



## PMI MUMBAI CHAPTER

Presents seminar on  
**EFFECTIVE COSTING & VALIDATION**  
- *PATH TO SUCCESS ON PROJECTS*

**Date:** Thursday, 28<sup>th</sup> August, 2008

**Time:** 6:00 PM onwards

**Venue:** Hotel Sun City Residency, MIDC 16th Road, , Marol, Andheri (E).

Tel: 28306131, 28306136

### Agenda

**Registration & Networking** 6:00 - 6:30 PM

**Main Session** 6:30 - 8:30 PM

**Question Answer Session** 8:30 - 9:00 PM

**Networking Dinner** 9:00 - 11:00 PM

### Cost:

**PMI Mumbai Chapter Members:** Rs. 800/-

**Others:** Rs. 1000/-

**Note:** PMPs would get credit of 2 PDUs on participation

### Registration Information

[info@pmimumbaichapter.org](mailto:info@pmimumbaichapter.org)

**Phones:** 24114734 / 24148509

**Event Manager:** [programs@pmimumbaichapter.org](mailto:programs@pmimumbaichapter.org)

**Cell:** 9867305477, 9869463964

**Website:** <http://www.pmimumbaichapter.org>

**Register now, send your Registration with Payment by cheque/draft in favor of  
PMI Mumbai Chapter**

**Speaker Profile:**

**Madhu Ponnappan Pillai, PMP, AVS, CCC**

**Director - Region 7**

**AACE International**

**DirRegion7@aacei.org**

**+966500179621**

**www.aacei.org**



Mr Madhu P Pillai is an Engineering Graduate with Post-Graduation in Business Management, and has 22 years of multifaceted experience across Projects & Maintenance fields in India, Nigeria, Bahrain, Saudi Arabia and USA. He holds an Executive Diploma in Leadership and has recently acquired his second Masters in Human Resources Management.

Mr Pillai holds multiple professional certifications as Project Management Professional (PMP)®, Associate Value Specialist (AVS)® and Certified Cost Consultant (CCC)®.

He was selected to the international forum of PMI on enhancing the professional re-certification programs around the world. He also served on the nomination committee of PMI for the International board election.

Mr Pillai is a recipient of the prestigious **Millennium Achiever Award** of International Institute of Success Awareness and was **speaker** for International conferences and Global / World congresses like OMAINTEC International Conference (Beirut), Project Management Leadership International Conference (Bangalore), PMI Global Congresses (Edinburgh, Bangkok & Sydney), IPMA (International Project Management Associates) World Congress in Delhi, AACE Global Annual Meeting (Toronto) etc.

Currently he is the on the Board of Directors for AACE International. He was awarded the O T Zimmerman Founder's award by AACEI in 2008 for his contribution to cost engineering professional community. He is also an active member of TOSTMASTERS.

Mr Pillai is an acclaimed trainer in the areas of Cost Management / Project Management and conducts voluntary training programs for the professional community for certifications in the areas of Project Management.

Currently based in Saudi Arabia, he works as Senior Project Manager for a multinational EPC company in Oil & Gas sector. Apart from Project Management, he has proven his mettle in Business Development & Profit Center handling.

## Synopsis of the topic:

There's an evolution underway!! Project heads are becoming business leaders or facilitators. Today's project managers do not simply execute what the CEOs dictate. They always see the big picture close, and work towards achieving the strategic objectives of the company. Globally business managers are appreciating the shift in the way project management contributes to business success.

Cost is not something that supports business; it is the business.

So for any project success the effective cost control is an absolute necessity. Costing starts with estimation, and hence estimation enjoys major significance in the entire project life cycle.

The very first response from an assigned project manager on many jobs is more than likely to be negative on the bid pricing, and project will be described as one of those potential commercial disasters from the day one. However what these project managers generally fail to understand and appreciate is the necessity of a proper and formal validation exercise, followed by many re-validations at logical intervals so as to assess and re-assess the project.

