



CONCRETE NEWS

KUWAIT CHAPTER

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CONCRETE NEWS

Concrete News is published periodically by ACI-Kuwait Chapter to share information between members, exchange technical knowledge and enhance the Chapter's position within the engineering community

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From the President

Technical Associations & their benefits.



Mr. Ahmed Al-Jihayem

In today's world, the technical associations play a very useful role. People join them voluntarily, participate in discussions and exchange their experiences. They impart lot of inside knowledge on engineering practices, newly developed materials and their specifications. These associations group professionals to exchange their experience in technology. They focus on real concerns of the participants.

The mission of these associations and committees is to infuse discipline, develop and share technical knowledge on materials which are normally not part of education and training of many practicing Architects and Engineers.

Exchange of knowledge and information is the main goal and objectives of these associations. Direct contact is the best and most effective way to exchange experience and knowledge as it possesses the advantage of direct discussion and debating. Through discussion, great ideas may develop which may lead to mutual joined research.

Professionals are encouraged to grab these opportunities to get introduced to new technologies, modern trends and recent research in the building industry.

There are many such associations like Council on Tall Building and Urban habitat, Kuwait Society of Engineers, Egyptian Syndicate of Engineers, American Institute of Architects, American Society of Mech. Engineers, American Concrete Institute etc.

One of American Concrete Institute – Kuwait Chapter's (ACI-KC) key objective is to involve young and experienced professionals to share such experiences. ACI-KC is affiliated with the International ACI.

It is a non profit, non partisan organization of Engineers, Architects, Scientists, Constructors and Individuals associated in their technical interest with the field of concrete and dedicated to public service. The purpose of this institute is to further engineering and technical education, scientific investigation, research and development of standards for design and construction of concrete structures. Members of the institute are involved in gathering, correlating and disseminating information for the improvement of the design, construction manufacture, use and maintenance of concrete products and structures. The institute and its members also promote improved technology, technical competence and good design and construction practices.

The institute publicizes its work to the engineering profession through seminars, workshops, conferences chapter functions and publications.

About ACI-KC

About ACI KUWAIT CHAPTER

There are main three bodies of the chapter: Members, Committees and Directors.

BOARD OF DIRECTORS

Members of the Board of Directors are elected by the Members of the Chapter after being nominated by the Nomination Committee. There are nine members of the Board of Directors:

- President
- Vice President
- Past President
- Secretary
- Treasurer
- Directors

The President and Vice president terms are limited to one year. Directors and other officers term is three years. Two Directors will be elected every year for a three -years term.

Board of directors 2007-2008

Title	Name
President:	Mr.Ahamed A. Al-Jihayem
Vice President:	Dr. Hasan Kamal
Past President:	Dr. Moetaz El-Hawary
Director:	Dr. Khaldoun Rahal
Director / Treasurer:	Mr. Abdul Wahab Rumani
Director:	Dr. Saud Al-Otaibi
Director:	Dr. Naji Al-Mutairi
Director:	Mr. Anas A. Kassem
Director:	Mrs. Ebtisam Al-Kazemi

Membership Committee, the main activities for this committee are:

- Recruit new members as individuals and organizations
- Issue and renew membership certificates.
- Publish and update chapter directory of membership.
- Facilitate members communications and communicate their concerns to the board of directors and other committees.
- Establish students chapter and run its affairs.

Membership Committee's Members 2007-2008

Chairperson	Mr. Abdul Wahab Rumani
Co-Chair	Mrs. Hana M. A. Hashem
Member	Mr. Mohammed Harb Madbouly
Member	Mr. Saeed Shamim Sulaimani

Technical Committee, the main activities for this committee are:

- Identify technical topics of interest to Chapter members and make recommendations to the Chapter Board of Direction for seminars, short courses and workshops on these topics.
- Review and report to Chapter members on ACI International committee reports of relevance to Kuwait.
- Review proposed revision of ACI Standards and submit review comments to the Chapter Board of Direction for submission to ACI International.
- Promote local research and testing programs to resolve technical issues of importance for durable concrete construction in Kuwait.

