

Report from JCI (Japan Concrete Institute)

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JAPAN CONCRETE INSTITUTE
50th ANNIVERSARY

JAPAN
CONCRETE
INSTITUTE
1965-2015





The *Japan Concrete Institute* (JCI) celebrated the 50th anniversary of its establishment on July 12, 2015. To celebrate the milestone, a number of events were planned by the Executive Committee as follows.

- (1) On July 12, an Anniversary Ceremony and a Celebratory Party was held.
- (2) Under JCI's new membership scheme, Fellow Members who have been members for 50 or more years and Fellow Members are designated.
- (3) Representatives of overseas organizations that have academic agreements with JCI were invited to the Anniversary Ceremony and Celebratory Party to further promote exchanges.
- (4) A 50th Anniversary event consisting of an international conference and three symposiums was held. From June 1 to 3, the International Conference on the Regeneration and Conservation of Concrete Structures was held in Nagasaki, and international symposiums on the three themes of "Systematization of Concrete Engineering and Science via Multi-Scale Model," "New Potential of Construction Materials Recommendations for the Effective Use of Unused Resources for Concrete", and "Seismic Strengthening and Resilience Enhancement of Concrete Structures" (Second ACI-JCI Joint Seminar) were held at the Toshi Center Hotel in Tokyo on July 13.
- (5) A newly produced DVD that introduces JCI, the basics of concrete technology, and new technologies, was distributed.
- (6) A 50th Commemorative Booklet was published.

Anniversary Ceremony

JCI held an anniversary ceremony at Toshi Center Hotel Tokyo from 14:00, July 12, 2015.

Following an address by the President of JCI, congratulatory speeches will be delivered by guests from the Ministry of Land, Infrastructure and Transport and the Ministry of Economy, Trade and Industry. This will be followed by congratulatory speeches by representatives from ACI, fib, and ACF, overseas societies with which JCI has exchanges.

The anniversary ceremony and celebration banquet will be free of charge. On July 12, an Anniversary Ceremony and a Celebratory Party was held.



Toshi Center Hotel Tokyo



Hirozo MIHASHI, President of JCI

International Symposiums & Seminars

As part of the 50th anniversary of its establishment, three international symposiums were held on the topics related to strategic initiatives focused on concrete engineering of the next generation on July 13, 2015.

1. Systemization of concrete science and technology through multi-scale modeling

Providing an overall view of concrete materials and the micro and macro phenomena pertaining to the structural behavior and performance of concrete.

2. New Possibilities for Construction Materials: Proposals for application of underutilized resources as construction materials

Reflecting JCI's initiatives over the past 50 years for the promotion of the utilization of unused resources such as admixture minerals and the development of related technology.

3. Second ACI-JCI Joint Seminar

US-Japan Seminar on Resilience of Concrete Structures. The first one was held on Hawaii Island in July 2014.

International Conference

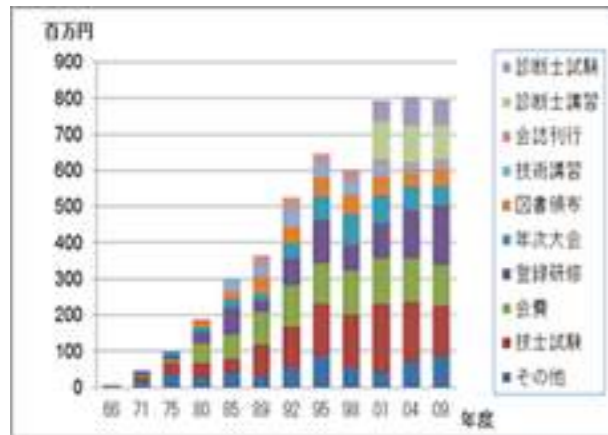
In celebration of its 50th anniversary, JCI held an International Conference on the Regeneration and Conservation of Concrete Structures over three days from June 1, 2015 in the city of Nagasaki.

The themes covered by this international conference include durability design of concrete structures, deterioration mechanisms, deterioration simulation, deterioration monitoring, non-destructive inspection, repair and reinforcement, and regeneration and conservation. Two invited lectures, two special lectures, six keynote lectures, 120 or so general lectures, and 20 or so technical exhibits will be held on these themes. A tour of a group of heritage building surviving on Gunkanjima (Battleship Island) will also be held for all participants.

<http://www.jci-net.or.jp/~info-rccs/>



Commemorative Publications



Example of Award winner (Kakamigahara Bridge)

Two commemorative publications, a 50th Anniversary Commemorative Booklet and a Photo Book, will be published on the JCI website.

