

# ISO TC71 COMMITTEE

CONCRETE, REINFORCED CONCRETE AND PRE-STRESSED CONCRETE

Presenter : Jongsung Sim

Date : 17<sup>th</sup> April, 2016

Location : Hyatt Regency Milwaukee, C-202 B



## **CONTENTS**

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- **21<sup>ST</sup> ISO TC71 PLENARY MEETING IN SEOUL, 2015**
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- **CONCLUSIONS**



# INTRODUCTION TO ISO TC71 COMMITTEE

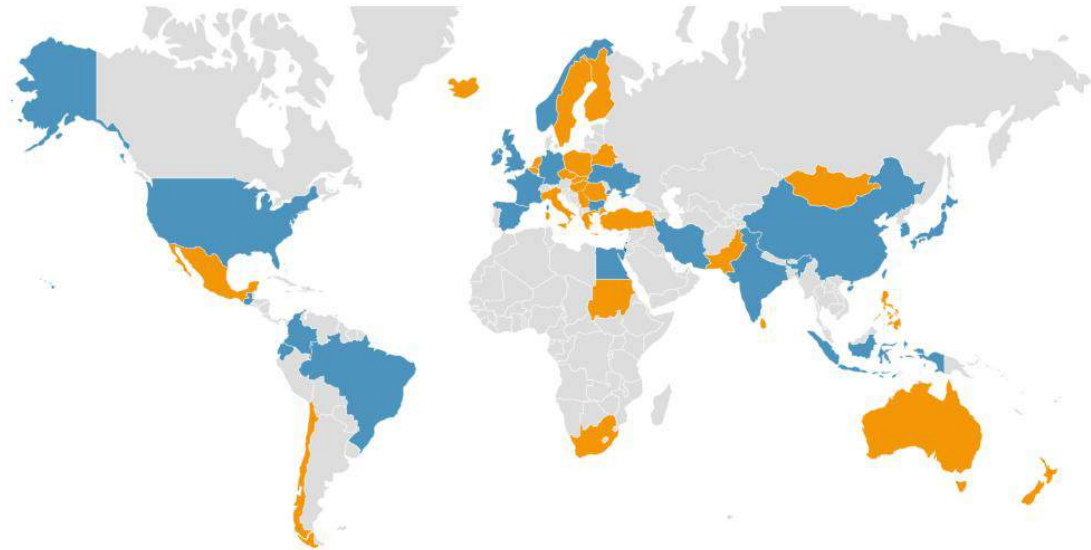
**ISO TC71 committee : Concrete, reinforced concrete and pre-stressed concrete, was established in 1949 for standardization of the technology of concrete, of the design and construction of concrete, reinforced concrete and pre-stressed concrete structures, so as to ensure progressive development both in quality and in price reduction; and of definitions and terms, as well as testing procedures, to facilitate international exchange of research work.**

- Secretariat : United States (ANSI)
- Secretary: Mr. Gregory Zeisler
- Chairperson: Mr. James Cagley until end 2018
- ISO Technical Programme Manager: Dr Anna Caterina Rossi
- ISO Editorial Programme Manager: Ms Katherine Bennett

<b>Total number of published ISO standards related to the TC and its SCs (number includes updates)</b>	<b>40</b>
<b>Work Program</b>	<b>20</b>