Technical Committee's Members 2007-2008

Chairperson	Dr. Moetaz El-Hawary
Member	Dr. Naji Al-Mutairi
Member	Dr. Hasan Kamal
Member	Mr. Mohamad Harb
Member	Dr. Khaldoun Rahal
Member	Mr. Abdel Wahab Rumani

Publication Committee, the main activities for this committee are:

- Publish a periodic newsletter to inform members of Chapter activities and provide general informations of use to the Chapter membership.

- Print and distribute copies of technical reports to Chapter members, as well as to interested individuals and concerned bodies.
- Prepare meeting reports and Chapter news for submission to ACI International for publication in Concrete International magazine.

Publication Committee's Members 2007-2008

Chairperson	Dr. Saud Al-Otaibi
Member	Eng. Anas Kassem
Member	Eng. Abdulwahab Romani

Social Committee, the main activities for this committee are:

- Organize annual recreational activities for Chapter members.
- Organize representation of the Chapter at selected national events.
- Organize field trips to major construction projects for chapter members.

Social Committee's Members 2007-2008

Chairperson	Mr. Mohd Harb Madbouly
Co-Chair	Mrs. Hanan Al-Mutairat
Member	Mrs. Ragia Mohd El-Menoufi
Member	Mr. Saeed Shamim Sulaimani
Member	Mr. Walid Khalid Barakat

NOMINATION COMMITTEE

Nominating committee is elected each year. The past President chairs the committee.

The responsibility of the committee is to look for and seek active, capable candidates throughout the year. The committee selects individuals with chapter interest, willingness to serve and leadership qualities for the chapter officers and the Board and submit the names before the annual general election.

Nomination Committee's Members 2007-2008

Chairperson	Dr. Moetaz El-Hawary
Member	Mr. Mohd. Harb
Member	Mr. Ubedur Rahman Arain
Member	Dr. Husain Ali Al-Khayat
Member	Mr. Mohd. Abdul Salam Seraj



**ACI
(KUWAIT)
CHAPTER
WANTS
YOU**

You already know the benefits of the American Concrete Institute international membership, but have you considered the benefits of the belonging to your local ACI chapter? The local KUWAIT CHAPTER functions as a distribution center for the latest information and ideas. You'll find a group of colleagues with ready answers for local concrete problems you encounter every day.

Fill in the coupon below and fax it to 2428148 we'll rush you complete information on ACI KUWAIT Chapter affiliation

Send me all the facts on ACI KUWAIT CHAPTER membership

Name _____

Company _____

Fax or Address _____

The Opinions expressed in Concrete News are those of the authors and do not necessarily reflect the official views of ACI-Kuwait Chapter

PROF

Dr. Saud Fahhad Al-Otaibi

FAMILY

Dr. Saud Al-Otaibi is married and has six children Abdulaziz, Mohammad, Khaled, Sarah, Bader and Renad

EDUCATION:

- **Ph.D. Civil Engineering, 2002**
"Performance of Alkali-Activated Slag Concrete", Ph.D Thesis.
Department of Civil and Structural Engineering,
University of Sheffield, UK.
- **M.Sc. Desert Engineering and Architecture, 1995**
"Effect of Curing Conditions and Addition of Polypropylene
Fibers on the Properties of High performance Concrete", M.Sc. Thesis.
College of Post-Graduate Studies, Sphere of Technological Studies,
Desert and Arid Zones Sciences Program,
Arabian Gulf University, Bahrain.
- **B.Sc. Civil Engineering, 1986**
Civil Engineering Department,
Faculty of Engineering and Petroleum, Kuwait University, Kuwait.

WORK EXPERIENCE:

- **Associate Research Scientist December 2002- Today**
Building and Energy Technologies Department Kuwait Institute for Scientific Research,
Kuwait
- **Research Associate June 1995-December 1997**
Civil and Building Department,??

