bay Area Section in 2002. John joined with cause and purpose to bring back the Western Winter Workshop and reinvigorate the San Francisco Section to a strong and contributing influence for the Bay Area. John is celebrating 14 wonderful and exciting years as Chairman of the workshop. While promoting AACE to the heart of the world of Project Controls, John actively promotes and participates in attracting members, volunteers and sponsors. He was President of the San Francisco Bay Area Section in 2004. He served four years on the AACE Board of Directors as – Director – Region 6 (2010 – 2011), Director – Region 6, (2013-2015), and is the current VP-Regions North America (Acting). John is a Senior Program Manager for Hill International, Inc., with over 32 years in the project controls/project management. He currently works as a Senior Program Manager for Los Angeles World Airports (LAWA). His past projects include Amtrak Acela High Speed Rail, Caltrans/Metropolitan Transportation Commission/Bay Area Toll Authority’s San Francisco-Oakland Bay Bridge, and the BART Earthquake Safety Aerial Structures Retrofit program. John served as a Project Controls Engineer for construction of Civil/Industrial, Water/Wastewater, Information Technology and GSA contracts. He is certified Planning and Scheduling Professional (PSP) since 2005. He is educated at Western Washington University and has a bachelor’s degree in Music from the Musicians Institute.

**Goals and Objectives:**
I am passionate in spreading the word of AACE and illustrating member value. I actively market to the consulting, contracting, public agency, and governmental sectors. My vision is to take AACE to the next level. I envision that public and private industries will use our recommended practices, body of knowledge, and certifications to position AACE for the future. I will accelerate AACE’s ability to retain the capital needed and move forward in our global influence. I will bring academia into AACE where more universities will offer Master’s degrees in Cost Engineering. As Your President, I will make it happen! I will:

- Expand regional conferences and workshops for continued success and ensure the events are offered annually.
- Continue to implement global expansion strategic initiatives to increase the name brand recognition of AACE.
- Engage Professors through sponsored programs and in turn excite the young professionals to join AACE.
- Offer sections around the world best practices and guidance on how to expand regional events.
- Advance the AACE Mentoring Program to benefit membership and position the program for continued growth.
- Continue to foster diversity in the association by offering new approaches to TCM and new technologies.
- Continue to provide accountability and visible measurement of the Board through innovative initiatives.
Christopher W. Carson, CEP  
**AACE International Activities:** Chris is Director of Program & Project Controls for ARCADIS. He has over 40 years of experience in educational, municipal, commercial, industrial, governmental, and residential projects/buildings, as well as infrastructure and site work; including projects with complex phasing and stringent time constraint requirements. He has a strong background in all phases of construction management, combined with deep experience in critical path method scheduling, prospective and forensic schedule analysis, cost estimating, and dispute resolution. He has served in all CM and project controls roles, including Superintendent, Estimating, Scheduling, Project Management, and Senior Construction Management and Project Controls Director, working for general contractors/construction managers, as well as consultants. He has been responsible for developing training, standards, and procedures, providing scheduling, estimating, risk, and claims overview and expertise, and business development, as well as taking on analysis, project controls, and expert witness tasks as necessary.

He was selected an AACE Fellow in 2013; recipient of the 2011 Technical Excellence Award; and earned “Best Paper in the Scheduling Track” at the 2006 AACE Annual Meeting. He is a member of the Claims and Dispute Resolution Committee and the Planning and Scheduling Committee. He has authored and peer reviewed AACE Recommended Practices. Chris is married to Deb, with three children and five grandchildren, and has just started writing a book on scheduling.

**Goals and Objectives:**
I look forward to the opportunity to serve as VP of Finance and will work conscientiously to:

- Meet the needs of the stewardship role to develop the annual budget, ensuring that all stakeholders are involved.
- Communicate with membership to implement and evaluate the annual audit.
- Develop and pursue periodic membership and stakeholder surveys, as well as evaluate the results for recommendations to the Board.
- Continue and expand upon the efforts at transparency of operations to the membership.
- Lead the revenue task force to identify and pursue innovative avenues for increased revenues.
- Take the lead to prioritize recommendations for budget distribution for maximum benefits to AACE.
- Support collaboration agreements with other associations for the benefit of AACE and for membership growth.

I appreciate this nomination, and if the membership sees fit to choose me for the role of VP of Finance, will dedicate myself to maintaining the high standards set by the previous Vice Presidents and be a positive force for AACE growth and viability.

Christopher W. Carson, CEP  
**AACE International Activities:** Chris is Director of Program & Project Controls for ARCADIS. He has over 40 years of experience in educational, municipal, commercial, industrial, governmental, and residential projects/buildings, as well as infrastructure and site work; including projects with complex phasing and stringent time constraint requirements. He has a strong background in all phases of construction management, combined with deep experience in critical path method scheduling, prospective and forensic schedule analysis, cost estimating, and dispute resolution. He has served in all CM and project controls roles, including Superintendent, Estimating, Scheduling, Project Management, and Senior Construction Management and Project Controls Director, working for general contractors/construction managers, as well as consultants. He has been responsible for developing training, standards, and procedures, providing scheduling, estimating, risk, and claims overview and expertise, and business development, as well as taking on analysis, project controls, and expert witness tasks as necessary.

He was selected an AACE Fellow in 2013; recipient of the 2011 Technical Excellence Award; and earned “Best Paper in the Scheduling Track” at the 2006 AACE Annual Meeting. He is a member of the Claims and Dispute Resolution Committee and the Planning and Scheduling Committee. He has authored and peer reviewed AACE Recommended Practices. Chris is married to Deb, with three children and five grandchildren, and has just started writing a book on scheduling.

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Cindy L. Hands, CCP  
**AACE International Activities:** Cindy is a Project Controls Manager with more than 25 years experience in the oil and gas and construction industries. Currently employed by Hatch Ltd. in Calgary as the Regional Project Controls Manager for Western North American. Cindy also consults with 3Targets Consulting Inc. to provides project controls training to individuals and companies in the Calgary area. 3Targets is an Approved Education Provider (AEP) of AACE.

Cindy has worked on various multi-billion dollar mega projects and has worked with world-class international engineering and construction contractors. Cindy is a professional civil engineer and has incorporated her technical background into her extensive knowledge of project execution, estimate development, cost management, planning/scheduling and progress measurement. Cindy has a passion for project controls and is very active in the local Chinook-Calgary section of AACE where she has been a board member since 2001 and was president from 2007-2008. Cindy currently sits on the AACE International Board as the Director of Region 1 (Canada).

Over the years Cindy has provided project controls expertise to oil/sands projects in Alberta, as well as offshore oil and gas projects in eastern Canada. At present, Cindy is leading the project controls effort on a large natural gas pipeline project in the northeastern US.

In 2012, Cindy received her Certified Cost Professional (CCP) Accreditation and completed a Masters Degree in Leadership.

Cindy is known for her enthusiasm, quality work, and ability to lead and motivate a team.

**Technical Papers:** “Improved Project Forecasting through a Structured Approach for Capturing Incurred Costs.”

**Goals and Objectives:**
- Oversee and implement best practices on the financial operations of the association.
- Increase the awareness and benefits of AACE and the Certification program.
- Grow the membership of AACE.
- Increase awareness of the AACE Recommended Practices to Cost Professionals and Industry.
- Assist with long-range planning for AACE International.
- Promote corporate membership.
- Promote Project Controls as a ‘must’ for successfully project delivery.
- Promote Project Controls as a career choice.
- Educate and mentor young professionals in the area of Project Controls.
Pranab Kumar Deb, PSP

**AACE International Activities:** Pranab is a project controls professional with 13 plus years of experience in construction project management, including oil & gas, energy, commercial and heavy civil. He has been an active member of AACE International since June 2009. Initially he volunteered proctoring exams and making arrangement for section meetings. He has served the UAE Section as VP Membership and Marketing and as a member of the marketing team for the International Total Cost Management Conference held in 2012 in Dubai, UAE. In 2013, he moved to Edmonton, Canada, to work on a major refinery project just north of Edmonton as a senior scheduler. In 2015-2016, Pranab was elected as the President of the Aurora Edmonton Section. He is also part of AACE Mentoring Success advisory committee. Pranab is a Civil Engineer by education and holds the PSP credential from AACE and PMP from PMI. He is in the process of registering with the Association for Professional Engineers Alberta and is enrolled as an examinee candidate.

**Goals and Objectives:**
I will support all the grassroots efforts of the Sections that eventually contribute to the overall growth of AACE.

- Improve communications between AACE leadership/headquarters and the leaders of various sections in the Region.
- Support efforts of the Sections in arranging joint meeting opportunities with other professional associations.
- Organize and arrange at least a few webinars for the region as a value addition to the membership.
- Create a pool of subject matter experts in project controls, planning, scheduling, estimating, cost control, etc., who can be contacted with specific queries. The SMEs would be listed in either a region based portal or section portal.
- Support, help, and recognize sections organizing certification/education workshops and regular monthly meetings with speakers. Create a pool of speakers in the region.
- Solicit section volunteers for AACE committee and board service and encourage Annual Meeting attendance and plan to make the AACE experience, a rewarding one for every member from each section in the region. Thus, increasing existing member’s retention.
- Spread the word/Nominate members from the region for various AACE awards and the scholarship program.
- Assist struggling or inactive sections with support and advice from other well performing sections in the region.
- Increase awareness of AACE certifications through advertisement, networking with recruiters, and presentations to technical colleges and universities in the area.
- Promote technical activity within the Region through encouraging more member participation at regional and association level workshops and conferences.
- Use social media extensively to enhance member communication, advertisement of AACE events, and broadcast the value of AACE membership; including Recommended Practices, our mentoring service, scholarships, etc.

Les McMullan, FAACE

**AACE International Activities:** Les has been an AACE member and advocate throughout his career with close to 35 years experience in project controls and project management. He is a graduate of McGill University and has often been invited as a guest lecturer at Montreal universities. Les attributes the knowledge attained from AACE as a key factor for a successful career. He has worked in various industries including oil and gas, mining and metals, pulp and paper and energy and held senior project controls roles on international projects, as well as corporate management positions in project controls and risk management for both consultant and owner organizations. In his role as Global Director, Project Controls at Hatch, Les is responsible for worldwide oversight of project controls and has extensive experience interfacing and providing leadership to regional groups. He is dedicated to promoting skills and knowledge to develop the current/next generation of estimating and cost/schedule professionals.

