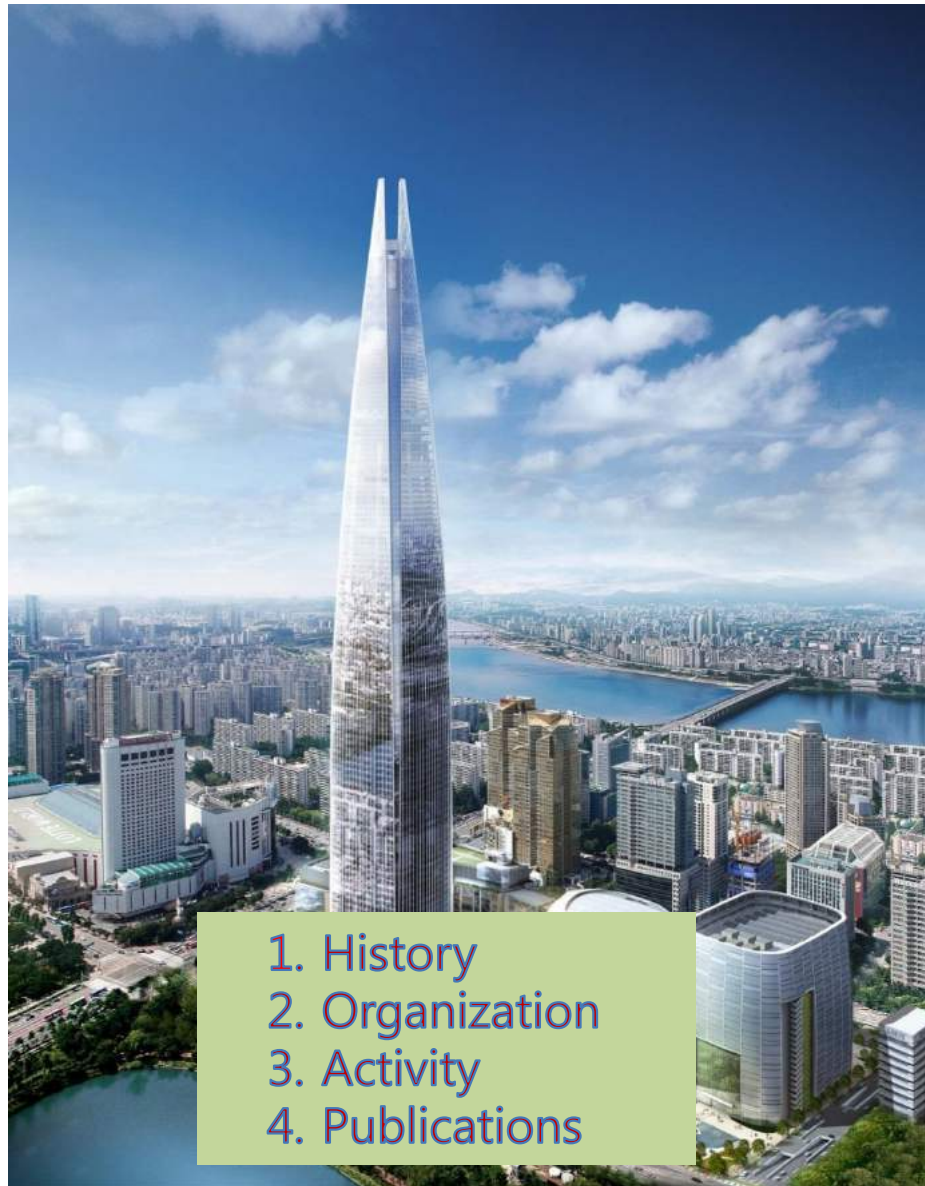




Asian Concrete Federation (ACF)