FILE

- **Construction Supervising Engineer/Civil Engineer 1986-1995**

Department of Construction Kuwait Municipality, Kuwait.

FIELD OF INTEREST:

Construction materials in general with some focus on cement and concrete, Building Systems and Construction Management.

Has a number publications in International Journals and participated in many International Conferences.



MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- American Concrete Institute (ACI)- Kuwait Chapter;
 1. Co-founder of the ACI- Kuwait Chapter, 1997.
 2. Chairperson of the Publications Committee, ACI-Kuwait Chapter, 2007 - present.
- Member of ACI – International, USA.
- Member of Kuwait Society of Engineers.
- Certified Associate Value Specialist, SAVE International.

HOBBIES

Poetry: Enjoys expressing his views and commenting on different issues through poetry and recently started publishing regularly in a local newspaper (Alam-Alyawm).

Sports: Whenever possible chase a ball or go for a swim.

Reading: A reader in various fields.

Seminar on Strengthening Concrete with C F R P

Seminar on Strengthening Concrete with C F R P

The Department of Civil Engineering at Kuwait University and the ACI-Kuwait Chapter jointly organized a seminar entitled "Strengthening of reinforced concrete beams for shear using near-surface mounted CFRP and conventional steel bars."

The seminar was presented by ACI-KC director and Past President Khaldoun Rahal, Professor of Civil Engineering at Kuwait University.

The event took place on January 14, 2008 at the Kuwait Society of Engineers, the seminar highlighted the common cases where the loading capacity of beams needs to be increased (or restored), and the importance of giving proper consideration not only flexural but also shear strengthening.





A relatively new technique -Near Surface Mounted Reinforcing- that can be used for shear strengthening was described.

The results of a comprehensive test program to evaluate this strengthening procedure were presented, showing that it increases the shear strength of beams, reduces the crack width at service load levels, and changes the mode of failure from a brittle shear failure to a more ductile flexural mode.

The seminar was followed by a question-answer period which turned into an interesting discussion of the subject of strengthening and repair.



Seminar on Strengthening Concrete with C F R P

Semi

Concrete Coating Systems

The technical committee of the ACI-Kuwait Chapter has arranged a technical seminar in association with Al Gurg Fosroc Company and Boodai Trading. The seminar entitled "High Performance Polyurea Systems" was held on 28th April 2008. Mr. Dennis Jacob, Business Development Manager of Fosroc, who also is a National Association of Corrosion Engineering certified Coating Inspector was the main speaker.

Polyurea product lines primarily comprise of high performance fast setting polymers that include pure polyureas, pure polyurethanes and hybrids or composites which combine features and benefits of these two different chemistries. These different formulations provide varying degrees of properties designed to meet specific needs in chemical resistance, abrasion resistance, tensile strength, impact resistance, fire resistance, etc., while providing similar features and benefits to the end-user.



nar on

The features common to these products are fast-gel and cure times, moisture and temperature insensitivity, outstanding physical and mechanical properties, durability, excellent adhesion to a variety of substrates and long term maintenance of properties.

The speaker focused on the different types of polyurea systems along with their benefits, advantages and uses.

The event, which was followed by dinner, has attracted a large number of interested ACI-Kuwait Chapter members.





KUWAIT CHAPTER

THANKS OUR ORGANIZATIONAL MEMBERS

Their support and willingness to share knowledge is appreciated

Your Organization Logo Could be here !



AL-BAHAR & BARDAWIL
specialities w.l.l.



ABE-GCC Construction Chemicals





KUWAIT CHAPTER

THANKS OUR ORGANIZATIONAL MEMBERS

Their support and willingness to share knowledge is appreciated

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TRADING & CONTRACTING CO.
(KSCC)



مشرف
للجارية والمقاولات
(ش.م.ك.م.)



شركة كويت بروكنر للمقاولات العامة ذ.م.م
Kuwait Bruckner General Contracting w.l.l.