**Goals and Objectives:**

- Establish strong lines of communication with all sections in the region to understand their current needs, initiatives, opportunities and future plans.
- Increase membership by working closely with the regions to enhance awareness of career opportunities and the benefits/advantages of AACE membership.
- Create a region site to keep in touch with and share with the sections across Canada.
- Organize group meetings in addition to individual calls with the Section leads to keep all informed.
- Assist in the coordination of visiting speakers between sections and cities for technical meetings.
- Work with sections to boost certification and enhance cert training offerings across the region.
- Interface with student sections and create greater awareness at the college/university level while seeking opportunities to set up new student sections.
- Encourage AACE section and corporate participation at the Annual Meeting, as well as the promotion of Section city locations for future annual meetings.
- Foster cooperation between the AACE Sections and other professional associations to fill learning and training requirements for their recertification.

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**DIRECTOR-REGION 1 - VOTE FOR ONE OF TWO**
Patrick M. Kelly, PE PSP

AACE International Activities: Patrick Kelly is an Associate Director in Navigant’s Global Construction Practice, and has more than nineteen years’ construction-related experience, including construction management, contracting, project controls, CPM scheduling, earned value analysis, forensic schedule analysis for delay and disruption, and claims & disputes resolution. In his career, Mr. Kelly has been a US Navy Surface Warfare Officer, a Navy Civil Engineer Corps Officer, a Contract & Construction Manager, a Scheduler & Project Controls Manager, and a Construction Claims Analyst. During his career in construction, Mr. Kelly has relied on the superior papers and Recommended Practices developed by AACE. As a result, he joined in 2007, and earned his certification as a Planning and Scheduling Professional in 2008. Since then, he has been actively involved in AACE, by submitting papers for publication in the Cost Engineering journal and presentation at the Annual Meetings. Additionally, Mr. Kelly has held the chair of the Claims and Disputes Resolution Technical Subcommittee for the last three years. His deep respect for AACE’s mission and superior technical content drives him to continue to seek ways to serve the organization and further its goals.

Goals and Objectives:
If elected, Mr. Kelly intends to facilitate growth and professional development among cost engineering professionals in the region by:

- Building upon the momentum created by my predecessor.
- Improving communications between the AACE leadership and the leaders of various sections in the region.
- Working with the sections to understand the results of the recent membership surveys and task forces, in order to leverage that knowledge into increased active membership.
- Listening to the local members to hear their needs and desires from AACE, and coordinating with the sections to implement new ideas that will sustain membership.
- Assisting struggling or inactive sections to become reinvigorated.
- Supporting the sections in arranging joint meetings with other professional associations/societies within the region.
- Educating college students in the region about the benefits of a career in cost engineering.
- Working with sections to encourage members to become active in the Annual Meetings, and working with them to assist in the development of good paper topics and presentations.

Omoniyi (Niyi) Ladipo, CCP EVP

AACE International Activities: Niyi has been an active member of AACE since 2005. She has been a Certified Cost Professional since 2007, and an Earned Value Professional since 2010. She has served in the following positions with the National Capital Section: 2009/2010: Section Secretary; 2010/2011: Section Secretary; 2011/2012: Section President; 2012/2013: Section President; 2013/2014: Section Past President; and 2014/2016: Section Board Director.

She was presented by AACE with the award for Outstanding Woman in Project Controls in 2010. Niyi was instrumental in the organization of a select group of Washington DC Metro area middle school and high school science, technology, engineering, and math (STEM) students and their teachers, who were invited to attend a full day of events at the 2013 Annual Meeting, including the keynote address and visiting the exhibit areas.

Niyi is a Senior Project Manager for MBP, a multi-disciplined consulting firm that provides a broad range of professional services designed to mitigate risk and optimize value within the built environment. She has more than 28 years of experience in providing construction and project management, is a leader in cost estimating, cost management and control, and earned value management. Currently, she is actively involved in two high profile projects, the Dulles Corridor Metrorail’s Silver Line and the Architect of the Capitol’s Cannon House Office Building Renewal.

Niyi had authored papers, presented at an AACE Annual Meeting, at AACE Region 2 Symposia, at AACE Region 2 Symposia, and at other professional association conferences on topics relating to earned value management (EVM) and schedule reviews in construction. Niyi earned her Bachelor’s degree in Civil Engineering from the University of Maryland, College Park, and her Master’s degree in Construction Management and Economics from the University of Greenwich, London.

Goals and Objectives:
As Region 2 Director, she will:

- Work closely with the VP Regions and others on the Board of Directors to implement the new AACE goals and objectives to be adopted in Spring 2016.
- Review current goals for Region 2 with the predecessor and enhance the goals in alignment with the AACE Spring 2016 goals and objectives.
- Improve current outreach to future AACE membership through expansion of collaboration between Sections and universities and colleges of higher education, and through professional development and scholarship opportunities.
- Support all Region 2 Sections in their efforts to improve membership participation and growth. She believes the “Section Leadership Ideas Exchange Report”, developed by herself and other section leaders during the 2015 Annual Meeting, will serve as a very useful tool for this goal.
Husain Ali Al-Omani, CCP CEP
DRMP EVP PSP

**AACE International Activities:** Husain has been an active member of AACE International since 2010. He served as Director of Marketing with the Arabian Gulf Section in 2012 – 2013, VP of Marketing in 2013-2014, President Elect in 2014-2015, and is currently the President of the Arabian Gulf Section. Currently, Husain is a General Manager with GTSC. He has over 10 years of project management, project controls, and construction experience; including planning, scheduling, estimating, cost controls, and administrative services. He is a Mechanical Engineering graduate (BS), with double post-graduation in Construction Engineering and Management (CEM) and Management Business Administration (MBA). He holds ten professional certifications: Certified Cost Professional (CCP), Certified Internal Auditor (CIA), Certified Estimating Professional (CEP), Certified Earned Value Professional (EVP), Certified Six Sigma Black Belt (ASQ-CSSBB), Certified Project Management Professional (PMP), Certified Planning and Scheduling Professional (PSP), Certified Risk Management Professional (PMI-RMP), Certified P ROjects IN Controlled Environments (PRINCE2), Certified Decision and Risk Management Professional (DRMP).

**Goals and Objectives:**
Region 7 is one of the largest regions and is key to AACE growth. In the Middle East there are countries like Saudi Arabia, Qatar, UAE, and others which have huge potential. I plan to raise awareness about AACE activities, certifications, technical resources, and networking opportunities.

My goals are:

- Support Region 7 in growing 15-20 percent increases in the number of AACE members.
- Establish and maintain close communication with all sections of Region 7.
- Continue the growth of AACE by encouraging more activities and knowledge sharing through conferences, events, and seminars.
- Develop international membership growth in the areas of the Middle East where several mega projects are currently being built. These areas possess an excellent opportunity for AACE growth.
- Support board operations through regular meetings and established feedback.
- Focus on certification’s understanding and its value in the job market.
- Focus on credentialing understanding and its value worldwide.
- Promote AACE at universities, training institutes, international banks, local and multinational corporations, governmental agencies, etc.

Maged Sayed El-Hawary, CCP EVP PSP

**AACE International Activities:** Maged has more than 17 years of experience in the field of Construction Industry at GCC& North Africa.

His activities include:

- Guest Lecturer- Heriot Watt University- Construction Financial Management/Project Management Theory and Practice.
- President (Elected Volunteer) – UAE Section, June-2014 to present.
- Vice President- Technical (Elected Volunteer) – UAE Section June-2012 to May-2014.
- Technical Director – UAE Section, 2008 to 2010.
- 1998: Bsc. in Civil Engineering- Cairo University- Egypt.
- 2013: Msc. in Construction Project Management – Heriot Watt University - UK.
- Project Management Professional (PMP) -PMI/USA.
- Certified Cost Professional (CCP) - AACE International.
- Planning & Scheduling Professional (PSP) - AACE International.
- Earned Value Professional (EVP) - AACE International.
- Registered Expert for- CRCICA- Egypt.
- Associate Member- CIarb.
- Team leader of the year- 1st UAE PM conference- SOE-2015.
- Recipient of the Charles V. Keane Distinguished Service Award-AACE International -2014.

**Goals and Objectives:**

- Promote AACE International name and activities among the region.
- Strengthening of the existing sections.
- Improve the link between Region 7 sections.
- Increase the membership numbers.
- Improve the interaction between AACE International and the industry professionals.
- Open new links between AACE International and other professional communities/universities.
- Promote AACE International’s different certifications.
- Gather the quarterly reports from the different sections within Region 7.
Garvan G. McCann

AACE International Activities: Garvan, originally from Drogheda, Ireland, trained as an electrical engineer and quantity surveyor. Garvan has spent more than 29 years specializing in the technical, contract and cost management of electrical and instrumentation industrial projects in the petrochemical, mining, pulp and paper, brewery, float glass, power and rail industries. Since 1988, Garvan has spent the majority of his career working internationally in countries such as Australia, Luxembourg, Belgium, Holland, France, before finally settling in South Africa.

Garvan started his career in 1986 with M.F. Kent, an electrical and instrument engineering and construction company, and after transferring to South Africa in 1988 continued with companies such as: Turner and Townsend, B.E.Morgan & Associates, Macanna Construction Cost Management, Alstom and Gibela Rail Transport Consortium. Garvan is head of contract management for Gibela, a South African joint venture lead by Alstom. Gibela, whose name is derived from the Nguni word which means ‘go aboard’, was specifically formed to replace South Africa’s outdated rolling stock, by delivering 600 new passenger trains into the South African rail network over the next 10 years, and to provide technical support in relation to the maintenance of the new rolling stock.

Garvan first became a member of the Cost Engineering Association of Southern Africa (CEASA), the Southern African Section of AACE, in 1992, and has served as a board member, including two terms as President of the South African Section. Garvan currently serves as the Region 9 Director (2014-2016) for AACE and has seen a continued growth in interest throughout the region for receiving training in order to obtain an AACE certification, which continues to be the accepted benchmark for project controls professionals.

Goals and Objectives:
Garvan’s goals are to continue to promote awareness of AACE certifications, to increase communications between the AACE and its sections, and to promote growth and continued professional development. Garvan sees the role of Director of Region 9 as ensuring that your association continues to serve you, the valued members, and to support the region’s Section Presidents to:

- Improve communications between the region sections and the AACE by encouraging the use of teleconference meetings and social media platforms.
- Encourage and facilitate communication between each of the region’s sections to share ideas on continued professional development and to expand each of the sections project controls community.
- Promote awareness of the AACE accreditation by identifying the Approved Education Providers, within the locale of each section, and encouraging them to advertise in the respective section newsletters.