Yi Sun-Shin Bridge, Main Span 1,545m, The 4th Longest Bridge in the world



Lotte World Tower, Height 555m, The 6th Highest Building in the World

1. History of ACF

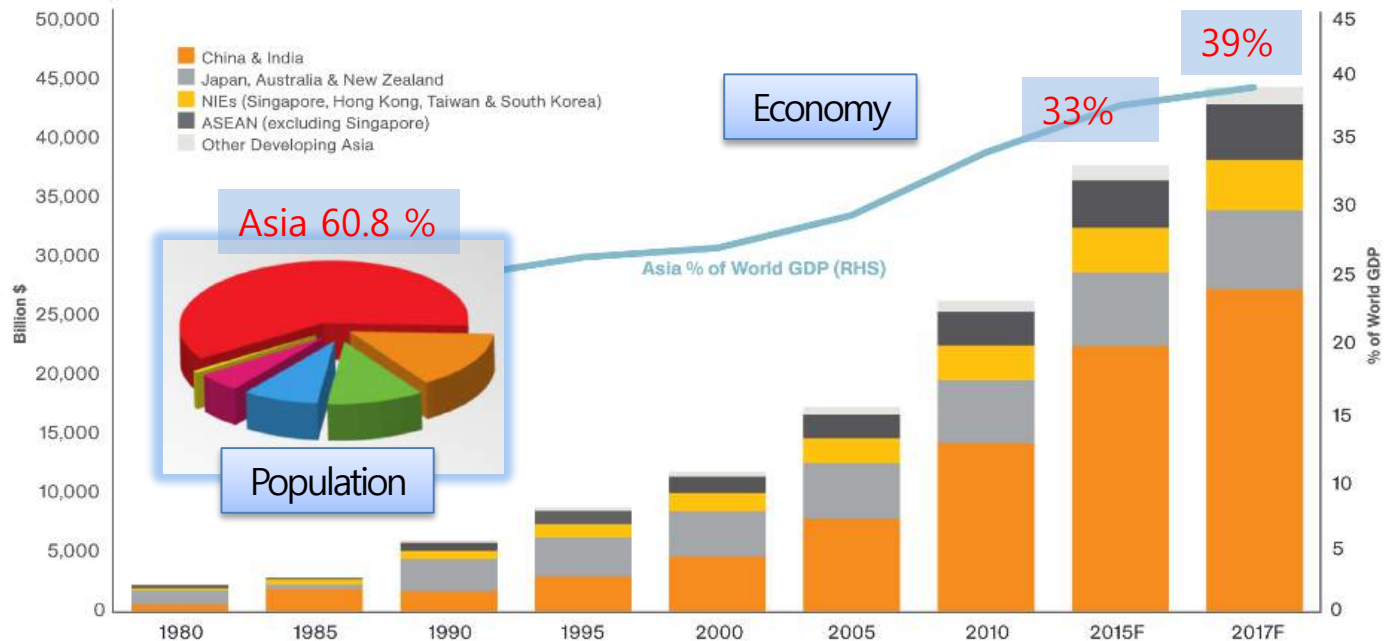
□ Asia in the world

▪ The Increasing Importance of Asia

- 32% of Land mass of the World is Asia
- 61% of World Population lives in Asia
- 33% of World Gross Production (2015) -> 37% (2020)
- 80% of World Cement Production (2015) -> 80% (2020)

Asian Economic Growth

GDP based on Purchasing Power Parity Valuation (Current International Dollar Billion)¹



1. History of ACF

□ Beginning

- **Asian Concrete Forum – Preliminary Meeting for ACF**
 - 1st Forum : **July 2001, Sapporo**, Japan, Hosted by JCI
 - 2nd Forum: **Oct 2002, Seoul**, Korea, Hosted by KCI
 - 3rd Forum: **Sep 2003, Pune**, India, Hosted by ICI



1. History of ACF

□ Beginning

- The Asian Concrete Federation (ACF) started in 2004.
- The first ACF Conference held at Chiangmai, Thailand

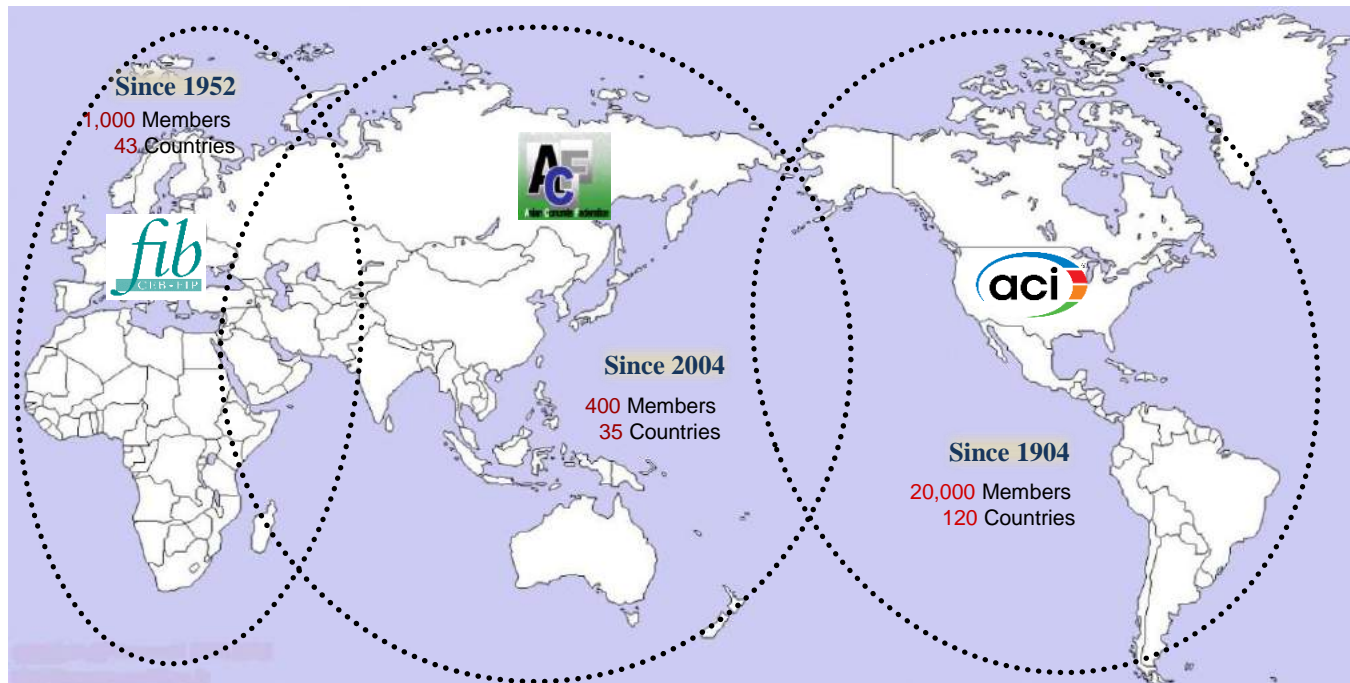
The first Executive Council (EC)