PARSONS



BASF
The Chemical Company

doka
The Formwork Experts



شركة الفخام للمواد الخصوصية ذ.م.م.
ALGHANIM SPECIALTIES CO. W.L.L.



HIGH SLANT
PRECAST FACTORY

Al-Taneeb Trading Co.



شركة الطنيب التجارية



كويتي تيك
المكتب الكويتي للتصميم والاستشارات الهندسية
KUWAITI TEK CONSULTANTS



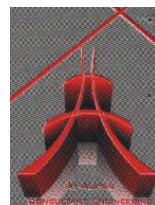
DEH



Bubiyan
Ready - Mix



بوبيان
للخرسانة الجاهزة



Mube Mix
DIGITALLY LOADED

Dinner

The social committee organized a dinner party for all ACI-KC members and their families. Party was arranged on Wednesday December 5, 2007 at Moevenpick hotel. The most distinguished in this party is the magnificent attendance with sparkling smiles on all the faces and full of life atmosphere.



r Party



Dinner Party Continued





Formwork Efficiencies

Thinking ahead can result in savings

BY CARY KOPCZYNSKI

Formwork is not often at the forefront of a structural engineer's thinking when conceptualizing a cast-in-place concrete structure. Numerous design challenges during the conceptual and schematic phases divert attention away from constructibility. It's precisely during these early design phases, however, when constructibility thinking can reap the biggest rewards. Of those constructibility issues that a structural engineer has control over, formwork can make the biggest impact. In fact, the compatibility of modern, high-production forming systems with a building's structural layout often makes the difference between a project that is on time and on budget and one that falls short.

In the U.S. and other markets with high labor costs, formwork can be as much as one-third to one-half

the total cost of a completed cast-in-place concrete structure. It's important, therefore, that formwork be carefully considered when laying out structural framing. Preplanning by the structural engineer and construction team well before ground breaking is critical if efficient forming systems are to be used. Subtle and architecturally insignificant detailing changes at this stage can often create major improvements in constructibility and substantial reductions in forming cost. Structural engineers can help guide the successful outcome of a concrete project by being aware of the important relationship between a building's structural design and its forming system. The following are a few things to keep in mind.

COMMON ROADBLOCKS

Not understanding the importance of compatibility between the formwork and the structural system: Ignoring formwork systems until the concrete contractor joins the project team is often costly. If a high-rise building's structural design incorporates awkward column placement, for example, flying forms or column-hung forming systems may not work without considerable modification.

Insufficient attention during schematic and design development phases: The fast-track nature of today's projects can make it difficult to perform the required reviews at the front end. Often, the process moves so quickly that structural engineers have insufficient time to coordinate the structural layout with forming systems.

Lack of coordination with mechanical and electrical design teams:

It's important to stick with early decisions made regarding mechanical and electrical systems and their impact on the structure. Changing the location of a large mechanical penetration at the last minute, for example, can affect the configuration of a structural wall, resulting in time and cost penalties.

Public versus private projects: It's often more difficult for structural engineers to gain insight from general contractors and concrete subcontractors in a nonnegotiated procurement process because the design typically must be complete before bids are let. The structural engineer should be aware of the challenges associated with public projects and understand that early construction insight may not be readily available.



Column-hung flying deck forms being built up on a job site. Trusses span between girders that will be supported by columns

START EARLY

During a project's conceptual and schematic phases, structural engineers should be thinking about how a building's structural system will accommodate highproduction forming systems. To collaborate effectively with other disciplines in these early design phases, a common misconception must first be confronted. Many architects assume that



The trusses supporting these flying deck forms are fully adjustable, allowing versatility in span and spacing

structural constructibility is a win-lose proposition and that the only way to achieve a simpler structure is to compromise the architecture. In most cases, however, the architect, mechanical engineer, and others will be minimally affected by a structure designed with constructibility in mind. For example, slight shifts in column placement can mean the difference between a structure that accommodates



Column-hung flying deck forms prior to placing the slab. All slab loads are carried directly by the columns, resulting in open decks below the forms with no shores or reshores. This allows workers to move about freely



Aligned columns facilitate a clean formwork layout and maximize productivity

a flying form system and one that does not. These slight changes in column location, if coordinated early in the design process, can typically be managed with minimal architectural impact.