We would discuss some important aspects of the validation exercise with strong appreciation for the constraints of the Business Development & Marketing department during the preparation of original estimate for the bid.

Cost management is NOT to be tasted or swallowed. It needs to be chewed and digested. Ultimately, business success is the combination of brain and materials, the more brain you use the less material you need.

Approach:

### Participants would benefits in knowing that:

- Cost Management needs to be the prime focus for success of the project
- At the estimation stage itself be conscious about Different direct & indirect costs
- Current practices of Cost Management

### Who should attend?

Costing & Estimation Engineers, Business Development Managers, Project Managers, Process Engineers and any other Professionals involved with Cost Management from Organizations across all verticals

# **Effective Costing & Validation**

## ***Path to Success on Projects***

By

**Madhu P Pillai, PMP, AVS, CCC**

**Senior Project Manager**  
Kantz Engineering International Limited

**Director – Region 7**  
**AACE International**  
*DirRegion7@aacei.org*



**[www.aacei.org](http://www.aacei.org)**

**Three major areas discussed are...**

- **Estimation (Costing)**
- **Validation**
- **Human Resources Replacement Cost**

**Estimation & Validation are Inter-related**

**Discussions are from Contractor's Perspective**

# **Estimation**

## ***Impact of Estimation Accuracy***

- **For Client**
  - ROI
  - Lost opportunity for other deserving projects
- **For Contractor**
  - Lump sum – Potential loss/reduced return
  - Reimbursable – Damage to reputation

## **Limitation on Bid Estimate Accuracy**

- Limited information from bid package – Quality and completeness
- Too much information to comprehend and analyze in short duration
- A small team of generalists with limited expertise
- Company business strategies

## **Basis of Estimate**

- **Design Basis – Overall scope, Specific inclusions/exclusions etc.**
- **Planning Basis – Milestones, Resources, Subcontracting strategies**
- **Cost Basis – Equipment, Bulk Materials, Labor, Allowances etc**
- **Risk Basis – Opportunities/Risks, Contingency etc.**

# **Design Basis**

- **Specific Inclusions**
- **Specific Exclusions**
- **Assumptions Related to Scope**

## **Planning Basis**

- Contracting Strategies for E / P / C
- Human Resources – Existing Surplus / New Mobilization
- Other resources (eg Erection Equipment)
- Overtime / Multiple Shifts
- Baseline Schedule
- Key Milestones

## **Cost Basis**

- **Source of Major Equipment Pricing**
- **Source of Bulk Material Pricing**
- **Source Labor rates / Work Hours**
- **Allowances Included**
- **Basis for Cost Escalation**

## **Risk Basis**

**By definition, every estimate is a prediction of probable cost and hence involves uncertainty and risk**

- **How Contingency Was Arrived ?**
- **Key Areas of Risks**
- **Key Areas of Opportunities**

## **Handover to Project Team**

- **In a formal meeting ( 8 to 20 Hrs.)**
- **Key Project team & Bidding team**
- **Accuracy of Estimate**
- **Key assumptions**
- **Correspondences with client and open issues**
- **Inputs for project controls**
- **Documents tidy and comprehensible for project team**

## **VALIDATION PROCESS – Phase I**

ACTIVITY – Phase I	STATUS	OWNER	ACTION DATE
Establish the Project Validation team			
Handover from the business development team			
Establish the project as a viable business opportunity meeting both the group and subsidiary objectives			
Commitment to a complete validation date			
Familiarize validation team members with the tender content			
Validate the tender costs and sales			
Achieve a sign off on the initial phase 1 Cost Projection System			
Approval of a kick start budget			

## **VALIDATION PROCESS – Phase II**

ACTIVITY – Phase II	STATUS	OWNER	ACTION DATE
Detailed analysis of the Project Validation			
Validate the project from drawings, specifications, master schedule etc.			
Re-Establish a project execution plan			
Revisit the cost control system			
Determine re validation plan at regular intervals			
Identify the risks and opportunities			
Produce the final validation report			
Applicable standards and procedures			
Determine project policies and highlight any variances from standard policy.			