Position	Country	Name	Affiliation
President	Japan	Prof. Taketo Uomoto	Director of ICUS
Vice President	Korea Thailand	Prof. Keunjoo Byun Dr. Pichai Nimityongskul	President of KSCE President of TCA
EC Member	India Indonesia Nepal Philippines Taipei Vietnam	Prof. Mahesh Tandon Dr. FX Supartono Dr. Mohan Prasad Aryal Peter N, Aventajado Prof. Jenn Chuan Chern Prof. Nguyen Tien Dich	President of ICI Head of Publication HAKI Vice President of NCI President of PICE President of CICHE Vice President of VCA
Treasurer	ICCMC	Prof. Tamon Ueda	Chairman of ICCMC

2. Introduction of ACF

□ ACF in the world

- Three Major International Concrete Federations
 - **ACI** started in 1904, 20,000 members from 120 countries
 - **fib** started in 1952, 1,000 members from 43 countries
(CEB and *fip* were merged in *fib* in 1998)
 - **ACF** started in 2004, 400 members from 35 countries



2. Introduction of ACF

□ Objectives

To promote the understanding of concrete structure
To provide the services to the Asian society

- Initiation and support of **international collaborative activities**
 - Development of research and technology of concrete structure
- **Dissemination of useful information**
 - Publications, Conferences, symposia, workshops and Seminars
- Promotion of **updating and revising concrete codes/standards**
 - Structural design, Materials, Construction and Maintenance
- **Interaction with members** and keeping them aware of the activities of the federation

2. Introduction of ACF

□ ACF Membership

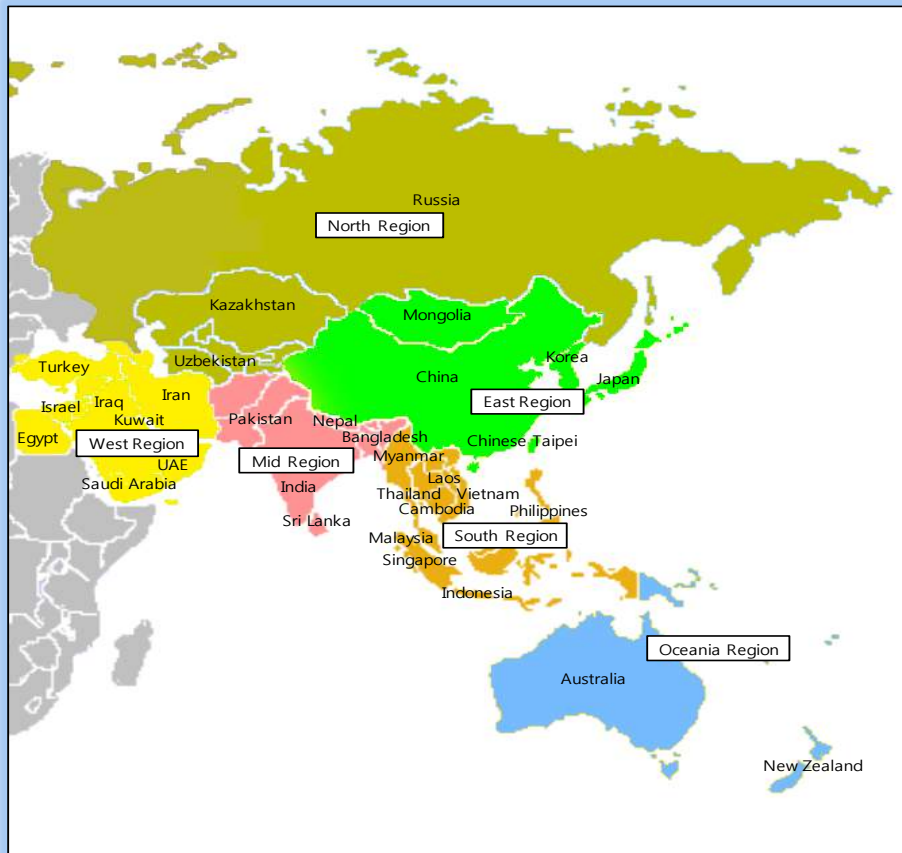
Category of Membership	Subscription	Voting Right at GA	Number of Persons for Benefit	Other Benefits
Representative Member (RM)	A: US \$4000 B: US \$2000 C: US \$1000 D: US \$500	A: 100 B: 50 C: 25 D: 12	A: 8 B: 4 C: 2 D: 1	1) Voting rights for the election of the Executive Council and nominating rights for candidates of an Executive Council member 2) A copy of any publications issued by the Federation during the membership period.
Organization Member (OM)	A: US \$4000 or more B: US \$2000 C: US \$1000 D: US \$500 L: US \$200	A: 10 or more B: 5 C: 2 D: 1	A: 4 or more B: 3 C: 2 D: 1	1) A copy of any publications issued by the Federation during the membership period. 2) "L" is for Library member
Individual Member (IM)	A: US \$50 B: US \$40 C: US \$30 D: US \$20 S: US \$20	A : GDP > US \$10,000 B : GDP < US \$10,000 C : GDP < US \$ 5,000 D : GDP < US \$ 3,000		1) A 10% rebate on registration fee at Federation-organizing events for participants, in case of not mentioning registration fee for ACF members 2) IM's subscription depends on their GDP. 3) "S" is for student member