The most common mistake made when designing a building's structural frame is waiting well into the construction document phase to focus on form work. By the time construction documents are underway, however, little can be done. If the design is incompatible with high-production formwork, layout changes are often necessary. Most often, the time required to backtrack and make design changes isn't available, so the forming system is compromised by an unnecessarily awkward structure. The inevitable result is added time to the construction schedule and cost to the project.

FOCUS ON UNIFORMITY

Changes to member sizes from one floor to another can negatively impact the speed and cost of a forming system. For example, structural designers frequently vary column sizes as loads increase or decrease. For large projects, this fine tuning of column sizes leads to costly formwork. Although concrete material is optimized, increased forming costs more than cancel the material savings. In most cases, a better strategy is to work with several uniform column sizes and vary the concrete strength to accommodate varying loads.

Horizontal framing systems fall victim to the same scenario. For example, depending on the forming system used, the designer may choose to design beams that are wider than the columns, narrower than the columns, or the same width. Structural engineers should attempt to determine the beam design approach that is most appropriate for their project before proceeding to construction documents.

As building loads, spans, and uses change, it's easy to fall victim to solving structural issues independent of one another. This can lead to numerous structural systems that each require different forming systems. Keep the big picture in mind.

GET INVOLVED WITH THE CONTRACTOR

Early discussions with the general contractor or concrete subcontractor are vital when determining structural system and formwork compatibility. Many large general contractors have concrete specialists on board who can offer information on subcontractors suitable for the project and the availability of different types of forming equipment, both of which may affect the structural design.

Not all general contractors have the resources to provide constructive information, however, and some may have a limited understanding of the



Conventional flying form trusses immediately after flying. Reshores will be installed prior to placing the slab

nuances of formwork. In these cases, concrete subcontractors can offer insight into their preferred forming systems. Information gathered through such outreach can help structural engineers design systems that will be compatible with the resources available to the building team.

UNDERSTAND THE BUILDER'S SKILL SET

Until recently, high-rise concrete towers were nearly always built with flying form trusses or column-hung forming systems. Some contemporary contractors, however, are finding that productivity rates and costs are just as competitive with modern hand-set systems using pre-engineered components, even on multi-story high-rises. Such hand-set form work allows greater architectural and structural design flexibility because column alignment is not required to allow effective use of these systems.

Every general contractor and concrete subcontractor favors a particular forming system and sequence. As structural engineers, taking the time to familiarize yourself with specialty forming systems and the preferences of your builder will offer invaluable information when designing the structure.

Structural engineers have plenty to think about when designing concrete buildings. Giving thought to formwork when laying out a structure may seem like an added burden, but ensuring formwork compatibility in the early design phases will go a long way toward helping your project meet its budget and schedule goals. ‘

Selected for reader interest by the editors.



KUWAIT CHAPTER

MEMBERSHIP APPLICATION

PHOTO

First Name Middle Name Surname

الاسم الأول الاسم الثاني اللقب

Employer/Organization Corporate Title

Address

Telephone No. Mobile/Pager No. Fax No. Email

Categories of Membership

Please check the category of membership you are applying for and provide the appropriate dues as described below:

- ☐ Organizational: KD 100/year ... (A firm, corporation, agency of government, society, etc.)
- ☐ Individual: KD 15/year ... (A person who is a member of ACI International)
- ☐ Affiliate: KD 15/year ... (A person who is not a member of ACI International)
- ☐ Student: KD 5/year ... (Full time student at an Educational Institution)

Member Profile Information (Please check only one box in each section)