# **VALIDATION**

## **Taking off...**

- **Commences on formal/informal information on wearing the project**
- **Review “Basis of Estimate”**
- **Check estimation methods, techniques & procedure**
- **Estimate summary – organized**
- **Back up information – organized**
- **Allowances and factors are appropriate**
- **Review project execution plan**

## **Validation Team**

- **Project Manager**
  - **Engineering Manager**
  - **Construction Manager**
  - **Planning/Project Controls Manager**
  - **Procurement Manager**
  - **Quality Manager**
  - **HSE Manager**
- “Project team on shelf” (new concept) - Core group from potential project team inducted from bidding stage (for projects of more than 50% change to win.***

## **Timing for Validation**

- At different stages
- First within 2 months (for projects with 1 year or longer duration)
- Second when engineering is fairly complete
- Afterwards as required depending on project duration
- Major positive or negative variations

## **Opportunities & Risks**

- **An outcome of validation exercise**
- **Opportunity for using unapproved vendors**
- **Different subcontracting strategies**
- **Major mistake identified from estimate**
- **Wrong assumptions during estimation**
- **Changes in external environment**

## **Revised Cost Projection System**

- An outcome of validation exercise
- Sales & cost monitoring
- Establishing initial cash flows
- Useful for bidding of future projects
- At every re-validation CPS needs revision
- Needs integration with Cost Control System (CCS)

## **HUMAN RESOURCES REPLACEMENT COST**

- Project is a “Temporary Endeavor”; Loss of key personnel can cause major damage
- Globally employee turnover is a Reality; No more a Threat
- You cannot “manage” what you cannot “measure”
- Boom in EPC sector and shortage of talented personnel

## **Does a Company Qualify for H R Accounting System?**

**Basis for investing in HR Accounting are:**

- **Size of the Company**
- **Business**
- **Human Resources Structure (qualified, skilled)**
- **Human Resources Policies**
- **Management Outlook**

# **Elements of H R Replacement Cost**

## **1. Separation Costs**

- Lower productivity during notice period
- Vacancy cost
- Separation indemnity
- Opportunity cost

## **3. Orientation Costs**

- Job orientation
- Safety orientation
- Idle time for any client approval
- Uniform, PPE etc.

## **2. Acquisition Costs**

- Recruiting cost
- Mobilizing cost
- Cost of resident permit etc

## **4. Learning Costs**

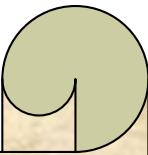
- Equipments
- Facilities
- Materials
- Trainer's compensation
- first  
Lower productivity during the few weeks / months

The world's first integrated process for portfolio, program, and project management!



A Process For Applying  
the  
Skills and Knowledge  
of  
Cost Engineering

# TCM Is a Process For Applying the Skills and Knowledge of Cost Engineering



*AACE International's Constitution*

“...the effective application of professional and technical expertise to plan and control resources, costs, profitability and risks. Simply stated, it is **a systematic approach to managing cost throughout the life cycle of any enterprise, program, facility, project, product, or service.** This is accomplished through the application of cost engineering and cost management principles, proven methodologies and the latest technology **in support of the management process.”**

# **Cost Is Everything**

**“It *costs* time”**

**“It *costs* resources”**

**“ It *costs* money”**

***EVERYTHING***

**invested in assets and projects is a  
*COST***

***That's why we call it***

**Total Cost Management  
(TCM)**

# For Business, TCM is An Integrated Recipe for Managing Portfolios, Programs, and Projects in Alignment with Business Strategy!