2. Introduction of ACF

□ ACF Regions and Members

- ACF has 6 Regions and 49 countries in Asia, 14 countries in Oceania
- ACF has 10 RMs, 23 OMs, and 400 IMs from 35 countries

ACF Regions



Member's Nationality (RM / IM)

	Regions	Members (35)	Candidates (34)
R1 (5)	East	Korea, Japan Mongolia Chinese Taipei China	
R2 (6)	South	Indonesia .Singapore Thailand, Vietnam Malaysia, Philippines	Cambodia Laos Myanmar
R3 (8)	Mid West North	India, Pakistan Bangladesh Nepal, Sri Lanka Iran, Iraq, UAE	Afghanistan Bahrain, Kuwait Saudi Arabia, Qatar Egypt, Turkey Russia, Kazakhstan Uzbekistan
R4 (2)	Oceania	Australia New Zealand	Papua New Guinea
Other (14)	Europe (8)	Germany, Uk Italy, France Netherlands Norway, Hungary Bulgaria	Spain, Portugal Denmark, Sweden Finland, Poland, Czech, Slovakia Romania, Croatia Ukraine, Greece
	America (3)	USA, Canada Brazil	Mexico, Argentina, Chile, Columbia
	Africa (3)	Algeria, Libya South Africa	Morocco, Ethiopia, Tanzania, Nigeria

