

# **Newsletter**

#### Vol. 10 No. 1, July 2018

### **Greetings from ACF President**

Prof Hiroshi Yokota Hokkaido University Japan



Greetings. First of all, I should apologize for not issuing the newsletter earlier. Let me introduce myself, I am Hiroshi Yokota, Prof. of Hokkaido University, Japan, and was elected as the president of the Asian Concrete Federation (ACF) at the meetings held on October 30, 2016 in Hanoi. At the same time Prof. Manamohan R. Kalgal, Prof. Caijun Shi, and Prof. Yin-Wen Chan were nominated as Vice Presidents, with Prof. Somnuk Tangtermsirikul as Treasurer and Prof. Jianguo Dai as Technical Board Chairman. The work of our term is two years already started on January 1, 2017.

The ACF was founded in 2004 and has the objectives to promote understandings of concrete and concrete structures and services to the society through concrete and concrete structures in countries in the Asia and neighboring regions. In addition to them, I have to mention the following three items to be strengthened during my term:

- (1) International collaborative activities for development of research and technology relating to various aspects of concrete and concrete structures: I signed the Memorandum of Cooperation with the International Federation of Structural Concrete (*fib*) on November 1, 2017. Our technical activities should be gradually shifted from creating Asian Concrete Model Codes to solving common problems in Asia. This is because many people from Asia are now participating in the ISO/TC71 (concrete, reinforced concrete and pre-stressed concrete) where international codes are discussed and subsequently published.
- (2) Dissemination of useful information on concrete and concrete structures through publications, conferences, symposia, workshops and seminars: We organized the 2nd ACF Symposium on November 24 and 25, 2017 at Chiang Mai, Thailand and now organizing the 8th International Conference from November 4-7, 2018 at Fuzhou, China and the 3rd ACF Symposium on September 10 and 11, 2019 at Sapporo, Japan. The ACF Sustainability Forum is frequently held in Asian countries; the latest Forum was held on January 22, 2018 at Semarang, Indonesia. Several symposia and seminar have been co-sponsored by the ACF. As most of you are aware, the ACF started publication of ACF Journals twice a year from September 2015.
- (3) Expanding technical activities: the organizational structure of the ACF will be updated to meet our activities. The new structure will be launched soon. The new technical committee on UHPC was founded in November 2017 chaired by Prof. Shi, where design, execution and maintenance of UHPC in the Asian region will be discussed. As a part of technical activities, the ACF is planning to publish a text book on life-cycle considerations for concrete structures.

The details of some above-mentioned topics can be found in this newsletter. I hope the information enables us to get better understandings and promote new members to join the ACF. Last but far from not least, your active participation in the ACF activities should be greatly appreciated.

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Prof Hiroshi Yokota ACF President

# **Executive Council Members (2017-2018)**

ACF Executive Council (EC) Members (term of office; Jan. 2017 - Dec. 2018) had been nominated by each representative members and among the new EC members, the next president was elected during the EC meeting held on 30 October 2016 in Hanoi, Vietnam. The new EC members were officially announced as below:



14th EC meeting held on 30 October 2016 in Hanoi, Vietnam

President: Prof Hiroshi Yokota (Japan Concrete Institute) Vice-president (policy): Prof Manamohan R. Kalgal (Indian Concrete Institute) Vice-president (technical): Prof Caijun Shi (Hunan University) Vice-president (publication): Prof Yin-Wen Chan (Taiwan Concrete Institute) Treasurer: Prof Somnuk Tangtermsirikul (Thailand Concrete Association) EC members: Mr David Millar (Concrete Institute of Australia) Prof Jang-Ho Jay Kim (Korea Concrete Institute) Prof Narantuya Batmunkh (Mongolian Concrete Association) Prof Vyatcheslav R Falikman (Association for Structural Concrete, Russia) Dr Le Trung Thanh (Vietnam Concrete Association) Prof Jianguo Dai (Ex-officio; TB Chairman)

Prof Manyop Han (Ex-officio; immediate past president)

# **Technical Board Members (2017-2018)**

As the term of ACF Technical Board office expires by the end of 2016, the election of new TC chairmen and TB chairman (term of office; Jan. 2017 - Dec. 2018) was conducted among TC/TB members on 30 October 2016. With the confirmation and approval of Prof. Sugiyama, the immediate past chairman of ACF technical board and witness of the election, the next TB members were officially announced as below:



6<sup>th</sup> TC/TB meetings held on 30 October 2016 in Hanoi, Vietnam

#### TB Chairman:

Dr. Jianguo Dai, The Hong Kong Polytechnic University, Hong Kong

**TC1 Chairman (Design):** Dr Sandeep Chaudhary, Indian Institute of Technology, India

**TC2 Chairman (Materials and Construction):** Prof Zhang Yunsheng, Southeast University, China

#### TC3 Chairman (Maintenance):

Dr Manabu Kanematsu, Tokyo University of Science, Japan

### **Revision of ACF Constitution and Byelaws**

At the 7<sup>th</sup> GA meeting held on November 23 in Chiang Mai, the revision of ACF Constitutions and Byelaws were approved unanimously. Their revised versions can be obtained on the ACF official website. The major points of the revision are as follows:

- Corporate Member was changed its name to Organization Member that includes the academic institutes;
- Student Member was newly offered; a full-time student in a university program under the age of 35 is eligible for this membership;
- Vice-President (Publication), Editor-in-chief of Journal, and Editor-in-chief of Magazine were additionally defined with their roles and nomination procedures;
- Editorial Boards of Journal and Magazine were added;
- The meeting period and the quorum of General Assembly were updated;
- The membership subscription and voting right of each membership were updated;
- ACF symposium, Seminar, and ACF Sponsored Events were mentioned with rules, and
- Appendix of Byelaws was deleted.