# INTRODUCTION TO ISO TC71 COMMITTEE



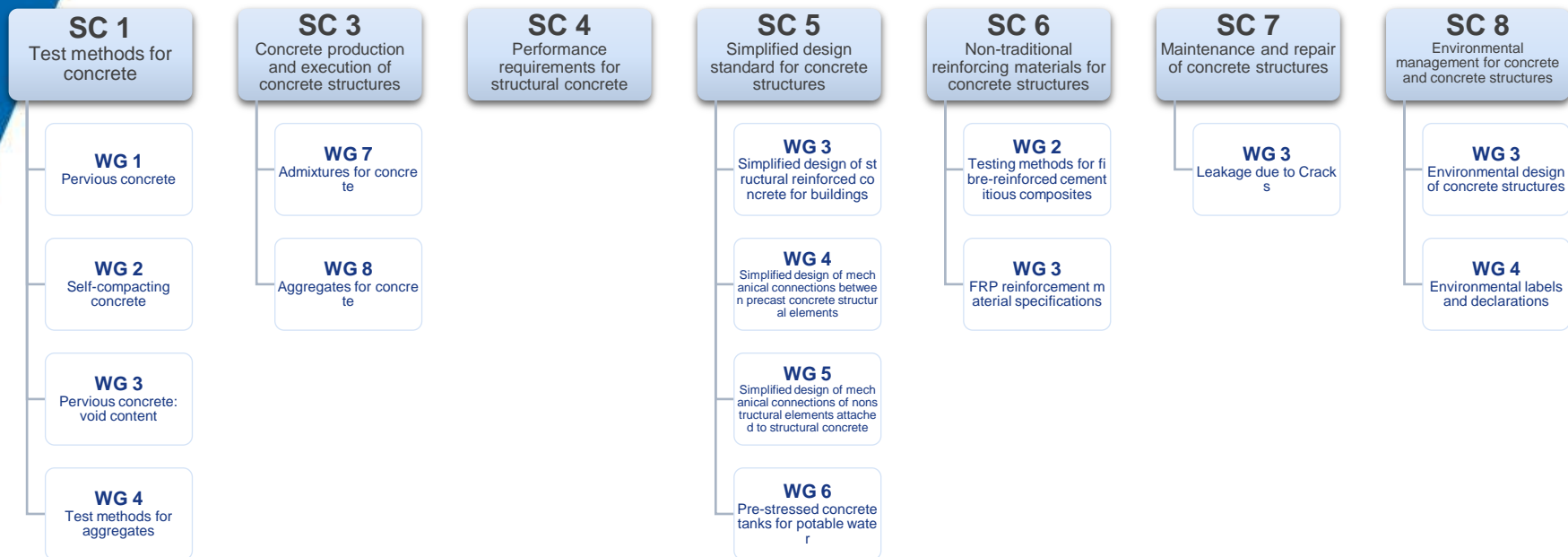
- **Participating Countries (39)**
- **Observing countries (56)**

Afghanistan (ANSA)	Chile (INN)	India (BIS)	Libya (LNCSM)	Spain (AENOR)
Algeria (IANOR)	China (SAC)	Indonesia (BSN)	Malaysia (DSM)	Thailand (TISI)
Armenia (SARM)	Colombia (ICONTEC)	Iran, Islamic Republic of (ISIRI)	Mongolia (MASM)	Turkey (TSE)
Australia (SA)	Cuba (NC)	Israel (SII)	Nigeria (SON)	Ukraine (DSTU)
Barbados (BNSI)	Ecuador (INEN)	Japan (JISC)	Norway (SN)	United Kingdom (BSI)
Brazil (ABNT)	Egypt (EOS)	Kazakhstan (KAZMEMST)	Russian Federation (GOST R)	United States (ANSI)
Bulgaria (BDS)	France (AFNOR)	Korea, Republic of (KATS)	Saudi Arabia (SASO)	Uruguay (UNIT)
Canada (SCC)	Germany (DIN)	Kuwait (KOWSMD)	Serbia (ISS)	



# INTRODUCTION TO ISO TC71 COMMITTEE

## ● Structure of Subcommittee and Working Group of ISO TC71





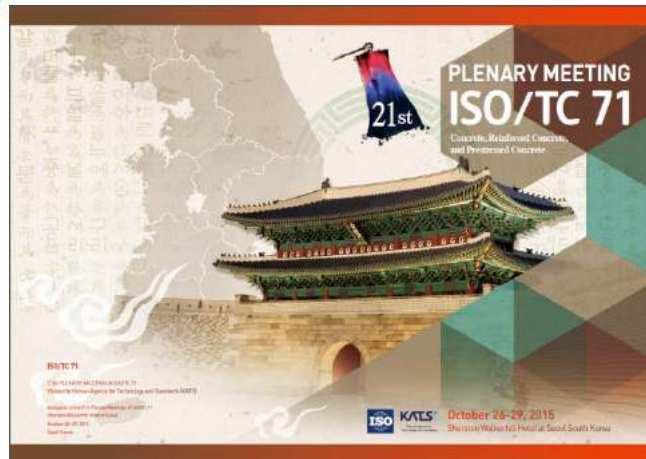
# INTRODUCTION TO ISO TC71 COMMITTEE

## ● Details about Subcommittee

	SC 1	SC 3	SC 4	SC 5	SC 6	SC 7	SC 8
<b>Secretariat</b>	SII (Israel)	SN (Norway)	ANSI (US)	ICONTEC (Colombia)	JISC (Japan)	KATS (Korea)	JISC (Japan)
<b>Secretary</b>	Ms Sigal Rosenfeld	Ms Vivian Meløysund	Mr. Gregory Zeisler	Ms Erika Milena Gomez	Dr. Toshiyuki Kanakubo	Mr. Soobong Shin	Prof. Takafumi Noguchi
<b>Number of published ISO standards</b>	16	8	1	3	4	6	2
<b>Participating countries</b>	21	26	22	17	13	17	15
<b>Observing countries</b>	27	27	16	21	15	14	10
<b>Creation date</b>	1981	1983	1995	1996	2000	2004	2007

# 21<sup>ST</sup> ISO TC71 PLENARY MEETING IN SEOUL, 2015

## ● General information about 21<sup>st</sup> ISO TC71 Plenary meeting



- Meeting Place : Sheraton Grande Walkerhill Hotel at Seoul, South Korea
- Dates : October 16-29, 2015
- Participants : 19 Nations with 72 Delegates
- Hosted by : Korean Agency for Technology and Standards (KATS)
- Sponsored by : KATS, KCI, KTC, Hanyang Univ.