2. Introduction of ACF

□ Representative Members (RM) – 10 countries



□ Organizational Members (OM) – 23 companies



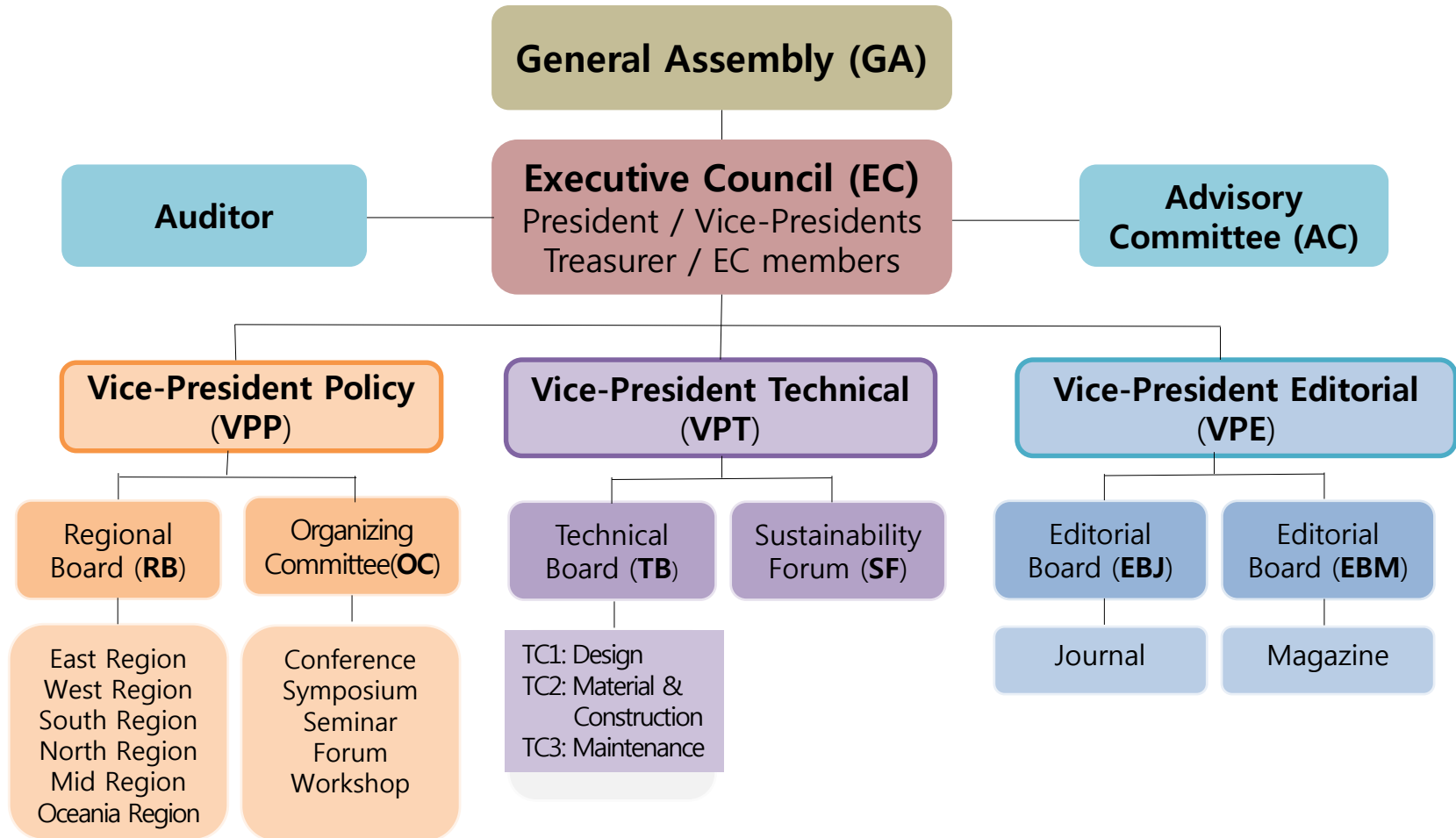
2. Introduction of ACF

□ Individual Members (IM) - 400 members from 35 countries



2. Introduction of ACF

□ ACF Organization



2. Introduction of ACF

□ Executive Council (EC)



□ Advisory Committee (AC)



2. Introduction of ACF

□ Regional Board (RB) & Organizing Committee (OC)

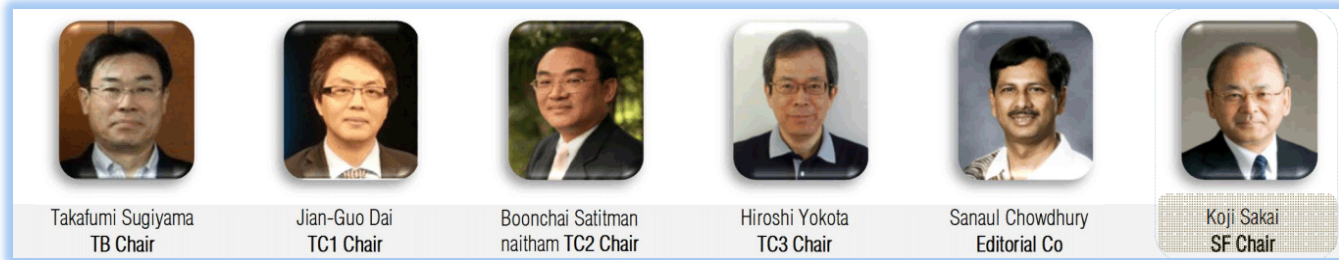


□ Editorial Board for Journal & Magazine (EBJ) & (EBM)



2. Introduction of ACF

□ Technical Board / Committee Chairs (TB / TC) / Sustainable Forum



□ TC1 : Design



2. Introduction of ACF

□ TC2 : Material & Construction

					Others Shigemitsu Hatanaka Keishiro Iriya Morio Kurita Shie Antoni Tjahjono Elly Chalermchai Wanichlamlert Uddin Mohammed Tarek Sharma U Kumar Salim Barbhuiya Kanematsu
A. K. Mullick	Jinyong Lee	Haengki Lee	MohammadBin Ismail	Seunghwan Lee	
					
Youngjin Kim	Ippei Maruyama	Bao Chun Chen	Bokgyu Kim	Hirotaka Kawano	

□ TC3 : Maintenance

					Others Hiroshi Yokota Hidenori Hamada Takuya Hasegawa Yoshitaka Kato Takafumi Sugiyama Ekasit Limsuwan Tidarut Jirawattanasomkul Taesang Kim Li Kefei Uddin Mohammed Tarek
Gianluca Ranzi	Sangkeun Oh	Youngjin Kwon	Tingyu Hao	Jaeyo Kim	
					
Wonseok Chung	Shie Antoni	Ming Zhe	JungheumYeon	Seongdong Kim	

3. Activities of ACF

□ Operational Meetings



5th **GA** Meeting in Seoul, Korea (Sep. 2014)



10th **PVP** Meeting in Taipei, Taiwan (April. 2014)



10th **EC** Meeting in Seoul, Korea (Sep. 2014)