The 50th Anniversary Commemorative Booklet features the history and organization of JCI, its former presidents and officers, changes in membership and budget, the evolution of academic research activities and international cooperation activities, the evolution of the certification system, a list of publications, a list of special Concrete Journal issues, and a list of award recipients, among other things, along with a chronology of concrete technology. On the other hand, the Photo Book consists of photos of concrete structures featured in 100 Years of Concrete in Japan, published on the occasion of JCI's 40th anniversary, various famous concrete structures built in the ensuing ten years, concrete structures that have won a Japan Concrete Institute award (Work Award), and prominent overseas concrete structures.

International Symposiums & Seminars

“New Possibilities for Construction Materials: Proposals for application of underutilized resources as construction materials”

Session 1: Keynote

- *JCI's efforts on use of underutilized resources for the past 50 years (Japan)*

Session 2: Record and Lessons Learned from the Great East Japan Earthquake

- *Technical Development in Debris Operation and Revealed Problems after the Great East Japan Earthquake (Japan)*
- *Some Examples of Operation and Utilization of Debris due to the Great East Japan Earthquake (Japan)*
- *Soils recovered from disaster debris (Japan)*

Session 3: Prospects on Application of Underutilized Resources

- *Recycling of Brick Aggregate Concrete As Coarse Aggregate (Bangladesh)*
- *A New Model in International Collaboration (Canada)*
- *An Example of New Approach on application of underutilized (Japan)*

International Symposia & Seminars

“Systemization of concrete science and technology through multi-scale modeling”

Session 1: Volume change

- *Shrinkage and Creep of Concrete: Mechanisms as Described on Different Structural Levels* (Swiss)
- *Modeling creep and autogenous shrinkage in hydrating cement microstructures* (India)
- *Coupling developments of macro-scale testing with parameter estimation for multi-scale modeling: the case study of interaction between EMM-ARM and mic* (Portugal)
- *COST Action TU1404 - Towards the next generation of standards for service life of cement-based materials and structures: Opportunities of interaction with JCI in the context of multi-scale modeling* (Portugal)
- *Understanding of concrete structure: multi-scale observations and modeling* (Japan)

Session 2: Durability

- *Concrete deterioration modeling by using thermodynamic equilibrium codes* (Japan)
- *Multi-scale and Multi-chemo-physics modeling of structural concrete* (Japan)
- *Modeling of crack and its impact to structures* (Japan)

Session 3: Toward generalized-knowledge-based application

- *Modeling of irradiated concrete through upscaling techniques* (USA)
- *The Multi-scale model of things* (Germany)
- *Multi-scale modeling for life-cycle infra-management* (Japan)

International Symposiums & Seminars

“2nd JCI & ACI Joint Seminar Resilience of Concrete Structures”



Prof. Sharon Wood, President of ACI

Session 1: Seismic Design for RC Structures

- *Reorganization of the ACI 318-14 Building Code and Changes in Seismic Design Provisions (USA)*
- *Seismic Design of Headed Bars for Reinforced Concrete Beam-column Joints in Japan (Japan)*
- *Performance-Based Seismic Design of Tall RC Core Wall Building: State of Practice on the West Coast of the U.S. (USA)*
- *Recent Shaking Table Tests of RC Building Model Structures Presenter (Japan)*
- *Evaluation of Limit States of RC Columns in Performance-Based Seismic Design of Bridges (Japan)*
- *Experimental Testing of Bridge Columns Using Long Duration Ground Motions (USA)*

Session 2: Assessment and Monitoring of Concrete Structures

- *Life Extension of Reinforced Concrete Structures (USA)*
- *Structural Health Monitoring for Optimization of Concrete Bridge Management (Japan)*
- *Collapse Simulation of Slab-Column Moment Frame Building (USA)*
- *Image Based Detection for Concrete Fracture (Japan)*

The 2nd JCI & ACI Joint Seminar

-Resilience of Concrete Structures-



Prof. *Jim Jirsa*, the past President of ACI

He addressed the issues of “*Life Extension of Reinforced Concrete Structures*”



Jun'ichi
Hoshikuma

Adolfo
Matamoros

Ron
Burger

James
Jirsa

Tomohiro
Miki

Tomohiro
Miki

Hani
Nassif

Andrew
Taylor

Hitoshi
Shiohara

Sharon
Wood

Kyuichi
Maruyama

David
Sanders

Hiroshi
Mutsuyoshi

Jeff
Dragovich

Hide
Katsumata