About JCI

Dr. Tomohiro Miki

International Activities Committee, JCI
Associate Professor, Kobe University
Japan
I. Brief History

1961 Started as Japan Chapter of ACI
1963 Launch of Concrete Journal (in Japanese)
1965 Founded as Japan National Council on Concrete (in 1975 name was changed to Japan Concrete Institute)
1971 Launch of Certification Program for Authorized Concrete Engineers
1979 Start of JCI Annual Convention
I. Brief History (cont.)

2001 Certification Program for Authorized Concrete Diagnosis & Maintenance Engineers
2003 Launch of JCI English Journal Advanced Concrete Technology
2015 50th Anniversary Ceremony
II. Organization

**Numbers**

- Members 7,025
- Chapters 8
- Directors 27
- Staffs 24
- Committees & Subcommittees 61

(Involved members 1,370)
III. Activities

1. Research Committees
2. Public Information Committees
3. Annual Convention, Symposium and Seminar
4. Publication
5. Award
6. Certification Program
7. International Cooperation and Exchange
1. Research Committees

- **Technical Committee**
  The term of committee is generally **2 years**. 10 committees are regularly working. Every year half of them are terminated and new committees are established.

- **Committee for Concrete Technology**
  A longer term is adopted. 5 committees are working.

- **Standards Committee**
  JCI Standard, JIS Drafting, ISO/TC71 in Japan
1. Research Committees

Technical Committees (in 2018)

- Innovation of Production/Supply/Construction System of Concrete
- Composite Deterioration of RC Structures
- Delayed Ettringite Formation (DEF)
- Test Method for Evaluation of Concrete Performances
- Disposal of Hazardous/Radioactive Wastes
- Repair Materials and Methods for Minimum Maintenance
- Design Concept of Precast and Prestressed Concrete
- Inspection and Assessment of Concrete by Neuron Beam
- 3D Printing

http://www.jci-net.or.jp/j/jci/study/kenkyu.html
1. Research Committees

Committee for Concrete Technology

- Concreting Technology
- Computer Software for Long-term Performance of Concrete Structures
- Sustainability
- Concrete Structures under Fatal Conditions
- Concrete Pumping Technology
2. Public Information Committees

- Information and Communications Technology (ICT) for JCI
- Public Relations Strategy for image improvement of concrete
- Publication of Practical Guideline for Investigation, Repair and Strengthening of Cracked Concrete Structures
- Use of Sea Water in Concrete
- Computer Code for Crack Control in Massive Concrete
- Overseas Dissemination on Concrete Technology
- Promotion of Women’s Participation and Advancement in Concrete Industry
6. Certification Program

- Authorized Concrete Engineer
  45,556 (+738 in 1 yr) registered since 1971
- Authorized Chief Concrete Engineer
  10,621 (+206 in 1 yr) registered since 1972
- Authorized Concrete Diagnosis & Maintenance Engineer
  12,940 (+582 in 1 yr) registered since 2001
Breakdown of Registrants by Industry (As of April 2018)

**Authorized concrete engineers**
- Construction: 46.8%
- Ready-mixed concrete: 22.2%
- Others: 9.6%
- Government and other public offices: 3.6%
- Products: 8.3%
- Design consulting: 6.3%
- Admixture: 1.8%
- Cement: 1.4%
- Others: 9.6%
- Total: 45,556 people

**Authorized concrete diagnosis & maintenance engineers**
- Construction: 39.3%
- Ready-mixed concrete: 4.4%
- Design consulting: 27.3%
- Others: 15.0%
- Government and other public offices: 7.9%
- Products: 2.7%
- Admixture: 1.2%
- Cement: 2.2%
- Others: 15.0%
- Total: 12,940 people

**Authorized chief concrete engineers**
- Construction: 32.3%
- Ready-mixed concrete: 35.4%
- Others: 9.5%
- Government and other public offices: 2.6%
- Products: 5.8%
- Design consulting: 6.6%
- Admixture: 4.0%
- Cement: 3.8%
- Others: 9.5%
- Total: 10,621 people
Authorized Concrete Engineers

The majority of the authorized concrete engineers and authorized chief concrete engineers certified by JCI are working in various positions in ready-mixed concrete production, product quality control, construction across Japan, and have earned a high level of trust as engineers with concrete expertise gained through many years of work in their respective fields.
6. Certification Program

Authorized Concrete Diagnosis & Maintenance Engineers

JCI has been promoting the systematization of engineering knowledge in the fields of diagnosis, maintenance, and repair of existing concrete structures. Along with the publication of Concrete Diagnostic Techniques, a textbook for authorized concrete diagnosis & maintenance engineer workshops, the certification system has started in 2001.

The registered engineers are officially recognized by government and local governments as necessary experts for diagnosis of existing concrete structures.
7. International Cooperation and Exchange

JCI has established collaborative relationships with concrete related organizations throughout the world.

**ACI** International partnership agreement in 2004.
**fib** Delegation 4 Class member since 1998.
**ISO/TC71** P member since 1994.
**RILEM** International partnership agreement in 2007.
**ACF** (Asian Concrete Federation) strongly committed from the beginning.