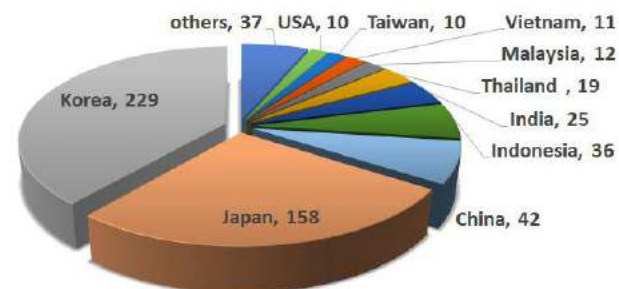


4th **TB/TC** Meeting in Seoul, Korea (Sep. 2014)

3. Activities of ACF





□ International Conference

	Contents	Date	Location
Plan	7th ACF Int. Conf.	30 Oct.-2 Nov. 2016	Hanoi, Vietnam
	1st ACF Int. Sym.	7 Oct. 2015	Kolkata, India
Past	6th ACF Int. Conf.	21 - 24 Sep. 2014	Seoul, South Korea
	5th ACF Int. Conf.	24 - 26 Oct. 2012	Pattaya, Thailand
	4th ACF Int. Conf.	29 Nov-1 Dec. 2010	Taipei, Taiwan
	3rd ACF Int. Conf.	11 - 12 Nov. 2008	Hochiminh, Vietnam
	2nd ACF Int. Conf.	20 - 21 Nov. 2006	Bali, Indonesia
	1st ACF Int. Conf.	28 -29 Oct. 2004	Chiangmai, Thailand



3. Activities of ACF

□ The 6th ACF 2014 Conference – Keynote Speakers

	Presenter	Institute & Title	Title of Presentation
	Tamon Ueda	ACF President	Debonding in strengthened concrete members
	James K. Wight	ACI Past president	Modern codes for design of concrete structures
	Gordon Clark	<i>fib</i> President	Concrete bridges – Lessons for durability by design
	Mark Alexander	RILEM President	Suitable single-score life-cycle environment assessment metrics for reinforced concrete structure



Tamon Ueda
(ACF)



James K. Wight
(ACI)



Gordon Clark
(*fib*)



Mark Alexander
(RILEM)

3. Activities of ACF

□ The 6th ACF 2014 Conference – Invited Speakers

Presenter	Nationality	Title of paper
Keunjoo Byun	Korea	The state-of-the-art recycled aggregate concrete
Jongsung Sim	Korea	Why do we need Asian concrete model code?
Jin-Keun Kim	Korea	Development of devices for measuring semi-adiabatic temperature rise and thermal stress
Yan Xiao	China	Impact behavior of reinforced concrete members
Bao-Chun Chen	China	Experimental study on the ultimate load-carrying capacity of UHPFRC arches
Koji Sakai	Japan	The current state and future of Asian concrete / construction industry
Koichi Maekawa	Japan	Thermo-hygral simulation of RC decks and monitoring data assimilation for bridge maintenance
A. K. Mullick	India	Pozzolanic properties and utilization of bottom ash in cement and concrete
FX Supartono	Indonesia	Sunda strait bridge: A titanic project connecting Java island and Sumatra island
Surendra P. Shah	U.S.A.	Nanotechnology and sustainability
Sashi K. Kunnath	U.S.A.	Modeling and simulation of progressive collapse of reinforced concrete frame buildings
Györgé L. Balázs	Hungary	Possibilities of computed tomography (CT) for diagnosis of concrete structures



Prof. Keunjoo Byun



Prof. Koji Sakai



Prof. Surendra P. Shah

3. Activities of ACF

□ The 6th ACF 2014 Conference – Program & Photo



Opening Ceremony



Han River Cruise



Conference Brochure



Lotte Tower Tour

September 21, 2014 (Sunday)

08:00 ~	ACF 2014 Registration
09:00 ~ 12:00	EC Meeting 1
12:00 ~ 13:30	Lunch
13:30 ~ 15:00	EC Meeting 2
15:00 ~ 18:00	GA Meeting
18:30 ~ 20:00	Welcome Reception

September 22, 2014 (Monday)

08:30 ~ 08:50	Opening Ceremony
08:50 ~ 10:10	Keynote Speech
10:10 ~ 10:30	Coffee Break
10:30 ~ 11:50	Keynote Speech
11:50 ~ 13:00	Lunch
13:00 ~ 14:30	Parallel Sessions 1
14:30 ~ 14:50	Coffee Break
14:50 ~ 16:20	Parallel Sessions 2
16:20 ~ 16:40	Coffee Break
16:40 ~ 18:10	Parallel Sessions 3

September 23, 2014 (Tuesday)

08:00 ~ 09:30	Parallel Sessions 4
09:30 ~ 09:50	Coffee Break
09:50 ~ 11:50	Parallel Sessions 5
11:50 ~ 13:00	Lunch
13:00 ~ 14:30	Parallel Sessions 6
14:30 ~ 14:50	Coffee Break
14:50 ~ 16:20	Parallel Sessions 7
16:30 ~ 18:30	Closing Ceremony
18:30 ~ 21:00	Banquet