### **ACF Membership News**

At present ACF has four categories of Representative Membership (RM) viz., A, B, C, D with annual fee of USD 4000, 2000, 1000 and 500, respectively. In addition, there are Organization Members (OM) representing the industry, Individual Members (IM) and Student Members (SM). The members, especially RMs are participating actively in the activities of ACF and contributing to the various committees.



It is proposed to prepare attractive Identity Cards for the members and the design for the same has been approved. Efforts are on to enroll more members in all the categories as well as bring back inactive Organization Members. It is hoped that we should be able to succeed in our efforts.

# **ACF Sustainability Forum's Activities**



Prof Koji Sakai Chair of ACF SF Japan

ACF Sustainability Forum (SF) was founded to follow up the ACF Sustainability Declaration which was adopted in the ACF Taipei Meeting in 2010. Since then, ACF SF have had its meetings and seminar in Bangkok (Thailand) on April 2011, Seoul (South Korea) on November 2011, New Delhi (India) on April 2012, Pattaya (Thailand) on October 2012, Ho Chi Minh City (Viet Nam) on March 2013, Surabaya (Indonesia) on September 2013, Ulaanbaatar (Mongolia) on May 2014, Seoul (South Korea) on September 2014, Fuzhou (China) on September 2015, Kolkata (India) on October 2015, Davao (Philippine) on November 2016, Gazipur (Bangladesh) on December 2017, and Semarang (Indonesia) on January 2018.

In the seminar at Diponegoro University, Semarang, 9 speakers gave their lecture including the speakers from ACF as follows:

Koji Sakai (Chair of ACF-SF): The essence of sustainability in concrete and construction Hiroshi Yokota (President of ACF): Life-cycle management of concrete structures Takafumi Noguchi (Secretary of ACF-SF): Contribution of concrete to greenhouse gas reduction



Prof Hiroshi Yokota, ACF President, gave an opening speech at the seminar.



Prof Koji Sakai, Chairman of SF, delivered a keynote on "The Essence of sustainability in concrete and construction industries".

As described above, we have had the 13<sup>th</sup> SF meetings and seminars in 10 Asian countries since 2011. The situation around us has drastically changed for last decade. ISO/TC71/SC8 has published the standards on environmental management for concrete sector. *fib* is discussing Model Code 2020 to incorporate sustainability appropriately. The UN's SDGs and ESG concept are becoming more and more important. The concrete-related industries have a great role for that. The ACF-SF will continue its activity to contribute to such social requirements.

We also wrote the ACF SF Technical Report which is available in ACF Website. The second version of ACF SF Technical report should be also developed. In addition, we need to develop human resources for ACF SF activities.

# **Journal of Asian Concrete Federation (ACF Journal)**

Prof Donguk Choi Editor-in-Chief Hankyong National University Republic of Korea



Journal of Asian Concrete Federation (ACF Journal) is an international peer-reviewed technical journal, which was first launched in Sep. 2015 (See Fig. 1). After the first issue, two issues are being published annually in June and December at present. ACF Journal specializes in the research on concrete structures and concrete materials including the following topics:

- 1. Concrete structures;
- 2. Concrete materials;
- 3. Maintenance, monitoring, repair and strengthening;
- 4. Sustainability;
- 5. Construction and engineering; and
- 6. Recent concrete research and related topics



Inaugural issue (Sep. 2015) of Journal of Asian Concrete Federation (ACF Journal)



Recent issue (Jul. 2018) of Journal of Asian Concrete Federation (ACF Journal)

Through the last six issues, there have been a total of 36 papers published in ACF Journal which consists of 34 technical papers and two technical reports. Statistics on the origin of contribution by the corresponding author are as follows: Japan (12), India (6), South Korea (6), China (3), Indonesia (2), Vietnam (2), Australia (1), Malaysia (1), Mongolia (1), Taiwan (1) and Thailand (1). Total number of countries which contributed is twelve while six papers on average were published per issue. Mr. Vijay Kulkarni of India and Prof. Myoungsu Shin of South Korea have been serving as Vice Editor-in-Chiefs since 2015. In addition, ACF Journal has 24 Editorial Board members representing each member institute of ACF as well as world-wide well-known scholars of ACI, *fib* and RILEM. Deadline for the manuscript is July 15 for the December issue and it is January 15 for the June issue. All forms needed for the submission can be found at ACF home page at http://www.asianconcretefederation.org.