Other bodies with international partnership agreement
**KCI** (Korea Concrete Institute) in 1993.
**IMCYC** (Mexican Institute of Cement and Concrete) in 2005.
**IBRACON** (Brazilian Concrete Institute) in 2006.
**TCA** (Thailand Concrete Association) in 2016
**CIA** (Concrete Institute of Australia) in 2016
International Conference & Symposium

JCI has held more than 20 international conferences and symposiums since 1967. Recent ones are as follows:


**SCMT3** (Kyoto) August in 2013. [http://scmt.org.uk/SCMT3.htm](http://scmt.org.uk/SCMT3.htm)


**JCI-KCI-TCI** Symposium (Hiroshima) July in 2012.

2019 attention!!
4th JCI-ACI joint seminar and Concrete Sustainability Seminar will be held at 11th and 12th July, 2019, respectively in the JCI Annual Convention in Sapporo, Japan.
Thank you for your kind attention.

For more information, please visit the JCI website.
http://jci-net.or.jp/index-e.shtml
II. Organization (cont.)

Japan Concrete Institute (JCI) Organizational Chart [FY2018]
1. Research Committees

Standards Committee

- JCI Standards
- JIS Drafting on Test Method for Concrete
- ISO/TC71 in Japan (73 members involved)
### Required Experience and its certificated documents

<table>
<thead>
<tr>
<th>資格</th>
<th>コンクリートの技術関係業務(注1)の必要実務経験年数</th>
<th>C証明書等</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>技士</td>
<td>主任技士</td>
</tr>
<tr>
<td>A1</td>
<td>コンクリート診断士</td>
<td>いずれかを登録していること</td>
</tr>
<tr>
<td>A2</td>
<td>一級建築士</td>
<td>いずれかを登録していること</td>
</tr>
<tr>
<td>A3</td>
<td>技術士（建設部門）</td>
<td>いずれかを登録していること</td>
</tr>
<tr>
<td>A4</td>
<td>技術士（農業部門－農業土木）</td>
<td>いずれかを登録していること</td>
</tr>
<tr>
<td>A5</td>
<td>(特別上級・上級・1級)土木技術者(土木学会)</td>
<td>いずれかを登録していること</td>
</tr>
<tr>
<td>A6</td>
<td>RCCM（鋼構造及びコンクリート）（建設コンサルタント協会）</td>
<td>いずれかを登録していること</td>
</tr>
<tr>
<td>A7</td>
<td>コンクリート構造設計士(プレストレストコンクリート工学会)</td>
<td>いずれかを登録していること</td>
</tr>
<tr>
<td>A8</td>
<td>1級土木施工管理技士または、1級建築施工管理技士</td>
<td>監理技術者資格者証を有すること</td>
</tr>
</tbody>
</table>

### 表-1	受験に必要な資格等と証明書類

(注1) コンクリートの技術関係業務：レジーミクストコンクリート・コンクリート製品の製造、コンクリートの品質管理・施工管理、コンクリートの設計ならびにコンクリートの試験・研究等に関する業務をいう。
(在学中のアルバイトは実務経験年数に該当しません。)
(注2) コンクリート技士合格者：2015年度(平成27年度)までに「コンクリート技士」に合格し、その後2年以上の実務経験を有する人。
(注3) コンクリート技術に関する科目（コンクリート工学、土木材料科学、建築材料科学、セメント化学、無機材料工学、等）
※大学院でコンクリートに関する研究を行った期間を実務経験とする場合は、実務経歴書に研究テーマの記入と、大学院の修了証明書が必要です。
3. Annual Convention, Symposium and Seminar

**Annual Convention**

Once a year (in July), Three days

- Reviewed paper presentation (around 650)
- Technical exhibition (around 80 booths)
- Ready-mixed concrete seminar
3. Annual Convention, Symposium & Seminar

Annual Convention (cont.)

Participants

- Paper presentation: 1,700
- Technical exhibition: 7,600
- Ready-mixed concrete seminar: 660

Posters 2015-2017
Symposiums and seminars on specific concrete-related research themes are held to coincide with the publication of Research Committee reports, offering a forum for research presentations and discussions for participants.

Concrete technology seminars are held every year in major cities across Japan for the purpose of spreading concrete technology, teaching new techniques, and fostering human resources.
4. Publication

Journals

⭐ Concrete Journal (in Japanese), monthly
⭐ Concrete Research and Technology (in Japanese)
⭐ Advanced Concrete Technology (in English) (Impact Factor (2016): 0.835)

http://www.j-act.org/
4. Publication (cont.)

Proceedings

Papers presented at JCI annual convention

Guidelines

- Investigation, Repair and Strengthening of Cracked Concrete Structures
- Control of Cracking of Mass Concrete
- Assessment of Existing Concrete Structures
4. Publication (cont.)

Books

Fundamentals of Concrete Technology (in Japanese)
JCI Standards (in Japanese)
5. Awards

Honorary Membership Award
Lifetime Membership Award
JCI Fellow

Meritorious Deed Award

Best Paper Award
Technology Award
Work Award
Encouragement Award

Annual Paper Encouragement Award