Sean T. Regan, CCP CEP

AACE International Activities: Sean has been an active member of AACE International since he joined in 1993.

He is the Chornobyl Section Founder and President 2001 to 2003; Greater Russia Since 2007 to Present – Co Director (Adding Kazakhstan and Ukraine Subsections); Nevada Section President 2008.

Sean was on the Education board from 2003 to 2015: Serving as Chair of Approved Education Providers, Globalization, Seminar in a Box, Scholarships, Study Guides. Led the development of the international scholarship program. Editor and author of EVP Study Guide 1st and 3rd Editions; DRMP Study Guide 1st Edition; Four sections Authorized S&K.

He has presented internationally over 50 times on CCP, S&K Tracks, EVP, CEP, and PSP. Regular attendee of the International Meetings in Moscow, Kazakhstan, Europe, Arabian Gulf, China and the Annual Meeting. He was Co-Chair on the International TCM Conference. First Director of International Marketing from 2007 to 2009. Co-Chair for the Eastern European Task Force 2012 to Present. Lead on Translation of the S&K and TCM into Japanese and Russian.

Sean is a Fellow, a recipient of the OT Zimmerman Founders Award, Certified Cost Professional, Certified Estimating Professional, and EVP Candidate 2015.

Sean is a Senior Project Controls Manager for AECOM in Almaty Kazakhstan. His 30 years of experience spans across numerous sectors from aviation through petro-chemical industries on Government and Commercial projects in 5 continents. A firm believer in the systems and programs are balanced with the AACE principals, as well as Visiting Professor at the USM for 4 years. Sean has a deep family belief and works with his family in international locations that have helped them grow with the experience of the work program.

Goals and Objectives:
As Director for Region-9, I specifically plan to pursue the following initiatives to achieve the objectives for success:

- AACE is the preeminent source of education, process, and procedures for Total Cost Management, to help the sections and region convey this to their employers and peers.
- Work with local industry and universities to make to encourage participation and support, as well as to provide them educational tools. To continue to support and develop the scholarship programs for international students.
- Continue to develop section relationships and support international sections to increase functional operations.
- Work with Universities and Trade Schools to encourage a development of skills and knowledge of cost engineering.
- Continue to develop regional conferences based on proven success programs and seek to have international speakers support sections via webinar and direct presentations multiple task forces with the board to develop translated materials to support educational programs.

◆
Hello,

Jacqueline T. Doyle, PE PSP

**AACE International Activities**: For the past 3 years, Jacqueline has been the Region 4 Director on the AACE Board of Directors. She has also served as the President of the Chicago-Midwest Section. Jacqueline previously served as the Program Committee Chairperson, Vice President, and President for the Chicago Midwest Section.

Jacqueline has been a project controls professional for over 20 years and has led project controls teams on a multibillion dollar school construction programs, new hospital projects, and infrastructure project with construction values in excess of $2B. She has significant strengths in cost and schedule management and owner representative services. Jackie founded her own Consulting Firm, Coordinated Construction Project Control Services LLC in 2010, and currently has over a dozen clients and is managing more than 30 projects in seven states and internationally.

Jackie’s educational background includes a B.S. in Civil Engineering from the University of Illinois at Chicago, and a M.S. in Construction Engineering and Management from the Illinois Institute of Technology. She is also a Registered Professional Engineer in the State of Illinois, a Project Management Professional, a Certified Construction Manager, a Planning & Scheduling Professional, a LEED Accredited Professional, and an Associate Value Specialist. Ms. Doyle is a published author in the American Society of Civil Engineering Journal and has presented papers at the two AACE International Annual Meetings. The professional goal she is currently pursuing is the Earned Value Professional credential.

**Goals and Objectives:**

As VP of Regions for North America, I will leverage my hands-on experience at the local Section level and Regional Director level to work enthusiastically and energetically to increase membership and help guide and strengthen the North American Regional Directors by accomplishing the following:

- Act as a liaison between members and the Board by being accessible and responsive to requests from all RDs.
- Work with each Regional Director to understand their needs and concerns and provide assistance.
- Work with the Regional Directors to expand membership in their Regions and to breathe new life into otherwise inactive sections. I would encourage participation by informing members and non-members of the benefits and potential for learning and networking through AACE.
- Facilitate scheduled teleconferences with Regional Directors to provide for sections to collaborate, share successful programs, and improve inter-section communication.
- Provide and coordinate a pool of speakers available to present interesting professional programs for the region.
- Identify potential Corporate Sponsors and facilitate presentations to them.
- Encourage sections to hold certification workshops and provide them with materials and source documentation.
- Promote attendance at AACE Annual Meetings.

Harrison W. Staley

**AACE International Activities**: Harrison has been a member of AACE since 2013, and is currently the Secretary of the Chicago-Midwest Section. He previously served in roles as the Scholarship and Membership Chairs for the section. Harrison has a bachelor’s degree in General Engineering from the University of Illinois and a master’s degree in Construction Engineering and Management from the Illinois Institute of Technology. In addition, he is a Certified Construction Manager (CCM) through the Construction Manager Certification Institute (CMCI), an independent administrative body of CMAA. Harrison has been a construction management professional for over 20 years and has used project controls in the management of numerous projects that span private and public sectors and include: school, bank, community center, police station, public works, transportation and airport projects. He is currently a group manager and project director for Ardmore Associates, LLC. In the role of group manager, he is responsible for mentoring, developing, and reviewing employees. In the role of project director, he is in charge of design and construction managers presiding over multiple concurrent fast track school projects. Prior to this post, Harrison worked for large international consulting firms and public agencies. Through his experience managing various construction projects, he has come to develop a great respect for project controls. He joined to learn more, surround himself with like-minded professionals, support and help the profession.

**Goals and Objectives:**

- Strengthen the membership in the sections of Region 4 by developing and implementing creative ideas that will attract and retain members. Harrison earned the Excellence in Membership Development Award in 2012, as the President of the Chicago Chapter of CMAA, and will endeavor to bring that experience to AACE.
- Establish more open communication between the sections which will encourage support, comradery, growth and improvement for the sections and the region itself.
- Highlight and promote training and the pursuit of the various certifications that AACE offers.
- Encourage and promote the establishment of new student sections in the region. The chance of students continuing on as full-fledged members of AACE increases dramatically if they were part of student sections while in college.
- Market AACE through creative events and joint events with similar associations.
- Reach out to and visit as many sections in the region as possible. Harrison has seen that the personal touch has dramatic results. People want to know that someone recognizes that they are working hard. Getting familiar and meeting in person is a huge step in that direction.
- Outreach to corporate members in an effort to garner support for increasing membership within Region 4.
- Continue to come up with ideas to promote AACE, support involvement, increase and retain members.

Jacqueline T. Doyle, PE PSP

Harrison W. Staley
TOTAL COST MANAGEMENT is for GIRLS!
(and everyone else.)

“I became a member in 1969, and I’m glad to say that women have been joining AACE International ever since.”

Celebrating Sixty Years of AACE Network with your peers!
“Hold my calls ...

I’ll be at the AACE meeting in Toronto”

Celebrating Sixty Years of AACE

Network with your peers!
In the last Certification Corner article, we discussed accreditation and its importance for the validity of a certification program. In this article, we will expand the validity discussion to include the credibility of our program through the efforts of certification staff.

Valerie Smith, Credentialing Analyst, and Amanda Bliss, Certification Administrator, were both among the first individuals to successfully complete the 2015 Institute for Credentialing Excellence (ICE) Credentialing Specialist Certificate Program.

Certification has become a profession that requires its own unique competencies. The ICE Credentialing Specialist Assessment-based Certificate Program was created to identify the tasks required of a certification professional and the skills and knowledge needed to practice, provide a clear career pathway for individuals who are developing, implementing, and maintaining quality certification programs, and to recognize those who have attained the requisite skills and knowledge.

The program was developed by leading industry experts using sound instructional program design principles. The course topics included:

- Determining the need
- Accreditation standards
- Program operational management
- Policies and procedure
- Psychometrics
- Exam development
- Governance
- Legal issues

After successfully completing the 6-month training, Valerie said, “Earning the Credentialing Specialist certificate brings more credibility to my position as Credentialing Analyst by reinforcing my knowledge of certification and by teaching me more about industry standards and best practices. With elevated under-
standing and knowledge, I am better equipped to assist the certification department to grow and improve and continue to meet the needs of our constituency.”

Amanda similarly stated, “As the Certification Administrator, earning the Credentialing Specialist certificate gives me a better understanding of the knowledge, skills, and tasks required for a career in certification. Through this training I have learned the best in credentialing industry standards and how to apply them in my everyday work. I will also retain this information as a framework for future certification program development and maintenance.”

Through the assessment-based recognition of industry experts, Valerie and Amanda have contributed to elevating the credibility of our certification program and strengthen the confidence in our ability to effectively manage a quality certification program to those we serve.

Additionally, I recently attended the 2015 ICE Exchange in Portland, Oregon, where a plethora of credentialing related workshops were offered dealing with: test development and administration, security, records and data management, business of certification, assessment-based certificate program and marketing and communication.

I was thrilled to be a co-presenter with Ginger Malin, PhD, Executive Vice-President of BadgeCert, for a session titled, “The ABCs of Digital Badging: Understanding the Basic Benefits of Digital Credentialing.” It was exciting to be a part of the program and to represent AACE International as a leader in adopting new emerging technologies for its certification program.

The following highlighted workshops were very interesting, with some worth exploring further for the benefit of AACE’s certification strategic goals:

- Microcredentials: Administrative Bane or Marketing Windfall?
- Use a Reflective Practice Exercise for Relevant Continuing Professional Development.
- Customer Value Redefined: Unlock Hidden Customer Value Using the Business Model Canvas.
- Thinking in New Boxes: Rethinking Certification for the Future.
- Score Reporting: Where Policy Meets Psychometrics.
- Follow the Yellow Brick Road...to an Effective Social Media Strategy.
- Building Brand with Content Marketing.

As you can see, your certification staff are practicing what they preach by staying engaged in their industry and keeping up-to-date in credentialing best practices to include professional certification. We believe the creditability of certification staff is essential to the credibility of each certification designation awarded. The certification staff exists to assist you in achieving and maintaining AACE certification and is committed to remaining credible and well equipped to fulfill this goal.