September 23, 2014 (Wednesday)

09:00 ~ 10:20	ACF TC & TB Meetings 1
10:20 ~ 10:40	Coffee Break
10:40 ~ 12:00	ACF TC & TB Meetings 2
12:00 ~ 13:00	Lunch
13:00 ~ 18:00	Technical Tour

3. Activities of ACF

□ ACF Awards

The ACF Awards will be given in **ACF 2016 International Conference**, Hanoi, Vietnam

The ACF Awards

	Title	Num.	Qualified Person / Organization
1	Distinguished Service Awards	1~2	Past president / Honorary member
2	Best Academic Awards	1~2	Vice president / distinguished member
3	Best Technical Awards	2~3	Construction Companies / best OM
4	Best Project Awards	2~3	Monumental Construction Projects (Civil/Architectural)
5	Best Paper Awards	4~5	Best Papers among ACF Journal / ACF Conference
6	Best Engineer Awards	2~3	Young Doctors (PhD) / Engineers below 40
7	Best Member Awards	2~3	Best Active RM / OM / IM / EO
8	Best Committee Awards	1	Best Active Committee / Board
9	Special Awards	1~2	Significant Contribution for ACF (not listed above)



3. Activities of ACF

☐ Sustainability Forum (SF)



7th SF in Ulaanbaatar, Mongolia (2014)

Contents	Date	Location
9th SF	Apr. 2015	Fuzhou, China
8th SF	Sep. 2014	Seoul, Korea
7th SF	May. 2014	Ulaanbaatar, Mongolia
6th SF	Sep. 2013	Surabaya, Indonesia
5th SF	Mar. 2013	Ho chi minh, Vietnam
4th SF	Oct. 2012	Pattaya, Thailand
3rd SF	Apr. 2012	New Delhi, India
2nd SF	Nov. 2011	Seoul, South Korea
1st SF	Apr. 2011	Bangkok, Thailand

☐ Young Researchers & Graduate Symposium (YRGS)

Contents	Date	Location
6th YRGS	Oct.2014	Thammasat University, Thailand
5th YRGS	May.2013	Malaviya National Inst. Tech. India
4th YRGS	Apr.2012	Hong Kong Univ., Hong Kong
3rd YRGS	Sep.2011	National Taiwan Univ., Chinese Taipei
2nd YRGS	July.2010	Zhejiang Univ., China
1st YRGS	Apr.2009	Kunsan National Univ, South Korea



YRGS Symposium in Bangkok, Thailand (2014)

4. Publications of ACF

□ Asian Concrete Model Code (ACMC)



Division	Code No.	Contents
Design Code	Sep. 2014 ACFC0-3-14	Asian Concrete Model Code (ACMC 2014), 3rd ed.
	Jun. 2006 ACFC0-2-06	Asian Concrete Model Code (ACMC 2006), 2nd ed.
	Mar. 2001 ACFC0-1-01	Asian Concrete Model Code (ACMC 2001), 1st ed.
National Standard	Jan. 2014 ACFC3-4-14	Thailand Std. Spec.: Materials and Construction
	Jan. 2014 ACFC3-3-14	Thailand Std. Spec.: Durability and Service Life Design
	Jul. 2004 ACFC3-2-04	Vietnam Std. Spec. (TCXDVN 318: 2004): Concrete Reinforced Structure - Guide to Maintenance
Technical Report	Mar. 2011 ACFC3-4-11	Maintenance for Carbonation Guidelines for maintenance and rehabilitation of concrete str. Subjected to carbonation-induced deterioration
	Nov. 2010 ACFC3-3-10	Seismic Assessment and Retrofit Guidelines for the seismic assessment and retrofit of concrete structures
	Nov. 2009 ACFC1-1-09	Design for Seismic Actions Guidelines for designing transverse confinement reinforcement of RC columns against seismic actions
	Jun. 2007 ACFC1-2-07	Design for Fire Actions Guidelines for the design of reinforced concrete buildings against fire actions
	Aug. 2005 ACFC2-1-05	Materials and Construction Guidelines for materials and construction based on Japanese standard specifications
	Apr. 2004 ACFC3-1-04	Maintenance for Chloride Attack Guidelines for maintenance and rehabilitation of concrete structures against chloride induced deterioration
	Jul. 2001 ACFC1-1-01	Design for Seismic Action An example of seismic performance examination for RC building design according to the AIJ Guidelines

4. Publications of ACF

□ ACF News letters (2007 ~ 2014)