# TCM Has Breadth and Depth



**Builds on AACE's Breadth:**  
*We Cover More Than Just Projects*

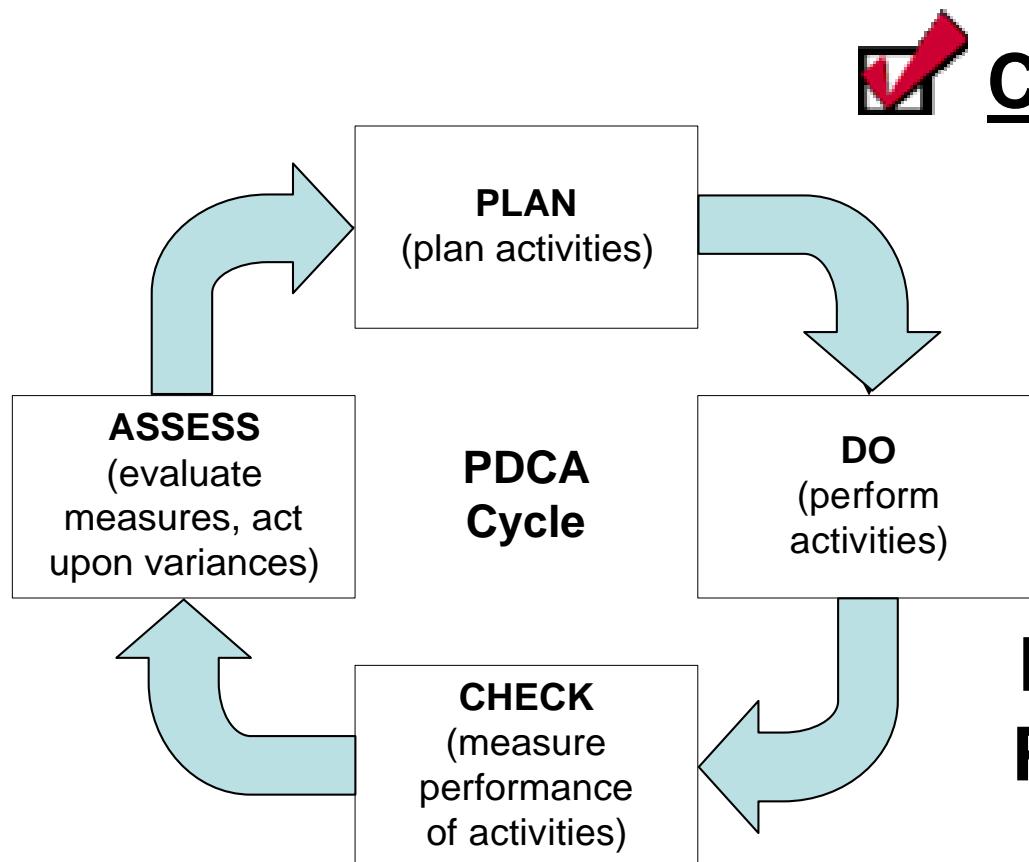
**Strategic**

**Builds on AACE's Depth:**  
*We Know How Things Really Work*



**Functional**

# TCM Attributes



## Continuous Improvement

**Every TCM process employs feedback and improvement!**



## Integrated

**Every TCM process has P,D,C & A steps that are All linked back to business strategy!**

# TCM Covers the Entire Asset and Project Life Cycle



# **How Business Can Use the TCM Framework**

- Use it as a guide for process development or re-engineering
  - A “go-by” that can be modified to suit each company's' processes, phasing, org., lexicon, etc.
  - Can be applied in parts, but take care that the resulting process is integrated
- Use it as a business reference



# AACE International

*The Association  
for the Advancement  
of Cost Engineering*

# **AACE International**

## **Represents:**

**Cost Engineers**

**Estimators**

**Project Managers**

**Corporate Executives**

**Consultants**

**Schedulers**

**Planners**

**Project Controls**

**Educators**

**Value Engineers**

**Members in 78 countries**

**More than 70 Local Sections**

# ***India Regional Section***

Three sections.....