On behalf of the certification department, we are grateful to have Charity Golden as our Executive Director who values professional development and invests in her staff. We are thankful for a supportive Certification Board who motivates us by their own professionalism and continuing competence. We are fortunate to work with other headquarters’ team members who share their skills, knowledge and talent with us…and make work enjoyable. ◆
Rashmi Vailaya was born and raised in Mumbai, India. Throughout her childhood, Rashmi’s parents inculcated in her the importance of education and supported her decision to enter the field of Civil Engineering. For Rashmi, being a civil engineer means being part of a noble profession, as it gives the opportunity to build something of value for the community at large.

Rashmi’s undergraduate thesis project was ‘Sky Bus Metro’ - a Prototype of India’s First Suspended Railway System. As part of her thesis, she developed a Critical Path Method based schedule, performed site visits and worked on planning and scheduling for the project. With a bachelor’s degree in Civil Engineering (majoring in geo-technical engineering) she joined an international geo-technical consulting engineering firm as an entry level engineer designing retaining walls and gabions. Yet, what intrigued her the most was the construction and project management aspect of it.

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This further fueled Rashmi’s enthusiasm and passion to pursue a master’s degree in the field of Construction Engineering and Project Management. Her parent’s support and encouragement was immense when she decided, almost a decade ago, to travel across the world for higher studies. Rashmi obtained a master’s degree in Construction Engineering and Project Management from Texas A&M University. Studying and working in a different country not only broadened her horizon, but also led her to appreciate the difference in culture. Eventually, Rashmi intends to use the experience gained in the US for her home country, India.

It was at Texas A&M, where Rashmi was exposed to different facets of project controls – such as front end planning, cost management, schedule management, risk analysis and system dynamics. Post-graduation, she moved to Atlanta, GA, where she worked as an estimator with one of the ENR top 400 contractors in the United States. Rashmi got the opportunity to work on a wide range of projects from retail to higher education, K-12 and multifamily. Working for a general contractor, she found the estimating world to be very fast paced, dynamic, and thoroughly enjoyed the challenge and the attention to detail that comes with the job. It was here that she was introduced to AACE International.

Rashmi makes every effort to introduce professionals to AACE International, and highlights the numerous resources available, such as the professional practice guides, the Total Cost Management (TCM®) framework and Cost Engineering Journal to name a few.
For Rashmi, being a Civil engineer means being part of a noble profession, as it gives the opportunity to build something of value for the community at large.

During 2009, Rashmi decided to move to Austin, Texas, on a personal front. The move was difficult primarily for two reasons – economic recession and her work visa status. Both made it very difficult to find a full time position in the construction industry. One thing Rashmi has learned from those times is to ‘Be persistent and never give up’. Despite the challenges, she saw this as an opportunity for personal growth and to broaden her horizons. Rashmi worked as a pro-bono LEED consultant (Leadership in Energy and Environmental Design) for a non-profit in Texas that works on providing sustainable design, planning and development services to low- and moderate-income individuals, families and neighborhoods. One of her projects achieved USGBC LEED Gold!

It was during that time that Rashmi got actively involved with the AACE International Central Texas Section. She attended the monthly section meetings and networked, networked, networked. Rashmi greatly appreciated AACE International for letting her tap into the knowledge provided in the technical presentations and numerous webinars. Rashmi currently serves as the secretary for the Central Texas Section and considers this as an opportunity to pay her dues. She makes every effort to introduce professionals to AACE International, and highlights the numerous resources available, such as the professional practice guides, the Total Cost Management (TCM®) Framework and Cost Engineering journal to name a few. At her current position, where she is establishing procedures for project controls, Rashmi frequently uses the “recommended practices” available through AACE International’s virtual library.

Currently Rashmi works as a project controls manager for the Austin Texas public transit agency - Capital Metropolitan Transportation Authority. She is the project controls manager for Transportation Investment Generating Economic Recovery (TIGER) program for the U.S. Department of Transportation (DOT), and her most recent project is Austin’s first bus rapid transit system. At work, she is constantly in search of best practices and procedures in public sector transportation, and is working with AACE International’s Government and Public Works Chair to revive the Government and Public Works Special Interest Group (SIG).

Prior to AACE International’s introduction of the mentoring program, Rashmi found an informal mentor in AACE President Julie K. Owen, CCP PSP, who not only guided her professionally, but also provided advice on work-life balance. Since then, Rashmi has been formally enrolled in AACE’s mentoring program, and the guidance provided by Marlene Hyde, CCP EVP, and Maureen Wakeland (Vice President, Central Texas Section) has been immense. Rashmi is fortunate to be able to achieve work-life balance with her current employer and with the support of her family. As a working mom of two young children, she is incredibly grateful to the women at AACE International who continue to guide her professionally and personally. Rashmi believes that the professional resources that AACE International offers, along with the mentoring program, continue to be vital to her career development. Her advice to other women is to, “enhance your leadership skills by being actively involved in their local section and develop a network of people that can help you grow.”

Madhu P. Pillai, CCP FAACE, Named A Fellow of AACE International

The AACE Board of Directors on Oct. 17 named Madhu P. Pillai, CCP FAACE, a Fellow of AACE International.

Madhu became a member of AACE International in 2004, and earned his Certified Cost Professional (CCP) designation the same year. He has been a frequent presenter at conferences around the globe, including the 2006 Annual Meeting where his technical paper, “Human Side of Project Management,” was also selected to be included in AACE’s Professional Practice Guide (PPG) #1: Contacts and Claims, 4th Ed.

Madhu has been extremely active with the India Regional Section, where he held the office of President (2006-2008); and the Arabian Gulf Section, where he held the offices of Certification Director (2005-2006), VP Technical (2006-2007), President (2007-2008), and Steering Committee (2010-2013). He currently serves as the Region 1 Deputy Director (2014-2016) for the International Cost Engineering Council.

Madhu is is currently associated with Kentz Engineering International Company Limited (Member of SNC-Lavalin Group), as Projects Director in Saudi Arabia. Madhu has worked tirelessly to serve AACE members, especially outside of North America. He served as the chair of AACE’s International Marketing Committee (2008-2011), chair of the AACE Marketing Advisory Committee (2011-2013). He was the chair of AACE’s first International TCM Conference Planning Committee (2012). Madhu has been elected to and served in a leadership role on AACE’s Board of Directors, as the first Director-Region 7 (2008-2010); and as the first Vice President Regions - International (2014-2015). In addition to being recognized as a fellow of the Institute of Chartered Surveyors (2014) and the Institution of Engineers (India) (2014), Madhu has previously been recognized by AACE International with the O.T. Zimmerman Founder’s Award (2008). Congratulations, Madhu!
Cody Gibson was born and raised in Calgary, Alberta, Canada. Growing up, he was very involved in hockey and his passion for sports continues to this day. This involvement in hockey helped Cody develop the motivation and drive that has led him to where he is today.

While attending the Peter B. Gustavson School of Business at the University of Victoria, in Victoria, British Columbia, Canada, Cody pursued a Bachelor of Commerce in Finance. During his time at the university, in addition to his studies, Cody also gained valuable work experience while completing internships in oil and gas and investment banking. In addition to this, Cody also helped to run an investment club with a few of his university classmates.

Upon completing his university degree, Cody returned to Calgary to work for Suncor Energy, a major Canadian Oil and Gas owner, as a project controls analyst. Cody began his time at Suncor working within the estimating function, on the $13 billion Voyageur Upgrader project. During his time in this role, Cody gained experience in creating direct and indirect capital cost estimates, preparing and reviewing material take-offs, and performing reviews on contractor estimates.

After spending a year working on the Voyageur Upgrader Project, Cody moved on to a new role, working on sustaining projects at Base-plant in Fort McMurray, Alberta, the home to Canada’s oil sands. During his time in this role, Cody gained valuable experience in reporting and contractor audits, while operating as the lead cost analyst for three projects. During one of these audits, Cody found errors in contractor invoice charges that saved Suncor a significant amount of money. Cody spent two years working in the field before returning to Calgary, to work as part of Suncor’s Regional Development Program, which is a program of projects designed to significantly increase Suncor’s production.

Cody Gibson currently works as a cost analyst for ConocoPhillips, based in Calgary, Alberta, Canada. In this role, Cody works on Brownfield and maintenance projects, as well as operational expenditure projects. Cody began working for ConocoPhillips in April of 2015.

Cody currently has his Certified Cost Technician (CCT) certification and is in the process of obtaining both the Certified Cost Professional (CCP) and Planning and Scheduling Professional (PSP) certifications through AACE. He believes that his involvement with AACE has greatly increased his knowledge and skills. Cody says, “pursuing certifications through AACE makes him a very marketable and skilled candidate.”

Speaking as a young professional, Cody says, “Project controls is a rewarding career path as it provides opportunity to work on a wide array of...
Project controls is a rewarding career path as it provides opportunity to work on a wide array of projects, in a variety of functions.

Cody also believes that as companies and shareholders become more cost conscious, there will be more demand for skilled project controls professionals to help achieve predictable project outcomes. Cody offers these words of wisdom to other young professionals, “Mentors have played a huge role in my development. Look for mentors from everywhere you can. Mentors can be official or unofficial. I have learned a great deal from both.”

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**The Three P’s of Powerful Leadership**

David Waits

**Leadership is Not a Position!**

A local newspaper has a daily section allowing companies to recognize employees who have been promoted to leadership positions. The announcement is a nice recognition, but the promotion has very little to do with the leadership effectiveness of the person who received it.

The power of the position and the potential of the leader are maximized only when the leader understands and leverages their performance, presence and profitability.

1. **Performance is simply what you do.** Like it or not, leaders are evaluated by what they get done and get done through others. Leaders are paid to get results. They are not paid for their intentions or mere activity.

**Intensions Matter, Results Rule!**

“I meant to have a discussion with the underperforming team member, but I just haven’t had a chance to talk to them,” says the well-meaning leader. Intentions without actions create nothing. Action—having the talk with the underperformer—that doesn’t produce results is simply activity not productivity. Performance is measured by results.

Performance, measured by results, is the metric of your leadership ability.

2. **Presence is who you are.** You can’t be one type of person and another type of leader! Who you are, in the core of your being, will determine your presence.

When you enter a room, are you noticed? Your position allows you to perform the roles and functions of a leader, but it is your presence that determines your effectiveness. Presence is inferred upon you. Something inferred involves a conclusion. People are concluding, “This person has a dynamic presence about them that makes me want to follow them!”

Are you working as hard on who you are as you are working at the job you do? When you become great at who you are, you become remarkable at what you do! Constantly invest time and money in personal growth.

3. **Profitability is the value you bring to those you lead.**

In the arena of interaction with those you lead, are they better—more profitable themselves—because they are around you? Do you inspire? Do you motivate?