# 21<sup>ST</sup> ISO TC71 PLENARY MEETING IN SEOUL, 2015

## ● Schedule of program

Time slot	October 26th- Day 1 MONDAY	October 27th- Day 2 TUESDAY	October 28th- Day 3 WEDNESDAY	October 29th- Day 4 THURSDAY
09:00-12:00 hrs	<p>ISO/TC 71 Registration 09:00-10:00 hrs</p> <p><b>WORKSHOP</b> Rm: Ari Hall (4F)</p> <p>1. Opening remark (J. Cagley)</p> <p>2. KATS activity for Standardization (J. Sim, KATS)</p> <p>3. Korean mega building : Lotte World (K.D. Kim, Lotte Constr.)</p> <p>4. Proposal of SC at "High performance concrete" (O.C. Choi, KATS)</p> <p>5. ANSI, ACI &amp; ASTM: Concrete standards in the US (G.M. Zeisler , ANSI)</p>	<p><b>ISO/TC 71/SC1</b> Rm: Ari Hall (4F) (Test Methods for Concrete)</p> <p><b>ISO/TC 71/SC5</b> Rm: Pine (4F) (Simplified Design Standard for Concrete Structures)</p> <p><b>ISO/TC71/SC7</b> Rm: Oak (4F) (Maintenance and Repair for Concrete Structures)</p>	<p><b>ISO/TC 71/SC3</b> Rm: Ari Hall (4F) (Concrete Production and Execution for Concrete Structures)</p> <p><b>ISO/TC 71/SC4</b> Rm: Pine (4F) (Harmonization of Performance Requirements for Concrete Structures)</p> <p><b>ISO/TC 71/SC6</b> Rm: Oak (4F) (Non Traditional Reinforcing Materials for Concrete Structures)</p>	<p><b>ISO/TC 71</b> Plenary Meeting Rm:Ari Hall (4F)</p> <p>Morning Session 09:00 - 13:00 hrs</p> <p>(Group Photograph)</p>
12:00 - 14:00 hrs	<b>Lunch - Rm: Cosmos Hall (3F)</b>			
14:00-18:00 hrs	<p><b>ISO/TC71/SC8</b> Rm: Ari Hall (4F) (Environmental management of Concrete and Concrete Structures)</p>	<p><b>ISO/TC 71/SC1</b> Rm: Ari Hall (4F) (Test Methods for Concrete)</p> <p><b>ISO/TC 71/SC5</b> Rm: Pine (4F) (Simplified Design Standard for Concrete Structures)</p> <p><b>ISO/TC71/C7</b> Rm: Oak (4F) (Maintenance and Repair for Concrete Structures)</p>	<p><b>ISO/TC 71/SC1</b> Rm: Ari Hall (4F) (Test Methods for Concrete)</p> <p><b>ISO/TC 71/SC5</b> Rm: Pine (4F) (Simplified Design Standard for Concrete Structures)</p> <p><b>ISO/TC71/C7</b> Rm: Oak (4F) (Maintenance and Repair for Concrete Structures)</p>	<p><b>ISO/TC 71</b> Plenary Meeting Rm:Ari Hall (4F)</p> <p>Afternoon Session 14:00 - 17:00 hrs</p>
	<b>Spouse/Guest program-1</b> Korean Food Making - Kim- chi (140 USD) 150,000 KRW	<b>Spouse/Guest program-2</b> D.M.Z Tour (45 USD)	<b>Spouse/Guest program-3</b> Seoul City Tour (90 USD) 96,000 KRW	
19:00 hrs	<b>Welcome Reception</b> Rm: W New Venue (3F)	<b>Open Evening</b>	<b>Dinner Banquet</b> Rm: Cosmos Hall (3F)	



# 21<sup>ST</sup> ISO TC71 PLENARY MEETING IN SEOUL, 2015

## ● Photographs of 21<sup>st</sup> ISO TC71 Plenary meeting



Participate delegates



Opening remark of workshop



Standard proposal and discussion



Standardization activity in Korea (KATS)



Concrete standards in US (ANSI)