- | | | |
|---|---|---|
| ☐ Officer, Top Management | ☐ Engineering Services | ☐ Testing Laboratory |
| ☐ Administrative, Operating Management | ☐ Contracting Services | ☐ Quality Control |
| ☐ Plant, Production & construction | ☐ Architectural Services | ☐ Research Services |
| ☐ Design Engineering Management | ☐ Management | ☐ Concrete Products |
| ☐ Architectural & Engineering Services | ☐ Design Engineer | ☐ Educator |
| ☐ Chemicals and Allied Products | ☐ Materials Engineer | ☐ Student |
| ☐ Construction Machinery & Equipment | ☐ Plant Engineer | ☐ Utility |
| ☐ Concrete Block & Brick | ☐ Research engineer | ☐ Architect |
| ☐ Ready-Mixed Concrete | ☐ Sale & Marketing | ☐ Government |
| ☐ Educational Institutions | ☐ Technical Specialist | ☐ Other (Please specify) |

Are you interested to join any ACI Chapter Committee? () YES () NO

Payment Method

Membership fees may be paid as follows:

- ☐ Cash
- ☐ Cheque (Payable to ACI-Kuwait Chapter)

Receipt No.

Cheque No.

- ☐ Money Transfer (Payable to ACI-Kuwait Chapter, Account No. 06655310 with The Gulf Bank)

Transaction No.

For ACI Kuwait Chapter use only.

Member No.

Date

Detailed Information Please Contact:

ACI Kuwait Chapter-P.O. Box 12608, Shamiah 71657

Tel: 2449071, 2448975 Ext: 312, Fax: 2428148, Email: info@aci-kuwait.org

www.aci-kuwait.org



KUWAIT CHAPTER

ACI INTERNATIONAL

The American concrete institute, (ACI), is a nonprofit international organization that promotes improved technology, technical competence, design, and construction related to concrete for the benefit of society.

PURPOSE OF THE ACI KUWAIT CHAPTER

The purpose of the chapter is to further the chartered objective for which the American concrete institute was organized i.e., to further education and technical practice, scientific investigation and research by organizing the efforts of its members for a non-profit, public service in gathering, correlating, and disseminating information for the improvement of the design, construction, manufacture, use and maintenance of concrete products and structures.

HOW THE CHAPTER FUNCTIONS

The ACI Kuwait Chapter is approved and authorized by the Board of Directors of ACI International to provide the means of furthering the chartered objectives of the Institute in the State of Kuwait. The Chapter is managed by a local Board of Directors whose members constitute the Chapter officers. Chapter membership is open to all individuals and organizations with an interest in any aspect of concrete technology. The Chapter is operated through its committees which are made up of volunteers from the membership. Programs are developed by the committees to meet the needs of the Chapter members. The Chapter may hold several meetings each year and engage in activities that may include:

- * Sponsoring educational seminars, short courses or workshops.
- * Holding or sponsoring certification training courses and examinations.
- * Publishing technical information and newsletters.
- * Conducting awards, programs for local concrete structures.
- * Special social events.

BENEFITS TO CHAPTER MEMBERS

Attend seminars, short courses and workshops organized by the Chapter at reduced fees.

Free use of ACI publications, which are supplied to the Chapter by ACI International and are, kept in the Chapter library.

A forum for members to interact with colleagues and identify potential sources for cooperation in addressing specific technical problems.

HOW TO JOIN THE ACI KUWAIT CHAPTER

To become a member of the Kuwait Chapter please complete the attached membership application form. Different categories of membership are available. You will receive a copy of the Chapter Bylaws upon becoming a member. The work of the ACI Kuwait Chapter is a mutual interest effort and success depends upon your active participation.

Detailed Information Please Contact;
ACI Kuwait Chapter- P O. Box 12608 Shamiah 71657 Kuwait
Tel: (965) 2449071, 2448975-Ext. 312, Fax: 2428148,
E-mail: info@aci-kuwait.org
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