Michael Jordan was arguably the greatest basketball player of all time. His greatness wasn’t only measured by his ability to make baskets and his incredible desire to win, but by making others better. Many of his years in the NBA he was surrounded by, at best, serviceable role players. Yet his presence made others profitable because he brought out the best in his other team members. He helped raise the entire team to a winning, championship level.

Your potential is maximized and your power exploited when you leverage:

- **Your productivity:** your effective actions, not your noble intentions.
- **Your presence:** constantly investing in yourself, stretching and growing to increase the size of your presence.
- **Your profitability:** evaluate yourself by looking to the outcome—is there profitability in your leadership in the bottom line and are people better because they have been influenced by you?

When you maximize the Three P’s—Productivity, Presence, and Profitability—it is likely you will not only show up in the “Progressions” section of your local newspaper, but also make the front page headline as well. If you are not on your newspaper’s front page, you will certainly make the headlines with the most important people in your sphere of influence—those who are following you.

**ABOUT THE AUTHOR:**

David Waits, founder of Waits Consulting Group, Inc., is a highly sought after consultant, speaker and author. As a proven expert in developing powerful initiatives that revolutionize culture, David helps his clients create a thriving organizational environment that facilitates rapid growth, innovative development and on-going profitability. He has worked with clients in all 50 states, including Quest Diagnostics, General Dynamics, Major League Baseball, Walmart, Walt Disney World and numerous other world-class organizations. For more information, visit www.DavidWaits.com.
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AACE Career Center offers:
- Quick and easy job posting
- Quality candidates
- Online reports provide you with job activity statistics
- Simple pricing options

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Since 1956, AACE International has been the leading-edge professional society for project managers, schedulers, cost estimators, cost engineers, and project control specialists. AACE International is the authority for total cost management. Promoting the planning and management of projects, programs, and portfolios, AACE International is the largest organization serving the entire spectrum of project management professionals. AACE International is industry independent, and has members in over 80 countries.

*In order to qualify for this incentive, your company must advertise an employment position with AACE International’s Career Center for at least two months. Once you hire a person for that position, regardless of the source, AACE International will give you the option of either having that new person’s membership paid for the balance of the year or a $150 credit toward the new hire earning his or her AACE International credential. This is non-transferable. Should the person you hire already be a member in the current year, we will extend their membership for another full year. New hires made after October 1 will receive membership benefits for the balance of the current year plus the entire next year. If you are not familiar with the many benefits of being an AACE International member, we invite you to review our online membership presentation at www.aacei.org/mbr/presentation/.
The lean process is an evolving approach to the way we plan and manage building construction projects. It is used to develop detailed short term plans by interactively engaging the cooperation of individuals who are executing the work in the field. It is not intended to replace the value of the Critical Path Method (CPM) schedule, but rather to increase the predictability of the work flow and eliminate waste. Both tools can be used simultaneously without diminishing the benefits of the other. The CPM provides the long term strategic project overview, while the lean process captures the short-interval planning and execution of the upcoming work. The result is increased collaboration, improved efficiency, and unimpeded clarity in the flow of work. Other benefits of implementing lean principles include: a safer project, greater customer satisfaction, better quality work product, reduced project schedule, improved productivity, increased profitability/reduced costs, and better risk management [2].

Principles of Lean

“The lean focus is to understand the difference between value and waste. To increase the value to the customer and eliminate waste” (See Figure 1) [6]. The steps involved are:

- Define value from the customer’s perspective.
- Identify all the steps in the work process to produce customer value and eliminate steps which do not create value.
- Make the work flow without interruptions.
- As flow is established, let customer pull value from the next upstream activity. (i.e., don’t make anything until it is needed and then make it quickly).
- Begin process again and create a culture of continuous improvement (i.e., don’t settle for good, but strive for great).

The Lean Planning and Scheduling Process

The lean process focuses on the efficient use of labor and materials by creating a work flow and eliminating waste. The traditional scheduling process focuses on durations and task relationships to find the minimum time or “critical path” to complete the project. In a lean construction environment, the goal is to eliminate the bottlenecks that can occur in traditional
projects by focusing on the overall goal of the project and not the individual tasks.

The Lean Construction Institute developed and registered the Last Planner System® (LPS) as a tool to aid in the lean planning and scheduling process [4]. The process involves five key steps: module diagram development, phase pull planning, six-week Make Ready Planning (MRP), Weekly Work Planning (WWP), and continuous learning.

- **Kick Off Training:** To kick off the lean planning and scheduling process, it is important to conduct a meeting with the project stakeholders (i.e., superintendents, project managers, subcontractors, and the owner and design team). Topics of discussion should include a broad overview of the principles of lean, as well as a detailed explanation of lean construction and the pull planning process. At the conclusion of the kick off meeting, the next meeting is set up to develop the pull planning schedule for a particular phase of work.

- **Module Diagram Development:** The superintendent develops a module diagram(s) prior to the pull planning session. The modules are structured to break down the work into manageable pieces or areas of work. Work tasks within a module will have a maximum duration from one to three days for optimum work flow. The goal is to allow smooth and stabilized crew flow through the area or floor. An example of a module diagram is found in Figure 2, where the colors identify the separate modules on a building floor plate:

- **Phase Pull Planning Process:** All the team members responsible to execute a specific phase of work will participate in developing the phase pull plan. This is prepared by the team actually responsible for doing the work (usually the trade foreman) and facilitated by either a project team member or consultant if the team is new to the process. The PPS should be developed in a
face-to-face conversation that establishes context, defines the deliverables (the client value), develops an execution strategy, identifies tasks and organizes them in a pulling plan working from the end of the phase back to the beginning. All trades required for delivery of the phase must attend the session. Each trade is provided with colored post-it notes and assigned a different color.

Work items must produce a deliverable defined in terms accepted by the customer. In this case, “customer,” is the next trade in the flow of work. Teams (trades) list task descriptions, location, duration, and crew size on their post-it notes. Tasks should be limited to no greater than three days in duration; therefore, the teams need to consider increasing crew size if the duration is larger than three days. The description of the work item should be specific; rather than just “frame walls,” the description should indicate which specific walls will be framed.

The pull planning process starts with completion milestone of the phase of work from the project CPM schedule. Teams work backwards posting the tasks on a wall, or pull planning board, and work collaboratively to post their tasks in sequence horizontally from right to left, see Figure 3. Teams agree on the hand-off criteria between tasks. Notes posted vertically indicate concurrent tasks. An attempt should be made to establish a work pace that allows each trade to plan their staffing. A steady pace across the phase coupled with the reliable completion of work tasks will produce flow.

The phase pull plan created by the teams generally consists of a single module. The full pull plan is then captured in either a spreadsheet or scheduling software. The full pull plan extends the work flow to show all modules for the specific phase and the staggered start between modules to ultimately determine the total flow and duration of the phase. The phase pull plan is checked to ensure that it fits within the parameters of the project baseline schedule. The desired objective is that the pull plan dates are better than what is in the baseline schedule, but certainly not later. This full pull plan is then used to create six-week MRPs and WWPs.

• **Rolling Six-week Make Ready Plans:** The six-week MRP is derived from the phase pull plan. The tool is a document that tracks all of the constraints to getting work complete in a look ahead format. A constraint is anything that will prevent a task from starting or finishing as scheduled, except prerequisite work. Typical constraints included on the look ahead are material procurement, Request for Information (RFI) answers required and other answers needed to make sure the work can flow uninterrupted.

In order for the six-week MRP to be an effective tool, all parties must be involved in the process. Trade contractors identify constraints in advance of when work is to be done and don’t start work that can not be finished because of known unresolved constraints. Superintendents review the constraint log to ensure trades are doing adequate make ready planning and take appropriate planning action when constraints are not removed as needed by project. Project managers and project engineers manage the constraint process, including the constraint log and obtain reliable commitments from performers for removal of constraints. The architect, engineer, and owner make and keep reliable commitments to remove constraints for which they are the performer.

• **Managing Constraints:** For week one, ensure all tasks scheduled for this week are free and clear of constraints. If the constraints cannot be removed in time for the tasks to proceed free and clear, then determine a work-around plan and
move the constrained work to a subsequent work week. For weeks two through five, review tasks scheduled for these weeks to validate or update information and determine and monitor the plan for eliminating constraints. Constraints should be well on their way for removal in this time-frame. For week six, review the tasks that are beginning and determine the constraints that could affect the work. This includes reviewing the plans, specifications, other construction documents; such as submittals, RFIs, and change documents. Determine if there is any missing information or dimensional clashes that would create a constraint for the week six work. Review if there is any special equipment and/or labor required and facilitate the process of procuring the necessary resources. Determine the status of submittals, approvals, and material deliveries to support the tasks. Identify deliveries that need to be closely monitored in the upcoming weeks. Don’t forget to review any special safety concerns and permitting issues that could develop into a constraint.

- **Weekly Work Plan (WWP):** All work items in the WWP should be derived from the six week MRP and linked to the pull plan. The WWP contains only work items that are ready to be performed. Only tasks in a condition to start and finish on time should be included in the WWP. Assignments on the WWP should be sized for daily completion. The lean principle of small batch production should be followed whenever possible. Inspection tasks should be included in the WWP. Workable backlog should also be included in the WWP.

A WWP meeting is conducted to discuss the planned work for the week, safety precautions, quality concerns, just in time material transport, and location within the building, labor allocation and availability, construction methods, and backlog of ready work. The meeting promotes a two-way conversation to share information on a project in an efficient and accurate way. The meeting determines if planned work has all the proper resources so that it can be done and only commits to performing tasks that can be done. This eliminates a major source of variation in performance and productivity, thus making the ability to predict completion easier. As the work is stabilized, the team can predict when work will be available more in advance and productivity improves.

A daily commitment management meeting is conducted at the end of the day in the field and is attended by the area superintendent, or
someone acting in that capacity. The WWP is reviewed to determine if tasks were completed as promised. Subcontractors report: “Done,” “Not done,” or “Done, but not according to plan” and why. Items of discussion include: What modifications should be made in the future? How does the team prevent reoccurrence? Should the team modify the plan? In this meeting, subcontractors recommit to the coming day’s work or renegotiate a new promise.