Banquet



# 21<sup>ST</sup> ISO TC71 PLENARY MEETING IN SEOUL, 2015

## ● Participated nation in 21<sup>st</sup> ISO TC71 Plenary meeting

### ● Participating Countries (16/39)

Afghanistan (ANSA)	Chile (INN)	India (BIS)	Libya (LNCSM)	Spain (AENOR)
Algeria (IANOR)	China (SAC)	Indonesia (BSN)	Malaysia (DSM)	Thailand (TISI)
Armenia (SARM)	Colombia (ICONTEC)	Iran, Islamic Republic of (ISIRI)	Mongolia (MASM)	Turkey (TSE)
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Brazil (ABNT)	Egypt (EOS)	Kazakhstan (KAZMEMST)	Russian Federation (GOST R)	United States (ANSI)
Bulgaria (BDS)	France (AFNOR)	Korea, Republic of (KATS)	Saudi Arabia (SASO)	Uruguay (UNIT)
Canada (SCC)	Germany (DIN)	Kuwait (KOWSMD)	Serbia (ISS)	

### ● Observing countries (3/56)

Argentina (IRAM)	Cameroon (ANOR)	Finland (SFS)	Italy (UNI)	Montenegro (ISME)	Poland (PKN)	Sudan (SSMO)
Bahrain (BSMD)	Costa Rica (INTECO)	Greece (NQIS ELOT)	Jamaica (BSJ)	Morocco (IMANOR)	Portugal (IPQ)	Sweden (SIS)
Belarus (BELST)	Croatia (HZN)	Guatemala (COGUANOR)	Kenya (KEBS)	Namibia (NSI)	Romania (ASRO)	Switzerland (SNV)
Belgium (NBN)	Cyprus (CYS)	Hong Kong (ITCHK SAR)	Lebanon (LIBNOR)	Netherlands (NEN)	Singapore (SPRING SG)	Tanzania (TBS)
Bolivia (IBNORCA)	Czech Republic (UNMZ)	Hungary (MSZT)	Malta (MCCAA)	New Zealand (NZSO)	Slovakia (SOSMT)	Trinidad and Tobago (TTBS)
Bosnia and Herzegovina (BAS)	Côte d'Ivoire (CODINORM)	Iceland (IST)	Mauritius (MSB)	Pakistan (PSQCA)	Slovenia (SIST)	Tunisia (INNORPI)
Botswana (BOBS)	Estonia (EVS)	Iraq (COSQC)	Mexico (DGN)	Peru (INACAL)	South Africa (SABS)	United Arab Emirates (ESMA)
Brunei Darussalam (ABCI)	Ethiopia (ESA)	Ireland (NSAI)	Moldova, Republic of (INS)	Philippines (BPS)	Sri Lanka (SLSI)	Viet Nam (STAMEQ)

## NECESSITY OF PARTICIPATING ISO TC71 WORKING GROUP

- **Case 1 : Yavuz Sultan Selim Bridge (3rd Bosphorus Bridge)**

	Company (Nation)	Standard
<b>Location</b>	Istanbul (Turkey)	
<b>Operator</b>	IC İçtaş (turkey) – Astaldi (Italy) Joint venture	-
<b>Design</b>	Michel Virlogeux (France), T-ingénierie (Switzerland)	BS EN 1994 Eurocode 4
<b>Supervision</b>	Setec (France)	EC0
<b>EPC Sub- Contractor</b>	Hyundai E&C, SK E&C (Korea)	KCI





# NECESSITY OF PARTICIPATING ISO TC71 WORKING GROUP

## ● Case 2 : Burj Khalifa

	Company (Nation)	Standard
<b>Location</b>	Dubai (UAE)	
<b>Operator</b>	Citadel Capital (UAE)	AISC 205-11
<b>Design</b>	Skidmore, Owings & Merrill (USA)	ACI 318
<b>Supervision</b>	Hyder Consulting (Netherlands)	EC0
<b>EPC Sub-Contractor</b>	Samsung C&T (Korea)	KCI



Burj Khalifa



## NECESSITY OF PARTICIPATING ISO TC71 WORKING GROUP

### ● Case 3 : ERC (Egyptian Refining Company)

	Company (Nation)	Standard
Location	Near Cairo (Egypt)	
Operator	Citadel Capital (Egypt)	Egyptian code 200
Design	Unknown	-
Supervision	Worley Parsons Ltd. (Australia)	BS EN
EPC Sub- Contractor	GS E&C (Korea), Mutsui & Company Ltd. (Japan)	KCI, JCI





## CONCLUSIONS

- International construction market has been grown since several decades ago, however, international conflicts have become common.
- One of the reasons for international conflicts is the diversity of design and construction code (e.g. ACI, BS EN, KCI, JCI and etc.).
- By unifying international code, construction companies could stay out of international conflicts.
- These design and construction codes must be established by ISO committee.