International Workshop

"Durability and Sustainability of Concrete Structures"



BOLOGNA, Italy October 1-3, 2015

Mario Alberto Chiorino



ACI 318 International Liaison Committee ACI International Conferences/Conventions Committee Hon. President of ACI Italy Chapter

> Professor Emeritus Politecnico di Torino Turin, Italy



International Workshop Durability and Sustainability of Concrete Structures (DSCS 2015) was held in Bologna, Italy, 1-3 October 2015

The Workshop was:

- organized by ACI Italy Chapter together with the Department of Civil, Chemical, Environmental, and Material Engineering (DICAM) of the University of Bologna,
- co-sponsored by ACI







Honor Committee

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The workshop was of outstanding level.

The 6 keynote lectures were given by illustrious invited speakers selected among the most prominent representatives of current debate on Durability and Sustainability, within ACI and at the international level:

• Koji Sakai (Opening lecture: From the "old" to a "new" construction industry - sustainability design of structures)

Past Chair of ACI TC 130-Sustainability Committee, Co-moderator with Julie Buffenbarger of ACI Sustainability Forum, Founder/chair of ISO TC71/SC8: "Environmental management for concrete and concrete structures", Past Chair of *fib* Commission 3 "Environmental aspects of design and construction" and SAG 8 "*fib* Sustainability Initiative

Carmen Andrade Perdix

Institute of Construction Sciences "Eduardo Torroja" – CSIC, Past President of RILEM, UEAtc and WFTAO, General Director of Technological Policy of the Ministry of Education and Science, Spain

Julie Buffenbarger

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Chair of ACI TC 130-Sustainability Committee, Co-moderator of ACI Sustainability



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Guillermo Etse

CONICET National Scientific and Technical Research Council of Argentina, Faculty of Exact Sciences and Technology, National University of Tucuman

Vyacheslav Falikman

Moscow State University of Civil Engineering (MSUCE), ACI Member, RILEM Fellow Member, Head of Russian delegation in *fib and* Head of Structural Concrete Durability Department at the Scientific Research Institute for Concrete and Reinforced Concrete, Russian Federation

Giuseppe Mancini

Past President of *fib*, Co-Chair of *fib* Commission 3 Existing concrete structures, Chair 2005÷2008 of Commission SC2 - Concrete Structures of TC250 of European Community, Past Chair of Project Team for Eurocode EN1992-2 Concrete Bridges





The more than 40 selected papers - delivered by researchers from Argentina, Belgium, Germany, Italy, Japan, Latvia, Russia, Spain, Turkey, USA - widened the debate providing information on the research being developed on these items in Italy and around the globe.

The topics of the conference included:

- Reduction in Green House Gases in Cement and Concrete Industry
- Recycled Materials in Concrete Production
- Innovative Cement Products and Geopolymers
- Durability of Reinforced Concrete Structures
- Life Cycle Cost Assessment in Concrete Construction
- Reuse and Functional Resilience of Reinforced Concrete Structures
- Repair and Maintenance
- Testing, Inspection and Monitoring
- Case Histories

Average attendance reached 100 participants.











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PROCEEDINGS

The Proceedings have been published as ACI Special Publication 305

An ACI Technical Publication



Durability and Sustainability of Concrete Structures – Workshop Proceedings

Editors:

Mario Alberto Chiorino, Luigi Coppola, Claudio Mazzotti, Roberto Realfonzo, and Paolo Riva



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CONCLUSIONS

- Besides contributing to the dissemination of guidance criteria developed within ACI on Durability and Sustainability, the Workshop represented therefore a precious occasion for a confrontation and discussion of these items at the highest international level.
- ACI Special Publication 305 containing the Proceedings of the Workshop will consequently represent an important advanced term of reference for the scientific and technical community in next years.
- In the closing ceremony ACI Member and member of ACI TC 236 and 241, RILEM Fellow Member and Head of Russian delegation in *fib*, Prof. Vyatcheslav Falikman, a member of the Scientific Committee of the Workshop representing the Russian National Scientific Research Center "Construction", provided an invitation for a second edition of the Workshop to be held in Moscow in 2018, with possible cosponsorship also, besides ACI, of RILEM and *fib*.





CONCLUSIONS

- An appreciation for this invitation was expressed by the Board of ACI Italy Chapter in the perspective of a further extension of the scope of the Workshop in the bridging of national and international organizations on the frontier items of Durability and Sustainability, and of confronting ACI guidance criteria with those of other international associations.
- Regarding the format, a recommendation was expressed to maintain that of a rather restricted laboratory of advanced ideas, as it was in Bologna, instead of an additional conference with respect to the many centered on the same subjects.
- This Workshop must in fact be considered as a kind of think-tank to discuss the essence of Durability and Sustainability, involving on one side the major experts of the international community of structural concrete, and, on the other side, a selected representation of the new young generation of researchers, in the perspective of a mutual transfertilization between consolidated experience and innovative research.





THANK YOU





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