- **Performance Measurements:** Built into the pull planning process is a tool that tracks the reliability of commitments by each subcontractor. Each project tracks the Plan Percent Complete (PPC) of the pull plan. The metric tracks the percent of commitments made over the total number of commitments. These percentages are then published in the meeting room for each team member to see and be held accountable to.

\[
\text{Plan Percent Complete (PPC) Metric:} \\
\text{Planned Percent Complete (PPC) = } \frac{\# \text{ of tasks completed}}{\# \text{ of tasks planned for completion}}
\]

### Figure 5 – Planned Percent Complete (PPC) Example

<table>
<thead>
<tr>
<th>Day</th>
<th>#activities</th>
<th># complete</th>
<th>% complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-Nov</td>
<td>2</td>
<td>2</td>
<td>100%</td>
</tr>
<tr>
<td>6-Nov</td>
<td>2</td>
<td>2</td>
<td>100%</td>
</tr>
<tr>
<td>7-Nov</td>
<td>2</td>
<td>2</td>
<td>100%</td>
</tr>
<tr>
<td>8-Nov</td>
<td>1</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>9-Nov</td>
<td>3</td>
<td>1</td>
<td>33%</td>
</tr>
<tr>
<td>10-Nov</td>
<td></td>
<td></td>
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<tr>
<td>11-Nov</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-Nov</td>
<td>4</td>
<td>2</td>
<td>50%</td>
</tr>
<tr>
<td>13-Nov</td>
<td>6</td>
<td>4</td>
<td>67%</td>
</tr>
<tr>
<td>14-Nov</td>
<td>5</td>
<td>2</td>
<td>40%</td>
</tr>
<tr>
<td>15-Nov</td>
<td>4</td>
<td>3</td>
<td>75%</td>
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<tr>
<td>16-Nov</td>
<td>5</td>
<td>3</td>
<td>60%</td>
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<tr>
<td>17-Nov</td>
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<tr>
<td>18-Nov</td>
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<td></td>
<td></td>
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<tr>
<td>19-Nov</td>
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<td>4</td>
<td>50%</td>
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<tr>
<td>20-Nov</td>
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<td>5</td>
<td>45%</td>
</tr>
<tr>
<td>21-Nov</td>
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<td>2</td>
<td>33%</td>
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<tr>
<td>22-Nov</td>
<td></td>
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<tr>
<td>23-Nov</td>
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<td>0</td>
<td>0%</td>
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<tr>
<td>24-Nov</td>
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<tr>
<td>25-Nov</td>
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<tr>
<td>26-Nov</td>
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<td>33%</td>
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<td>4</td>
<td>80%</td>
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<td>28-Nov</td>
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<td>8</td>
<td>89%</td>
</tr>
<tr>
<td>29-Nov</td>
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<td>4</td>
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</tr>
<tr>
<td>30-Nov</td>
<td>5</td>
<td>2</td>
<td>40%</td>
</tr>
</tbody>
</table>

### Figure 6 – Plan-Do-Check-Act (PDCA) Cycle
To be counted as complete, the task must be 100 percent complete. Reasons for non-completion are compiled, reviewed, and actions taken to prevent recurrence. Figure 5 is an example of PPC measurements:

Teams can get to 70 percent PPC without much trouble. High reliability (above 85 percent and increasing) is the goal. The difference in a day on the project will be quite noticeable: firefighting will drop by about 40 percent, work will flow, crews will get ahead of schedule, and safety incidents will disappear. It has been found that “projects using LPS have demonstrated a Planning Reliability (PR) of 85 percent; compare that to traditional projects where PR is around 50 percent” [5].

• **Continuous Learning**: Lessons Learned is a key tool in the Lean process. There is a continual cycle of Plan – Do – Check – Act (PDCA), similar to the AACE® International Basic Total Cost Management® (TCM) Process Model – Plan, Do, Check, Assess (PDCA) (See Figure 6) [1]. As in any manufacturing process, it is important to take what is working and find ways to make it more efficient and it is just as important to take what is not working and eliminate it from the process.

**Lean Planning Case Study—Residence Hall Project**

Lean principles were applied to the interior finish construction of a 21-story university residence hall, which is the first lean project in Boston, Massachusetts. The senior superintendent, who was once a skeptic of the lean planning principles, now promotes the planning system after implementing it on the project.

The project had a traditional detailed CPM schedule which was created by the project team and accepted by the project stakeholders. It was subsequently updated on a monthly basis. The lean planning process was not implemented until one month before the start of the interior building finishes. The project team created a module diagram that would establish a reliable work flow on each floor, see Figure 7. The floor plate was approximately 7,250 square feet. In this case the floor was split up into two modules, with four rooms in each module. One room was left out of the sequence because of the hoist location which rendered comeback work after the hoist removal. The workflow began on floor four and moved sequentially through floor 20.

The project team and subcontractors prepared the pull plan for module one without regard to the durations carried in the baseline schedule. The pull plan for one module was 8.5 weeks from start of drywall to finish paint. This was extended so that module two started five workdays after module one. An entire floor could be

![Module Diagram](image)

*Figure 7 – The Lean Module Set Up at the Resistance Hall Project*
finished within nine weeks by removing all inefficiencies and creating a reliable workflow, see Figure 8. The baseline schedule duration for a floor sequence was 9.5 weeks, so the pull plan was slightly better. The pull plan essentially validated the duration in the baseline schedule.

In reviewing the as-built information, the actual durations to finish a floor started out at 13.8 weeks and continued to improve to finish in eight weeks. It took several floors to get the floor sequence stabilized to obtain a reliable flow. The constraints that initially affected the flow were the delivery of materials and priority of hoist usage to get the materials efficiently to their floor destination. In applying the lean principles, the subcontractors were not permitted to store materials on a floor, since this obstructed the workflow. Materials were delivered to the site and brought up the hoist on a just in time basis.

A tabular and graphical representation of the baseline schedule plan and the actual dates using the lean planning methodology is shown in Figure 9.

![Figure 8 – Pull Plan Schedule for the Residence Hall Project](image)

![Figure 9 – Lean Analysis for the Residence Hall Project](image)
Challenges of Implementing Lean Planning With Traditional Scheduling

Some obstacles associated with the implementation of lean planning in the construction industry that is ingrained in traditional planning methods:

- **Culture Change**—Lean is a complete shift in the way of doing business as usual in the construction industry. Construction has always been about “pushing” the trades through the use of a CPM schedule developed by the general contractor with little or no input from the trades responsible for the work. The lean process involves “pulling” from the trades, giving them responsibility to develop the plan together along with the general contractor, and holding all team members accountable for meeting the plan.

- **Lack of Knowledge, Training, and Experience for All Levels of the Team**—Because the lean process is such a new approach to construction planning, there will inevitably be some roadblocks when the process is first introduced. In the typically conservative construction climate, there may be some initial fear in losing planning control for the superintendents and project managers used to the traditional planning methods. Lean planning tools can also be a hard sell for subcontractors that have been accustomed to working on the same schedules for years. Once they begin implementing the lean concepts into their planning approach, they begin to see and understand the benefits.

- **Lack of Commitment from All Levels of the Team** (from trade foreman to executives)

- **Lack of Accountability**

- **Contracts and Specifications Which are not Suited for the Implementation of Lean Planning Process**—Typically, the contractor must develop a detailed baseline CPM schedule early on which meets contract and scheduling specification requirements. With tight deadlines for submission of this schedule for approval, there is not enough time to involve all the trade contractors in the development of the schedule. Therefore, when the trades are brought on board and become involved in the pull planning sessions, the “detail” of the schedule changes. This can become an issue dependent on how the scheduler handles the incorporation of the pull plan sessions into the detailed contract CPM schedule. Worst case, the scheduler deletes all the activities that were in the baseline schedule and effectively recreates a new schedule each time a pull planning session is conducted. This causes problems for all parties when trying to evaluate progress and analyze impacts compared to the original contract baseline schedule and past monthly progress updates.

- **Coordination Between the CPM Contract Schedule and Lean Planning Schedules**—Milestones established in the baseline CPM schedule are used to create the lean planning schedule. The lean sequences must fit within the controls set up within the baseline CPM schedule. There is still a need for a detailed baseline schedule to establish the duration and sequencing for a project, especially in the case of Guaranteed Maximum Price (GMP) and lump sum contracts. The lean schedule is only a portion or phase of the CPM schedule. It is rather a more detailed schedule through the collaboration of the project stakeholders. The lean planning schedule needs to be checked against the baseline CPM schedule to ensure that the expectations of the contract are met or improved. It is intended to be far more detailed than the CPM schedule. Many CPM scheduling specifications require the activity durations to be less than 15 workdays, whereas the lean planning durations should be less than three days. CPM schedules allow start to start and finish to finish relationships with lags; however, the lean planning schedule only permits the use of finish to start relationships. Finally, the CPM concept of total float is not applicable in the lean planning schedules simply because they are only fragments of the CPM network. The lean schedules are managed by the commitments made to the dates and workflows, rather than the actual mathematical equations that are established in the CPM.

Other challenges in the implementation of lean include lack of sufficient support across the project team, perception that lean is too complex, employee resistance, lack of industry support/understanding of lean, perception that lean will take up too much time, lack of standards, concerns about profitability through the transition to lean, and union resistance [2].

Lean Implementation Lessons Learned

Suggestions on the successful implementation of the Lean process include:

- **Commitment**: A company just starting out in the implementation of lean needs commitment from the executive level to provide the resources needed for the implementation and willingness to change the traditional way of doing business.

- **Champions**: There must be champions within the organization to implement the lean principles. “Whether it was a top-down or bottom-up approach to initiating the pursuit of lean, all contractors generally recognize that field workers need to champion the cause for it to be effective” [2].

- **Training**: A key to the successful implementation of the lean process is training all team members in the key principles and steps of the lean planning and scheduling process. It is extremely helpful to hire a consultant experienced in the lean process to provide training and assist in facilitating pull planning sessions until the team itself gains more experience.

- **Accountability**: All team members must be held accountable for their role in the lean process.

- **Contracts**: Lean is well suited for Integrated Project Delivery (IPD) and design-build projects where many
members of the team are brought together early on in the project. If the owner wants the contractor to use the lean process on a project it should be stated in the Request for Proposal (RFP), contract and specifications. If the general contractor intends to use lean principles on the project, it should also be stated in the instructions to bidders and subcontractor agreements.

- **Coordination Between the Contract CPM Schedule and the Lean Schedules**: The CPM schedule should be the basis for developing the pull plans. As mentioned earlier, the pull planning process starts with completion milestone of the phase of work from the project baseline schedule. The pull plans are the basis for developing the six-week MRPs. The six-week make ready plans are the basis for developing the WWP. Each of these documents must be coordinated with each other.