Number	Date	Contents
Vol. 8 No. 4	Oct 2014	The 6th YRGS 2014, Vietnam's Largest Cable-Stayed Bridge, The Best New Tall Buildings on the Planet, ...
Vol. 8 No. 3	Jul 2014	The ACF P&VP Meeting in Chinese Taipei, ACF Member Institute "HAKI", PhD abstracts, ...
Vol. 8 No. 2	Apr 2014	Meetings with CIA and ISO/TC71, ACF Member Institute " MCA", YRGS 2014 Announcement, ...
Vol. 8 No. 1	Jan 2014	Message from ACF President, YRGS 2013, VCA-ACF Joint Seminar, ...
Vol. 7 No. 1,	Oct 2013	Message from ACF President, New ACF Secretary General, the 9th EC Meeting, the 2nd TB Meeting, ...
Vol. 6 No. 2	Dec 2012	Brief history and future expectation of ACF-SF, election results, new ecological concrete, ...
Vol. 6 No. 1	Jul 2012	Future of cement and concrete, ACF and ISO/TC71, sustainable prefabricated structures ...
Vol. 5 No. 1	Dec 2011	Message from president, major activities and future plans, ACF-JCI-VCA joint seminar ...
Vol. 4 No. 3	Dec 2010	Farewell message from outgoing president, Taipei declaration on sustainability ...
Vol. 4 No. 2	Oct 2010	Advanced concrete technology in Korea, ACF-JCI-VCA joint seminar ...
Vol. 4 No. 1	Jun 2010	High performance concrete, engineered cementitious composites ...
Vol. 3 No. 3	Dec 2009	Role of ACF, contribution of ICCMC and ACMC to sustainable development in Asia ...
Vol. 2 No. 2	Aug 2008	Foreword by Vice President (Technical), news from Secretariat ...
Vol. 2 No. 1	Apr 2008	Foreword by President, President and Vice Presidents meeting ...
Vol. 1 No. 3	Dec 2007	Foreword by Vice President (Policy), 2nd President and Vice Presidents meeting ...
Vol. 1 No. 2	Aug 2007	Foreword by Vice President (Technical), Ferrocement rainwater harvesting (RWH) systems ...
Vol. 1 No. 1	Apr 2007	Foreword by President, ACF awards ...



4. Publications of ACF

□ Journal of ACF

- **The 1st ACF Journal: to be published in Sep. 2015**
 - The invited papers of ACF 2014 International Conference are included
 - Editor in Chief is Prof. D.U. Choi
 - Editorial Board Members are consisted of World Renowned Scholars

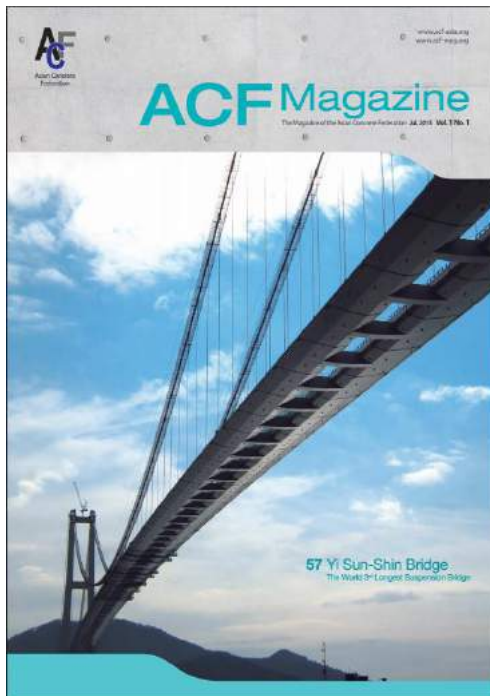
	Topics of ACF Journal
1	Concrete Structures
2	Concrete Materials and Technologies
3	Maintenance, Monitoring, Repair and Strengthening
4	Sustainability
5	Construction and Engineering
6	Recent research and related topics



4. Publications of ACF

□ ACF Magazine

- **The 1st Magazine:** published in July 2015
 - Four issues per year
 - Editor in Chief is Prof. J.S. Kim
 - English Editors are from Australia, New Zealand, India & Hong Kong



Divisions	No.	Contents
Introduction	1	Foreword
	2	Introduction of Organization
Technical Topics	3	Member Country Actively
	4	Advanced Technology
	5	Construction Record
	6	Product and Practice
News	7	ACF Activity
	8	Book Review
	9	International News

4. Publications of ACF

□ ACF Magazine

▣ Foreword - Greetings & Congratulatory Remarks

ACF President

ACF Past President

KCI, JCI President

fib, ACFI President



4. Publications of ACF

□ ACF Magazine

▣ Introduction of Organization / Member Country Activity

ACF

KCI

JCI

Land Development
Master Plan in Korea



4. Publications of ACF

□ ACF Magazine

▣ Advanced Technology

Hi-PC Girder Bridge

Japanese Action for
Debris due to Earthquake

UHPFRC Bridge

Integrated Life Cycle
Assessment of Concrete



4. Publications of ACF

□ ACF Magazine

▣ Construction Record / Product and Practice

PCA's Awards

Lotte World Tower

Yi Sun-Sin Bridge

Repair & Strengthening
Material

GNSS System



**Thank You
Very Much !!!**



Asian
Concrete
Federation

www.acf-asia.org
www.acf-int.org



Lotte World Tower, 123 story, 555m high