Interested readers can browse issues and/or download papers from the same URL. For contributions for the ACF Journal, please use on-line submission portal at <u>http://acoms.jams.or.kr</u> by ACOMS (Advanced Contribution Management System) or send your contribution directly to the Editorial Board of ACF Journal using the following e-mail address: <u>acf.acoms@gmail.com</u>

# **ACF Funded Project**

# "Waste Utilization in Concrete as Aggregate: Asian Perspective"

Dr Sandeep Chaudhary Indian Institute of Technology India



The ACF funded project "Waste Utilization in Concrete as Aggregate: Asian Perspective" has a unique perspective of uniting various leaders (South Asian Countries) of concrete technology as investigators on a common platform. The meticulously selected waste materials by the investigators for their respective nations have been marked as potential hotspot with huge research and application areas.

For Indian context the investigators (Dr. Sandeep Chaudhary and his team) targeted the scope of utilization of rubber waste and industrial slag waste as fine and coarse aggregate. India, with its growing economy, industrial and infrastructural needs has potential to utilize rubber and industrial slag aggregates to produce concrete with improved ductility properties and durability properties. With initiatives such as "Make in India" and "Smart Cities Mission" the need for proper and effective waste management can be realizing the prospective of waste exchange by Automobile and Smelting Industries with concrete industry.

Hong Kong being an autonomous city country requires its fair share in recycling the waste material to conserve its limited natural resources. The investigators (Dr. J. G. Dai and his team) realized the potential of waste glass and bottom ash as aggregate in concrete production. The pozzolanic potential of these waste materials makes them ideal for concrete production without compromising the mechanical and durability properties.

The world looks up to China as the rising dragon with its huge advances in production and industrial engineering systems. The investigators (Prof. Yuxi Zhao and her team) focused on the huge amount of construction and demolition and plastic waste as potential form of aggregate. The plastic waste can improve the ductility properties of concrete which can be useful in production of paver blocks whereas construction demolition waste requires focused investigations for its utilization in production of structural concrete.

The nation of Thailand is taking concrete steps to position itself as a growing hub of industrial and infrastructural activities in South East Asia. The investigators (Dr. Raktipong Sahamitmongkol and his team) directed their focus on the potential of recycled aggregate as aggregate in concrete production. Thailand Concrete Association (TCA) has green lighted several studies to investigate the possible utilization of recycled aggregate in the infrastructure development of the nation.

In conclusion, I would like to say that the combined expertise and technical skills of the investigators will certainly be a step forward in realizing the sustainable solution of waste recycling as aggregate in concrete production.

### **Upcoming ACF Symposium**

ACF will organize the 3<sup>rd</sup> ACF Symposium on "Assessment and intervention of existing structures (tentative theme)" on 10 and 11 September 2019 at the Hokkaido University, Sapporo, Japan. As a part of the Symposium, we will hold Prof Tamon Ueda Special Session that honors his accomplishments in his research fields and contributions to ACF. The detailed information on this event can be found on the symposium official website, which will be opened soon. The symposium organizing committee warmly welcomes all of you to Sapporo to join the event.

### The 8th International Conference of Asian Concrete Federation (ACF 2018): Sustainability and Innovation in Concrete Materials and Structures



Date: 4-7 November 2018 Venue: Fuzhou, China Host: ACF China Chapter

The International Conference of Asian Concrete Federation (ACF) is a premier leading conference on concrete material and structures. Its 8<sup>th</sup> conference, ACF2018, will be held on November 4<sup>th</sup> ~ 7<sup>th</sup>, 2018, at Crowne Plaza Fuzhou Riverside Hotel in Fuzhou, China, which is organized by ACF, Fuzhou University, China Chapter of ACF, and Fujian University of Technology.

The main theme of the conference is sustainability and innovation in concrete materials and structures. Almost 200 papers from 17 countries or regions have been accepted. Many very famous experts in the field are invited to have keynote presentations, including the present or past leaders of ACI, RILEM, *fib*, and ACF.

The full papers are been receiving now, and submission deadline is extended to the end of July. The early bird registration date will come soon. Please recheck the important dates below.

- \* Full Paper Submission: July 31, 2018 [Extended]
- \* Early Bird Registration: August 31, 2018
- \* The 8th International Conference of ACF: November 4-7, 2018

ACF2018 Organizing Committee offers an opportunity to visit the 16-km long Pingtan cross-strait highway-railway bridge (double decks) linking the Pingtan Island to the mainland, which is the first high-speed railway bridge crossing over the sea in China. The upper deck has a two-way six-lane highway, and the lower one features a double-track railway.

After ACF2018, the 2<sup>nd</sup> International Conference on UHPC Materials and Structures (UHPC 2018-China) will be held at the same hotel on November 7-10, 2018.

Looking forward to meeting you in Fuzhou in November.

#### Website

http://2018acf.fzu.edu.cn

#### Contact

Conference Secretariat: <u>acf2018@qq.com</u>

### **Membership fee**

Members are kindly reminded to pay their membership fee. Please contact the secretariat in case you have any query about your membership status.

### **Secretariat**

Krittiya Kaewmanee secretary@asianconcretefederation.org

#### www.asianconcretefederation.org