**Conclusion**

The lean process is an evolving approach to the way we plan and manage building construction projects. The lean planning tools, including module diagram development, phase pull plans, six-week MRPs, and WWP are used in conjunction with the CPM schedule to make the installation of the work more predictable and reliable with less waste. Lean performance metrics using planned percent complete are simple but effective in generating continuous improvement with project subcontractors. The implementation of lean planning on pilot projects has shown increased collaboration between subcontractors, improved efficiency in performing their work, and improved predictability in completing the work as planned. The lean process has created a new mindset and culture with lean planning principles. Similar to the case study mentioned above, teams implementing lean principles have shaved weeks off their schedules. “We learned we can deliver projects much faster if the right people are involved with planning at the right level of detail at the right time—all it requires is a change in the way we plan and how we communicate it”[3].

**REFERENCES**

4. Lean Construction Institute, *www.leanconstruction.org*. 

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For more information go to www.aacei.org

*Previously known as the Certified Cost Consultant/Certified Cost Engineer
Question: How did you first learn about AACE?

Answer: I first learned about AACE in 2014. At the time I was looking to make a career change and began reaching out to and speaking with people who work in cost engineering. It was through one of these individuals that I learned about AACE. They encouraged me to join AACE, suggested a few recommended practices to start reading, and suggested I attend the annual conference (which I did).

Question: What is the greatest benefit you receive from being a member of AACE?

Answer: There are a few benefits that come to mind. Since I am still new to the industry, being able to access knowledge at my fingertips has been huge benefit. I truly believe that without Skills & Knowledge of Cost Engineering 5th Edition, Recommended Practices, Cost Engineering Journal, and Source, I would not have had the opportunity to learn so much in such a short amount of time. Attending the annual conference and being active in the local section has not only allowed me networking opportunities, but it has allowed me to meet many people that are open to sharing their personal knowledge.

Question: Who are you employed with, what is your job, what do you do in this position, and what attracted you to this job?

Answer: I am employed by Columbia Pipeline Group and am currently an Associate Scheduler for Columbia Midstream. In this position I use Primavera P6 and work closely with the project team to keep projects on time, on budget, and manage risk. What attracted me to this job was the opportunity to continue to grow my skillset, be challenged, and be part of a project team.

Question: Was there a defining moment in your life that made you decide to take the direction in life that you have taken?

Answer: Yes, it would be the moment I realized I needed to completely change my career direction. I liked what I was doing, but the lack of growth and challenge prevented me from truly enjoying that path.
Question:
Who most influenced your career direction? Do you have a personal mentor?

Answer:
I would have to say my father is the person who most influenced my career direction. It was he that told me that I might enjoy a career in cost engineering and he was right! I currently do not have a personal mentor, but I have a group of people I have met through work and AACE that help mentor me on multiple aspects of my career.

Question:
Do you have any advice for young professionals that are interested in a career similar to yours?

Answer:
It would be some of the advice I have received over the years:

- Push yourself to develop a broad knowledge base, continue learning, stay challenged, and set goals.
- Keep a positive attitude and your integrity.
- Join AACE and be an active member.

Question:
Does AACE help you do your job better?

Answer:
Yes of course! The access to written documents and members has been critical to my success.

Question:
What words come to mind when you think of AACE’s brand?

Answer:
Cost Engineering, Professional, Premier Knowledge Center, and Total Cost Management

Question:
What keeps you up at night as a professional?

Answer:
Great question! I would have to say the lack of understanding of why cost engineering is critical for a project’s success.

Question:
What things could AACE do to make those things that keep you up at night easier to deal with?

Answer:
I am not quite sure but having a strong local section along with a website that makes it easy to access and find documents for reference. AACE has a lot of resources one can share with people who want to learn a little more about cost engineering.

---

2015 Salary and Demographic Survey Underway

If you haven’t already done so, AACE strongly encourages you to take a few minutes to complete the 2015 Salary & Demographic Survey of Project & Cost Professionals—your participation is VERY important!

The purpose of the survey is to enable project and cost professionals in different locations, industries, and work functions to compare their salaries, and to provide employers with information on prevailing wage rates among these professionals.

You can take the survey here:
www.aacei.org/resources/salary/takeSalarySurvey.shtml

The survey is open until December 31, 2015.

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In today’s complex, litigation-prone business environment, individuals with the proven capability to assess risk and guide organizations to the best decision possible are in high demand. AACE International’s new Decision and Risk Management Professional™ (DRMP™) certification program establishes credentials that recognize professional expertise, skills and knowledge in the decision and risk management area of practice within cost engineering.

If you desire to be recognized for strong skills and knowledge in decision and risk management as it relates to project management, the DRMP certification was made for you.

Candidates may include but are not limited to risk managers, decision and risk management consultants, capital program managers or planners, project managers, value engineers and any cost engineering professionals focusing on asset and project decision and risk management.

Skills and knowledge range from analytical (e.g., statistics and modeling) to socio/psychological (e.g., risk elicitation and communication) to management (e.g. risk response planning and management).

For more information about the new AACE International DRMP certification, go to www.aacei.org/cert/DRMP/
COMP is a comprehensive package of benefits designed to encourage companies to develop the skills of their total cost management employees through AACE membership.

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UPCOMING AACE ANNUAL MEETINGS

- **2016 Annual Meeting - June 26 - 29**
  Sheraton Centre      Toronto, Ontario, Canada
- **2017 Annual Meeting - June 11 - 14**
  Hyatt Regency      Orlando, Florida, USA
- **2018 Annual Meeting - June 24 - 27**
  Manchester Grand Hyatt      San Diego, California, USA
- **2019 Annual Meeting - June 16 - 19**
  Sheraton      New Orleans, Louisiana, USA
Arizona Section

The Arizona Section’s first Board meeting of the 2015-2016 calendar year was at Kitchell’s office in Phoenix on August 20. The meeting began with the welcoming of two new board members: James Oswell, CCP, as director academics and Brianna Lee, as director programming. Topics discussed by board members included: board member’s roles and responsibilities for the upcoming calendar year, the CON 483 Advanced Building Estimating class being taught this fall at Arizona State University, academic outreach and scholarships, and the scheduling of technical speakers for the 2015 and 2016 year.

Arizona Section members have been participating in the teaching of the CON486 Advanced Building Estimating class at Arizona State University this fall semester. This is the third year in a row that Arizona Section members, or a member, has taught the class. Director Academics, James Oswell, CCP, agreed to instruct the class, which started in September. At the time of the board meeting, the class was completely enrolled with 27 undergraduate and 13 graduate students.

The Arizona Section Board members also discussed upcoming technical meetings for the 2015-2016 calendar year. The Arizona Section is currently looking for technical speaker for the upcoming year to give presentations on cost engineering subjects. The Board discussed possible speakers, as well as methods of reaching out to cost engineering professionals to locate those interested in presenting at an Arizona Section technical meeting. Also suggested was contacting professional organization with similar interests to gauge their interest in holding joint meetings in the near future. Recommended professional organizations to contact concerning joint meetings included the American Society of Professional Estimators (ASPE) and the Construction Management Association of American (CMAA).

Atlanta Area Section

The Atlanta Area Section’s November meeting on Tuesday, Nov. 17, featured a presentation on construction contracts by construction attorney, Nicholas Papleacos, of Chamberlain, Hrdlicka, White, Williams & Aughty, a national law firm with a diversified practice which includes construction law.

Section Scholarship Director Mark Cundiff, PSP, announced that the section’s 2015 scholarship would be presented at the Georgia Engineering Foundation dinner on Thursday, Nov. 19, and Cundiff encouraged section members to attend.

Aurora Edmonton Section

At the dinner meeting on Sept. 16, Dr. Sami Fahmy completed a presentation on, “Building Stronger Teams through Conflict Reduction” for the Aurora Edmonton Section.

Dr. Sami Fahmy is past president of the Aurora Edmonton Section, as well as the past president of PMI-Edmonton Chapter. He is the founder and president of Performance Excellence Institute, a project management consulting and training firm focusing on project management and communication skills, training, and development. Dr. Fahmy is a professional engineer, has more than 45 years of project management practical experience covering a wide range of project management and technical areas. Dr. Fahmy has extensive experience as a professor and instructor. He is presently teaching several project management courses at the University of Alberta. Courses include Engineering Project Management, Project Risk Management, and Interpersonal Communication Skills for Project Managers. Dr. Fahmy developed a unique interactive approach for delivering his workshops. His depth of practical experience and enthusiasm for teaching makes all his courses and workshops very informative, interesting, and entertaining learning experience for all participants.
His presentation was on building stronger teams through conflict reduction. The presentation abstract asks: Is team conflict good or bad? This will depend on how you perceive it. We know that conflict is inevitable in a team environment. We also know it is challenging for both the project manager and the team members. The question is do you know how to prevent most common conflicts that come up as you work together? Knowing how to reduce and resolve conflicts is a great skill for project managers and team members. The best way to handle conflicts, says Dr. Sami Fahmy is to prevent them. In fact it is easy to prevent, a large number of conflicts that traditionally come up in teams by using few simple tools and techniques.

At the completion of the session by Dr. Fahmy, participants were able to: define conflict in a project environment; identify causes of conflict; list some ways where conflict may arise; and, explain different ways to reduce conflicts.

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**East Tennessee Section**

East Tennessee’s September 24 lunch hour section meeting was at the Golden Oak Grill Buffet in Oak Ridge, TN. The guest speaker was David Headrick, executive and project manager for LandAir Surveying Company, Inc., Roswell, GA, www.landairsurveying.com.

Mr. Headrick presented a 30-minute eye-opening demonstration that showed how 3D laser scanning and modeling is fast becoming an industry standard in design and construction. He
went into detail, showing how 3D laser scanners collect extremely detailed and accurate 3D as-built information. That data can then be used as a basis for Building Information Modeling (BIM) and Virtual Design and Construction (VDC). David’s slide presentation of recently completed LandAir Surveying projects showed the wide breadth of applications to which this technology can be applied.

He finished the presentation by touching on how technological advances allow service providers to capture and model in any environment, from small mechanical rooms to massive manufacturing, processing facilities, and site work.

- **Houston Gulf Coast Section**

  The October meeting of the Houston Gulf Coast Section had Stephen Wilson, a senior planning engineer from Chevron as the guest speaker. Stephen brings 28 years’ experience with a focus on project planning, project management, and project controls. He is currently working as a planning consultant for a major oil company FPSO project. His presentation took a practical look at options being used on a major project when developing management presentations from Primavera P6. He shared lessons learned preparing various reports using an add-on software called, “One Pager.”