- North India (based in Delhi)
- Central India (based in Mumbai)
- South India (based in Chennai)

# AACE International Membership Advantages

- Monthly *Cost Engineering* technical journal
- Discounts on Continuing Education Programs
- Discounts on AACE and Commercial Books
- Access to AACE's Virtual Library
- Loans from AACE Technical Library
- Up-to-date information @ [www.aacei.org](http://www.aacei.org)
- Executive Search and Employment
- Networking and Contacts
- Professional Development
- Leadership Growth Opportunities
- Certification Programs
- Annual Meeting – Technical and Social Events
- Peer Recognition and Prestige
- **Salary Surveys**

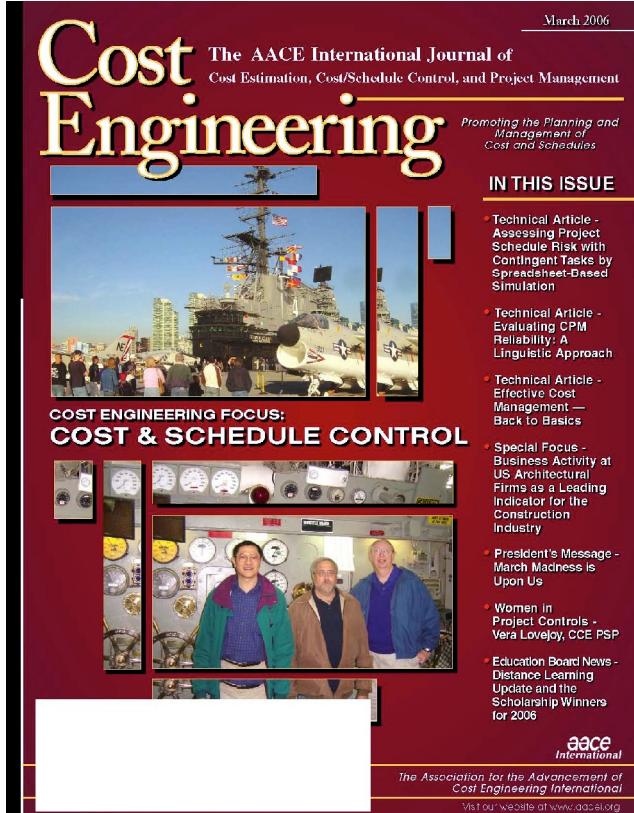


# **Corporate Sponsorship Program**

**AACE's Corporate  
Sponsor Program  
enables corporations to  
sponsor a group of 8  
AACE members and  
receive substantial  
benefits and discounts!**



# *Cost Engineering journal*



- Top-notch refereed monthly journal
- Keeps members up-to-date with professional interest items, news, columns, & products
- Also available on the AACE website

# **Distance Learning**

**AACE provides distance learning courses, available by internet and CD delivery, for professionals who need training on a 24-7 basis.**



**For state-of-the-art distance learning products, please check the AACE website for a current list of course offerings.**

# **Why to be certified ???**

- Companies are growing GLOBAL
- Different Cultures, work-styles, languages
- Employee turnover is just a REALITY, no more a THREAT
- Time is of essence – None has the luxury of time to train
- Common terminologies
- Professional approach to the problems

***Companies are sick of crisis managers who  
make and then manage crisis !!***

# AACE Certification

Since 1977, AACE has certified thousands of professionals as:

- CCC- Certified Cost Consultant
- CCE- Certified Cost Engineer

AACE has certified junior professionals as:

- ICC- Interim Cost Consultant

AACE also offers a specialty certification in:

- PSP- Planning and Scheduling Professional
- EVP– Earned Value Professional



# **Latest Certifications**

**CFCC**

**Certified Forensic Claims Consultant**

**C3PM**

**Certified Portfolio, Program Project Management**

**CEP**

**Certified Estimating Professional**

**Timely & Periodic VALIDATION**

**Effective Monitoring & CONTROL**



# **Madhu P Pillai**

## **Senior Project Manager**

**Kentz Engg. Int'l Ltd**  
P.B. No. 31412, Al-Khobar,  
SAUDI ARABIA – 31952,  
[mpillai@sakentz.com](mailto:mpillai@sakentz.com)  
Ph. Off. +966 3 859 1789  
Ph. Cell. +966 500179621