  The Houston Gulf Coast Section kicked off the 2015-2016 program year with a presentation from Steve Cabano, President of Pathfinder, LLC, a project management consulting firm. Steve has more than 30 years project engineering and project management experience. His presentation titled, “Addressing Construction Challenges to Petrochemical Projects in the U.S. Gulf Coast.” was well attended.

  Pathfinder recently conducted a number of independent project reviews for projects in the U.S. Gulf Coast and there were several common themes that highlighted opportunities to improve planning process, and more importantly, the execution of these projects. The interactive presentation provided some of these observations and recommended solutions in an open forum style session. The group shared some of the challenges and provided feedback on what worked and what didn’t work when executing large international and domestic projects.

  Steve Cabano, President of Pathfinder, LLC, a project management consulting firm, is shown giving a presentation, “Addressing Construction Challenges to Petrochemical Projects in the U.S. Gulf Coast,” at the Houston Gulf Coast Section’s September meeting.

HGCS was invited to participate as a guest lecturer for Class 4 and Class 5 estimate preparation for Engineering, Procurement and Construction project for the Process Industry. The lecture presented the classes of estimates as defined by AACE International and the level of effort associated with Class 4 and Class 5 estimate preparation. The class also showed how a Class 4 estimate could be prepared in a short amount of time, given the proper tools and reference information.

Stephen Wilson, Sr. Planning Engineer from Chevron, presented a practical look at options being used on a major project when developing management presentations from Primavera P6 at the Oct. 13 section meeting.

**Shown above:** Stephen Wilson, presenter; Matt Baker, HGCS Past President; and Martin Darley, AACE International Past President, at the Houston Gulf Coast Section’s October meeting.
New Jersey Section

The October meeting of the New Jersey Section provided an excellent follow up to September’s joint meeting with the Delaware Valley Section. Gary Lamba presented, “Leveraging Project Controls to Manage Corporate Real Estate,” a summary of how his role at his employer budgets for and controls capital spending for their various assets in the New York City Metro area. Gary’s review provided some unique insight into various aspects of cost engineering for both old and new infrastructure, including cost estimating, short- and long-term budgeting, cost tracking and reporting, and scheduling. Thanks to Gary for his excellent perspective, which generated a good foundation for discussion among the group. Region 2 Director Calvin Speight, Jr. was also in attendance and provided information and insight on activities in the Northeast Region, recruiting, certification and the 2016 Annual Meeting. Thanks to all of those in attendance for contributing to a successful evening.

Southern California Section

On Oct. 28, the Southern California Section and ASPE gathered for a joint dinner meeting at TAIX French Restaurant in Los Angeles, CA. Michael Nosbisch, CCP PSP FAACE, a Vice President with Hill International, gave an engaging presentation on, “MCACES 2nd Generation (MII).” The presentation was informative and widely attended by civil and federal contractors/agencies.

Originally, the U.S. Army Corps of Engineers (USACE) and supporting architectural/engineering (A/E) firms used a DOS-Based estimating system, Micro-Computer Aided Cost Engineering System (MCACES), to prepare design phase cost estimates for military construction, civil works and environmental projects. In alignment with advanced hardware and software technology, USACE replaced MCACES with the second generation of MCACES, known as MII.

This windows-based application, developed by Project Time & Cost, LLC (PT&C), allows WBS flexibility, database access, and markups application. MII is one of several modules of an integrated suite of cost engineering tools called the Tri-Service Automated Cost Engineering System (TRACES) that meets USACE requirements in preparation of cost estimates during the design phase. The platform is also currently being used by the U.S. Air Force, and is being considered for adoption by the Naval Facilities Engineering Command (NAVFAC).

On Sept. 22, the Southern California Section gathered for a dinner meeting in El Segundo CA. Darren Elliot, Operation Manager of Tecolote research, gave an engaging presentation on, “Improving Capital Project Execution through Joint Analysis of Cost and Schedule.” Properly identifying funding up front helps ensure the project’s success and minimizes the impact on the overall capital portfolio. In 2009, NASA implemented a new process and policy integrating cost and schedule, incorporating information from the risk management system to support their capital project approval process. This has helped NASA improve its overall capital project performance. Joint Analysis of Cost and Schedule (JACS) is a business process and software application developed to support highly complex projects (including NASA, DoD, Construction, and Oil & Gas), to completely integrate cost, schedule and risk. JACS allows projects to immediately determine the cost impacts of schedule growth and what risk or activities are the major drivers for the schedule. Through the use of stochastic simulation, the risk-adjusted cost estimate and schedule are generated allowing program managers to budget and plan using statistical confidence levels.

IN MEMORIAM

Thomas Ponder Jr., PE CCP

Thomas Ponder Jr., PE CCP, of Itasca, IL, an AACE International member since 1975, died Nov. 13, 2015.

Robert E. Poole

1921-2015

On January 19, 2015, Robert E. “Bob” Poole died peacefully in his home at The Village at Gleannloch Farms at the age of 93. He was born in Raleigh, NC, and graduated from North Carolina State University with a degree in chemical engineering. He had a long career with Allied Chemical/Halliburton and Bechtel.

He is survived by his loving wife of 72 years, Carol, his son, Bob; daughter-in-law, Gina; and grandson, Luc. He was predeceased by his son, David.

A memorial service will be held at The Village at a future date. This obituary was published in Houston Chronicle on Jan. 22, 2015.

William R. Weinheimer

1928-2015

William R. Weinheimer, 87, is survived by his wife, Liz; and three children, Doug Weinheimer (Darlene), Bill Weinheimer (Pat) and Wendy Martin (Brian). This obituary was published in DenverPost.com on Oct. 25, 2015.
When Will Your Section News Submission Be Published?

The digital Source magazine includes all “Section News” submissions. Source has a submission deadline of two months in advance of the issue date. Please review the following production schedule. It lists the submission periods for the six bi-monthly issues of Source magazine in 2014.

2015-2016 Source Section News Submission Schedule

February 2015
• Items submitted from Oct. 16 - Dec. 15, 2014

April 2015
• Items submitted from Dec. 16 - Feb. 15, 2015

June 2015
• Items submitted from Feb. 16 - April 15, 2015

August 2015
• Items submitted April 16 - June 15, 2015

October 2015
• Items submitted June 16 - Aug. 15, 2015

December 2015
• Items submitted Aug. 16 - Oct. 15, 2015

February 2016
• Items submitted from Oct. 16 - Dec. 15, 2015

April 2016
• Items submitted from Dec. 16 - Feb. 15, 2016

June 2016
• Items submitted from Feb. 16 - April 15, 2016

This production schedule is based upon production schedules at AACE headquarters, as well as our printer having two to three weeks production time to take our in-house files and convert them to the Nxtbook software for posting. Enhanced features like audio, video, website links, and more will be a part of each issue of the Source. Some technology features will require additional production time and earlier deadlines. The magazine is to be ready for posting by the first of the month.

Within 2 to 3 business days of submitting a “Section News” items, you should receive a return confirmation e-mail that your submission was received at AACE headquarters.

How to Submit Text and Photos

Please submit any and all text as a part of the e-mail or as a Microsoft Word file attachment. Please submit any photo or photos as individual attachments in tiff or jpg formats. Do not embed photos in Microsoft Word files.

For photos to be used, we require either large original files or print size photos at 300 dpi (dots per inch). We can convert large 72 dpi submissions into the required 300 dpi. This process shrinks the size of the original submission. We cannot use photos taken on cell phones. For photos to be published, they must be in focus, of print quality, and wide enough to fill the width of the column layout.

Please include the names and titles of each person shown in any photos. Please list names from left to right or refer to those shown as being above left or right. For group photos please list names from left to right, beginning with the front row and working to the back. Do not list the Section officer first unless he or she is photographed on the left with guest speakers on the right.

All submissions should be e-mailed to editor@aacei.org. Please use the official name of the Section as approved by the AACE Board when the Section’s charter was approved. Never refer to the Section as a chapter.

Contact AACE Concerning Missing Submissions

Generally, all submissions received in the above scheduled times will be published in the listed issue. Items are not held because of space restrictions. There is no waiting list and no preference is given to one Section over another. Questions about incomplete submissions or failure to follow these submission guidelines could delay publication. Text will be published without submitted photos if the photo does not meet the listed quality requirements.

If a submission is not included in the designated issue, please e-mail or call the Managing Editor to ensure that it has not been lost or misplaced. Call or e-mail if you do not receive a confirmation e-mail within 3 business days of submission.

AACE reserves the right to edit all submissions and/or to refuse to publish any submissions determined by the Managing Editor or the Art Director to not meet the standards of the journal. Any appeals of these decisions will have a final decision determined by the Executive Director.

Any Section representative with questions is advised to e-mail editor@aacei.org or call the Managing Editor during regular business hours (9 a.m. to 5 p.m. Eastern Standard Time, Monday-Friday, except holidays and special closings.)
DECEMBER 2015
3 METRO: $36 Billion Highway Program Update, Southern California Chapter of the Construction Management Association of America (CMAA) The LA Hotel Los Angeles, CA Contact: www.cmaasc.org

7-9 Financial Analysis, Modeling and Forecasting in the Oil and Gas Industry, Mobility Oil & Gas Houston, TX Contact: www.mobilityoilandgas.com

JANUARY 2016
15 Los Angeles World Airports, Meet the New Executive Director, Southern California Chapter of the Construction Management Association of America (CMAA) City Club Los Angeles Los Angeles, CA Contact: www.cmaasc.org

21 Los Angeles Football Club New Soccer Stadium, Southern California Chapter of the Construction Management Association of America (CMAA) The LA Hotel Los Angeles, CA Contact: www.cmaasc.org

FEBRUARY 2016
17-19 International Roofing Expo, Informa Exhibitions U.S., Orange County Convention Center Orlando, Florida Contact: www.theroofingexpo.com

MARCH 2016
4-6 Western Winter Workshop, The San Francisco Bay Area and Southern California Sections of AACE International The Hyatt Regency Indian Wells, CA Contact: www.westernwinterworkshop.com

MAY 2016
24-29 EURO-MED-SEC-1, The First European and Mediterranean Structural Engineering and Construction Conference, The International Structural Engineering and Construction Society (ISEC), Davutpasa Campus, Yildiz Technical University Instabul, Turkey Contact: www.isec-society.org

JUNE 2016
3-7 AACE International’s 2016 Annual Meeting, AACE International Sheraton Centre Toronto, Ontario, Canada Contact: phone 1-800-858-COST fax (304) 291-5728 info@aacei.org www.aacei.org

Please submit items for future calendar listings at least 60 days in advance of desired publication.

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