**Director – Region 7**  
**AACE International**  
*[DirRegion7@aacei.org](mailto:DirRegion7@aacei.org)*



Engineers & Constructors





**aace** International

India Regional Section [www.aacei.org](http://www.aacei.org)

#### Certification in Cost Management:

- ◆ Certified Cost Consultant (CCC)
- ◆ Certified Cost Engineer (CCE)

#### Certification for Jr. Professional:

- ◆ Interim Cost Consultant (ICC)

#### Specialty Certifications:

- ◆ Planning and Scheduling Professional (PS)
- ◆ Earned Value Professional (EVP)
- ◆ Certified Portfolio, Program & Project Manager (C3PM)
- ◆ Certified Forensic Claims Consultant (CFCC)



**52 Years**  
of Service & Dedication  
1956 - 2008

**Promoting  
Planning and Management  
of Cost and Schedules**





AACEI the Association for the Advancement of Cost Engineering International, is a worldwide professional organization headquartered in the U.S.A. AACEI outreach is widely spread and well recognized in the field of Total Cost Management, Planning and Scheduling, and Earned Value Management.

AACEI International is the largest organization serving cost management professionals across the globe with a strong membership base in 78 countries. AACEI represents cost engineers, schedulers, estimators, planners, project managers, project controls, corporate executives, educators, consultants, value engineers and many other professional communities.

AACEI is recognized worldwide as the technical authority in cost and schedule management for programs, projects, products, assets and services.

AACEI's Professional Certification Programs are accredited by Council of Engineering & Scientific Specialty Boards (CESB) and the International Cost Engineering Council (ICEC). Certifications offered by AACEI are:

- ◆ Certified Cost Consultant / Certified Cost Engineer (CCC / CCE) .
- ◆ Interim Cost Consultant (ICC)
- ◆ Earned Value Professional (EVP)
- ◆ Planning & Scheduling Professional (PSP)
- ◆ Certified Forensic Claims Consultant (CFCC)
- ◆ Certified Portfolio, Program & Project Manager (C3PM)

Many government agencies and companies worldwide are encouraging their employees to be professionally certified. Bechtel Limited, FLUOR, Parsons Corporation, Qatar Kentz WLL ,Shell Petroleum Development Company - Nigeria, and SNC Lavalin, Inc are some of the great beneficiaries of AACEI credentials.

Cost Management, the ultimate baseline for the success of any industry right from the project stage, has very high under-tapped potential across the country with the heavy investment currently taking place in various sectors like, industrial, infrastructure, and service. This is more evident now with the geographical shift of many multinational engineering companies to India. There is a noticeable shortage of trained and certified professionals in this region and the AACE India Regional Section (IRS), recently set up by AACE International, is working towards filling the gap between the availability and requirement.

AACEI vision in assisting the Indian economy for the best cost management practices cannot be fulfilled without active involvement with Manufacturing, EPC, IT and other related organizations in public and private sectors.

We encourage you to be beneficiaries of AACE - IRS's efforts in spreading the "Total Cost Management" concepts across the country, by achieving our coveted credentials.

For more details contact Chairs of Advisory Committee

South India - Raju Rao - E-mail: rao.raju@gmail.com	Mobile: + 91 9884188171
Central India - Rakesh ch. Goyal- E-mail: rcgoyal@avrms.com	Mobile: + 91 9869463964
North India - Pradip Das - E-mail: popdas@yahoo.com	Mobile: + 91 9810058549
OR	
Madhu P. Pillai Director – Region-7 E-mail:mpillai@aacei.org	Mobile: + 966 500 179621